

# 4-IN-1-OUT 1-IN-4-OUT(Reversible) Bi-tronics Auto Switch

AS-8144B  
&  
AS-8441B

## User's Manual



## Packing Checklist

- AS-8144B/AS-8441B x1
- User's Manual x1
- 3.5" Floppy (for AS-8144B only) x1  
or CD-ROM

Please read this manual thoroughly and follow the installation procedures to prevent any damage to the AS-8144B/AS-8441B and/or the connecting devices.

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## INTRODUCTION

AS-8144B and AS-8441B, Bi-tronics Auto Switch, are automatic and first-come-first-served data switches. They scan for print job requests from four computers and send data to the printer. When one computer is printing, other computers can not send print job until the current one is finished. Besides, the AS-8144B can operate as a 1-to-4 selector enabling you to connect the LPT port to four parallel devices.

## FEATURES

- Supports IEEE-1284 nibble mode.
- Selects ports by button and software code operation.
- Selectable timeout : 15 or 45 seconds.
- First-come-first-served.
- Non-power operation.
- AS-8144B extras:
  - Reversible operation for 1-in-4-out or 4-in-1-out.
  - Supports broadcast mode.

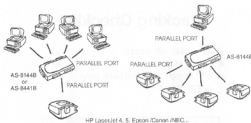


Fig. 1 4-to-1 mode

Fig. 2 1-to-4 mode

HP LaserJet 4, 5, Epson/Canon/ABC...

## INSTALLATION

### 4-to-1 mode (for AS-8441B & AS-8144B)

1. Turn off all devices.
2. Connect the Bi-tronics Auto Switch to computers by four DB-25 straight-through male-to-male cables.
3. Connect the Bi-tronics Auto Switch to the printer by a DB-25 to C-36 male-to-male cable, as shown in fig. 1.
4. Set up the DIP switch, located on the side of the Bi-tronics Auto Switch, to 4▶1 mode with time-out of either 15 or 45 seconds by DIP SW# 3 & 4. (AS-8441B does not support 1▶4 )
5. Turn on your computers and the printer. The four LEDs should flash alternately as it is scanning for print jobs.
6. Power adapter is required when the Bi-tronics Auto Switch can not get enough power from devices and works intermittently.

### 1-to-4 mode (for AS-8144B only)



Never change the DIP switch #3 from 1▶4 to 4▶1 or vice versa, when connecting devices are powered.

1. Turn off all devices.
2. Connect the Bi-tronics Auto Switch to your computer by a DB-25 straight-through male-to-male cable.
3. Connect the Bi-tronics Auto Switch to parallel devices by cables with one DB-25 male connector and one appropriate connector for the parallel device, as shown in fig. 2.
4. Set up the DIP switch to 1▶4 mode.
5. Turn on your computer and the parallel devices. The LED A turns on as port A is selected.
6. Power adapter is required when the Bi-tronics Auto Switch can not get enough power from connecting devices and works intermittently.

FUNCTION	AS-8144B		AS-8441B	
	1 to 4	4 to 1	4 to 1	4 to 1
Power Consumption	DC 9V 50mA (Max.)			
Cable Length	6m (20ft) Max.			
Connector-Input (female)	1 DB-25	4 DB-25	4 DB-25	4 DB-25
Connector-Output (female)	4 DB-25	1 DB-25	1 DB-25	1 DB-25
LED	4 Output status		4 Input status	
I/P Port Selection	x		Auto/Manual	
O/P Port Selection	Software/Manual		x	
Timeout	x		15, 45 sec.	
Broadcast	Yes		x	
Enclosure	Plastic			
Weight	240g			
Dimensions (LxWxH)	175 x 96 x 31 mm			

**OPERATION****4-to-1 mode (for AS-8441B & AS-8144B)****Auto mode :**

The Bi-Tronics Auto Switch scans for print jobs with four LEDs flashing alternately. When a print job is sensed, it locks onto the computer on a first-come-first-served basis until it finishes the job. Then, it returns to Auto mode again.

**Manual mode:**

It allows only one computer to print. When the button (on the side) is pressed, it cycles through the port indicated by LED as

**Port A (LED A on) -> Port B (LED B on) -> Port D (LED D on) -> Port E (LED E on) -> Auto (LED flash alternately) then to Port A again.**

Button is not effective while printing or before timeout expires in order to prevent data loss.

**1-to-4 mode (for AS-8144B only)**

You may select any port or broadcast to all ports (valid if ports A, B, D & E are connected to printers of the same model with bi-directional function disabled). Selected port is indicated by lighting its LED, and Broadcast mode is indicated by turning all LEDs on.

**By button: (on the side)**

The port selection cycles every time the button is pressed from **Port A -> Port B -> Port D -> Port E -> Broadcast** then to Port A again.

**By software:**

You may use Hot keys under DOS or click on the AS icon under Windows to select ports.

**About the Software**

The software allows you to select Port A, B, D, E or all ports as broadcast in 1-to-4 mode. Please read the READ.ME file in the floppy disk.

**Series Product**

AF-152, AF-251, AF-142, AF-421, AS-8154B, AS-8451B.

**Troubleshooting**

- LED locks on a port when a cable is connected:
  - The Bi-Tronics Auto Switch receives signal glitches and starts time-out counting. If the connecting printer is ready, just wait till the time-out expires.
  - Set DIP SW# 1 to ON (down) momentarily to reset the Auto Switch and try again.
- The printer status Windows shows "printer not responding" or "cable not connected" intermittently:
  - AS-8144B and AS-8441B do not emulate printer responses. Therefore, when status Windows poll for printer status at the same time, these messages show up.
- Error messages show up while installing new printer drivers:
  - Un-install other bi-directional printer status Windows before installing a new one.
  - Press the button to lock your computer to the printer before installing a new printer driver.

**Compatible List**

This device is ZIP tested and is compatible with :

IOEMGA : ZIP DRIVE, DITTO800, DITTO2000, DITTO3200  
 SEGATE : TSTORE3200E  
 SYQUEST : EZFLYER  
 SONY : STORSTATION  
 VIDEO CAPTURE : GOCHA, GRABIT, SNAPPY  
 INTERNET PHONE SYSTEM : SPECOM SUITE VISIONS  
 QUICKCAM : DIGITAL CAMERA  
 SCANNER : PAGEWIZ  
 MICROOLUTION : BACKPACK CDROM  
 LOGITEC : AUDIOMAN, PARALLEL SOUND BLASTER  
 ADDONICS : ADDONICS EXTERNAL CDROM

**PREVENTING RADIO & TV INTERFERENCE**

**WARNING!!!** This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when 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 required to correct the interference.

**LIMITED WARRANTY**

**IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM 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 specifically disclaims its quality, performance, merchantability, or fitness for any particular purpose.

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

**Products Introduction**

Portable storage series	The most easily way to expand your PC system via parallel port and no LPT port is occupied. Include : for 2.25", 3.5" size Hard Disk and for 5 1/4" size CD-ROM models.
Video splitter series	The simplest solution for image duplication, cascade ability allows infinite numbers of VGA monitors display the same image. Include : 1 to 16 Rack mount 1U model, 1 to 24/8 desktop models, 1 to 5 for MAC users.
CPU switch series	Enable one set of console, a keyboard, a monitor and a mouse, to control multiple CPUs. Include : 1 to 24/8 models for PC AT and PS/2 system and 1 to 4/8/16 Rack mount 1U or 2U models.
Printer network series	Enable multiple users to share multiple printers at the same time. Include : Centronics (parallel) & RS-232 (serial) models and they can be intermixed in a network.
Converter series	The ability to converter one type of signal to another.
Switch buffer series	A variation of the basic Auto Switch, in the mean time, sends data to printer, which cuts delay and wait time. Include : 24/8 to 1, 4 to 1/2 parallel models, buffer card has 256K, 1M, 2M bytes for your need.
Auto switch series	Let you share your peripherals. Include : 24/8 to 1/2 bi-tronics may have file transfer, reversible, parallel or serial, 4 to 1 for MAC models, Bi-Tronics parallel port has become a standard in the HP LaserJet IV series. It is compatible with Centronics parallel, yet provides enhanced features such as bi-directional communication, higher data throughput and printer control. Reversible function helps to solve the problem between multiple user and multiple peripherals at minimum cost.