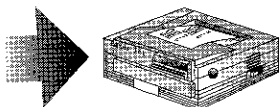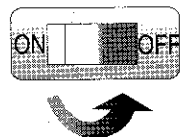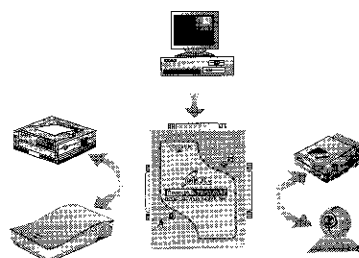# Quick Start

Here's how to set up your Auto Switch system in four easy steps :

1 Be sure to turn OFF all power to your computers, printer*.

2 Using IEEE 1284 standard, straight through DB-25 cables, connect your computers to the Auto Switch.

3 Using standard parallel cables or IEEE 1284 cables connect your printer* to the Auto Switch.

4 Now turn ON power to your Auto Switch, computers and printers. All computers will automatically print to printer*.
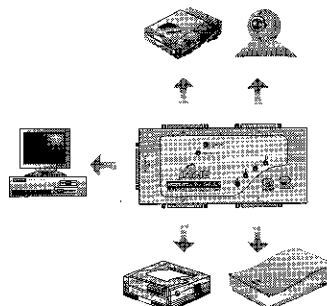
Note: Printer* in this manual may represent not only printer but also other IEEE1284 parallel devices ---Scanner, Digital CCD Camera, ZIP Drive...etc.

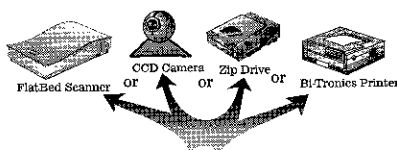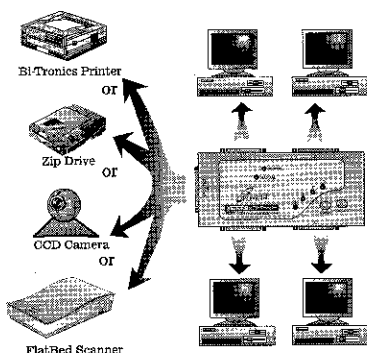**5A** To set dip switch 1 to OFF.
Two computers or Four computers share one printer*.

FlatBed Scanner or CCD Camera or Zip Drive or Bi-Tronics Printer

2 To 1

Bi-Tronics Printer or Zip Drive or CCD Camera or FlatBed Scanner

4 To 1

(Figure 1)

5B To set dip switch 1 to ON.
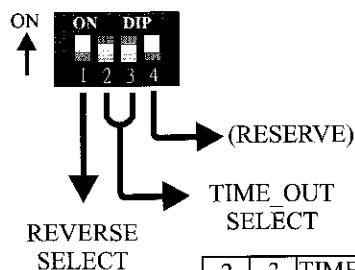One computer share two or four printers*.

1 To 2

1 To 4

(Figure 2)

III. Function Descriptions

Ⓐ About Time-out setting

On the side of the Autoswitch enclosure is a bank of four small,numbered DIP switches.

ON → DIP 1 2 3 4

(RESERVE)

TIME_OUT SELECT

REVERSE SELECT

	1
ON	1▸2
OFF	2▸1

EM-21BR

	1
ON	1▸4
OFF	4▸1

EM-41BR

2	3	TIME_OUT
ON	ON	5 SEC.
ON	OFF	10 SEC.
OFF	ON	20 SEC.
OFF	OFF	40 SEC.

(figure 3)

Ⓑ About " REVERSE " setting

The factory default mode of EM-21BR and EM-41BR is ▆Function 1▆(DIP switch 1 is off).When you set DIP switch 1 to ON, the switch will be changed to ▆Function 3▆ (reversible).

C About " RESET" push button

If the LEDs for computers do not flash alternatly and at the same time, none of computers ports send a print job to the parallel device, the switch need be reset for synchronization between computers and parallel devices. Or if one computer runs parallel device's software to lock the port all the time, the user can use " RESET " function to force the switch to return to default mode.

To press EM-21BR,EM-41BR reset button once, the autoswitch will return to default mode If Dip Switch 1 is on, the autoswitch will return to reversible mode ████████.
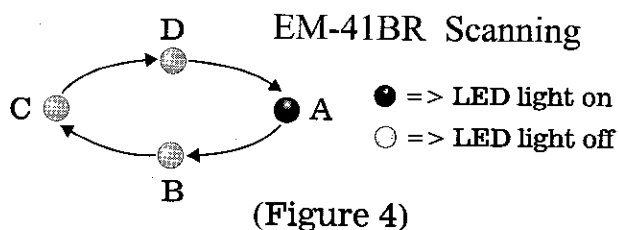
D How does EM-21BR and EM-41BR Autoswitch work

1.Auto-Link Mode (Factory Default)
2.Manual Setting Mode
3.Software Setting Mode
4.File Transfer Mode

When the switch detects a job arriving at an input port, it automatically verifies the printer* selection setting for that port and sends the job to the appropriate printer*.

> Note: Printer* in this manual may represent not only printer but also other IEEE1284 parallel devices ---Scanner, Digital CCD Camera, ZIP Drive...etc.
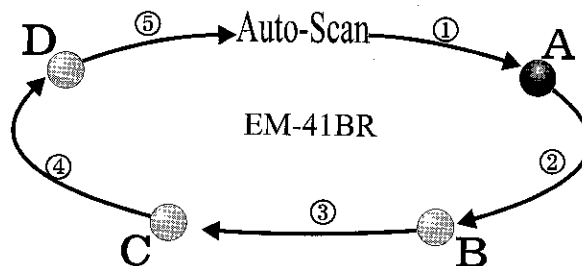
1 Auto-Link Mode

When powering on EM-41BR, you will see the LEDs of computer input port circularly be scanned from the LED A to D (EM-21BR, scanned from LED A to B). Your autoswitch constantly scans its computer input ports, looking for a job to send to parallel device. EM-41BR has four computer input ports and its scan cycle is as follows:

EM-41BR Scanning

D
C   A
B

● => LED light on
○ => LED light off

(Figure 4)

2 Manaul Setting Mode

EM-21BR,EM-41BR has one " SELECT "button. When you power on the switch system, the switch is in Auto-Link mode. After you press the " SELECT" button, it is in manual setting mode.

Press " SELECT " button of EM-41BR several times, you will see the LEDs light in order as the active selection moves from Auto-Scan to the LED A, B, C, D.

D ⑤ →Auto-Scan ① A
EM-41BR
④ ③ ②
C B

(Figure 5)

3 Software Select Mode

This autoswitch comes with a diskette which included three control softwares to set appropriate working mode. One is for ████████, another is for Reversible function ████████ and the other is for file transfer application████████.

The printer selection utility for your Autoswitch lets you change your printer selection by using Windows or DOS command right at your computer.
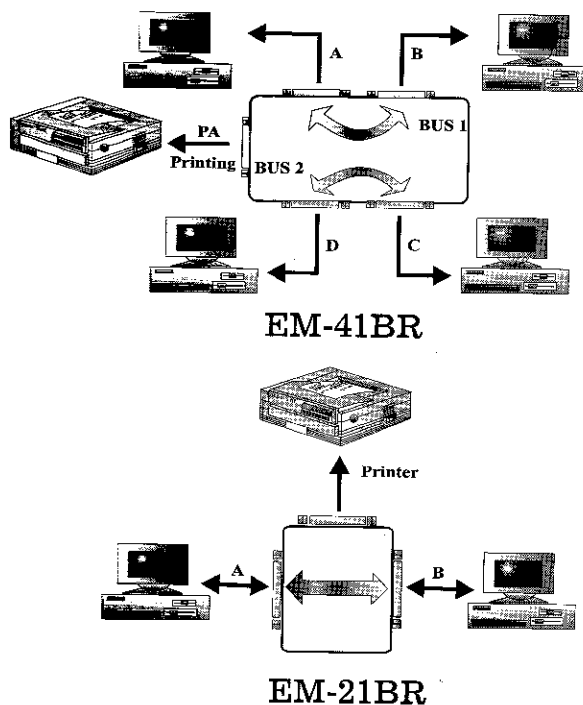
All the files you need are located on the software diskette.

> Note: How to use software select programs,please refer to the " README " file on the software

4 File Transfer Mode

1. Using "software selection utility" to set up file transfer mode.
   41FBplus offers the file transfer function between computer A and B or computer C and D.

EM-41BR

EM-21BR

(Figure 6)

File transfer is an more economic application in SOHO market than network environments. It lets notebook computer users easily down load file from desktop computer or update new files on desktop computer through one parallel cable.

The switch supports the popular file transfer softwares, such as interlink (DOS6.X), Laplink (DOS or Windows), FastLynx (DOS), Norton Commander (DOS), Direct Cable Connection, Brief Case (Windows 95,98), Laplink (Window 95) ...etc..

Besides, not only file transfer between PCs but also run software " Direct cable Connection " and Microsoft Exchange (Window 95,98) to share network resource as one of PCs connects to network.

For instance, a notebook computer, which runs Direct Cable Connection (Window 95,98), can connect to a node of LAN go through the switch. It can access LAN resources very easily without PCMCIA LAN card or pocket LAN adapter.

2. Easy Windows 95,98 Direct Cable Connection Set Up

2.1 Make sure the computer ports of the switch are in file transfer mode (the computer ports LED lit in green colour).

2.2 Make sure both PCs are running Window 95 or 98.

2.3 On one PC, begin by clicking " START ". Select " Program " , " Accessories " and " Dircet Cable Connection ". When Direct Cable Connection on the screen, click on " HOST " , then Click on " NEXT ".

2.4 On the other PC, click on " START ", Select "

2.5 On both PCs, elick on "Connect ". Connection is established automatically.

ⓔ Troubleshooting

If you experience difficuty with your Autoswitch, please check the following

1 *Check all cables.*

It is highly recommended that you use a IEEE1284 standard cables.

2 *Using power adapter (Optional)*

The autoswitch usually powered by the signals draw from computers and printer*. A power supply is not required to under such condition. However, if the peripherals (like colour printer, external CD-ROM drive, Zip drive, external HDD) or computers (like notebook computer) or the total systems (computers and printers) are not able to supply enough power to the autoswitch, a DC 9V, 500mA power supply may be required to operate the autoswitch properly. The polarity of power adapter is as follows:

$$- \!\!-\!\!\bigodot\!\!-\!\! +$$

3

If you print long document files with graphics data, use printer spooler or other parallel devices (like scanner,ZIP dirve), then you need a longer time-out values of 20 or even 40 seconds.That's because as the computer sends a complex file to the printer or to parallel device, it will pause periodically to process more data. If the pause is longer than the time out window, then the autoswitch will assume the transmission is finished --- cutting the job.

4 In **Function 3**, if you use switch box with ZIP drive, we recommand you connect it to port A (Port A is the default port when turning on switch box) and the ZIP drives software driver will check it out right away under PC booting process.

Other Great EMINE Products...

KVM Switch

EM-201E 2 PCs Share 1 Console
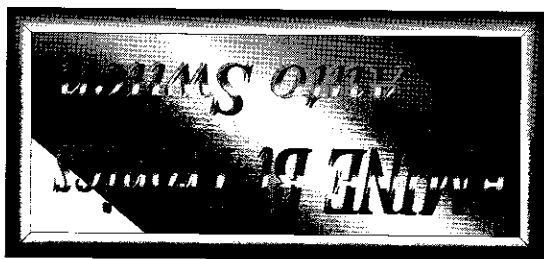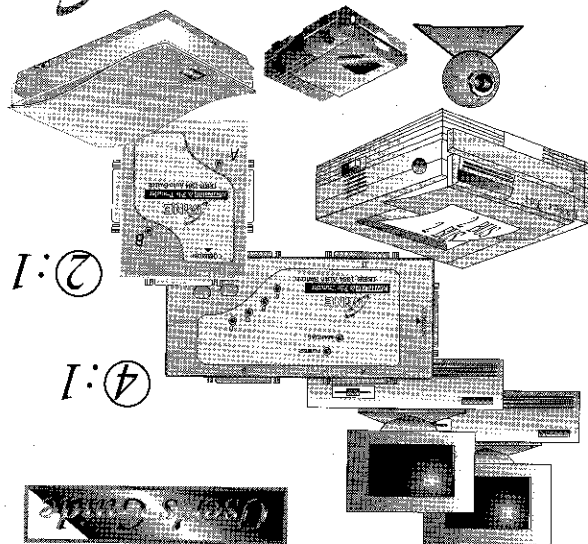EM-401E 4 PCs Share 1 Console

KVM Switch with On Screen Display

EM-410L   4 pcs share 1 Console
EM-810L   8 pcs share 1 Console
EM-820L   8 pcs share 2 Console
EM-1610L 16 pcs share 1 Console

IEEE 1284 Bi-Tronics AutoSwitch

EM-21BR 2 PCs Share 1 Parallel Device
EM-41BR 4 PCs Share 1 Parallel Device
EM-22BR 2 PCs Share 2 Parallel Devices
EM-42BR 4 PCs Share 2 Parallel Devices

I. Introduction

" EMINE Bi-Tronics" is a real IEEE1284 autoswitch and does 100% fully support five communication modes of IEEE 1284. In sharing environments, autoswitch become very important to content more PCs share one IEEE1284 parallel device or one PC share more than one IEEE1284 parallel device.

Some Centronics type autoswitches or the pass through ports of some parallel devices are unable to offer all bi-directional communications in sharing application." EMINE Bi tronics " autoswitch is the best solution to solve Centronics autoswitch problems or compatible problems in pass through port.

Three functions are supported by autoswitches are as follows:

Function 1 Two or four computers share one parallel device (Factory default)

Function 2 File transfer between two computers

Function 3 One computer shares two or four parallel devices (Reverse function)

New Products

* Bi-Tronics Line Extender (100M).
* Internet Sharing.
* USB HUB.
* USB Parallel Adapter
* KVM Switch
* KVM Switch for Mac
* KVM Switch for Sun Micro system
* KVM Switch Extander

Authorized Distributor

78A500-504-100

II. Spcification

A.Function 1 and 2

Technical specifications	EM-21BR	EM-41BR
Printer* connections	1	1
Computer connections	2	4
Cable Type	Standard or IEEE1284 Straight Through	
Cable distances(MAX.)	5 meters	
Transfer Rate(MAX.)	2M bytes/sec	
Printer* connectors DB-25 female	1	1
Computer connectors DB-25 female	2	4
Printer* LEDs	None	None
Computer LEDs	2	4
Computer port select	Auto	Auto/Manu
Time out select	5,10,20,40 sec	
File transfer port	A-B	A-B,C-D
Dimensions(LxWxH)mm	104X93X21	184X93X21
Weight(g)	130	225
Operation temperature(Celsius)	5-40	
Emission	FCC,CE	
Power Adapter (Optional)	DC9V,500 mA	

B.Function 3 (or reverse function)

Technical specifications	EM-21BR	EM-41BR
Printer* connections	2	4
Computer connections	1	1
Cable Type	Standard or IEEE1284 Straight Through	
Cable distances(MAX.)	5 meters	
Transfer Rate(MAX.)	2M bytes/sec	
Printer* connectors DB-25 female	2	4
Computer connectors DB-25 female	1	1
Printer* LEDs	2	4
Computer LEDs	None	None
Printer* port select	Manu/Software	
Dimensions(LxWxH)mm	104X93X21	184X93X21
Weight(g)	130	225
Operation temperature(Celsius)	5-40	
Emission	FCC,CE	
Power Adapter (Optional)	DC9V,500 mA	