

Title: F1U109 Reversible AutoSwitch
User's Manual

I. Introduction

Thank you for purchasing Belkin Components' Reversible AutoSwitch! With the Reversible AutoSwitch, sharing one printer between two PCs, or having one PC select from two printers is easier than ever - no more swapping cables, turning knobs, or pushing buttons.

In forward mode, the AutoSwitch allows sharing of one printer among two computers. The AutoSwitch polls each port constantly, waiting for a computer to request access to the printer. Once the AutoSwitch detects a computer wanting to print, it will automatically lock onto that PC's port, and provide communication to the printer. When no more data is being transferred after the TIME_OUT period, the switch will return to scanning both ports.

The AutoSwitch can also be "reversed", allowing one computer to select between two printers. For instance, you can easily switch between a laser and ink jet printer from any application. The included software creates special "virtual ports" which give you printer selection capability from any Windows® 95 or 98 application.

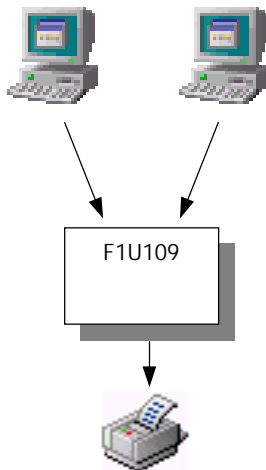
The Reversible AutoSwitch will open a world of printing possibilities, unparalleled by any device on the market today in price and performance.

II. Package Contents

- Reversible AutoSwitch F1U109 (2-Port)
- 3.5", 1.4MB software utilities diskette
- Belkin Components Peripheral Sharing registration card
- This manual

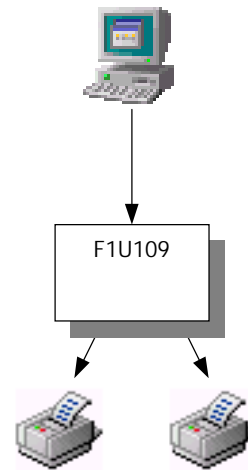
Now, decide how you are going to use the Belkin Components® Reversible AutoSwitch!

Two Computers Sharing One Printer
-Go to Page 2-



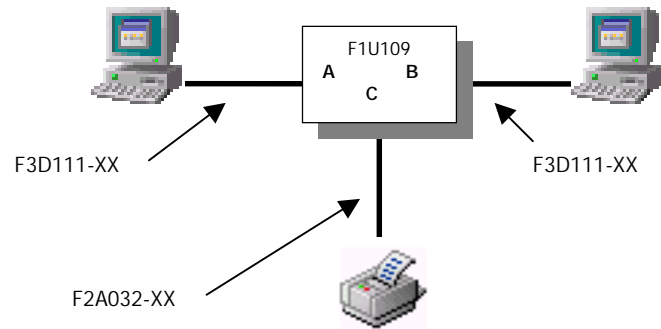
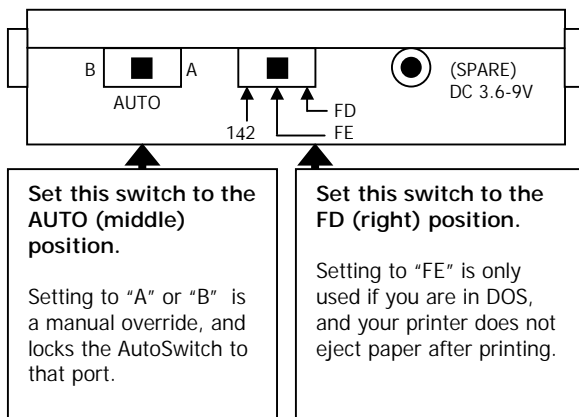
OR

One Computer Using Two Printers
-Go directly to Page 3
DO NOT go to page 2 -



Two Computers Sharing One Printer

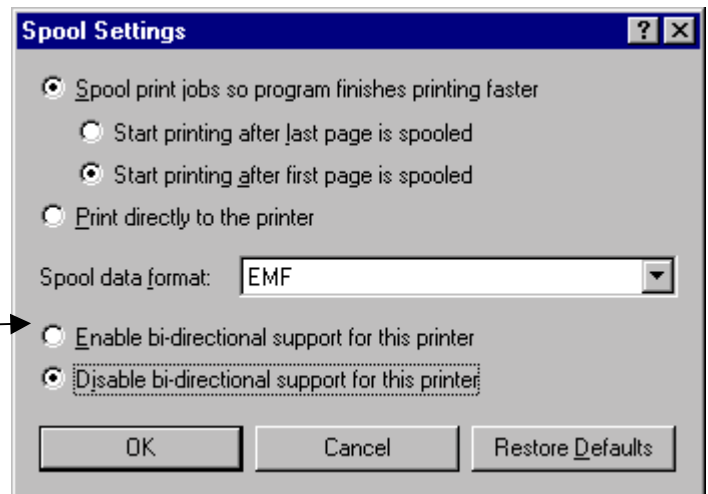
Set the Switches on the AutoSwitch, and connect the PCs, and the printer to the AutoSwitch as follows:



Important Notes:

- It does not matter if a PC connects to Port A or Port B.
- The software is not necessary, and must **NOT** be installed. Doing so may cause your printer to print garbage.
- Make sure the cables you are using are not file-transfer cables, otherwise the setup will not work.
- For best results, we recommend Belkin Components® cables:
 - F3D111-XX Belkin Pro Series DB25 M/M, straight through
 - F2A032-XX Belkin Pro Series DB25 M/Centronics 36 M parallel printer cable
- "XX" is the length of the cable in feet
- Avoid using any status monitoring software, status toolbox, or bi-directional printer drivers. As much as possible, please use "output-only" or "Raster" drivers. This is so that it will not lock up the AutoSwitch.
- Turn off bi-directional communication on your printer driver. To do this, click on START, SETTINGS, PRINTERS, right-click on your printer, choose Properties. Click on the DETAILS tab, then on the SPOOL SETTINGS button. The following window will pop up:

Make sure "Disable bi-directional support for this printer" is selected. Ignore if grayed out.
- Check the end of this manual for information on disabling bi-directional communication on your specific printer.



Using the AutoSwitch

The AutoSwitch automatically connects a computer to the printer when a computer is ready to print. This is done on a first-come first-served basis. Just set the selector switch to the middle "AUTO" position, and both LEDs should be lit up. Now it is set for automatic sharing mode.



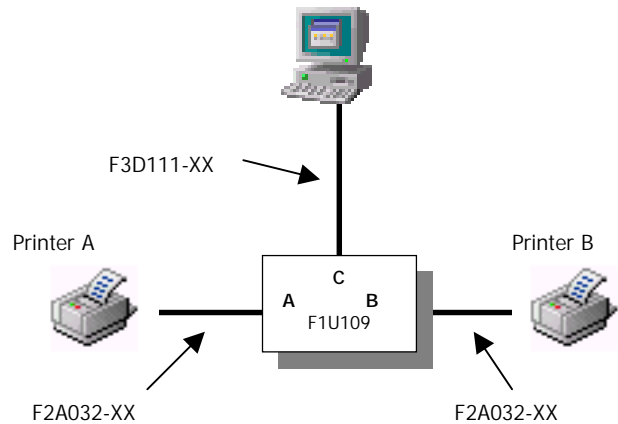
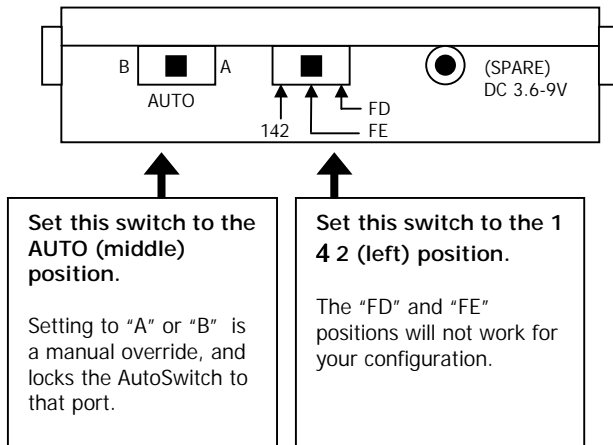
YOU'RE DONE!
(Do not continue to the next page)



You DO NOT have to install the software, or do anything anymore. Just print like you normally do on any computer, and the AutoSwitch will direct the print job automatically.

One Computer Using Two Printers

Set the Switches on the AutoSwitch, and connect the PC, and the printers to the AutoSwitch as follows:



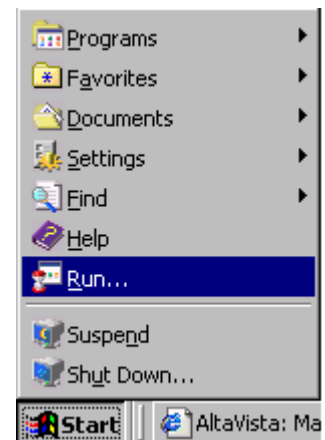
Important Notes:

- Take note which printer is connected to which port on the AutoSwitch.
- Make sure the cables you are using are not file-transfer cables, otherwise the setup will not work.
- We recommend Belkin Components® cables for best results:
 - F3D111-XX Belkin Pro Series DB25 M/M, straight through
 - F2A032-XX Belkin Pro Series DB25 M/Centronics 36 M parallel printer cable
 "XX" is the length of the cable in feet
- Avoid using any status monitoring software, status toolbox, or bi-directional printer drivers. As much as possible, please use "output-only" or "Raster" drivers. This is so that it will not lock up the AutoSwitch.
- Check the end of this manual for information on disabling bi-directional communication on your specific printer.

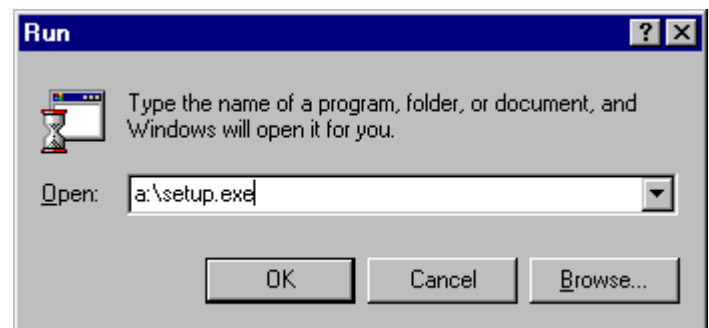
Software Installation – Windows® 95 and 98 only.

The software will not work in Windows® 3.1 or NT.

1. Insert the software disk into your floppy drive.
2. Click START, RUN.

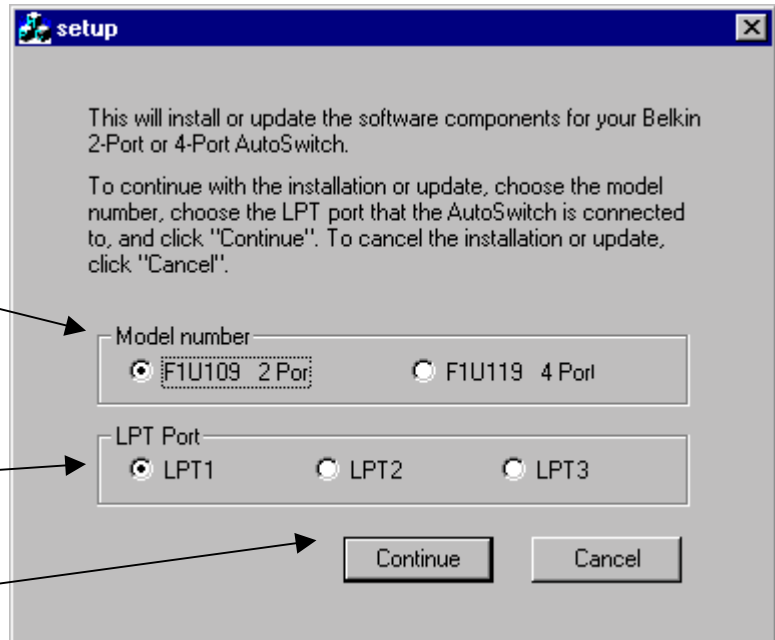


3. Enter "a:\setup.exe", and click OK.

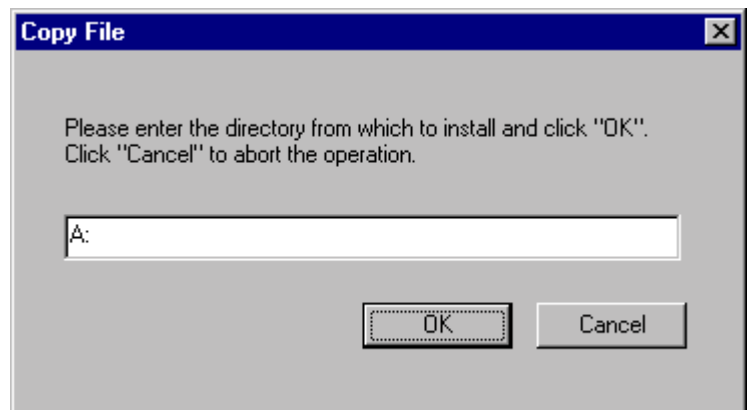


4. The program will begin installing at this point. The first screen you will see is the following:

- Select "F1U109" because that is the autoswitch that you have.
- Select which LPT port you installing the AutoSwitch on. Normally, it is always LPT1.
- Click continue when done.



5. The install program will then ask you for the location of the install files. Because your floppy drive is "A:", just click OK.



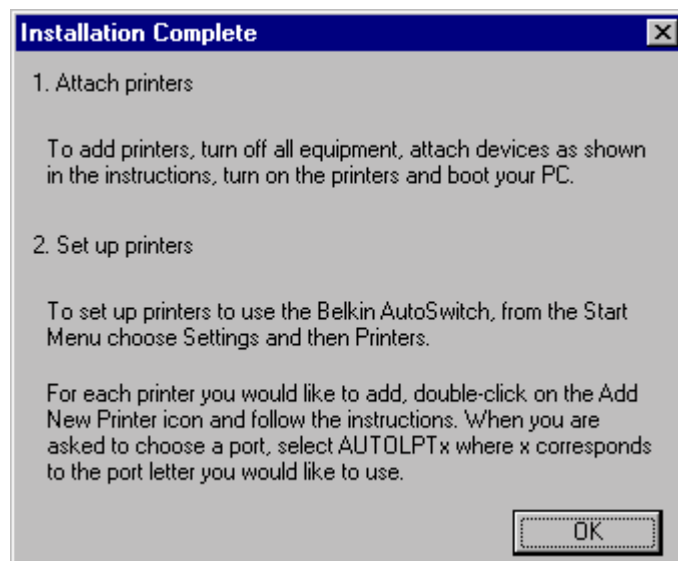
6. When done, the program will display the following message:



Click OK, and installation is complete!

7. Next, you will see a box with the following instructions. Click OK.

8. Reboot your computer. **THIS IS A VERY IMPORTANT STEP!!! YOU MUST REBOOT, OTHERWISE, THE SOFTWARE WILL NOT INITIALIZE, AND YOU CANNOT CONTINUE PROPERLY.** Do this by clicking on START, SHUT DOWN, and RESTART.



9. Add your printers. Do this by clicking on START, SETTINGS, PRINTERS. Then, double-click on the Add New Printer icon and follow the instructions.

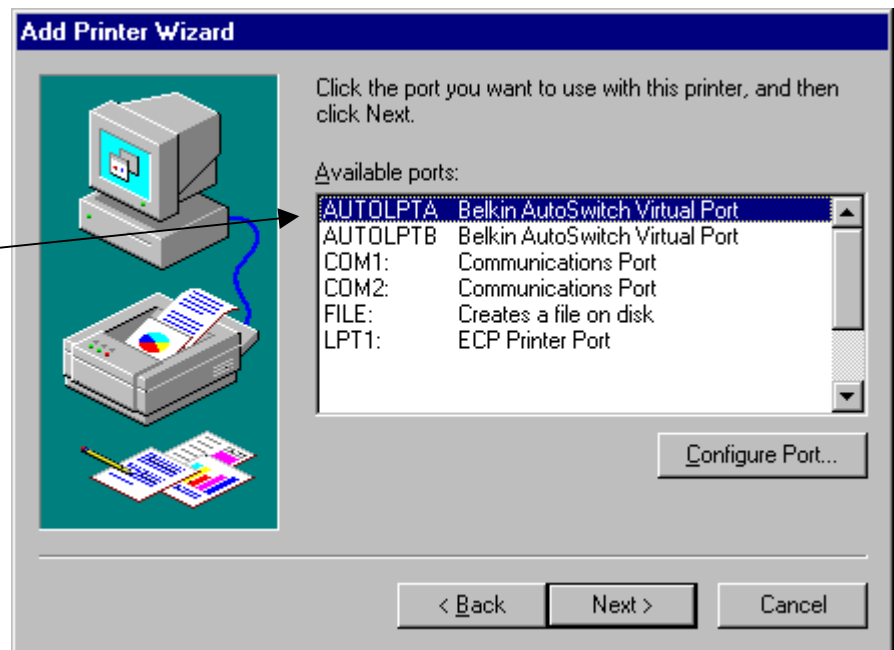
IF YOUR PRINTER IS NOT LISTED - YOU HAVE TO ADD YOUR PRINTERS USING THE SOFTWARE THAT CAME WITH YOUR PRINTERS. IF THIS IS THE CASE, RUN YOUR PRINTER SETUP PROGRAM ACCORDING TO YOUR PRINTER MANUFACTURER'S INSTRUCTIONS, AND SKIP DIRECTLY TO PAGE 6.

IF ALL YOUR PRINTERS ARE ALREADY INSTALLED – YOU DO NOT HAVE TO ADD PRINTERS ANYMORE. SKIP DIRECTLY TO PAGE 6.

When you are asked to choose a port, select AUTOLPTx, where x corresponds to the port letter you would like to use.

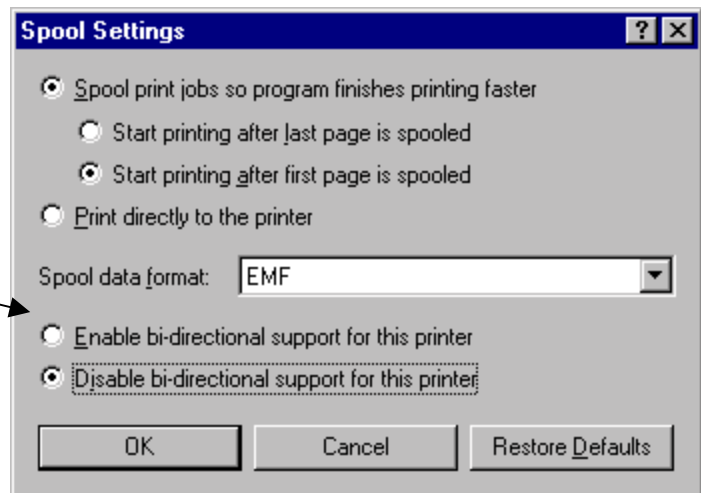
For instance, your DeskJet printer is connected to Port A of the AutoSwitch. Select AUTOLPTA in the Add New Printer setup.

Do the same for the printer connected to Port B on the AutoSwitch. But this time, select AUTOLPTB.



10. Turn off bi-directional communication on your printer driver. To do this, click on START, SETTINGS, PRINTERS, right-click on your printer, choose Properties. Click on the DETAILS tab, then on the SPOOL SETTINGS button. The following window will pop up:

Make sure "Disable bi-directional support for this printer" is selected. Ignore if grayed out.



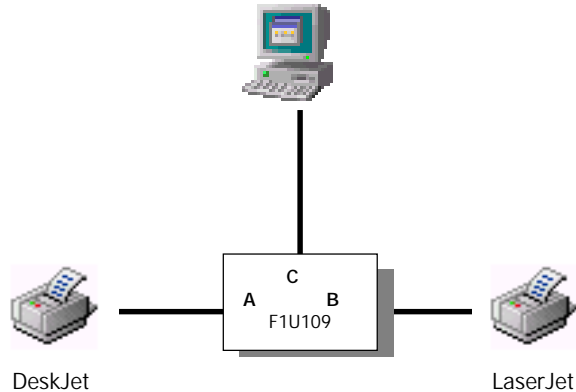
10. **SKIP DIRECTLY TO PAGE 7.**

ASSIGNING PRE-INSTALLED PRINTERS TO THE BELKIN AutoSwitch VIRTUAL PORTS

- If you are trying to add your printers to Windows® and it is not listed in the default Add Printer Wizard, you will have to use the software that came with your printer to install the printer. Follow the instructions that came with your printer, then REBOOT your computer.
- If your printers are already installed in Windows®, all you have to do is to change the port assignment from LPT1 (or any other LPT port) to the virtual autoswitch ports.

Example:

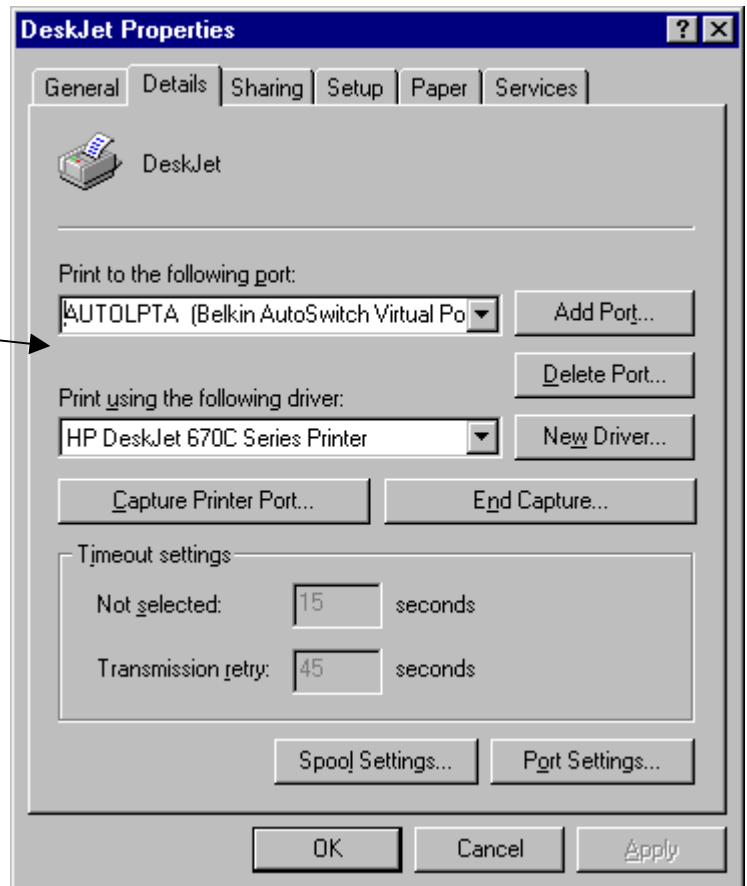
You installed a DeskJet and LaserJet in Windows®. The DeskJet is connected to Port A of the AutoSwitch, and the LaserJet is connected to Port B of the AutoSwitch, as shown in the diagram on the right.



1. Click on START, SETTINGS, PRINTERS, and right-click on your printer. Select PROPERTIES.
2. Click on the DETAILS tab above. You will see the Window on the right.

Click on this pull-down menu to select which port your printer is connected to. Choose AUTOLPTA, because our example had the DeskJet on Port A of the AutoSwitch.

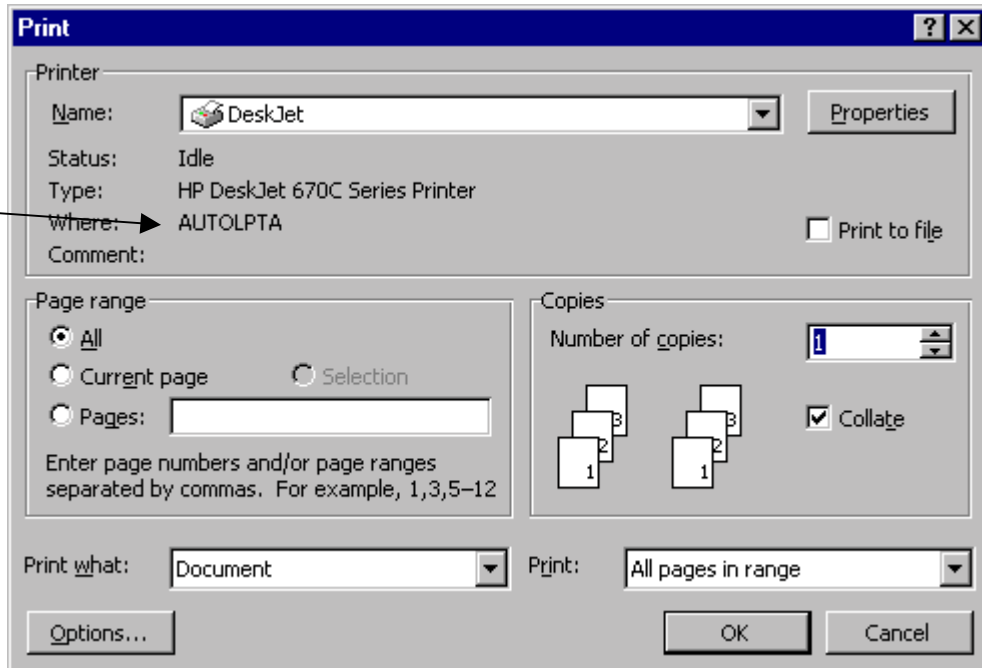
3. Repeat procedure from #1 above, and do the same for the second printer. Our example has the LaserJet on Port B on the AutoSwitch, so the port that it will connect to in the PROPERTIES will be AUTOLPTB.



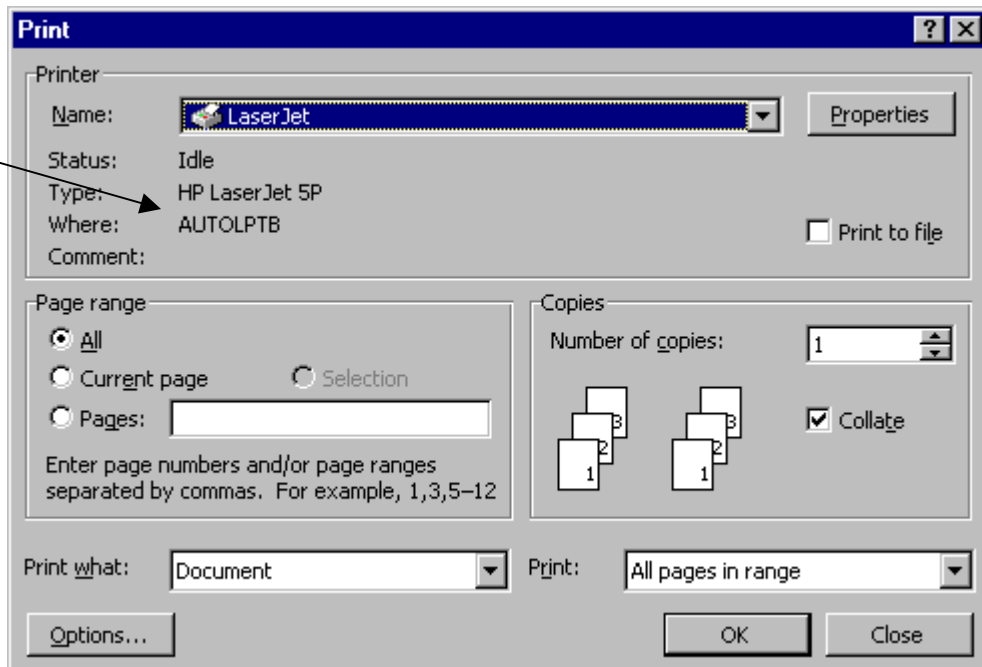
You're Done!

Now, when you print in any Windows® 95 or 98 application, simply select which printer you wish to print to, and the AutoSwitch will automatically direct your print job to the correct port!

This image is the Print dialog box, showing how the DeskJet is using Port AUTOLPTA, because it is connected to Port A on the AutoSwitch.



This image is the Print dialog box, showing how the LaserJet is using Port AUTOLPTB, because it is connected to Port B on the AutoSwitch.

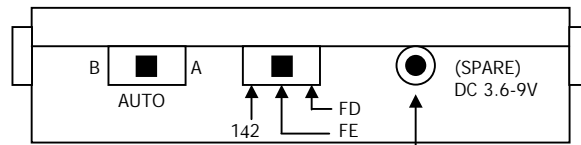


III. Troubleshooting

Problem: Printer does not print or prints garbage.

Solutions:

- Disable the printer's bi-directional software (see attached document).
- When connecting 1 computer to 2 printers, make sure the switch is set to "auto" (in the middle) and "1>2" (all the way to the left.)
- Confirm cable from the PC to the AutoSwitch is straight through, Belkin cable number F3D111-xx. If you have a Belkin cable number F3D508-xx (or any Interlink / Direct Cable Connection cable), this will NOT work.
- Check to make sure your printer is on line.
- Make sure that you are using the correct printer driver. If you are, try downloading the latest "Raster" or output-only printer driver from your printer manufacturer's website.
- Add power supply, 9V @ 300mA, sold separately. Belkin P/N F1U109-PWR
- Avoid using cables longer than 15'.



Optional 9VDC, 300mA power supply connects here (mini-jack)

Problem: When connecting 1 computer to 2 printers and using the software, the AutoSwitch is not switching between ports A or B.

Solutions:

- Make sure the slide switch is set to "auto" (in the middle) and "1>2" (all the way to the left).
- Make sure the software is installed correctly. If in doubt, simply reinstall the software as described above.
- Confirm cable from the PC to the AutoSwitch is straight through, Belkin cable number F3D111-xx. If you have a Belkin cable number F3D508-xx (or any Interlink / Direct Cable Connection cable), this will NOT work.

Problem: Errors such as "Parameter not set" or "Parameter not correct" or "Illegal Function" showing up.

Solutions:

- Disable the printer's bi-directional software (see attached document).
- When connecting 1 computer to 2 printers, make sure the switch is set to "auto" (in the middle) and "1>2" (all the way to the left.)
- Confirm cable from the PC to the AutoSwitch is straight through, Belkin cable number F3D111-xx. If you have a Belkin cable number F3D508-xx (or any Interlink / Direct Cable Connection cable), this will NOT work.
- Check to make sure your printer is on line.
- When using 1 computer to 2 printers, make sure the software is installed correctly. If in doubt, simply reinstall the software as described above.
- Make sure that you are using the correct printer driver. If you are, try downloading the latest "Raster" or output-only printer driver from your printer manufacturer's website.

Problem: I have an old tractor-feed printer, and is running under DOS. Each time I print, it does not eject an entire page.

Solutions:

- This is valid only if you are sharing 2 computers and 1 printer – set the slide switch to the "FE" position. The reason why your printer is doing this is not because of the autoswitch, but rather the nature of the DOS operating system.

Problem: I installed the AutoSwitch software, but now I want to remove it.

Solution:

- Click on START, PROGRAMS, BELKIN AutoSwitch, UNINSTALL. Follow the directions. Once you have rebooted your computer, the printers will be attached to port LPT1.

ADDENDUM: Disabling Bi-directional Communication for IEEE 1284 Printers

Newer models of printers come with bi-directional software such as "status monitor" or "tool-box" software, which allows you to consistently view the status of your printer. This bi-directional software requires constant communication between the computer and printer, and is not possible through networks or printer sharing devices. You should disable the bi-directional communication to be able to print correctly.

For Windows 95 users:

1. Click on the **[Start]** button, then **[Settings]**, then **[Printers]**.
2. Right-Click on your printer driver, then click on **"Properties"**. Click on the **"Details"** tab, then click on the **"Spool Settings"** button. If it is not grayed out, make sure that the **"Disable bi-directional support..."** radio button is checked. Click **[OK]**. Click **[Apply]** if not grayed out.
3. Also on the details tab, click on **"Port Settings"**. Make sure that **"Check port state before printing"** is *unchecked*. Click **[OK]**.

For Windows 3.x users:

1. In Program Manager, go to your **[Main]** group window. Double click on **[Control Panel]**, then double click on the **[Printers]** icon.
2. Highlight the printer driver, then click on **[Connect]**. Highlight **"LPT1.DOS"**. Make sure that **"Fast printing direct to port"** is *unchecked*.
3. Click **[OK]**. Click **[Close]**.

HP DESKJET PRINTERS

Check the table for your printer. Take note of the corresponding configuration file.

Printer	Configuration File
HP DeskJet 600/660C	<i>HPVCNFIG.exe or HPFCFG02.exe or HPFCFG01.exe or HPFCFG03.exe or HPFCFG04.exe or HPFCFG05.exe or HPFCFG07.exe</i>
HP DeskJet 670C/672C	<i>HPFCFG08.exe or HPFCFG18.exe</i>
HP DeskJet 680C/682C	<i>HPFCFG04.exe or HPFCFG05.exe or HPFCFG07.exe or HPFCFG17.exe</i>
HP DeskJet 690C/693C	<i>HPFCFG05.exe</i>
HP DeskJet 690C/692C/693C/694C	<i>HPFCFG07.exe</i>
HP DeskJet 710C/712C	<i>HPFCFG13.exe</i>
HP DeskJet 720C/722C	<i>HPFCFG06.exe or HPFCFG14.exe</i>
HP DeskJet 820C	<i>HPFCFG04.exe or HPFCFG09.exe</i>
HP DeskJet 850C/855C	<i>HPRCFG01.exe or HPRCFG02.exe or HPRCFG03.exe or HPVCNFIG.exe or HPRCFG08.exe</i>
HP DeskJet 870C	<i>HPRCFG03.exe or HPRCFG08.exe or HPRCFG06.exe or HPRCFG11.exe</i>
HP DeskJet 890C	<i>HPRCFG07.exe or HPRCFG06.exe or HPRCFG08.exe</i>
HP DeskJet 895C	<i>HPFCFG15.exe</i>
HP DeskJet 1000C	<i>HPW3CFG.exe</i>
HP DeskJet 1100C	<i>HPW4CFG.exe or HPW5CFG.exe</i>
HP DeskJet 1120C/Cse/Cxi	<i>HPW5CFG.exe</i>
HP DeskJet 1600	<i>Special Instructions for HP DeskJet 1600:</i> Go to the HP1600 Utilities. Open the status window icon. Uncheck the option "Run Status Monitor on Windows Startup"
HP DeskJet 2000C	<i>HPRCFG07.exe or HPRCFG09.exe</i>
HP DeskJet 2500C	<i>HPW6CFG.exe</i>
Other DeskJet Printers	Older DeskJets do not require any changes. For NEW printers, contact HP for proper information.

For Windows 95 users:

1. Save any unsaved data and close all programs listed on your task bar. This procedure will require restarting Windows later on.
2. Click on the **[Start]** button. Click on **[Run]**. Type the name of the configuration file which matches your printer in the above table. Click **[OK]**.
3. A new window will open on your system, which warns you that this program will modify your INI files. Click **[Continue]**. Another window will appear which contains several checkboxes with options listed beside them.
4. Locate the checkbox which corresponds to **"Bi-directional Communication"**. Click on the checkbox to remove the check mark. Locate the checkbox for **"Print cartridge query"**. Remove the check mark.
5. Click the **[OK]** button at the bottom of the window. A window stating that windows will be restarted will appear. Click **[Restart Windows]**. Windows will then restart.

For Windows 3.x users:

1. For Windows 3.x, go to your Program Manager.
2. Click on **[File]**. Click on **[Run]**. Type the name of the configuration file which matches your printer in the above table. Click **[OK]**.
3. Follow instructions no. 3 through 5 listed above under "For Windows 95 users". The same instructions apply for Windows 3.x users.

HP OFFICEJET & LASERJET PRINTERS

Printer	Instructions
HP OfficeJets	Install and use HP Deskjet 500 driver instead, or HP 550c drivers for Color Officejets, or Win95 drivers for HP Officejet (note: driver only supports printing). To add the HP Officejet printer driver under Windows 95, you need to go to the Add Printers icon under Printers. Select HP and click on the HP Officejet driver and install. For Windows 3.1, use the HP Deskjet 500/550c driver, or contact HP for correct drivers.
HP Laserjet 5L/6L	Delete the HP 5L/6L driver completely by going into the Uninstall icon for HP 5L/6L. (For Windows 95 you have to click on Start, Programs, HP 5L/6L printer and then select HP5L/6L uninstall. For Windows 3.1, go into the program manager, open the HP 5L/6L utilities icon and double on the uninstall icon). Restart windows. Reinstall the driver, select Custom install from the main screen. On Custom install screen make sure that PCL driver is checked but the PCL status window is unchecked . Click [OK] to install the driver.
HP Laserjet 6P/MP	Look in your task bar at the bottom of the screen. Next to your clock at the right hand side you might see a red or green printer icon. If you do, right click on this icon and select 'Remove from taskbar' . Hold down keys 'Ctrl+Alt+Del' . In the 'Close Program' window, click on the file HPPROPTY and then 'End Task' . From the desktop, double click on 'My Computer' , 'C: (drive)' , Windows (folder) , then System (folder) . Look for the 'HPPROPTY.EXE' file and delete it. Reboot you computer.
HP LaserJet 4000 series	From the Printer's control panel configuration menu Select I/O MENU . From this menu change the line that reads FUNCTION = ON to FUNCTION = OFF .
Other HP Printers	Older HP printers do not require any changes. For NEW printers, contact HP for proper information.

EPSON PRINTERS

Epson Stylus 400, 600 and 800 printers:

Windows 3.x	Windows 95
In Program Manager go to Epson folder. Open the Spool Manager and make sure the Epson Stylus Color printer is selected. From the menu bar, click on [Queue], [Setup] and select "Spool to local printer" . Next <u>check</u> "Use print manager for this port" and click [OK]. Close the Spool Manager and restart the computer.	Go to the [Start] menu, select [Programs] and open the Epson folder. Open the Spool Manager and make sure the Epson Stylus Color printer is selected. From the menu bar, click on [Queue], [Setup] and select "Spool to local printer" . Next <u>check</u> "Use print manager for this port" and click [OK]. Close the Spool Manager and restart windows.

CANON PRINTERS

Canon 610 and Canon 620 printers: Download the BJC-610/BJC-620 BJ Raster Driver for Windows 95™ version 1.0 or BJC-610/BJC-620 BJ Raster Driver for Windows 3.1™ version 1.0 from Canon's web page at

<http://www.ccsi.canon.com>

OR you can also add and use the Canon 600e driver instead. To add the Canon 600e printer driver under Windows 95, you need to go to the Add Printers icon under Printers. Select Canon and click on the Canon 600e driver and install. For Windows 3.1, contact Canon to get the Canon raster driver or the 600e driver.

ALL OTHER PRINTERS

For all other printers, you may or may not need to disable bi-directional communication. If you still have problems printing, go through your printer documentation to disable bi-directional communication / status window software, or contact your printer manufacturer.

Contacting Belkin Components

Corporate Headquarters

501 West Walnut Street
Compton, CA 90220
310-898-1100 voice
310-898-1111 fax

Atlanta Office

Belkin Components, Ltd.

FCC Statement

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 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 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 technician for help.

CE Declaration of Conformity

We, Belkin Components, declare under our sole responsibility that the F1U109, to which this declaration relates, is in conformity with Generic Emissions Standard EN50081-1 and with Generic Immunity Standard EN50082-1 1992.

Belkin Components Lifetime Limited Warranty

Belkin Components warrants this product against defects in materials and workmanship for its lifetime. If a defect is discovered, Belkin will, at its option, repair or replace the product at no charge provided it is returned during the warranty period, with transportation charges prepaid, to the authorized Belkin dealer from whom you purchased the product. Proof of purchase may be required.

This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication; if the product has been modified without the written permission of Belkin; or if any Belkin serial number has been removed or defaced.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE IN LIEU OF ALL OTHERS, WHETHER ORAL OR WRITTEN, EXPRESSED OR IMPLIED. BELKIN SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

No Belkin dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

BELKIN IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH BELKIN PRODUCTS.

Some states do not allow the exclusion or limitation of incidental or consequential damages or exclusions of implied warranties, so the above limitations of exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.