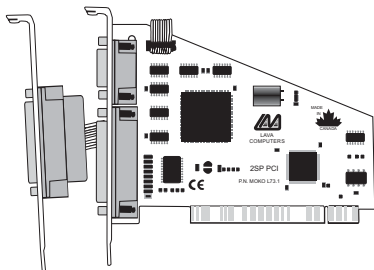


# Lava 2SP-PCI Installation Manual

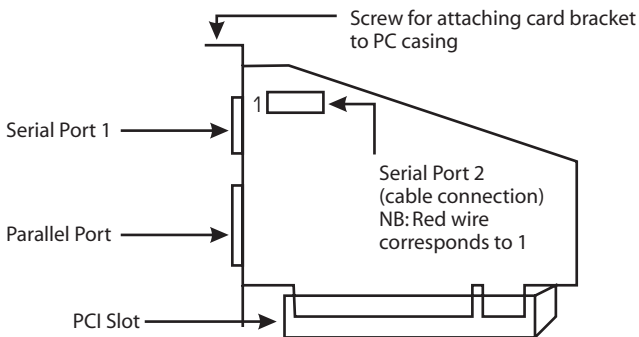
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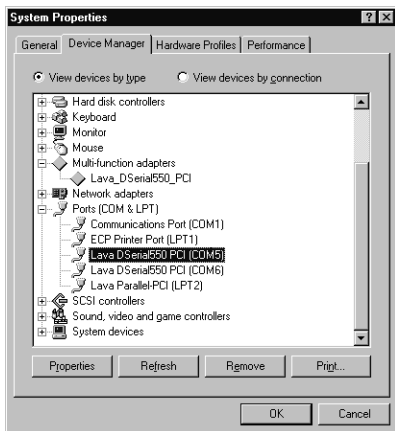
Rev. B00

# Windows Hardware and Driver Installation

1. Before opening the casing of your computer, make sure that all power is off.
2. Locate an unused PCI slot and insert the 2SP-PCI card into it. Ensure that it is well seated, and screw the metal bracket of the board to your PC's casing.
3. Locate an unused back panel in your PC's casing (preferably one that does not correspond to a slot) and remove the metal insert. Screw the bracket of the second serial port of the 2SP-PCI card to the casing in this location. If you have detached the cable from the 2SP-PCI card in order to perform this operation, be sure to re-connect the cable with the red wire corresponding to the number 1 printed on the board.
4. Replace the machine's cover and turn the PC on.



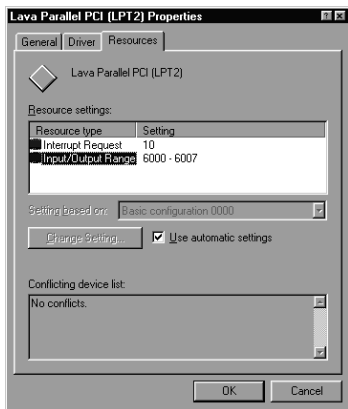
5. When Windows starts, it will find a 2SP-PCI Controller and will ask you for a driver for this device. When prompted, insert the installation diskette into your floppy drive. After copying the necessary files from the diskette, Windows may restart your PC in order to complete the installation of the 2SP-PCI card. Any Plug and Play devices attached to the 2SP-PCI will now also be detected and installed. Windows XP may display a message to the effect that the drivers are not digitally signed. This warning can be ignored.
6. To view how Windows has installed the 2SP-PCI, open Windows' Device Manager. Please note that the 2SP-PCI will appear in Device Manager under two separate entries. The two serial ports will appear both under the Multifunction Adapters tree and under the Ports tree, while the Parallel port will appear under Ports only (see example below). Please use the appropriate listings if you wish to customize any of the 2SP-PCI card's settings. Please note that changes to default settings may be required by users connecting the 2SP-PCI card to a non-printer peripheral (see reverse). Users connecting a printer should use default settings.



## Connecting a non-printer device (e.g. external drive or parallel scanner) to the 2SP-PCI's parallel port

In Windows 95/98/ME (not Windows 2000/XP) some parallel port devices require parallel ports that use standard (legacy) ISA LPT addresses (0278h or 0378h). Because the 2SP-PCI card is a fully compliant PCI device, its default address (Input/Output Range) is beyond the standard range of ISA I/O addresses. In order to connect such a peripheral to the 2SP-PCI card, the I/O address range of the card must therefore be changed manually. This section describes how this is done.

1. Open Control Panel\System|Device Manager and find the Parallel-PCI listing under Ports. Click Properties, and proceed to the Resources tab. The following screen will appear (Note: the Input/Output Range and Interrupt of your particular configuration may differ from the one below).



2. Remove the check mark from the Use Automatic Settings box.

Note: In some cases Windows will give an error message to the effect that "Windows cannot modify this resource" at this point. If you are unable to access the settings for changing system resources, reboot the system in Safe Mode to make changes to resource settings. (To enter Safe Mode, press the F8 key while the system is rebooting.)

3. Double-click on the words Input/Output Range. The following screen will appear:



4. Use the up/down arrows to scroll to one of the following range settings, or type them in manually:

0278 – 027F  
0238 – 023F

0378 – 037F  
02B8 – 02BF

0338 – 033F

5. After one of these has been entered, click OK. Windows will verify whether you would like to force this particular configuration rather than the automatic one that it had previously chosen. Click Yes.
6. Verify that there are no conflicts with addresses being used by other devices already in your PC. If no conflicts are found, restart Windows.

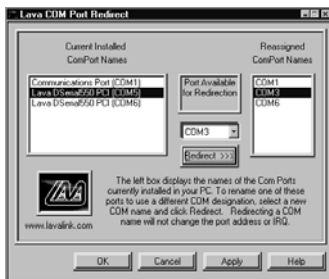
## Changing the Com numbering of your 2SP-PCI ports (Windows 95/98/Me only)

Unless you already have more than 4 Com Ports installed in your PC, Windows will by default configure the serial ports of the 2SP-PCI as Com 5 and Com 6. If you wish to change the assigned Com number of either of these ports (e.g. reassign Port 1 to be Com 3), please use the Lava Com Port Redirect Utility included in the "Utils\Redirect" subdirectory of your Installation Diskette. Such a reassignment may be necessary because some communications applications programs do not recognize port designations beyond Com 4. The Com Port Redirect utility will allow you to change the Com numbering of your ports **without changing I/O address resources**.

To install the Port Redirect Utility on your hard drive, insert the Installation Diskette into your floppy drive, click Start, Run and type A:\Utils\Redirect\Setup.

## Changing the Com numbering of your 2SP-PCI ports (Windows 2000/XP only)

In Windows 2000, Com port numbering can be changed by double-clicking the serial port entry displayed in Windows' Device Manager. Go to Port Settings | Advanced, and choose Com Port #.



# Using Zip Drives with the 2SP-PCI

NOTE: The default input/output range for the 2SP-PCI card works with Zip™ drives using new lomegaware™ software. The instructions "Connecting a non-printer device" given above apply to Zip™ drive users using old versions of lomegaware™. For best results with Windows 2000 and XP, we recommend downloading the latest "lomegaware" from lomega. Additional instructions on optimizing Zip Drive performance with the 2SP-PCI can be found at [www.lavalink.com](http://www.lavalink.com).

## **Release Notes:**

- A. This documentation describes installing the 2SP-PCI on a Windows95/98/Me/2000/XP PC. Instructions and software for DOS, Windows 3.x, and Windows NT 4.0 may be found in the NT4.0 subdirectory of the 2SP-PCI card Installation diskette. Instructions for Linux installation are available at [www.lavalink.com](http://www.lavalink.com).
- B. Because the 2SP-PCI card uses PCI (not ISA) I/O address ranges, it will never be seen by your BIOS at boot-up as a standard port even if the address has been changed in Windows using the above procedure. This is normal, and does not indicate a fault in your 2SP-PCI card.
- C. The parallel port of the 2SP-PCI card will not work at address 0278h or 0378h if it is installed in a PCI slot that is behind a PCI-to-PCI bridge. If you have trouble installing the 2SP-PCI card, try seating it in a different slot.
- D. In standard installations of Windows 2000/XP, the I/O address cannot be changed to a legacy address.
- E. Some devices (like external CD writers) default to "word mode" (ie: 16-bit data transfer) for fastest performance. Such devices need to operate in "byte mode" (8-bit data transfer) to work with the 2SP-PCI. Look in your device software for a "byte mode" setting, and enable it.

# **Lava Technical Support**

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## **Lava Computer MFG Inc.**



This device complies with part 15 of the FCC Rules. Operation is subject to the following 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.

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