

Backpack Help and User's Guide

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Getting Started

To get started with backpack, first install the software driver from the diskette. After restarting your computer you will be ready to use the backpack attached to any parallel printer port (LPT port), the Backpack PC Card or Backpack USB Adapter.

Software Installation

Place the backpack SETUP diskette in your A: drive.

Click Start, Run. In the dialog box enter:

A:SETUP <Press OK>

Follow the prompts that appear.

The backpack software driver should now be installed on your system. You must restart the computer before using the backpack drive.

Hardware Installation

Backpack can connect to your computer's parallel printer port or to the optional Backpack PC Card or USB Adapter. Make sure you have completed the BACKPACK Driver Installation (Software Installation) before beginning this Hardware Installation. Follow these steps below, exactly in the order that they are listed.

Connecting backpack to a printer port:

Plug the backpack power unit into the connector labeled "Power" on the backpack drive first. Then plug the backpack power unit into a wall outlet.

Locate the parallel printer port connector on your computer. If the computer has more than one EPP parallel printer port, it doesn't matter which one is used for backpack.

If you have a printer connected to the parallel printer port, disconnect it and attach the printer cable to the printer port on the backpack drive.

Connect the backpack cable between the printer port on the computer and the port marked "Computer" on the backpack drive.

Review the Important Notes below for proper printer connection.

Connecting backpack to a Backpack PC Card:

First make sure the BACKPACK SETUP program has been run. After restarting the computer insert the Backpack PC Card into your computer.

Plug the backpack power unit into the connector labeled "Power" on the backpack drive first. Then plug the backpack power unit into a wall outlet.

Connect the cable from the PC Card to the port marked "Computer" on the backpack drive.

If you are connecting backpack to a Backpack USB Adapter:

First make sure the BACKPACK Setup program has been run. After restarting the computer insert the Backpack USB Adapter into your computer.

Plug the backpack power unit into the connector labeled "Power" on the backpack drive first. Then plug the backpack power unit into a wall outlet.

Connect the Backpack USB Adapter to the port marked "Computer" on the backpack drive.

Review the Important Notes below for proper printer connection.

IMPORTANT NOTES

- The Backpack PC Card and Backpack USB Adapter only support backpack drives. Printers cannot be used on the Backpack PC Card or Backpack USB Adapter, either directly or when connected to a backpack drive.
- A printer can only be used on backpack's pass-through "Printer" connector if backpack is attached to the computer's printer port.

- The Backpack USB Adapter requires Windows 98, Windows Me or Windows 2000. Backpack USB Adapter will not install and cannot be used in Windows 95 (including OSR2) and Windows NT4.
- Close any running programs before adding or removing backpack. Some programs cannot adjust to drive letters being added or removed.
- Windows NT4 must be restarted with the backpack attached to a printer port or Backpack PC Card before backpack will be assigned a drive letter (in My Computer or Explorer).
- In Windows 95, 98 or Me: PC Card support may need to be enabled on your computer. Click Start, Settings, Control Panel, PC Card (PCMCIA). If PC Card support is not turned on the PC Card Wizard will start. Follow the Windows instructions on the screen.
- Only one backpack can be attached to a Backpack USB Adapter. If more than one backpack will be used on the computer at the same time, each backpack will require a separate Backpack USB Adapter.

Uninstalling Software

Uninstalling

To uninstall backpack or any of the CD creation programs use Add/Remove Programs in Control Panel. You will be prompted in Windows 95,98, Me and Windows 2000 for the backpack SETUP.EXE program, found on the backpack installation diskette or CD.

OPERATING SYSTEM COMPATIBILITY NOTES

In DOS or Windows 3.x:

Backpack can only be connected to the computer's parallel port (LPT Port). The backpack will not work on the Backpack PC Card or Backpack USB Adapter under DOS or Windows 3.x. Hot swap plug in and removal is not supported in DOS or Windows 3.x. Backpack must be connected to the computer's parallel port before starting the computer.

In Windows 95:

Backpack can be connected to either the computer's parallel port (LPT Port), or to the Backpack PC Card. Plug and Play compatibility is provided on both the parallel port and the Backpack PC Card.

In Windows 98, Me and 2000

Backpack can be connected to the computer's parallel port (LPT Port), to the Backpack PC Card, or to the Backpack USB Adapter. Plug and Play compatibility is provided on the parallel port, the Backpack PC Card, and the Backpack USB Adapter.

In Windows NT4:

Backpack can be connected to either the computer's parallel port (LPT Port), or to the Backpack PC Card. Hot swap plug in and removal is not supported in Windows NT4. Backpack must be connected before starting the computer.

Printer compatibility:

Printers can only work on the backpack's pass-through "Printer" port when the backpack is connected to the computer's parallel port (LPT Port). Printers cannot be used on the Backpack PC Card or Backpack USB Adapter.

The Backpack PC Card and Backpack USB Adapter are only designed to support backpack drives.

Removing backpack software

To uninstall backpack software use Add/Remove Programs in Control Panel. You will be prompted in Windows 95, 98, Me and Windows 2000 for the backpack SETUP.EXE program, found on the backpack installation diskette.

Understanding the various interfaces

EPP Parallel Ports

The fastest and most reliable parallel port type is an Enhanced Parallel Port (EPP.) If you use a backpack cd-rewriter on your computer's parallel port, an EPP or ECP port is required to transfer data to the drive at the speed required for writing CD-ROMs. Most Pentium computers are equipped with EPP/ECP ports.

ECP Parallel Ports

ECP is a high-speed protocol which current backpack technology can use, if necessary. An ECP (Extended Capabilities Port) or EPP port is required for backpack cd-rewriter to transfer data to the drive at the speed required for writing CD-ROMs. Most Pentium computers are equipped with EPP/ECP ports.

IEEE-1284 Ports

IEEE-1284 is the industry standard for high-speed parallel ports. Most IEEE-1284 ports are capable of both EPP and ECP modes. Most Pentium computers are equipped with an IEEE-1284 Port.

UniDirectional and BiDirectional Parallel Ports

A Uni-Directional parallel port is also known as a "Standard Parallel Port" and has the slowest input speeds, since only 4 return lines can be used to send data back into the computer. Since a Bi-Directional parallel port is able to send 8 lines of data into the computer, a Bi-Directional parallel port can receive twice as much data into the computer as a Uni-Directional parallel port.

Backpack PC Card

The Backpack PC Card is an optional component that plugs into a PC Card (PCMCIA) slot. Most notebook computers have PC Card slots.

Backpack USB Adapter

The Backpack USB Adapter is an optional component that plugs into a Universal Serial Bus port. Backpack USB Adapter requires Windows 98, Windows Me or Windows 2000. Most Pentium-II and faster computers feature USB ports. Some standard Pentium motherboards also provided USB ports.

Checking your parallel port type

Most standard Pentium and faster computers have an EPP/ECP compatible port. Check your computer's documentation to determine whether you need to enable EPP or ECP mode in your computer's BIOS/SETUP.

You can determine the port type:

...In Windows 95, 98, Me or Windows 2000

Use Backpack Finder, located in Control Panel. Click on the backpack device listed beneath the port (LPT1 or LPT2). The Data Transfer Mode is displayed in the bottom window.

...In Windows NT4

Use Backpack Controls, located in Control Panel. In the information box at the right-hand side, look at the line beginning with "Tx". This line reports the current parallel port mode. Possible modes are EPP, ECP, Bidirectional and Unidirectional. If backpack is not running in EPP or ECP mode, the "Tx" value will show "FW."

Troubleshooting

Backpack's Drive Letter

When backpack is connected Windows will assign it the next available drive letter. This could be the letter D, E or any other letter - depending on the letters already in use on your computer.

Backpack CD-ROM or cd-rewriter:

Open Explorer or My Computer and look for an icon similar to a CD-ROM disc.

Backpack Hard Drive:

Open Explorer or My Computer and look for an icon(s) similar to a Disk Drive or Removable Drive.

Backpack CD-ROM did not receive a drive letter:

Check for Real-Mode CD-ROM Drivers in Windows 95 or Windows 98

Your computer could have older 16-bit drivers installed for another CD-ROM. These will interfere with backpack. Check the AUTOEXEC.BAT file and see if the program MSCDEX.EXE appears. Disable that line by placing the word "REM" at the beginning. If your pre-existing CD-ROM no longer receives a drive letter, contact your CD-ROM manufacturer to obtain Windows 95 or 98 -compatible 32-bit software for your pre-existing CD-ROM.

TIP: You can view or edit AUTOEXEC.BAT by clicking Start, Run and typing "SYSEDIT".

Check backpack properties

Backpack settings can be examined or changed from within programs installed in the Windows Control Panel. If you click Start, Settings, Control Panel you will see an icon for Backpack Finder (Windows 95, 98, Me and 2000) or backpack (Windows NT4). If you're not sure, Open Control Panel and see which icon is installed.

Backpack Finder and Backpack Controls are discussed below.

Backpack Finder in Windows 95, 98, Me and 2000:

Open the Backpack Finder icon located in Windows' Control Panel. The upper pane under Devices shows: LPT port(s), a PCCARD adapter or USB Adapter that a backpack drive might be connected to, for example LPT1, LPT2, PCCARD1, or USB1.

Beneath each port or adapter will appear any backpack drives that have been detected.

If no LPT ports or Adapters are detected in Backpack Finder

- Click Update in the "Devices" screen and see if the LPT port or Adapter appears.
- The backpack software drivers may not be properly installed. Try repeating the software setup.
- If the Backpack PC Card is not detected you may need to enable 32-bit PC Card support in Windows.
- Open Windows Help and refer to PC Card in the Index. Review "Troubleshooting PC Card" in Windows Help.
- Check the LPT port in the computer's BIOS/Setup to confirm it has been Enabled and assigned a Port Address.
- (Backpack USB) Check the USB port in the computer's BIOS/Setup to confirm it has been Enabled.
- Go to Windows Device Manager and make sure a Printer Port appears under 'Ports (COM & LPT)'.
- Backpack USB Adapter will only appear in Win98, Me or Win2000, not WinNT4 or Win95 (including OSR2).

If no backpack devices are detected in Backpack Finder

- Check the connections and verify that the backpack is powered on.
- Try disconnecting and reconnecting the backpack drive from the Adapter or printer port.
- Click Update in the "Devices" screen and see if a drive appears.
- There are "Finder Settings" that you can change that may correct the problem also. These options are detailed next.

Backpack settings within the Backpack Finder utility

The following changes can be made in Backpack Finder utility program located in the Windows Control Panel. Try these changes one at a time, in the order listed below. Combinations of these changes are valid as well, but not typically necessary. Restart your computer after making the change(s) to determine whether it corrects the problem.

- Clear the **Enable LPT Interrupts** checkbox.
- Clear the **Enable I/O Bus Speed Control** checkbox.

The following settings only apply to a backpack connected to the computer's parallel printer port (LPT Port).

- Clear the "EPP ..." checkboxes.
After changing this value (EPP), power off both the computer and the backpack to fully reset the system.
- Clear the **Detect LPT Port Type** checkbox.

If a change does not resolve the issue, set it back to the default and try the next option. Only in rare instances is a combination of changes needed.

Default Settings in Backpack Finder: **All boxes selected, except for ECP+DMA.**

Backpack Controls (Windows NT4):

Open the backpack icon located in the Windows NT4 Control Panel. The large box on the right displays information about the computer's ports and the backpack drive detected by the software.

No backpack(s) Detected during boot process!

- Check the connections and verify that the backpack is receiving power.
- Backpack must be connected and powered on when the computer starts.

There are settings in Backpack Controls that you can change that may correct the problem also. These options are detailed next.

Backpack Settings in the Backpack Controls utility

The following changes can be made in Backpack Controls. Try these changes one at a time, in the order listed below. Combinations of these are valid as well, but not typically necessary. Restart your computer after making the change(s) to determine whether it corrects the problem.

IRQ from Auto to Off

BUS from Auto to Off

MAX from EPP to Bi (or ECP)

After changing this value (EPP), power off both the computer and the backpack to fully reset the system.

Clear the **Test for Chipset** checkbox.

DMA from Auto to Off

T1 from Auto to 10, 20 or higher

If a change does not resolve the issue, set it back to the default and try the next option. Only in rare instances is a combination of changes needed.

Default Values

Default settings in Backpack Controls:

T1, T2, T8 = **AUTO**

MAX = **EPP**

BUS = **AUTO**

IRQ = **AUTO**

DMA = **AUTO**

Test For Chipset **Checked**

Auto Insert Notification **Checked**

Backpack Signature **Checked**

Backpack in DOS or Windows 3.x

Detailed troubleshooting steps for backpack CD-ROM connected to the parallel port (LPT Port) in DOS or Windows 3.x is located online at Micro Solutions' Website (see Technical Support below). Backpack drive letter assignments, detection difficulties, and MSCDEX options are covered in those documents.

Printer Troubleshooting

If you are using the BACKPACK PC Card or USB Adapter, you cannot use a printer connected to the pass-through "Printer" port on the back of the BACKPACK. The BACKPACK "Printer" connection will only work if BACKPACK itself is plugged into the computer's printer port (LPT port).

The section below provides various steps for solving backpack or printer-related difficulties when connected to the same parallel port of a computer, based on the Windows operating system version that is being used.

Consider using one of these adapters as alternatives to the parallel port as well:

- Using Win98, Me, or 2000 on a computer with a USB port:
Connect instead to a Backpack USB Adapter PN#839.
- Using Win95, 98, Me, 2000, or WinNT4 on a computer with a PC Card slot:
Connect instead to a Backpack PC Card PN#836.

Most printing problems can be solved by turning off Auto Insert Notification and Backpack Detection (detailed below).

In Windows 95, 98, Me and Windows 2000

Disable Windows' Auto Insert Notification (Autorun) feature by choosing: Start - Settings - Control Panel -

System. Open Device Manager and double-click on the 'CDROM' category. One or more CDROM devices will be listed. Double-click on the backpack device within this list and then open the Settings screen. Uncheck the Auto Insert Notification option. This can also be done in Win2000 by opening Backpack Finder and unchecking 'CD-ROM Autorun Feature' within the Driver Settings screen.

In Windows 95, 98, Me and Windows 2000

Uncheck the 'Enable Backpack Detection' option from the Finder Settings tab of the Backpack Finder icon in Control Panel.

In Windows 95, 98, Me

Place a check in the box labeled Printer Priority from the Driver Settings tab of the Backpack Finder icon in Control Panel.

If the steps above do not provide a solution to the difficulties, here are additional steps that can be followed:

Turning off print spooling in Windows 95, 98, and Me

- Select Start, Settings, Printers. Right-click your printer.
- Select Properties, Details. Click Spool Settings.
- If available, select Disable bi-directional support for this printer and select "Print directly to the printer."
- Select Port Settings.
- Disable "Check port state before printing."
- Restart the computer.

Turning off Auto Insert Notification in Windows NT4

- Open Control Panel (Select Start, Settings, Control Panel).
- Double-click the BACKPACK icon.
- Uncheck the Auto Insert Notification option. Note: This option will only be available if the backpack is detected and assigned a drive letter. If backpack was not connected and powered when the computer was booted, you will need to reconnect and power the backpack, then restart the computer to make this modification.
- Restart the computer when finished.

Turning off print spooling in Windows NT4

- Select Start, Settings, Printers. Right-click your printer.
- Select Printer, Properties, Scheduling.
- Select Print Directly to the Printer.
- Restart the computer.

Technical Support

Micro Solutions via internet

Backpack software is being continually improved. Difficulties are often solved by installing the latest drivers. Software drivers and Technical Support documents are available on via internet at:

<http://www.micro-solutions.com>

Micro Solutions technical help by FAX

You can have technical support information sent directly to your FAX machine.

Contact Micro Solutions' Automated Fax Response at 815.754.4600. Automated Fax Response is available 24-hours daily. A complete catalog of faxes and information is available.

NOTE: If you are calling from outside the United States first enter the digits 011 when you are asked to enter your country code and FAX number.

Most questions about backpack and its operation are answered in this guide (CDGUIDE). To solve most problems:

Check the solutions and procedures in this guide.

Check the README.TXT files on the backpack installation diskette.

Visit Micro Solutions on-line at our Web site at:

<http://www.micro-solutions.com>

Contact Micro Solutions' Automated Fax Response at 815.754.4600.

If your problem remains unsolved, contact Micro Solutions Technical Support Department at 815.754.4500. Technical Support is available during normal business hours, Monday through Friday, Central Time. Before calling, be sure to have the following information ready:

The version of backpack software and your operating system (DOS, Windows 95, 98, Me, NT4 or 2000).

The name and model of the computer, and the eight-digit serial number found on the bottom of your backpack.

The exact wording of any error message(s) from the backpack program, DOS, Windows or any other application producing the error message.

If possible, be at your computer when calling.

Technical Support Phone: 815.754.4500
Technical Support FAX: 815.756.4986
Automated FAX Response: 815.754.4600
Web site: <http://www.micro-solutions.com>

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NOTE: The Backpack USB Adapter, if included, is intended for use only with IBM compatible UL Listed personal computers.