Microtech PCD-47

SCSI PC Card Reader/Writer

PCD-47B — internal for various systems
PCD-47-MAC — external for Macintosh
PCD-47-PC — external for PC Compatibles

PCD-47 User’s Manual

ver 1.1
Preface

Thank you for purchasing the Microtech PCD-47. The PCD-47 can be connected to various makes of personal computers to read and write digital film cards. The data recorded on a digital film card with a digital camera can thus be directly read into a personal computer. Please read these instructions carefully before installation and use.

The features of this product include:

- SCSI interface for high speed data transfer to your computer.
- Can be connected to Macintosh, IBM PC/AT compatible computers, running Dos, Windows 3.x, Windows 98 and Windows NT.
- Can be used with Solaris, Sun Sparc, Sun Ultra Sparc, Digital Unix, VMS, AIX, HP and Linux.*
- One type III slot, one CompactFlash slot, and one SmartMedia (SSFDC) slot.

Of the standard PCMCIA/JEIDA cards, ATA cards, CompactFlash, and SmartMedia (both 3.3V and 5V, supports up to 128MB of SmartMedia) may be used.

* Support of the PCD-47 series for any Unix system on an OEM basis must be arranged under a separate contract.

• MS-DOS is the registered trademark of Microsoft.
• Apple and Macintosh are the registered trademarks of Apple Computer, Inc.
• IBM PC/AT is the trademark of International Business Machines Corporation.
• EZ-SCSI is the trademark of Adaptec, Inc.
• Photoshop is the registered trade mark of Adobe Systems, Inc.
• Other company names and product names are the trademarks and registered trademarks of their respective companies.
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FCC radio frequency interference warning

This equipment generates and uses radio frequencies, and if not installed and used in strict accordance with the manufacturer’s instructions, can cause interference to radio and television reception. This equipment has been certified and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of the FCC rules, which are designed to provide reasonable protection against such interference in a commercial installation.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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:

1. Re-orient the receiving antenna.
2. Re-orient the computer with respect to the receiver.
3. Move the computer further away from the receiver.
4. Plug the computer or receiver into a different outlet so computer and receiver are on different branch power circuits.
5. Ensure that card mounting screws, attachment connector screws, and ground wires are tightly secured.

If necessary, the user should consult with the dealer or an experienced radio/television technician for additional suggestions. The user might find the following booklet helpful, prepared by the Federal Communications Commission: How to Identify and Resolve Radio TV Interference Problems. It is available from the U. S. Government Printing Office, Washington, DC 20492, Stock No. 004-000-00345-4 (FCC Part No. 15.838b)

* Notice for customers in Canada. This apparatus complies with the Class B limits for radio noise emissions set out in Radio Interference Regulations.
Precautions

■ Power source
   The PCD-47 uses a standard domestic household power cord. The PCD-47-MAC and PCD-47-PC operate at voltages between 100V to 240V. The PCD-47B operates using the computer’s electrical power.

■ Power cord
   - Do not bend the power cord excessively or place heavy objects on it.
   - Damage to the cord may cause fire or electric shock.
   - Do not unplug the cord by pulling on it.
   - Do not plug or unplug with wet hands.
   - Unplug from the outlet when you are not using the unit for long periods of time.
   - Plug the power cord directly into a wall outlet whenever possible. Use of extension cords and power dividers can cause malfunctions.
   - Do not use outlets that have other large electrical appliances, such as air conditioners and copy machines plugged in them.

■ To prevent electric shock
   Never remove the cabinet of this unit. Some components inside operate at high voltages and can cause severe electric shock if touched.

■ Keeping objects and materials out of the unit
   Make sure that no liquid is spilled or leaks into this unit and that no metal or inflammable objects fall inside since this can cause fire, shock, malfunctioning or accidents.

■ In case of accident or malfunction
   If the unit makes unusual noises or begins smoking, or if a foreign object gets inside the unit, unplug the power cord from the outlet and contact the dealer from which you purchased the unit.
Safety Precautions and handling

■ Proper places for use and storage
- This unit is to be used at temperatures between +5°C and +40°C and at relative humidities between 20% and 80%(with no condensation).
- Do not use or store the unit in an excessively hot or cold place.
- Do not use or store the unit in a dusty place or in direct sunlight.
- Do not use or store the unit in a place subject to excessive vibration or in an unstable place to prevent possible failures.
- Do not place the unit close to a system which generates strong magnetic fields (motor, transformer, television, loudspeaker, magnet etc.) to prevent malfunction.
- Do not close vents that may cause internal temperature to rise.
- Do not stack the units.
- Do not use in an enclosed (unventilated) area.

■ Precautions for connection
When connecting this unit to a personal computer or any other equipment, always first turn off the main power of the equipment to be connected.

■ Precautions for transportation
- Disconnect cables and remove any PC cards before transporting the unit.
- Use the cardboard box in which the unit was initially packed.
- This is a precision device. Do not subject to excessive shock or vibration.

■ Maintenance of the cabinet
- Do not use thinner, benzene, insecticide and other volatile substances to clean the cabinet as this may cause deterioration and delamination of the paint.
- Clean the cabinet and front panel with a soft cloth. Remove severe dirt with a soft cloth moistened with a small amount of neutral detergent diluted with water. Wipe dry after cleaning.
- Disconnect the power plug from the receptacle before performing any maintenance on the unit.
1. Product outline

This PC card drive is designed to be connected to a personal computer to read and write PC cards (ATA type II, CompactFlash, SmartMedia, and PCMCIA hard disks). A SCSI interface is used to enable the device to be connected to a Macintosh, IBM PC/AT compatible running Dos, Windows 95/NT/98, Sun Sparc and Sun Ultra Sparc, or other personal computers.

Using with Macintosh*

Connect the card drive to the SCSI port, the standard Macintosh hard disk interface. Some more recent Macintosh models (ex: G3, G4) may require the addition of a PCI SCSI board. Microtech recommends Adaptec SCSI boards. Use of the PCD-47 with a Macintosh requires the use of Macintosh mounting software to mount removable media such as PC cards, CompactFlash, SmartMedia, and PCMCIA hard disks. Microtech includes Software Architects DOS Mounter SE with the Macintosh version of the PCD-47 (part no: PCD-47-MAC). For owners of other versions of the PCD-47, this software can be purchased as an option through Microtech along with the reader, or may be purchased from a separate vendor. The software may also be purchased and downloaded online at:

http://www.softarch.com/go/online.html

Using with Windows*

If you do not already have a SCSI board installed, follow the installation instructions that come with your SCSI board. The manufacturer recommends Adaptec SCSI boards. For Dos, Windows 3.x Windows 95/NT/98, simply connect the PC Card reader to the SCSI board, or another SCSI device, turn on the PC Card reader’s power and reboot the computer. Your PC card reader will appear as a drive letter under “My Computer”. You may now insert PC cards and access them as you would a hard drive or floppy disk drive.

* The PCD-47 requires three SCSI IDs.
Using with Unix Systems‡

This page should explain the basic features of Unix, and pointers to Unix information, and mounting of Dos file systems.

Unix systems use a disk format that is different from Windows machines, and memory cards used in digital cameras. Most Unix systems require a special mounting procedure such as the following to access DOS formatted media:

```
mount - dev/scsi/dev000001 /dev/pccard
```

Each Unix system may vary slightly in the above mounting procedure, and it is assumed that the User understands how to use his/her particular system. For further assistance mounting DOS partitions on your particular system, type “man mount” at the unix shell prompt for more information on mounting. An example is shown below:

‡Note: Tech support for Unix systems is only available under special OEM contract and license.
2. Accessories

Packages contain the following items:

**PCD-47-MAC and PCD-47-PC**

- Macintosh floppy disk
- DOS Mounter SE - mounting software (included with external Mac version)
- SCSI cable
- Centronics 50 to HD50 (included with PC version)
- Users manual (this manual)
- Terminator
- Power cord

**PCD-47B (Internal)**

- Users manual* (this manual)
- 5.25" mounting kit*
- Screws
- Jumper
- Anti-static strap*

* Included only with retail version of PCD-47B.

**Other Accessories**

- Macintosh floppy disk
  - DOS Mounter SE - mounting software (included with external Mac version)
- SCSI cable
  - Centronics 50 to DB25M (included with Mac version)
- SCSI cable
  - Centronics 50 to HD50 (included with PC version)
3. Identifying the parts

This drive unit consists of the following parts:

FRONT PANEL

(1) Power Indicator Lamp
This indicator lights when power to the reader is turned “ON”.

(2) Access Indicator Lamp/Lock Indicator Lamp
These indicator lamps shows the access state of each slot. It lights during read or write operations (green). (With a Macintosh computer, this indicator flashes even when no card is inserted.) These indicators light when the inserted card is locked (orange). Do not remove the locked card from the drive.

(3) Eject Buttons
Pushing this button ejects the PC card.

(4) Card Slots
Type I, II, and III PC cards may be inserted, as well as SmartMedia and CompactFlash. Note that CompactFlash and SmartMedia have their own special slots.

(5) Power Button
The power switch is only featured PCD-47 external models. Internal models are activated when the host computer is powered on.
(6) Fan
When this switch is "on", the fan is active.

(7) SCSI connector
SCSI cable is connected here.

(8) Power connector
For external units, connect the power cord included in the package to this connector. Make sure that the connector is connected securely and properly. For internal units, connect to one of the computers internal power cords.

(9) SCSI ID Switch
Use this switch to set SCSI ID number. Do not to set the SCSI ID number to numbers already in use by the computer or other peripheral devices.

(10) SCSI ID pins
Use this to set the SCSI ID number. (internal units only) Place jumpers to set ID number. See above illustration for details.
4. Making connections with a computer

This drive unit connects to a computer through a SCSI cable. There are two types of connection depending on whether or not an additional SCSI device is to be used. These two cases are discussed later in this section.

Note: there are several physical forms of SCSI connector. The most common SCSI cable is included with external units. If you need a special SCSI cable, check the SCSI connector of the computer and SCSI device to be connected and procure a proper SCSI cable.

For connection with an IBM PC/AT compatible computer, a SCSI board must have been previously mounted in the computer. Consult the documentation that came with the SCSI board for installation instructions.

CAUTION: Turn off the power to the computer and SCSI device(s) before making the connections.

Use without other SCSI devices

Plug one end of the SCSI cable into the SCSI connector at the rear of the computer and the other into the SCSI connector at the rear of this drive unit. Securely plug the cable end into the connector then fix it with clamps or screws.

NOTE: For external units, use a high-impedance (100-ohm) type SCSI cable. Be careful not to use printer cables, as they can look like SCSI cables, but will cause malfunctions, and possible loss of data.
Termination

When this unit is the only device on the SCSI chain, or the last device on the SCSI chain, it must be terminated. External: attach the terminator to the SCSI connector not being used. Internal: Default is terminated. When the termination pin jumper is “off”, the unit is terminated. When the termination pin jumper is “on”, the unit is not terminated.

(1) External units come with an external terminator as shown in the above diagram. Internal devices come with termination pins, as shown in the right hand side of the above diagram.

Other Jumper Pins

(1) Jumper off: all three slots are active. Jumper on: only SmartMedia and CompactFlash are active (type III slot is disabled).
(2-3) Vendor unique usage
(4) Jumper on: firmware rewrite mode. Jumper off: standard use. firmware cannot be rewritten with jumper off. Jumper should remain off when the unit is in “regular use”. Unit cannot function normally with this jumper on. Jumper is only to be “on” when rewriting firmware.
Use with other SCSI devices

Since the SCSI standard supports connection to one computer and up to seven SCSI devices (including SCSI devices built into the computer), you can use several card drives in a series or connect the PCD-47 drive to other SCSI device(s) (the PCD-47 uses three consecutive SCSI IDs). Plug one end of the SCSI cable to the SCSI connector, and the other into the SCSI connector at the rear of this drive unit. Securely plug the cable end into the connector. The order of the SCSI devices to be connected can be changed.

* SCSI ID Settings Explained

The SCSI ID is a unique number assigned to each SCSI device. Therefore, two devices must not have the same ID number. The SCSI ID is independent of the order of physical device connection. In general, SCSI ID=7 is assigned to the computer and ID numbers 0 to 6 are available for other SCSI devices. Note that SCSI IDs may have been previously assigned to a disk drive, CD-ROM drive, or other built-in devices in the computer. To obtain this information, refer to the related computer and SCSI device manuals. Take care not to use the same SCSI ID number more than once.

* The PCD-47 uses 3 SCSI IDs. See “Setting the SCSI ID” for a table explaining the SCSI IDs.
NOTE: Change the SCSI ID number after turning off the power to this drive unit and computer. The new number will not become effective while power is still turned on.

Setting SCSI ID (external)

For external units, you can change the value on the ID number display window by turning the SCSI ID switch. If you encounter overlapping SCSI IDs, reassign the ID numbers. The initial default value “4” is assigned to all drive units in the factory before shipment. For internal units, set the SCSI ID with SCSI ID jumpers as shown in the diagram. In all cases, two consecutive SCSI ID numbers must be available.

A SCSI hint for Mac Users

SCSI ID=0 is assigned to the built-in hard disk drive, SCSI ID=3 to the built-in CD-ROM drive, and SCSI ID=7 to the computer before shipment. Therefore, SCSI ID=1, SCSI ID 2, SCSI ID=4, SCSI ID=5, and SCSI ID=6 are available for this drive unit.

It will therefore be necessary to pay close attention to the SCSI IDs on your Macintosh, as the PCD-47 requires three SCSI IDs. See “Setting SCSI IDs” for an explanation of SCSI ID usage.

NOTE: SCSI ID=3 is available when the Macintosh computer has no built-in CD-ROM drive. For an external CD-ROM drive, SCSI IDs other than “3” may be assigned. In either case, it is imperative to check the SCSI ID for all SCSI devices. Also, note that the SCSI ID for the built-in hard disk drive and the computer cannot be changed.
### SCSI ID Table

<table>
<thead>
<tr>
<th>ID setting</th>
<th>PCMCIA</th>
<th>SmartMedia</th>
<th>CompactFlash</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
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<tr>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Setting SCSI ID (internal)

To set the SCSI ID on internal units, set the three jumper pins as shown in the diagram. The default SCSI ID is 4 (5 and 6).
SCSI ID Settings for Windows Computers

SCSI IDs “0” and “1” may have been previously assigned to the built-in hard disk drive. Therefore, the value “2” is recommended as the first SCSI ID for this drive unit. For details, consult the manuals for your SCSI board.

To connect the power cable, plug the end of the power cord included in the package into the power connector on the rear of this drive unit, then plug the other end into the AC outlet (or the computers internal power connector for internal units). The cord should be firmly and securely connected and should be grounded before use.

Turning on the power

For external drives, turn on the power for this drive unit, then turn on the computer. For internal drives, after installation is complete, replace the computer case and securely fasten the case. Replace power cords and restart the computer.

Windows users may simply restart the computer and the unit will appear under “My Computer” “as three drive letters. The drive letters will vary depending on the configuration of the particular computer and the number of devices. For further instructions see the following section “Basic Operations (Windows)”.

Mactintosh Users should refer to the section “Using with a Macintosh Computer”. When the computer is ready, install the software driver in accordance with Section 6 “Using with a Macintosh computer” and Section 7 “Using with an IBM PC/AT compatible computer”. 

5. Installation (Windows)

Applicable environment
The PCD-47 can be installed in the following environments:
- SCSI board Adaptec SCSI board (recommended)
- Software driver Adaptec EZ-SCSI (recommended)
- Operating system MS-DOS 5.0 or higher
- Windows Ver. 3.x, Win 95/98, Windows NT

SCSI Card Installation

Follow these directions if you do not yet have a SCSI interface card installed. Although our reader should work with nearly one hundred percent of the SCSI interface cards on the market, we highly recommend using one of the Adaptec series. The following instructions were written for Adaptec cards and may or may not work for other card types. Refer to the SCSI card manual for details. Technical questions concerning other SCSI cards should be directed to the SCSI card manufacturer, not the PC Card reader manufacturer.

1. Shut down the system, and turn off the computer.
2. Unplug all cables connecting to the computer, and remove the case.
3. Install the Adaptec SCSI card into an empty expansion slot.
4. Make sure all connections are secure and re-assemble the computer along with all the cables.

Windows 95/98 and Windows NT Users

5. Simply power on the machine, and boot to Windows.
6. If windows doesn’t autodetect your SCSI card, then enter the control panel from the Start->Setup->Control Panel menu, and double-click on “add new hardware”.
7. Select the “Auto-detect hardware” option and wait for completion.
8. Windows NT users may need to consult the Windows NT manual for hardware installation.
External Reader Installation

1. Follow the directions above to set up your SCSI interface card unless you have already done so previously.
2. Close all applications, exit Windows to return to the command prompt (or shutdown Windows 95), and turn off the system.
3. Connect the reader to the SCSI bus.
4. Set the SCSI ID number in the back of the device to a number between 0 and 4. Be careful not to set it to a number already in use by another SCSI device. If this is your only SCSI device including internal SCSI hard disks, then any number will work.
5. Turn on the power to the reader and any other needed external devices.
6. Turn on the computer and boot to Windows.
7. Insert the PC card to be accessed.

NOTE: Make sure everything is connected properly, the terminator is in the correct position, and the SCSI ID is set to a number not currently in use by the system.

Internal Reader Installation

1. Follow the directions above to set up your SCSI interface card unless you have already done so previously.
2. Close all applications, exit Windows to return to the command prompt (or shutdown Windows), and turn off the system.
3. Set the SCSI ID number as shown later in this manual. Make sure that the SCSI ID number is not already in use by another SCSI device.
4. Connect the reader to the inside of your computer.
5. Turn on the computer and boot to Windows.
6. Insert the PC card to be accessed.
6. Basic operations (Windows)

This section describes the operation relating to PC cards. For installation, refer to Section 6 “Using with a Macintosh computer” and Section 7 “Using with a Windows computer”.

Inserting the PC card

1. Insert the PC card into the slot in the correct direction as shown in the figure below, then push the card in all the way until the eject button pops out.

![Inserting PC card](image)

2. Be careful not to insert the PC card in the wrong direction. If it is forced in, the slot or PC card may be damaged or data on the card may be lost. When inserting SmartMedia cards be sure to insert the SmartMedia with the gold contacts facing up. To insert CompactFlash cards, gently push the card in all the way until the card is locked in place. The card will slide in on the molded rails and a slight amount of resistance will be felt as the connectors make contact. This is normal.

Note for Mac users: With a Macintosh computer, the lock indicator lights first and then the PC card icon appears on the monitor. This is the “mounted” state, which enables read and write operations for the PC card. The time required between card insertion and mounting depends on the PC card. Usually, the PC card can be mounted within several seconds.
3. Using a Windows computer, three icons will appear under “My Computer” as a removable hard drive (a drive letter will also be assigned). Double click on an icon to open the drive. If media is not inserted when double clicking the icon, the message “Device not ready” will appear. Insert card and click “OK”.

4. When the PC card is not formatted, the following box appears. Clicking on the “Initialize” button causes the PC card to be formatted (initialized).

NOTE: When the PC card is used for a digital camera, the formatting should be performed on the camera.

5. For Windows computers, the lock indicator does not usually light even after a PC card is inserted. For a Macintosh computer, wait for several seconds to access the PC card.

Removing the PC card

Make sure that the access indicator and lock indicator are not lit, and that the card is not being accessed, then press the eject button to release the PC card. To remove the SmartMedia from the reader, press firmly but gently on the card, then release. The SmartMedia will pop out of the reader.
7. Installation (Macintosh)

Macintosh driver software is required to automatically mount digital film cards with the PCD-47 in a Macintosh environment. Microtech includes the driver software with the external Macintosh version of the PCD-47 only (part no. PCD-47-MAC). For owners of other versions of the PCD-47 (ex: part no. PCD-47B, or PCD-47-PC), this software can be purchased as an option through Microtech.

Functions of the Macintosh Driver

The Macintosh software driver mounts removable media such as digital film cards (ATA cards, SmartMedia and CompactFlash) on a Macintosh computer. This software provides the following functions:

- Automatically mounts the Macintosh formatted or DOS-formatted PC cards or other removable media (most digital cameras use DOS formats on their cards.).

NOTE: The DOS format is used by IBM PC/AT compatible computers and most digital cameras. The files stored on a DOS-formatted PC card are DOS files.

For instructions on installing the optional Macintosh driver software, please read the instruction manual that came with the software.

8. Basic Operations (Macintosh)

**The access indicator is lit**

In this case, the data is being read or written. Wait until the operations are complete; then remove the card. Removing the card during access operations will cause the data to be lost.
9. Firmware Upgrades

From time to time firmware upgrades may be made available as new computer systems, smartmedia cards, and digital applications become available on the market.

If firmware upgrades are made available, the necessary program files will be made available, along with the updated instructions, at http://www.microtechint.com/firmware/.

SCSI jumper must be “ON” to upgrade firmware. Jumper must be removed before unit can be used normally again.
When the lock indicator is lit

For Macintosh computers, the lock indicator lights when the PC card is mounted. Dragging the PC card icon and dropping it onto the trash icon ejects the PC card, deletes the PC card icon and turns off the lock indicator on this drive unit.

![Untitled Trash](image)

Do not remove the mounted PC card. If removed, the following message appears on the screen. Put the card back into the slot where it was.

![Warning](image)

NOTE: For Macintosh computers, the access indicator may flash on and off even after the eject operation. In this case, you can remove the PC card.

NOTE: Do not select the “Eject Disk” command from the “Special” menu to remove the card.

![Do not use](image)

For IBM PC/AT compatible computers, the lock indicator does not light in normal cases. You can remove the PC card when the access indicator is not lit.

NOTE: When you lock the PC card with the EZ-SCSI utility, the lock indicator lights. In this case, unlock the PC card with the same utility, then make sure that the lock indicator goes off before removing the PC card.
10. Troubleshooting

Before calling for repairs, please refer to the following chart for common problems and corrective measures. More up-to-date FAQs and hints may be found at our web site, shown at the end of this section.

### Windows Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Corrective Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>The power will not turn on.</td>
<td>The power is not connected to an outlet or computer.</td>
<td>Insert the power plug securely in an outlet or computer.</td>
</tr>
<tr>
<td>The computer hangs up at startup.</td>
<td>Non-standard SCSI cable is used.</td>
<td>Use a standard SCSI cable.</td>
</tr>
<tr>
<td></td>
<td>The SCSI cable is too long.</td>
<td>Use a standard SCSI cable (6m or less in length).</td>
</tr>
<tr>
<td></td>
<td>The settings for the SCSI board are not appropriate.</td>
<td>Revise the settings according to the SCSI board manual.</td>
</tr>
<tr>
<td></td>
<td>Loose connection at the SCSI connector.</td>
<td>Plug in the SCSI connector again.</td>
</tr>
<tr>
<td></td>
<td>The terminator is not activated.</td>
<td>Activate the terminator.</td>
</tr>
<tr>
<td>The PC card cannot be recognized.</td>
<td>The same SCSI ID is assigned to another SCSI device.</td>
<td>Power off all the devices then change the SCSI ID.</td>
</tr>
<tr>
<td></td>
<td>A terminator is included in another hard disk in a daisy chain connection.</td>
<td>Remove the terminator or deactivate the terminator on the PCD-47.</td>
</tr>
<tr>
<td></td>
<td>EZ-SCSI is not installed.</td>
<td>Install EZ-SCSI according to the EZ-SCSI manual. Check the CONFIG.SYS file for the proper setting.</td>
</tr>
<tr>
<td></td>
<td>The card is not properly inserted.</td>
<td>Insert the card properly.</td>
</tr>
</tbody>
</table>

* The PCD-47 uses three SCSI IDs. Please refer to the table showing ID selection and be sure you do not have SCSI ID conflicts.
## Macintosh Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Corrective Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Macintosh computer hangs up at startup.</td>
<td>Non-standard SCSI cable is used.</td>
<td>Use a standard SCSI cable.</td>
</tr>
<tr>
<td></td>
<td>The SCSI cable is too long.</td>
<td>Use a standard SCSI cable (6m or shorter).</td>
</tr>
<tr>
<td></td>
<td>The PCD-47 drive and other SCSI devices are not properly connected.</td>
<td>Change the cable connections.</td>
</tr>
<tr>
<td></td>
<td>The terminator is not activated.</td>
<td>Activate terminator.</td>
</tr>
<tr>
<td></td>
<td>The same SCSI ID is assigned to more than one SCSI device.</td>
<td>Turn off the power to the SCSI device then change the SCSI ID.</td>
</tr>
<tr>
<td></td>
<td>The PCD-47 drive has the same SCSI ID as another SCSI device.*</td>
<td>Turn off the power to the SCSI device then change its SCSI ID.</td>
</tr>
<tr>
<td>The PC card cannot be mounted (no icon is displayed).</td>
<td>The SCSI cables are not properly connected.</td>
<td>Change the cable connections.</td>
</tr>
<tr>
<td></td>
<td>The terminator is not activated.</td>
<td>Activate terminator.</td>
</tr>
<tr>
<td></td>
<td>DOS Mounter SE is not installed.</td>
<td>Install DOS Mounter SE in the system folder.</td>
</tr>
<tr>
<td></td>
<td>DOS Mounter SE is in contention with other control panels or extended functions.</td>
<td>Delete the suspect control panels or extended functions, or change their names and the startup activation order.</td>
</tr>
<tr>
<td></td>
<td>The card is not properly inserted.</td>
<td>Insert the card properly.</td>
</tr>
</tbody>
</table>

For online support: [http://www.microtechint.com](http://www.microtechint.com)

Support telephone: 800-666-9689 (toll-free US only)
Support telephone: +203-483-9402
Support e-mail: tech@microtechint.com
# 11. Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Card type:</strong></td>
<td>ATA cards, PCMCIA hard disks  CompactFlash  SmartMedia</td>
</tr>
<tr>
<td><strong>Card slots:</strong></td>
<td>one Type I/II/III, one SmartMedia  one CompactFlash</td>
</tr>
<tr>
<td><strong>Host interface:</strong></td>
<td>SCSI-II</td>
</tr>
<tr>
<td><strong>SCSI connector:</strong></td>
<td>External: 50 pin Centronics  Internal: 50 pin header</td>
</tr>
<tr>
<td><strong>Transfer rate:</strong></td>
<td>4MB/sec (asynchronous transfer)</td>
</tr>
<tr>
<td><strong>Power requirements:</strong></td>
<td>External: AC 100V to 240V, 50/60 Hz  Internal: 5v/12v DC  (Standard PC Connector)</td>
</tr>
<tr>
<td><strong>Power consumption:</strong></td>
<td>0.2A (internal)</td>
</tr>
<tr>
<td><strong>External Dimensions</strong></td>
<td>169 x 211 x 55 mm (2.5x7x8 inches)</td>
</tr>
<tr>
<td><strong>Internal Dimensions</strong></td>
<td>101.6 x 25.4 x 150 mm (4x1x6 inches)</td>
</tr>
<tr>
<td><strong>Weight:</strong></td>
<td>External: Approx. 4.3lbs/150 grams  Internal: Approx. 10.2oz/150 grams</td>
</tr>
<tr>
<td><strong>Ambient conditions for use:</strong></td>
<td>Temperature: +5°C to +40°C</td>
</tr>
<tr>
<td><strong>Humidity:</strong></td>
<td>20% to 80% (with no condensation)</td>
</tr>
<tr>
<td><strong>Agency Approvals:</strong></td>
<td>FCC, CE</td>
</tr>
</tbody>
</table>
Dimensions PCD-47B

**Top view**
- 165.4 mm

**Front view**
- 25.4 mm
- 101.6 mm

**Side view**
- 25.4 mm
- 147.8 mm
Dimensions PCD-47 External

55 mm

169 mm

211 mm
## SCSI Command Set

<table>
<thead>
<tr>
<th>Command name</th>
<th>Command Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Unit Ready</td>
<td>00</td>
</tr>
<tr>
<td>Rezero Unit</td>
<td>01</td>
</tr>
<tr>
<td>N/A</td>
<td>02</td>
</tr>
<tr>
<td>Request Sense</td>
<td>03</td>
</tr>
<tr>
<td>Format Unit</td>
<td>04</td>
</tr>
<tr>
<td>N/A</td>
<td>06</td>
</tr>
<tr>
<td>Read</td>
<td>08</td>
</tr>
<tr>
<td>Write</td>
<td>0A</td>
</tr>
<tr>
<td>Seek</td>
<td>0B</td>
</tr>
<tr>
<td>Inquiry</td>
<td>12</td>
</tr>
<tr>
<td>Mode Select</td>
<td>15</td>
</tr>
<tr>
<td>Start/Stop Unit</td>
<td>1B</td>
</tr>
<tr>
<td>Send Diagnostic</td>
<td>1D</td>
</tr>
<tr>
<td>Prevent/Allow Media Removal</td>
<td>1E</td>
</tr>
<tr>
<td>Read Capacity</td>
<td>25</td>
</tr>
<tr>
<td>Read</td>
<td>28</td>
</tr>
<tr>
<td>Write</td>
<td>2A</td>
</tr>
<tr>
<td>Seek</td>
<td>2B</td>
</tr>
<tr>
<td>Write and Verify</td>
<td>2E</td>
</tr>
<tr>
<td>Verify</td>
<td>2F</td>
</tr>
<tr>
<td>Read Defect Data</td>
<td>37</td>
</tr>
<tr>
<td>N/A</td>
<td>C0</td>
</tr>
<tr>
<td>N/A</td>
<td>C1</td>
</tr>
<tr>
<td>N/A</td>
<td>C2</td>
</tr>
<tr>
<td>N/A</td>
<td>C3</td>
</tr>
</tbody>
</table>
For more information on safety standards, please refer to the Precautions section on page 6, and the Safety Precaution and Handling section on page 7.
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