High Performance
PCMCIA Card Drive

PCD SERIES

PCMCIA Card Drive
User's Guide

REPAIR INFORMATION FORM

Please take a moment to note the following information. Include this form in the unlikely event that you need to return the product for warranty service. Refer to Section Seven for complete Warranty information and procedures on returning your product.

Product: _____
Serial Number: _____
Purchase Date: _____
Purchased From: _____
Your Name: _____
Address: _____
City, State, Zip: _____
Day-time Phone #: _____
Company Name: _____

Complete the following information **ONLY** after you have been assisted by a Technical Support Representative:

RMA Number: _____
Problem Description: _____
_____
_____
_____
_____
_____
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_____
_____

Contents

Section One - Introduction

The PCD Series PCMCIA Card Drives are high performance PCMCIA card readers/writers. The card drives accept Type I, Type II, Type III, and Type IV (Toshiba) cards. The card drives' two-slot configuration allow flexible accommodation of memory, I/O and mass storage PCMCIA devices. In addition, the drives also feature “HOT SWAPPING” allowing dynamic insertion and removal of PCMCIA cards. The card drives comply with the Personal Computer Memory Card International Association (PCMCIA) Release 2.1 as well as JEIDA 4.1 standards.

Minimum hardware requirements are an IBM AT (or better) fully compatible PC with 1 MB RAM running DOS 5.0 or higher and 1MB of free hard disk space.

Section Two - Installation

This section will provide step by step instructions on how to install your new PCMCIA card drive. Installation of this card drive is a two-step process consisting of actual hardware installation and PCMCIA software installation and configuration.

2.1 Unpacking Your PCMCIA Card Drive

Two models of PCMCIA card drives are available. Before you begin your installation, be certain that you have all the items listed below:

Items / Models	PCD-324	PCD-524
Host Interface Adapter	x	x
Card Drive Unit	x	x
Cable Assembly*	x	x
(or 2 flat ribbon cables)*		
Driver Diskette	x	x
5.25" bay mounting kit		x
User's Guide	x	x

**May already be attached to the Card Drive Unit for your convenience.*

2.2 Hardware Installation

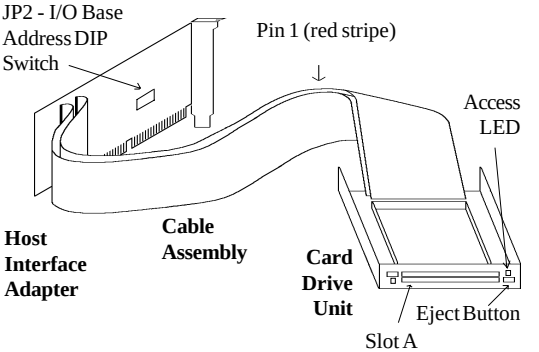
Installation of this PCMCIA card drive requires opening and manipulating your PC. Exercise caution at all times when working with AC powered and static-sensitive equipment. Turn off and unplug your PC before installation. Discharge any static electricity from your body by touching any metal surface.

1. Turn off your computer and all peripherals.
2. Make a note of the power cord and other cables connected to your computer and dis-

connect them.

3. Remove your computer's cover (refer to your computer's owner manual).
4. If the dual-cable Cable Assembly is not already factory-installed onto the Card Drive Unit, connect one end of the cable assembly to the Card Drive Unit. ***Be Certain that Pin 1 of the cables (indicated by a red stripe) is connected to Pin 1 on the connectors*** (refer to Figure 1). If your package is supplied with 2 individual cables instead, attach the cables to the Card Drive Unit (refer to Figure 1). ***Do not attach the other end of the cable to the Host Interface Adapter at this time.***

Figure 1 - PCMCIA Card Drive



5. Optionally, mount the 5.25" drive bay mounting kit to the Card Drive Unit if you have the PCD-524 Card Drive and intend to secure it in a 5.25" drive bay.
6. Insert the other end of the cable assembly (or the individual cables) through the front of an empty floppy drive bay. Continue

guiding the cable assembly out through the back of the drive bay. Slide the Card Drive Unit into the drive bay and secure it with the four mounting screws provided.

6. Attach the other end of the cable assembly (or the 2 cables) to the Host Interface Adapter (refer to Figure 1). ***Be Certain that Pin 1 of the cables (indicated by a red stripe) is connected to Pin 1 on the connectors.***
7. Optionally, change the default I/O Base Address using DIP Switch Block JP2 located at the center of the adapter (refer to Figure 1). The Host Interface Adapter's I/O Base address is factory set at 240H. If your computer contains another expansion card that also uses I/O Base address 240H, reconfigure the Host Interface Adapter using Table 1 to resolve the address conflict.

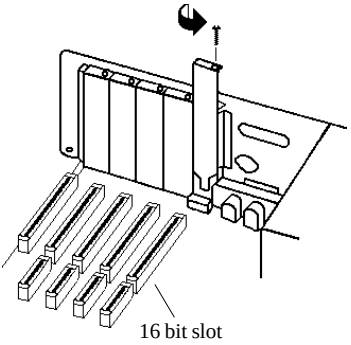
Table 1 - Base Address Switch Block JP2

Base Address (HEX)	SW1	SW2	SW3	SW4	SW5	SW6
210	OFF	ON	ON	ON	ON	OFF
220	OFF	ON	ON	ON	OFF	ON
230	OFF	ON	ON	ON	OFF	OFF
240 *	**OFF**	**ON**	**ON**	**OFF**	**ON**	**ON**
250	OFF	ON	ON	OFF	ON	OFF
260	OFF	ON	ON	OFF	OFF	ON
270	OFF	ON	ON	OFF	OFF	OFF
300	OFF	OFF	ON	ON	ON	ON
310	OFF	OFF	ON	ON	ON	OFF
320	OFF	OFF	ON	ON	OFF	ON
330	OFF	OFF	ON	ON	OFF	OFF
340	OFF	OFF	ON	OFF	ON	ON
350	OFF	OFF	ON	OFF	ON	OFF
360	OFF	OFF	ON	OFF	OFF	ON

***DEFAULT**

8. Select any free 16 bit expansion slot and then remove the slot cover (see Figure 2).

Figure 2 - Expansion Slot



9. Carefully install the Host Interface Adapter by firmly pressing the adapter into the expansion slot you have chosen, applying even pressure until the adapter is completely seated in the slot.
10. Fasten the retaining bracket with the screw from the slot cover. Make sure the adapter is properly aligned. Store the slot cover for future use.
11. Remove the floppy drive bay cover from the computer's front bezel so to expose the Card Drive Unit when the computer cover is replaced.
12. Replace the computer cover and reconnect the power cord and all cables.

2.3 PCMCIA Software Installation

Complete the following procedure to install the supplied PCMCIA Socket/Card Services

and other utilities. You may install the software from either drive A: or B:. The following example demonstrates installation from drive A:.

1. Insert the supplied driver disk into drive A:
2. Type A: **[ENTER]**
3. Type INSTALL **[ENTER]**

After you have installed the PCMCIA software, you must: **A)** exclude memory region D000-D7FF from your memory manager, and **B)** reboot your computer to load the Socket/Card Services and other utilities. ***Consult the README file on the driver diskette on how to exclude memory regions and other detailed information on the supplied PCMCIA software.***

The PCMCIA Socket and Card Services installation program allows selection of an I/O Base Address. The default I/O Base address is 240H. If you have changed the I/O base address during hardware installation, this parameter must be changed to match.

2.4 Testing The PCMCIA Card Drive

After you have installed the supplied PCMCIA software, your PCMCIA Card Drive performs a self-test whenever your computer is turned on or re-booted.

Section Three - Using PCMCIA Cards

PCMCIA cards are available in different physical sizes as well as functions. The PCMCIA Card Drive accommodates up to one Type II and one Type III card simultaneously. It can also accept a single Type IV (Toshiba) card alone. Type I cards

may also be used. The PCMCIA card drive supports all popular memory, I/O and ATA PCMCIA cards.

PCMCIA memory cards are available as either SRAM or Flash memory cards. PCMCIA I/O cards include modem, network, and SCSI cards. ATA drive cards are available either as solid state or rotating disk devices. Certain ATA drive cards are based on Flash memory technology but are designed to present themselves to the computer as ATA rotating disk devices.

In general, memory and ATA cards need to be formatted before they can be used. Formatting a memory card consists of applying a particular **FILE SYSTEM** to it. There are three types of file systems currently in use for memory and ATA cards:

File Allocation Table (FAT) - This is the standard DOS file system; it is placed on SRAM and ATA cards. A FAT file system is required for booting DOS from these cards.

Flash File System version 2.0 (FFS2) - A special file system developed by Microsoft for use with FLASH memory cards. DOS can not be booted from a FFS2 formatted card, however, FFS2 does allow deletion of individual files.

Flash FAT - A special FAT developed specifically for Flash memory cards. Due to the nature of how Flash memory works, individual files can not be deleted easily, however, DOS can be booted from a Flash FAT formatted card.

I/O cards in general duplicate all characteristics of the devices they replace. Therefore an

I/O base address and IRQ line must be assigned as they normally require. Exercise care at all times to avoid any address and IRQ line conflicts with the installed ISA expansion adapters in your computer.

Consult the **README** file on the driver diskette for additional information on how to utilize these PCMCIA cards with your card drive.

Section Four - Troubleshooting

This section describes some of the common problems you may encounter while using your PCMCIA card drive. You should also make sure that the PCMCIA card you are using is fully functional before proceeding with the following troubleshooting information. If you can not resolve your difficulty after reading the following and the PCMCIA card is in fact fully functional, contact your dealer or vendor for assistance.

Most PCMCIA card drive failure after installation is caused by: **A)** I/O base address and IRQ line conflict, **B)** Incorrectly installed PCMCIA software, **C)** Not excluding a memory region when using a memory manager, **D)** Incorrect modem/ network parameter settings, and **E)** Network cable problems. ***Run the ASSIST.COM program on your driver diskette for complete troubleshooting information.***

4.1 I/O Base Address and IRQ Conflict

Make sure that the I/O address and IRQ used by the Host Interface Adapter is not already in use by another device in your PC. Other adapters in your system may already use address

0240H (example: sound/audio card). Vary the settings on your Host Interface Adapter using Switch Block **JP2** according to Table 1 (refer to Section 2.2). You must also rerun the PCMCIA software installation program and specify the new Base I/O address so that the PCMCIA software is properly configured.

The Host Interface Adapter uses IRQ11 as the default Interrupt Request Line and can not be changed. Other adapters in the computer must not use the same IRQ line.

4.2 Incorrectly Installed PCMCIA Driver

The included PCMCIA software initiates the card drive's Self-Test and returns other important messages when properly loaded. Be certain that the self-test passes and the software does not return an error message when initially loaded. You may also need to load additional software for your particular PCMCIA card. Follow the card manufacturer's instruction on loading the additional driver.

4.3 Not Excluding Memory Region D000-D7FF

The PCMCIA Card Drive uses the memory region D000-D7FF by default. This memory region must be excluded from usage by other programs, including memory managers. If you are running Microsoft's memory manager, make sure that the **x=D000-D7FF** or **x=D000-DFFF** parameter appears in the DEVICE=EMM386.EXE entry in your CONFIG.SYS. Refer to the ***README*** file on the driver diskette for additional information.

4.4. Incorrect Modem/Network Parameters

Modem PCMCIA cards and other I/O cards such as network and SCSI cards require their own Base I/O address and IRQ lines. Be certain that other expansion cards in the computer do not use the same Base address and IRQ line as the PCMCIA modem and network card.

4.5 Network Cable Problems

Make sure that the network cable connection is fully functional. Try connecting another computer known to function on the network at the same connection.

Section Five - Specifications

PCMCIA Standard:	PCMCIA Release 2.1, JEIDA 4.1, ExCA 1.5
Host controller:	DATABOOK DB86082 (TCIC-2/N)
Host Interface:	16 bit ISA bus
Slot Configuration	Type I, II, III, and Type IV; 2 Slots; accepts one Type II and one Type III device simultaneously, or one Type IV (Toshiba 16 mm) device alone.
Card activity LEDs:	2 LEDs
I/O address:	210, 220, 230, 240, 250, 260, 270, 300, 310, 320, 330, 340, 350, 360
IRQ line:	11
Self-Boot:	Optional boot ROM
Power:	1.47 W_{min} (133mA @ 5V ,67mA @ 12V)
	2.75 $W_{typical}$ (250mA @ 5V, 125mA @ 12V)
Temperature:	0 to 55 degrees C (Operating); -20 to 80 degrees C (Non-operating)
Dimensions:	6.4" x 3.6" (Host Interface Adapter)
	5.9" x 4.0" x 1.0" (Card Drive)

Section Six - Technical Support

In the unlikely event you experience difficulty in the use of the

product, or if it does not operate as described, we suggest you: (1) consult the Troubleshooting section of this guide and (2) consult with your dealer.

You may also reach us through our electronic BBS. Any revisions or updates of available drivers will be posted on the BBS. This service is available 24 hours a day at (201)579-2380

If you have not referred to the Troubleshooting section, there is a good chance the solution to your problem is there. If you still can not solve the problem, call the Service Center at (201) 579-2954 between 9:00 a.m. and 5:30 p.m. (EST Monday through Friday). ***If the nature of your question is related to the network operating system that you are using, refer to its manual.*** Calling the Service Center without complete and accurate information concerning the **NATURE OF THE PROBLEM** will be both time-consuming and frustrating for you.

Section Seven - Warranty, FCC, And Other Information

7.1 Five Year Limited Warranty

Maxtech warrants to the original buyer of this product against defects in material and workmanship for five years from the date of purchase. During the warranty period, Maxtech will repair (or at its option, replace) the product that proves to be defective, provided the product has not been abused, misused, modified, or repaired by an unauthorized center.

In the event the product requires service, follow the procedure outlined in ***Section Six - Technical Support***. When you are instructed by the Technical Support Representative to return the product for repair, you will be given an RMA (Return Merchandise Authorization) number. You ***must have an RMA Number to return the product for service***. Use the following procedure to return the product:

1. Return the product in its original package and packing (if possible), and put it in a sturdy corrugated box.
2. Be sure to complete the Repair Information Form, including your name, address, day-time telephone number, RMA number, and a brief description of the problem (also enclose a check for out-of-warranty repair). Enclose your check or Postal Money Order for $7.50 to cover the cost of return shipping/handling. Please do not

send cash or stamps. RMA received without the $7.50 fee will not be processed.

4. After wrapping the package securely for shipping, print your name, return address and the RMA # **clearly** on the outside of your package.
5. Ship the unit prepaid via UPS or the U.S. Postal Service to the address provided by the technician. We recommend that the unit be insured.

This warranty is valid for products sold in North America only. Contact your local authorized distributor or dealer for the warranty offered in other areas.

All warranty services must be performed by Authorized Service Centers. There are no user serviceable parts inside the unit. Do not remove any components or attempt to service the unit by any unauthorized service center. This warranty is voided if the product has been abused, misused, modified, or repaired by an unauthorized service center.

7.2 FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

7.3 Disclaimer, Copyright, And Other Notices

The information contained in this manual has been validated at the time of this manual's production. The manufacturer reserves the right to make any changes and improvements in the product described in this manual at any time and without notice. Consequently the manufacturer assumes no liability for damages incurred directly or indirectly from errors, omissions or discrepancies between the product and the manual.

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