

***e*Film Reader-20**

CompactFlash Type I/II,
SmartMedia, Secure Digital,
MultiMediaCard, Memory Stick
USB 2.0 Internal Reader/Writer

User's Manual

For Windows XP / 2000 / ME / 98 / 98 SE



Delkin Part No. DDREADER-20

To prevent damage to the module or user, follow these basic handling guidelines

- Do not drop, bend or dismantle the module.
- Keep cool and dry. Avoid exposure to heat or liquids.
- Avoid dust, excessive vibrations and volatile substances.
- Keep away from electromagnetic sources, such as magnets, monitors, speakers and transformers.



© Copyright Delkin Devices, Inc., All rights reserved. No part of this publication may be reproduced in any form, or by any means without prior written permission of Delkin Devices, Inc.

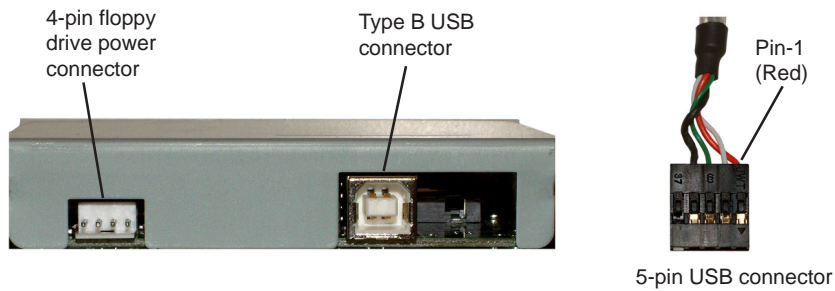
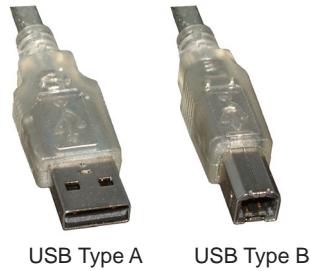
Delkin Devices, and eFilm are registered trademarks of Delkin Devices, Inc. All other brand names, trademarks and part numbers are the property of their respective owners. They are used for identification purposes only, and in no way imply ownership by Delkin Devices.

Table of Contents

Introduction1
 Included Components1
 Driver Software Installation for Windows1
 Hardware Installation2
 Inserting a Card3
 Basic Operation4
 Removing a Card4
 Formatting a Card5
 USB 2.0 Compatibility5
 Operational Notes5
 Network - Windows Drive Letter Assignment6
 Windows Troubleshooting7

The **eFilm Reader-20** will accept CompactFlash Cards of Type I (3.3mm) and Type II (5.0mm) including IBM Microdrives, SmartMedia(3V), Secure Digital/MultiMediaCards & Memory Stick.

It's 'hot swappable' - You can insert and remove cards without the need to shut down the computer.



Introduction

Thank you and congratulations on your purchase of the eFilm Reader-20 USB 2.0 Internal Reader/Writer. Before you begin use of this product, please take some time to read all instructions and warranty information.

The Reader-20 is designed to read and write to Compact Flash Cards Type I and II, including the IBM Microdrive, SmartMedia, Secure Digital, MultiMediaCard and Memory Stick. It is a convenient bridge between your PC and removable media applications. All media cards are accessed as removable drives. The Reader will appear as four separate drive icons in *My Computer*, one for each slot. A custom icon program is included to provide an identifying icon for each of the four different card slots.

Please look to our website at <http://www.delkin.com> for FAQs and current information on compatibility issues as well as the latest drivers.

Included Components

- eFilm Reader-20
- Driver CD
- Manual
- Type B to Type A USB Cable
- Type B to 5-pin USB Cable

System Requirements

IBM compatible desktop PC

- Windows XP / 2000 / ME / 98 / 98 SE
- Internal 5-pin USB header, or Type A USB socket
- USB 2.0 host controller w/driver
- One available 3.5" drive bay
- One available 4-pin floppy drive power cable

Special Handling Instructions

- NEVER attempt to install or remove internal components with the power on.
- Keep the Reader-20 in its static-resistant envelope until the time of installation.

Driver Software Installation for Windows®

Windows® XP / Windows ME

Driver installation is not necessary for the Windows XP and Windows Millenium (ME) operating systems. When the Reader-20 is connected to the USB port, the computer will detect the new hardware and install the required drivers automatically. The Reader-20 uses the MSD (Mass Storage Device) specification, which these operating systems support by default.

Windows® 2000 / 98 / 98 SE

Before connecting the device, you must install the device driver located on the accompanying CD-ROM. To avoid compatibility issues, install only the Reader-20 driver. On Windows 2000 systems, it is recommended that you install the latest service pack.

1. Start Windows and insert the Delkin Devices driver CD-ROM. Close any other applications during installation.

2. Click *eFilm Reader-20* from the product list to open the installation window for the Reader-20. (See Figure 1)
3. Click the *INSTALL* button and follow the on-screen instructions. For best results, allow driver to be installed into default locations.
4. If desired, click the *INSTALL* button in the right corner to add the custom icon program. These icons will help you identify which drive letter in My Computer corresponds to which media card slot.



Figure 1

Hardware Installation

Installing the eFilm Reader-20 will require opening your PC and configuring your hardware. Refer to your computer's manual for disassembly/assembly instructions.

1. With the power off, disconnect the power cord and remove the cover from your computer. Touch a bare -metal part of your computer to discharge static electricity.
2. Slide the Reader-20 into an available 3.5" drive bay, and secure it with screws.
3. Connect an available 4-pin floppy drive power cable from your computer to the power connector on the reader. (See Figure 2)
4. The reader is supplied with two different types of USB cable. One can be used to connect the reader to the motherboard USB header (5-pin connector). The other can be used to connect the reader to a USB add-in card (Type A connector). Connect the Type B connector of the desired cable to the Type B USB connector of the reader. (See Figure 2)
5. Motherboard: Locate the 10-Pin USB header (two five-pin rows). The location of this header will vary between different motherboard brands. Connect Pin 1 (red wire) of the five-pin USB cable to Pin 1 of one of the two 5-pin USB headers (See Figure 3). Please verify pin-out before turning on your system. On some systems you may need to disconnect one of the auxiliary USB ports if the header is occupied.
Add-in Card: Connect the Type A USB connector to the Type A USB socket of your add-in card. This socket will be the same as those on the back of your computer.
6. Turn the system on and check that the power LED lights up. The reader will appear as four new drive icons in My Computer - one for each card slot.

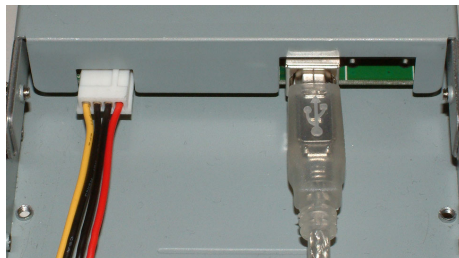


Figure 2

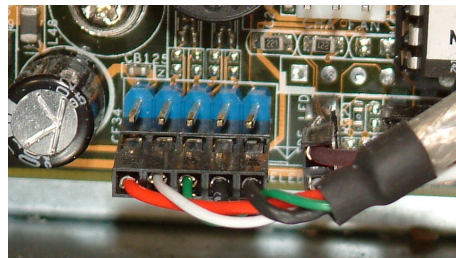


Figure 3

Inserting a Card

All slots can be used simultaneously to transfer files from card to computer or card to card. To avoid damaging the cards or the reader, do not use force when inserting cards.



Figure 4:
Inserting CompactFlash card

- To insert a CompactFlash Type I, Type II or Microdrive, position the card with the arrow side up and toward the reader. Insert the card gently but firmly into the slot labeled CF / Microdrive.



Figure 5:
Inserting SmartMedia card

- To insert a SmartMedia card, position the card with the gold connector side up and the notched end toward the reader. Insert the card gently but firmly into the slot labeled SM.

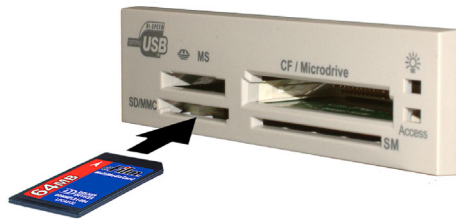


Figure 6:
Inserting SD-MultiMediaCard

- To insert a Secure Digital or MultiMediaCard, position the card with the gold connector side down and the notched end toward the reader. Insert the card gently but firmly into the slot labeled SD/MMC.

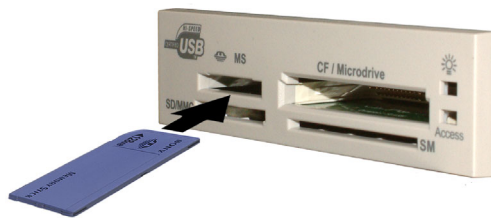


Figure 7:
Inserting Memory Stick

- To insert a Memroy Stick, position the card with the gold connector side down and the tapered end toward the reader. Insert the card gently but firmly into the slot labeled MS.

First time CompactFlash card use on Windows

When a CompactFlash card is first installed under Windows, an ADD NEW HARDWARE Wizard will appear. In most cases, the software will be loaded automatically. Otherwise, it will be necessary to select a driver during the hardware setup. The correct driver to select is - *Standard IDE/ESDI Hard Disk controller*.

Basic Operation

- To avoid possible picture loss, it is recommended that you transfer picture files to your computer hard drive before accessing or editing them.
- Using transfer software supplied with your camera is not recommended for use with the reader, as most of these programs are designed specifically for your camera.
- Making changes to, or re-naming a file on the card may make the file unrecognizable to the camera if the card is put back in the camera for viewing.
- The Reader-20 does not make any changes to the card or files while the files are being accessed or transferred. Files are copied or moved exactly as they are read by the reader.
- In order to view picture files, such as JPEG or TIFF formats, you will need a software program (not included) that can view or edit these files. Most operating systems include software that can view pictures. Some brands and models of digital camera use proprietary formats for storing picture files and will require additional software to view the pictures. Refer to your device manual for more information.
- When transferring files to a common location on your computer, it is recommended that you re-name the files to avoid overwriting previous pictures. Most cameras number the picture files and begin at 001 when a blank card is inserted, which can result in two or more files having the same name, prompting you to overwrite.

Accessing Files

The Reader-20 will appear as four *Removable Disk* drive icons in *My Computer*. The driver CD contains a custom icon program that, if installed, will provide an icon identifying the media type for each slot. All card slots can be used concurrently to transfer files from card to computer or from card to card.

To copy files from your card to your hard drive or vice versa:

1. Double click the appropriate *Removable Disk* icon in *My Computer*.
2. Simply drag and drop folders or individual files to a desired location.

Once the files are safely copied to your computer, the files on the card can be deleted to clear the card for more pictures.

Removing a Card

To prevent errors, close any open files residing on the card.

- **DO NOT** remove the card while files are being accessed or transferred. This could result in loss of data and/or damage to the card. Use the Eject command from the file menu before removing the card. The red Access light will blink during card access or file transfer.

To remove a card, simply pull it from the reader.

Formatting a Card

Although most cards are factory formatted, some devices may require the card to be formatted in the camera or device before initial use. Some devices use a proprietary format that will make the card unrecognizable to the reader or camera.

- Formatting a card will erase all pictures or files on the card.
- Formatting should be performed in the camera to insure compatibility.
- Formatting should not be used to clear unwanted files from the card.

If you do wish to format a card with a computer, perform the following steps:

1. In My Computer, right-click on the appropriate *Removable Disk*.
2. Select *Format* and follow on-screen instructions.

Note: The default File Allocation Table (FAT) used by Windows 2000 and XP to format the card may be FAT 32, which will make the card unusable in most cameras and digital devices. Make sure that FAT 16 or just FAT is selected when formatting cards.

USB 2.0 Compatibility Notes

At up to 480Mbps/s, USB 2.0 is rated 40 times faster than USB 1.1. To take advantage of this increase in speed, your computer system will require USB 2.0 compliant components. These include a USB 2.0 host controller built into the motherboard or a USB 2.0 add-in card such as one of the many USB PCI cards available.

The USB controller will also require a driver to function properly. Drivers for Windows XP and 2000 are available from Microsoft. Drivers for Windows ME and 98/98 SE will have to be supplied by the manufacturer of the motherboard or add-in card.

Actual transfer rates may vary depending on other factors such as card read/write speed, computer hard drive and processor speed, etc.

Operational Notes

Your new Reader is part of a system of components that must function correctly and compatibly in order to complete the simple process of moving files from your device to your computer. The components involved are the Reader, Camera, Storage Card, Computer (and its numerous components), USB interface, Software Drivers, and Operating System. The Reader-20 is compatible with all cards that follow the specifications presented by their various regulatory organizations, such as the CompactFlash Association, SSFDC forum and MultiMediaCard Association.

- A corrupt file on your card can cause a device failure or system crash when transferring files to your computer. Recovery programs such as Scandisk can be used to detect and repair most disk errors. It may also be necessary to re-format the card, which will erase all files stored on the card. Some of the causes of file corruption are:
 - > Unsteady power supply while transferring files, such as a low camera battery or improperly connected reader.
 - > Card removal or power interruption while transferring or accessing files.
 - > Improperly formatted card.

- Minor malfunctions while using the Reader-20, such as system hangs, can usually be resolved by simply re-booting the computer. Serious or recurring malfunctions may require re-installation of the Reader-20 drivers.

Network Conflicts - Windows®

The following procedure may be necessary when installing the e-Film Reader-20 onto a computer connected to a network. In some cases, the computer may assign the Reader-20 drive letters that have already been assigned to another drive, such as a network or peripheral drive. This usually occurs after re-booting the computer with the Reader-20 connected. This conflict can be avoided by changing the drive letter assignment for either the reader or the network drive. For more information, contact your network administrator. If your computer is not connected to a network, and there are no drive letter conflicts, these steps will not be necessary.

Windows ME and 98

1. Take note of the drive letters assigned to the reader and any network drives. The Reader-20 will show up as four removable disk icons in *My Computer* - one for each card slot.
2. Right click the *My Computer* icon on the desktop.
3. Select *Properties* from the menu.
4. Click the *Device Manager* tab.
5. Click the plus sign (+) next to *Disk Drives*.
6. The card slots will be listed as *SMSC USB 2 HS-CF USB Device*, *SMSC USB 2 HS-MS USB Device*, *SMSC USB 2 HS-SD/MMC USB Device* and *SMSC USB 2 HS-SM USB Device*. (See Figure 8)
7. Double click one of the drives to bring up a properties window and click the *Settings* tab.
8. In the section labeled *Reserved drive letters*; use the arrow to select and assign a *Start drive letter* (the *End drive letter* will change as well). Select a letter that does not conflict with any other drives. This is best accomplished by selecting a letter that is farther down the alphabet than any of your network drives. You will need to re-boot for the changes to take effect.
9. Repeat the procedure for the other card slots.

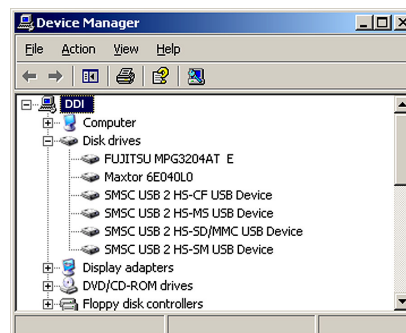


Figure 8

Windows XP and 2000

The drive letters assigned to the Reader-20 can be manually assigned through *Disk Management*, located under *Administrative Tools*. You must be logged on as System Administrator before you can make these changes.

Troubleshooting

This is a very basic troubleshooting list. If your problem isn't solved by those listed, please visit our web site <http://www.delkin.com> for FAQs and current information on compatibility issues as well as the latest software drivers. Or see the back page for contacting Tech Support.

Windows

SYMPTOM	CAUSE	SOLUTION
The <i>Removable Disk</i> icon does not appear in the <i>My Computer</i> window or are not accessible.	<p>The driver software may not have been properly or fully installed .</p> <p>The reader is not connected properly.</p> <p>The card is not inserted fully or is upside down.</p> <p>The operating system needs to be updated with the latest Service Pack (Windows 2000)</p>	<p>Reinstall the driver from the Driver CD or download the driver from www.delkin.com</p> <p>Check that Pin 1 matches on the connector and header.</p> <p>Remove and reinsert the card using the card insertion guide on page 3.</p> <p>Download and install the latest Windows 2000 Service Pack. Download the full "Network" version - the Windows Update may not include all bug fixes.</p>
The reader doesn't appear to be powered.	Loose or improper cable connections.	Check all cable connections and power cords. The reader requires a 4-pin floppy drive power cable to supply power.
I've just received the dreaded Windows "Blue Screen".	<p>The card has been removed while a file is still open on the card.</p> <p>The card was removed during a read/write operation.</p>	<p>Recover if possible. But more than likely you'll need to restart Windows.</p> <p>Wait 5 to 10 seconds after any activity before removing the card. To avoid problems, you can copy the data to the hard drive before accessing it.</p>
I formatted the card in the reader and now my camera or other digital device does not recognize it.	The card has been formatted using an unsupported file system, such as FAT 32. FAT 16 is the standard used by most digital devices. (FAT = File Allocation Table)	Reformat the card making sure to use FAT 16, or just FAT. Windows XP formats using FAT 32 by default, so FAT must be selected manually.

Test Drive Your Equipment

We advise that you put all of your equipment through a dry run before transferring important or irreplaceable files. This will not only insure that your equipment is functioning, but will also familiarize you with the transfer process.

Copy a few files to the card using your camera or digital device. Then insert the card into the reader and use the transfer method you are most comfortable with – drag and drop, copy and paste, etc. Some devices, such as MP3 players, require third party software to access files. Refer to the device manual for information. Once the files are stored on your hard drive, access them one at a time and check that they are to your satisfaction. Experiment until you are happy with the results and comfortable with the process. Then you can simply delete the test files from the card to return it to its original state.

Specifications

DD MFG Part Number: DDREADER-20

Compatible Cards: CompactFlash Type I and Type II, SmartMedia,
Secure Digital, MultiMediaCard, Memory Stick,
IBM Microdrive

Compatible OS: Windows XP/2000/ME/98/98 SE

Host Interface: USB 2.0 (Universal Serial Bus) internal header, or
PCI Add-In Card with Type A USB connector

Transfer Rate: Up to 480Mbits/s

Dimensions: 101mm (W) x 135mm (L) x 25 (H)

Weight: 230g (Drive Only)

Operating Temperature: 0 to +60°C

FIVE YEAR PRODUCT WARRANTY

Delkin Devices, Inc. (DDI) warrants that this product has been thoroughly tested and is free from defects in material and workmanship. This warranty is expressly limited to product repair, modification, or replacement, at the sole discretion of DDI. The maximum liability for any aspect of this warranty will be limited to an amount not exceeding the original product purchase price.

This warranty is contingent upon proper use of the product in the application for which it is intended and does not cover any product that has been modified, mis-used, neglected or subjected to unusual physical stress. DDI will not repair or replace products that fail solely because their estimated 'life' has expired.

The defective product must be returned to DDI. All shipping costs/ shall be the responsibility of the purchaser. State and local laws may apply.

You will need a Return Merchandise Authorization (RMA) number before you return the product. Please contact DDI for assistance in getting an RMA number.

Disclaimer

Except as provided herein, there are no express or implied warranties of merchantability or fitness for a particular purpose. Under no circumstances will DDI be liable in any way for any damages, including but not limited to lost revenue, lost wages, or any other incidental or consequential damages arising from the use of or inability to use this product.

The warranty set forth above is exclusive and no other warranty, whether written or oral, is expressed or implied.

Delkin reserves the right to change specifications of hardware, software and instructions without notice.

Delkin Devices does not extend warranty to batteries. If batteries are supplied with the product, it is as a convenience only, and as such, are covered by the battery manufacturer's warranty.

100% COMPATIBLE GUARANTEE

All Delkin Devices products are 100% guaranteed compatible with OEM machines for which they are designed.

TECHNICAL SUPPORT

Delkin Devices can provide technical assistance with installation of a Delkin Devices product. Any phone/e-mail charges are the responsibility of the purchaser.

CONTACTING DELKIN DEVICES

For Technical Support or Warranty information you can contact Delkin Devices by:

- phone at 858-391-1234 (9:00AM to 5:00PM PST Mon-Fri)
- e-mail at ddtech@delkin.com.
- on the web at <http://www.delkin.com>