FCC ID: EENDP309807

Onstream product

EXHIBIT NEEDED FOR FCC CERTIFICATION
EUT: OnStream; Type: DP30

Draft copy of the operating instructions

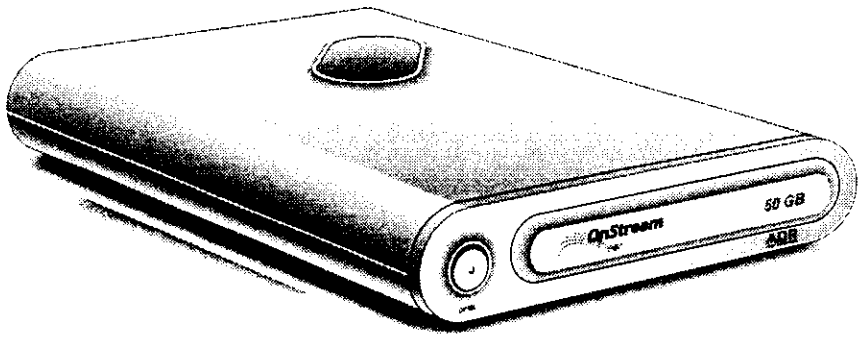
FCC ID: EENDP309807

OnStream

ADR

OnStream DE-50

Advanced Digital Recording



INSTALLATION MANUAL

Attention: The DE-50 Type number has been changed into DP30

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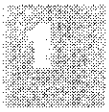

1 Introduction

Congratulations on purchasing the OnStream DE-50 tape drive. Starting straight away after installation, you will be able to simplify all of your archiving and storage needs using a single easy to use drive! With just 1 tape cartridge, you have effectively expanded your hard disk capacity by 30 GBytes* ! Enough room to meet the needs of even the most data hungry PC user.

OnStream DE-50 is supplied with the two software packages which completely service all the backup features you may need, without you ever worrying about what you need to back up and when. Once you have set the directories that you want to backup, that's it! The rest is done automatically, and in fact you don't even need to remember which cartridge a particular file is on - your PC will tell you where it is.

OnStream DE-50 is a high speed drive, which to your PC looks just like another storage device, so you can use it just like you do your hard drive in Windows Explorer. With each cartridge holding up to 30 GBytes*, it's simple and fast to back up ***all*** your files. Typically, a 3 GByte hard drive can be backed up in around 25 minutes. There's no easier way to protect all your valuable data. And OnStream DE-50 has another interesting feature in that it can, in conjunction with a video card, play and record digital video bitstreams with data rates up to 16 Mbit/s. This gives unsurpassed video quality for all multimedia purposes.

OnStream DE-50 is a Plug-and-Play device suitable for PCs which are running Windows 95 or Windows NT. This makes it very easy to install and get running. This manual will guide you through the installation process from start to end. If you are an experienced PC user used to installing peripherals to a PC, much of this manual may be familiar to you and some of it you can skip. However, all users should read the sections labelled with this symbol:

** Assuming a compression ratio of 1:2*

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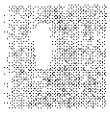
CHAPTER 1
Introduction



These are important points which should be noted. If you are not familiar with installing computer equipment, we recommend that you follow this manual carefully in the chapter sequence to make sure that your OnStream DE-50 is properly installed.

Please note that this manual describes only the installation process for the OnStream DE-50 drive and software. The user manual for the 1Disk Plus and 1Safe software supplied with the drive is included as a separate Adobe Acrobat PDF file on the installation CD-ROM, and is installed along with the software. Adobe Acrobat Reader is also included on the OnStream DE-50 installation CD-ROM. You can choose to install it when you install the software. If you already have Adobe Acrobat Reader, make sure you have version 3.0 or later - if not, then choose to install it when you install the OnStream DE-50 software.

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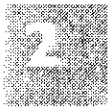

2 Before you start

This chapter outlines everything that you need to get your OnStream DE-50 up and running.

2.1 Box contents

Check that the box contains all of the following items before you proceed. If any of these are missing, contact your supplier before attempting to install OnStream DE-50.

1 OnStream DE-50 drive
2 CD-ROM disc containing the instalation software
3 OnStream DE-50 data cable
4 Power supply

We have taken every care to ensure that OnStream DE-50 is packaged to avoid any damage to the contents. If you do find that the contents are damaged in any way, contact your supplier immediately.

Please retain the packaging of your OnStream 50! This will minimize problems in the unlikely event that you need to return the drive for service or repair. OnStream cannot accept any responsibility for damage incurred during shipment - the original packaging is the safest way to make sure that the product is delivered undamaged.

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CHAPTER 2
Before you start

2.2 PC Requirement

To successfully install OnStream DE-50, you need to have an IBM compatible PC with the following:

- ✔ 486* or any Pentium™ processor
- ✔ A CD-ROM / CD-R / CD-RW / DVD drive
- ✔ At least 16 MBytes of RAM
- ✔ Microsoft Windows 95/98, or Windows NT
- ✔ 5 MBytes of hard disk space for installation

* a 486 processor is the minimum requirement for typical data backup operations. However for playing high bit rate video streams, a Pentium™ processor of 200 MHz or higher is recommended.

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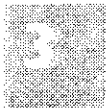

3 Preparing to install

This chapter outlines all the steps you need to take before installing OnStream DE-50.

3.1 Precautions

OnStream DE-50 is a precision electromechanical device. Like all computer equipment, it requires reasonable care in its installation and use.

- ❑ Read this manual carefully and keep it for future reference.
- ❑ Before you install the OnStream DE-50 drive, make sure it is not exposed to excessive heat, placed near high current electrical apparatus or strong electromagnetic fields generated by e.g. microwave ovens.
- ❑ Do not allow any liquids to enter the OnStream DE-50 unit.
- ❑ Do not attempt to open the OnStream DE-50 unit. This will cause the warranty to be void.
- ❑ Do not drop, jolt or expose the OnStream DE-50 unit to excessive force.
- ❑ Static electricity can be fatal to electronic devices. Your OnStream DE-50 is a sealed unit and the casing is earthed to prevent damage, so that it cannot become live. Do not attempt to touch any of the components within the drive. To make sure that you are not charged with static electricity, earth yourself by touching a grounded object before installing the unit.

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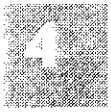

4 The OnStream DE-50 drive

This Chapter outlines the OnStream DE-50 drive layout.

4.1 Front panel

The OnStream DE-50 front panel is shown in Figure 4.1.

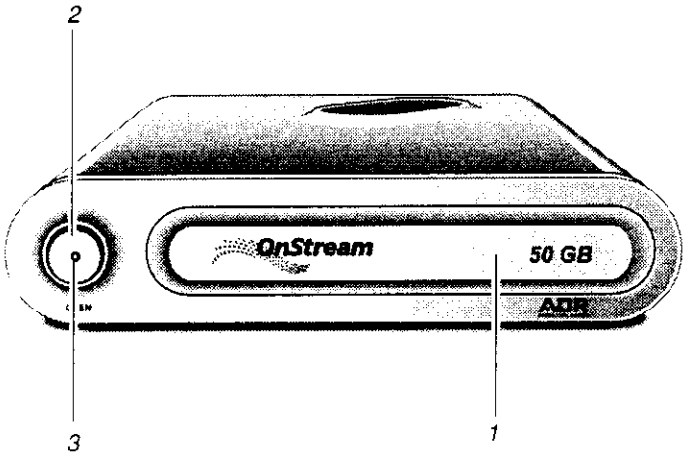

Figure 4.1: OnStream DE-50 front panel

1. Slot for inserting cartridges
2. Cartridge eject button
3. Drive active indicator

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4.2 Rear panel

The OnStream DE-50 rear panel, including the connectors is shown in Figure 4.2.

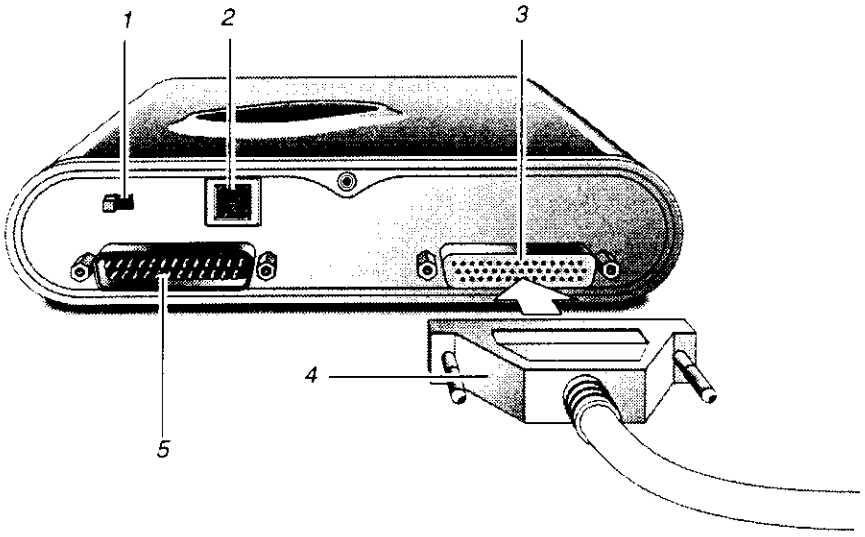

Figure 4.2: OnStream DE-50 rear panel

1. ON/OFF switch
2. Power socket
3. 25-pole socket
4. OnStream DE-50 data cable
5. 25-pole connector

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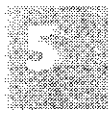

5 Hardware Installation

This chapter describes how to install the OnStream DE-50 drive.

1 Switch off the power to your computer.

2 If you have a printer or other device connected to the parallel (printer) port of your computer, unplug it from the computer and plug it into the 25-pole socket on the rear panel of the OnStream DE-50 drive (item 3 in Fig. 4.2).
Note: It is recommended that you connect only a printer to the socket on the rear panel of the OnStream DE-50 drive. Other devices may not function correctly.

3 Connect the OnStream DE-50 data cable to the 25-pole connector on the rear panel of the OnStream DE-50 drive (item 5 in Fig. 4.2).

4 Plug the other end of the OnStream DE-50 data cable into the computer's parallel port.

5 Tighten all connector screws.

6 Plug the power cord from the OnStream DE-50 power supply into the power socket on the rear panel of the OnStream DE-50 drive (item 2 in Fig. 4.2).

7 Plug the OnStream DE-50 power supply into a wall outlet.
Use only an approved OnStream DE-50 power supply. Other power supplies may damage your OnStream DE-50 drive.

8 Switch your computer ON.

9 Switch your OnStream DE-50 drive ON (item 1 in Fig. 4.2).

10 Check the drive-active light (item 3 in Fig. 4.1) to ensure the power supply is OK.

11 To insert an ADR cartridge, press the cartridge eject button on the OnStream DE-50 front panel (item 2 in Fig. 4.1) to open the drive bay. Inset and gently push the ADR cartridge into the OnStream DE-50 drive.

12 When you insert an ADR cartridge, the drive-active light will flash momentarily.

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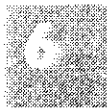

6 Software Installation

This chapter describes how to install the software supplied with the OnStream DE-50 drive.

6.1 OnStream software

OnStream DE-50 is supplied with two main software programs; 1Disk Plus and 1Safe. These programs enable you to get the most out of OnStream 50. Instructions on using these software programs are not provided in this manual. The user manuals are supplied on the installation CD, and are copied to your hard disk during installation.

6.2 Plug and Play

Windows 95/98/NT Plug-and-Play recognizes that your OnStream DE-50 has been installed and configures your PC for the new device automatically.

6.3 Installation

1 Switch on your PC. While the PC is starting-up, Windows 95/98/NT will detect that a new hardware device (your OnStream DE-50) has been installed. If this does not happen, STOP NOW! Refer to the Troubleshooting section in Chapter 7 before you proceed.

2 Windows will now display a dialog box which asks you where the relevant software for this new device should be installed from. Insert the OnStream installation CD-ROM and using the *Browse* button, and the select dialog that is displayed, choose the D:\ drive (or other drive identifier if your CD-ROM drive is not labelled D:\). Click the *OK* button.

3 The installation procedure will now start. Follow all the instructions given on-screen to complete installation. If, for any reason, the installation procedure was not completed, you will need to repeat the installation process again.

4 At the end of the installation process, you have to restart the PC.

5 You will see that the programs are copied onto your PC. You can access these through the Windows *Start* button, or you can create a shortcut on the desktop for easy access. For information on how to do this, refer to Windows online help.

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7 Troubleshooting

This section describes some potential problems that could occur during installation of the OnStream DE-50 drive, and hints on solving these problems. Every care has been taken to ensure that OnStream DE-50 installs successfully, however, because there are many different PC manufacturers, and different setups and equipment connected to PCs, there is no way of absolutely guaranteeing a trouble-free installation. Follow the solutions given in Table 1 to correct any errors that may have occurred.

Table 1: Troubleshooting

Symptom	*Possible Problem*	*Solution*

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8 Technical Support

If you cannot remedy any problems with installation using the troubleshooter in Chapter 7, you can contact the technical support lines given below to help you get your OnStream DE-50 operating correctly.

For North America

OnStream Inc.
1801 S. Sunset Suite B
Longmont, CO 80501
USA

Tel: +1 (303) 684 8415
Fax: +1 (303) 684 8732

For Europe

For the latest news, product and software updates, visit our web site at:

http://www.onstream.com

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9 Technical Specification

This section gives technical information about OnStream DE-50.

Tape

Data capacity	15 GBytes native on a 1200 foot, 8 mm tape
Data transfer rate	Variable between 30-120 MByte/min (4-16 Mbit/s)
Tape speed	Transport: 90 inches/s; Seek: 60 inches/s Read/write: 11-44 inches/s
Media	8 mm wide, pre-formatted

Physical

Cartridge loader	Motorized slot loader
Front controls	Active LED, eject button
Weight (without cartidge)	1200 g
Power supply weight	425g
Total weight (drive + cartridge +power supply)	2200 g
Dimensions	250 mm x 178 mm x 39 mm

M = Set to Master
S = Set to Slave

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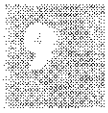
CHAPTER 9
Technical Specification



Operational

Error correction	Reed-Solomon double layer
Data buffering	Continuous video at track turnaround
Video performance	Recording/Playback of video bitstreams up to 16 Mbit/s

Reliability

Reliability	200,000 hours MTBF at 10% duty cycle
Life cycle	80,000 start/stops, 20,000 ejects

Environmental

Shock resistance	1G half sine over 11 ms
Temperature	Operational: +5 to +45 °C ambient Storage: -32 to +60 °C
Humidity	Operational: 20% to 80% noncondensing Storage: 10% to 90% noncondensing

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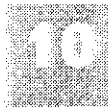

10 Regulatory Notices

10.1 FCC Notice

This device complies with the limits for a Class B digital device, pursuant to 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 undesired operation.

10.1.1 For Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the radio interference-causing equipment standard entitled *Digital Apparatus*, ICES-003 of Industry Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appariels numériques de Classe B préscrites dans la norme sur le matériel brouiller: *Appariels Numériques*, NMB-003 édictée par l'Industrie Canada.

10.1.2 For Europe

This product complies with the EMC directives 89/336/EEG, EN55022, EN50081-1 and EN50082-1 (CE Marking).

10.2 Approval

OnStream DE-50 complies to the following safety directives:

- Europe: IEC950
- USA: UL1950
- Canada: c-UL

UL Listed

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10.3 Safety notices

You must ensure that during installation, OnStream DE-50 is not exposed to moisture or excessively humid atmospheres, because the PC does contain dangerous voltages. It is imperative that you follow all safety instructions given below.

1. Read all instructions before using the appliance.
2. Adhere to all safety warnings on the appliance and in this manual.
3. Grounding and polarization - This appliance is designed only to operate from an approved OnStream DE-50 power supply. Ensure that adequate earthing is provided on the supply.
4. If the PCs a.c. plug is fitted with a fuse, ensure a manufacturers' recommended fuse of the correct rating is used.
5. Do not overload a main power outlet with excessive appliances.
6. Ensure the appliance is situated well away from sources of heat such as radiators, stoves etc.
7. Ventilation - this product is designed to operate within a PC and does not require any extra forced ventilation.
8. Do not attempt to service this product yourself. Any modifications not expressly authorized by the manufacturer may void any warranty. Refer any servicing to qualified service personnel appointed by the manufacturer or supplier.

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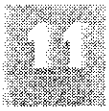

11 Warranty Information

OnStream Inc. warrants your OnStream DE-50 tape drive against any defect in material and workmanship, under normal use, for a period of three years following the date of purchase. In the event that this product is found to be defective within the warranty period, OnStream Inc. will, at its option, repair or replace the defective tape drive.

This warranty is void if:

a) the drive is operated or stored under abnormal use and maintenance conditions; b) if the drive is repaired, modified or altered, unless such repair, modification or alteration is expressly authorized in writing by OnStream Inc.) if the drive is subject to neglect, abuse, lightning strike, electrical fault, improper packaging or accident; d) if the drive is installed improperly; or e) if the serial number of the drive is defaced or missing.

OnStream Inc. will not, under any circumstances, be liable for direct, special or consequential damages such as, but not limited to, damage or loss of property or equipment, loss of profits or revenues, cost of replacement goods, or expense or inconvenience caused by service interruptions. Under no circumstances will any person be entitled to any sum greater than the purchase price paid for the product. Repair or replacement as provided under this warranty is the exclusive remedy of the purchaser. This warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular use or purpose, and OnStream Inc. shall in no event be liable to the purchaser for indirect or consequential damages of any kind or character.

To obtain warranty service, you should first contact the vendor from whom you purchased your OnStream DE-50 drive. This warranty is void without proof of purchase.

All OnStream DE-50 drives returned to OnStream Inc. or its authorized dealer must be securely packaged and shipped postage prepaid. No liability by OnStream Inc. is accepted for goods damaged in transit.

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Onstream product

EXHIBIT NEEDED FOR FCC CERTIFICATION
EUT: OnStream; Type: DP30

Functional description

The Onstream DE-30 is a high speed tapedrive intended for backup and video recording / playback functionality in a standard PC configuration. The drive is connected to the parallel printer port of a PC and has its own powersupply.

The drive can store 15 Gbyte on a ADR (advanced digital recording) tape. 25 Gbyte cartridges will be available in the near future.

Datarate over the parallel bus is possible to up to 8 Mbit per second which means a 1.5 Gbyte harddisk is backed up in about 25 minutes. Up to 5 hours MPEG-2 compressed digital video can be stored on a 15 Gbyte cartridge.

It is intended to operate under Windows 95, Windows 98 or Windows NT and has full plug and play functionality.