Quick installation guide
Ultrastar 9ES
Multimode SE/LVD[1]

Models: DDRS-39130   DDRS-34560
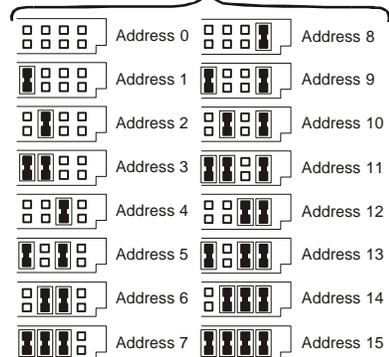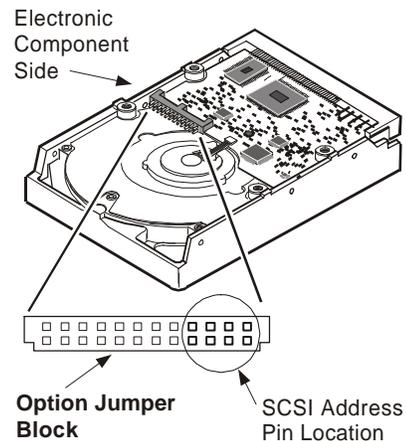
IBM

Handling precautions

- Do not open the electrostatic discharge (ESD) bag containing the drive until required.
- Do not apply pressure on the drive during handling or installation.
- To prevent damage from impact or vibration always set the drive down gently.
- Handle the drive carefully by the edges. Do not touch the exposed printed circuit board or any electronic components.
- Do not press on the top or bottom of the drive.
- Do not cover the breather hole! Covering the breather hole may result in loss of data.
- Save the packaging materials including the ESD bag in the event that the drive must be returned.

Installing the drive

This guide provides instructions for the installation of a multimode SE/LVD hard disk drive.

1. Backup all data.
2. Record the serial number and part number of your hard drive for future reference.
3. Turn off the computer and remove the computer system cover.
4. Before handling the hard disk drive, discharge any static electricity from you and your clothing. With one hand touch an unpainted metal surface on your computer chassis, then touch the ESD bag with the other hand for a minimum of two seconds. Remove the ESD bag from the hard drive.
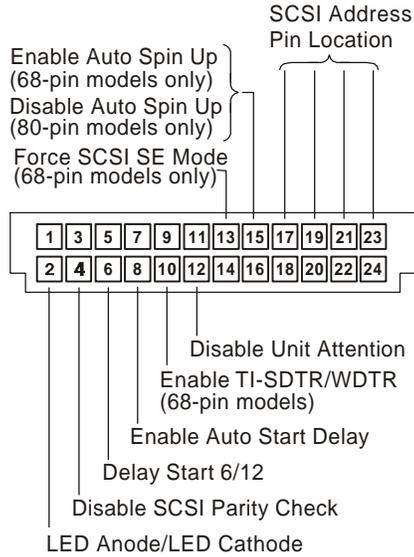5. Unplug the computer.

6. Assign a SCSI address to the drive. Address 7 is normally reserved for the SCSI controller. Refer to the illustration below, install the appropriate jumper(s) on the Option Jumper Block.

Electronic Component Side

Option Jumper Block

SCSI Address Pin Location

	Address 0		Address 8
	Address 1		Address 9
	Address 2		Address 10
	Address 3		Address 11
	Address 4		Address 12
	Address 5		Address 13
	Address 6		Address 14
	Address 7		Address 15

7. Refer to the following illustration to select desired option(s) and install the appropriate jumpers.

[1] *PLEASE NOTE: If the Ultrastar multimode SE/LVD drive is attached to a SCSI bus with SE device(s), the drive operates in SE mode without installing the forced SCSI SE mode jumper.*

IBM storage products

Option Jumper Block

SCSI Address
Pin Location

Enable Auto Spin Up
(68-pin models only)
Disable Auto Spin Up
(80-pin models only)
Force SCSI SE Mode
(68-pin models only)

| 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 |
| 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |

Disable Unit Attention
Enable TI-SDTR/WDTR
(68-pin models)
Enable Auto Start Delay
Delay Start 6/12
Disable SCSI Parity Check
LED Anode/LED Cathode

8. For a 68 pin drive attach the power cable and ensure that one end of the SCSI cable is connected to the controller card. Attach an LVD terminator to the other end of the cable. If the 68 pin drive is the only device on the SCSI cable, plug the drive into the connector immediately preceding the LVD terminator. Additional drives may be attached to any unused connector. (Drives with 80 pins are plugged into backplanes of servers and require no cables.)
9. Using the appropriate brackets or rails, mount the drive with any of its six surfaces facing down. Retrieve any loose screws or parts from within the computer.
10. Ensure proper routing of cable(s).
11. Plug in your computer. Do not turn it on.
12. Insert the operating system (OS) setup diskette into the floppy drive.
13. Turn on your computer.
    - If the system boots up, turn off your computer and replace the cover.
    - If your system does not boot up, turn off your computer and check all connections and settings. Turn on your system and reboot.
    - If the system still fails to boot up, turn off your computer and remove the new drive to return the system to its original configuration and call the IBM Hard Disk Drive Technical Support Center.

Partitioning and formatting (using DOS 5.0 or later)

CAUTION: When partitioning and formatting a system with more than one hard disk drive be sure that you select the correct hard drive. Partitioning and formatting will destroy any previous data.

1. Insert the OS setup diskette into the floppy drive.
2. Turn on the computer.
3. At the DOS prompt type FDISK, press [ENTER], and follow the instructions on the screen.
4. To format the primary system drive, type FORMAT C:/S at the DOS command prompt and press [ENTER]. The /S parameter makes C: the operating system startup drive.
5. To format a second drive (not C:), type FORMAT X: (where X is the drive letter assigned by FDISK) at the DOS prompt and press [ENTER].
6. Remove the diskette and restart your computer. The partitioning and formatting is complete.
7. Install the operating system.

IBM ®

© International Business Machines Corporation 1999

www.ibm.com/harddrive

IBM Hard Disk Drive Technical Support Center
Dept. WCN
3605 Highway 52 North
Rochester MN 55901
Telephone: 888.IBM.5214 or 507.253.4110
Fax: 507.253.DRIVE
E-mail: drive@us.ibm.com

Singapore Technical Support Center
Telephone: 65.1800.840.9292
E-mail: drive@sg.ibm.com

IBM Systems Storage Division
5600 Cottle Road
San Jose CA 95193
www.ibm.com/storage

Printed in the United States of America
09-99
All Rights Reserved

IBM is the registered trademark and Ultrastar is the trademark of International Business Machines Corporation.

Other company, product, and service names may be trademarks or service marks of others.

Produced by the IBM Hard Disk Drive Technical Support Center.

OEM Hard Disk Drive Specifications for DDRS-39130 / DDRS-34560 (Revision 2.0)

Product Description data represents IBM's design objectives and is provided for comparative purposes; actual results may vary based on a variety of factors. This product data does not constitute a warranty. Questions regarding IBM's warranty terms or methodology used to derive this data should be referred to the IBM Hard Disk Drive Technical Support Center. Data subject to change without notice.

Date: 03 September 1999

IBM Hard Disk Drive Technical Support Center   version 3.0