

Quick Installation Guide Mercury

Copyrights & Trademarks

Safety Instructions

Setup

Appendix

Agency Approvals

This Quick Installation Guide is a part of the Mercury User Manual.

For more detailed information see the User Manual on the CD which is delivered with the Mercury jukebox.





1 Table of Contents

1. Table of Contents 3

2. Copyrights and Trademarks 5

 Notice of Copyright 5

 Disclaimer 5

 Changes 5

 Trademarks Used in this Manual 6

3. Safety Instructions 9

4. Setup 15

 Jukebox Setup 15

 What to do first? 16

 Checking the Delivery 16

 Placeing the Jukebox 16

 Removing the Transportation Fixtures 17

 Machine Layout 18

 Connecting to a Host Computer 19

 Connecting the Serial Robotics Interface 19

 Connecting the SCSI Interface 20

Setting the SCSI-ID's for the Drives	22
Connecting Line Voltage	23
Operation Check Up After Setup.	23
Settings in the Power-On Menu	24
Power-On Menu.	24
Setting the RS232-ID.	24
Setting the SCSI-ID for the SCSI-Robotics-Interface.	25
5. Appendix A	29
Technical Data	29
6. Appendix B	33
FCC Declaration	33
Declaration of Conformity	34



2 Copyrights and Trademarks

2.1 Notice of Copyright

All rights reserved. Copyright © 1997 - 2001 by DISC GmbH. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of

**DISC GmbH,
55411 Bingen, Im Tiergarten 20-30, Germany.**

2.2 Disclaimer

DISC (DISC GmbH and all of its subsidiaries) takes no responsibility or warranty with respect of the adequacy of this documentation or the procedures which it describes for any particular purpose or with respect to its adequacy to produce any particular result. In no event shall DISC, its employees, its contractors or the authors of this documentation be liable for special, direct, indirect or consequential damages, losses, costs, charges, claims, demands, or claim for lost profits, fees or expenses of any nature or kind.

2.3 Changes

The material in this specification is for information only and is subject to change without notice. While reasonable efforts have been taken in the preparation of this manual to assure its accuracy, DISC GmbH assumes no liability resulting from any errors or omissions in this manual, or from the use of the information contained herein.

DISC GmbH reserves the right to make changes in the product design without reservation and without notification to its users.

Additional Information may be obtained from:

Copyrights and Trademarks

Trademarks Used in this Manual

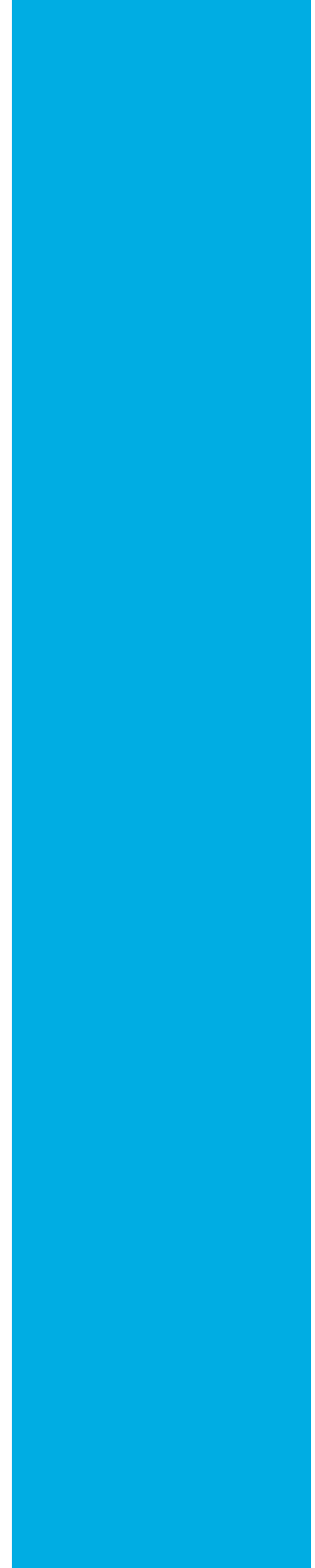
DISC GmbH
55411 Bingen am Rhein
Im Tiergarten 20-30
Germany

2.4 Trademarks Used in this Manual

DISC GmbH Logo is a registered trademark of DISC GmbH.

Safety instructions

- **Intended Use**
- **Residual Risks**
- **Security for Data**





3 Safety Instructions

Intended Use

The Mercury jukebox is controlled by a host computer and boasts state of the art technology which is very reliable. The Mercury jukebox was exclusively designed to read CD's and is capable of recording CD's if equipped with recorder drives. The jukebox is not intended for any other uses.

Improper use of the Mercury jukebox may cause residual risks if it is used or operated by unauthorized individuals. Any person who uses the Mercury jukebox should read and understand the user's manual especially the safety instructions.

Residual Risks

In this Quick Installation Guide residual risks are marked as follows:



Warning!

Disregarding the safety messages following „Warning!“ can cause damage to the unit.



Danger!

Disregarding the safety messages following „Danger!“ can result in personal injury.

Ban of arbitrary reversions and changes

The Mercury jukebox may not be altered due to applicable safety regulations.

Repairs

Repairs must be carried out only by the NSM service staff, or by qualified and authorized service staff. DISC GmbH will not be liable for any damages caused by alterations or repair by unauthorized individuals.



Setup

Before you connect this unit to the mains, please check your

local mains voltage and compare it with the setting of the unit. If your local mains voltage does not correspond to the mains voltage setting of the unit you must not set-up the unit.

Replace fuses with same type and value only!



Warning! Fire damages

To reduce fire or shock hazard, do not expose this unit to rain or moisture.



Warning! Opening the unit

To prevent electrical shock, remove line cord before opening this unit!



Danger!

Disassembling parts and changing of any adjustment, apart from those described in this manual, may result in exposure to hazardous laser radiation!



Security

This product is a Laser Class 1 device. Disk access is carried out by using a laser beam. The laser doesn't represent any risk for the user.

This product complies with the DHHS Rules 21 CFR chapter 1, subchapter J, applicable at the date of manufacturing. Accession number 9520184

Electro Magnetic Compatibility

For the CE certification, the jukeboxes were tested with Adaptec 2940 and 3940 SCSI host adapters. Using any other type of SCSI host adapter, the units might be out of range regarding the electro magnetic emission, especially when the jukebox is equipped with DVD drives.

DVD RAM Media

DVD RAM media are very sensitive to scratches and fingerprints. Handle DVD RAM media with care, do not touch the underside of a medium.

Fingerprints and scratches might end in a loss of data.

Safety Instructions ■



CD-R Media

Please take care that the CD-R media you use correspond with the writing speed you have selected.

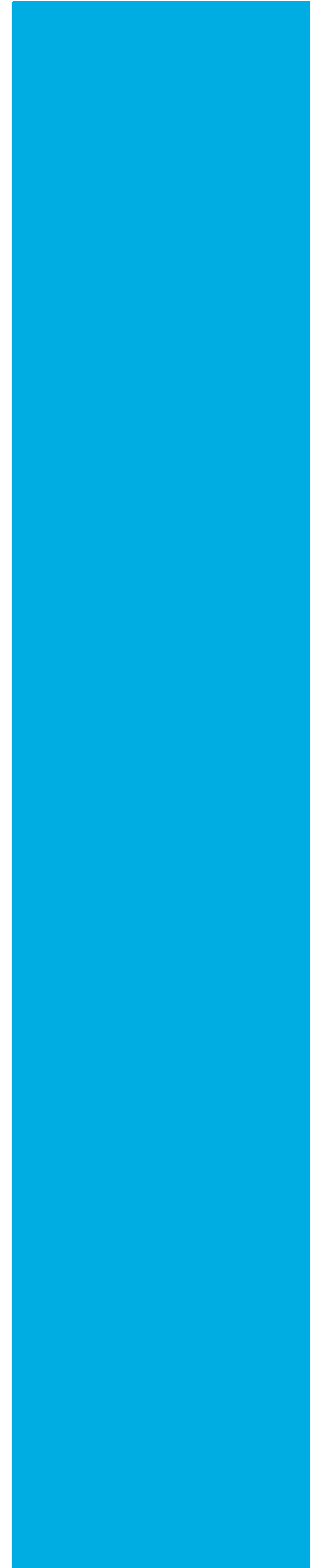
Not all CD-R media support writing faster than 4 X speed.

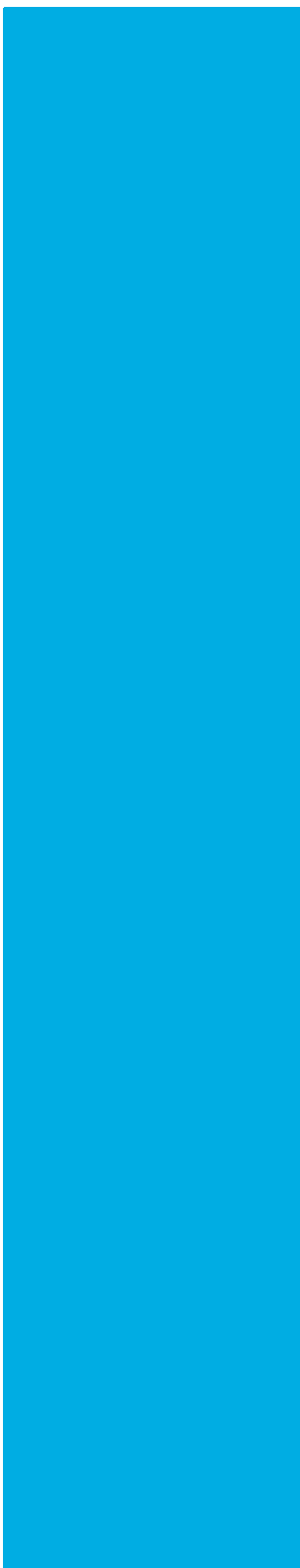
You will find information about recommended media on a flyer attached to this Quick Installation Guide and on the DISC Web Page.

<http://www.nsmstorage.com>

Setup

- **Jukebox Setup**
- **What to do First?**
- **Setting the SCSI - ID's**
- **Connecting to a Host Computer**
- **Connecting Line Voltage**
- **Settings in the Power On Menu**





4 Setup

In this chapter you will find all information required to activate the Mercury jukebox.



Remove all transportation fixtures before power-on the Mercury. Otherwise the unit might be damaged.

4.1 Jukebox Setup

For the setup of the Mercury perform the following steps. Details of the single steps are described in the following sections.

What to do first?

- Check if the delivery is complete;
- Place the unit;
- Remove all transportation fixtures;

Setting the SCSI ID's of the drives

- Inquiring the components of the unit;
- Setting the SCSI-ID's;

Connecting to a host computer and mains voltage

- Connecting RS232 robotics interface;
- Connecting SCSI interface;
- Connecting line cord;
- Power-on;

Settings in the Power-on menu

- Setting the ID of the robotics interface (RS232);
- Setting the ID of the robotics interface (SCSI);

4.2 What to do first?

4.2.1 Checking the Delivery

Unpack the unit and check if the delivery is complete:



Store the carton and the packaging material for a possible later transport. Thus you can transport your unit safely.

Delivery	Mercury RS232	Mercury SCSI	Mercury SCSI Diff.
Power Cord	3	3	3
Serial cable	1	1	1
SCSI terminator (single ended)	1 per SCSI bus	1 per SCSI bus	---
SCSI terminator (differential)	-	-	1 per SCSI bus
Fuses	3	3	3
Emergency pin	1	1	1
Quick Installation Guide	1	1	1
Keys	2	2	2
User Manual CD	1	1	1
Mercury jukebox	1	1	1

4.2.2 Placing the Jukebox

The Mercury jukebox is intended to be used in offices and networks.



After delivery the temperature of the Mercury should be adapted slowly to the room temperature.

- Avoid places with:**
- extreme temperatures or excessive sun exposure
 - high humidity
 - contact with water and chemicals
 - extreme vibrations

- The right location:**
- has a stable, even support

- has sufficient space to pull out the unit

4.2.3 Removing the Transportation Fixtures



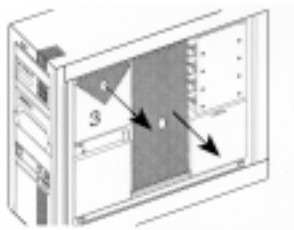
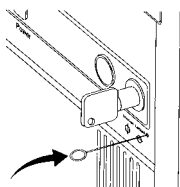
The unit must be switched on only after the transportation fixtures have been removed.



Store the transportation fixtures in a safe place. Insert them always in the unit before any transportation.

Steps

- Turn the key to the position „unlocked“.
- Insert the emergency pin into the aperture beside the key and press in as deep as necessary to get the door open.
- Remove the transportation fixtures inside the jukebox.
- Remove the 3 magazines.
- Remove the 2 red transportation fixtures from each magazin.
- Put the magazines back into the jukebox.
- Close the doors.
- Turn the key back to the position „locked“.



3.1 Machine Layout

Mercury ABC SD

A = number of read only drives (CD ROM; DVD ROM)

B = number of recorder drives (CD-R; DVD-R)

C = number of re-writeable drives (CD-RW; DVD RAM)

S = SCSI controlled robotic

D = Differential Ended SCSI interface

For the position of the drives inside the jukebox and on the SCSI busses see table below:

SCSI device	SCSI bus A	S CSI bus B	Position in jukebox
CD ROM drive 1	X		1
CD ROM drive 2	X		2
CD ROM drive 3	X		3
CD ROM drive 4	X		4
CD-R drive 1		X	1
CD-R drive 2		X	2
DVD drive 1	X		1
DVD drive 2	X		2
DVD drive 3	X		3
DVD drive 4	X		4
SCSI robotic controller	X		

4.3 Connecting to a Host Computer



Turn off the Mercury and the host computer when connecting the cables.

Depending on the model, the Mercury can be equipped with different kinds of drives and different robotics interfaces.

4.3.1 Connecting the Serial Robotics Interface

Description

As standard, the Mercury has a serial robotics interface (RS 232) to connect the jukebox to the host computer. All mechanical procedures (importing / exporting CD's, loading / unloading CD's etc) are controlled by the host computer via this interface.

Further jukeboxes

The serial interface allows to cascade several jukeboxes. To have a reliable data transfer between host computer and jukeboxes do not cascade more than 3 units on one serial bus.

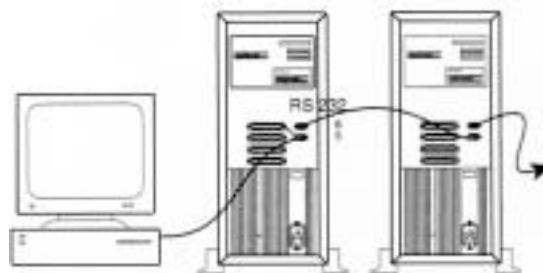
Configuration

The address of the RS 232 interface is configured via the operator panel of the jukebox.

Cable

To connect the jukebox to the host computer use the delivered RS 232 cable. The maximum length of all RS 232 cables connected to a serial bus must not be more than 15 m.

Connection plan robotics interface



Setup

Connecting to a Host Computer

4.3.2 Connecting the SCSI Interface



Turn off the Mercury jukebox and the host computer before connecting the SCSI interface. Only use high quality SCSI cables.

Single Ended SCSI

Description

As standard, the Mercury has a single ended SCSI - 2 interface to connect the CD ROM drives of the jukebox to a host computer.

Termination

If the CD ROM drives of the Mercury jukebox are the last SCSI devices on the SCSI bus, the SCSI bus has to be terminated at the jukebox. To terminate the SCSI bus, use the delivered external SCSI terminator. Plug the terminator to SCSI interface A, connector 1.

SCSI cable length

Depending on the data transferrate set in the BIOS of the SCSI host adapter, the maximum cable length for the SCSI bus is 6 m (5MB/s) or 3 m (10MB/s).



The internal SCSI cable of the Mercury jukebox has a length of 60 cm.

Differential Ended SCSI (Mercury SD / SDD)

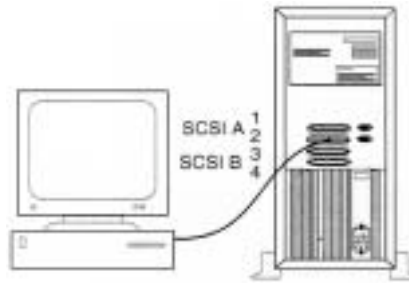
Description

If the CD ROM or CD-R drives of the Mercury jukebox are the last SCSI devices on the SCSI bus, the SCSI bus has to be terminated at the jukebox. To terminate the SCSI bus use the delivered external SCSI terminator. If you are using the jukebox with two SCSI host adapters both SCSI busses have to be terminated.

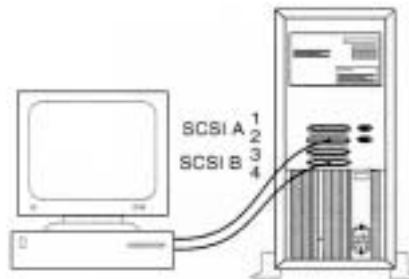
SCSI cable length

Depending on the data transferrate set in the BIOS of the SCSI host adapter, the maximum cable length for the SCSI bus is 25 m (5MB/s) or 12 m (10MB/s).

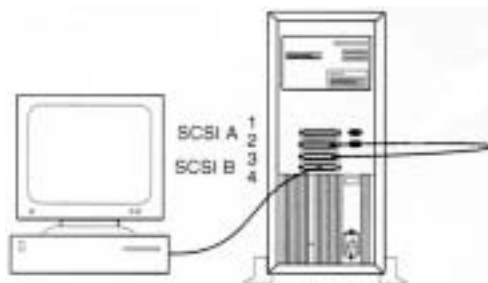
Units with one SCSI bus



Units with two SCSI busses



Connecting units with two SCSI busses to one SCSI host adapter



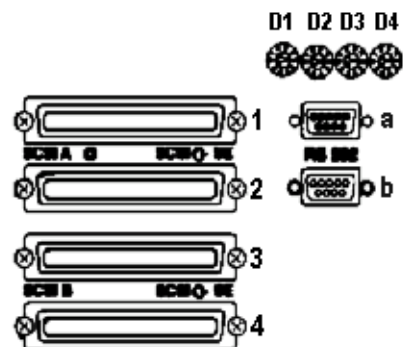
Setup

Setting the SCSI-ID's for the Drives

4.4 Setting the SCSI-ID's for the Drives

The SCSI-ID's of the CD ROM and CD-R drives can be set with the ID-switches beside the SCSI interface on the back-plane of the jukebox.

Admissible settings For all CD ROM and CD-R drives the admissible ID setting is 0 - 6. Select ID 6 (and 5) for CD-R drives to have a high priority for these drives on the SCSI bus.



Kap.2.fm / 03.06.1998/02.08.2001



4.5 Connecting Line Voltage

The Mercury jukebox has an autosensing power supply unit, no settings regarding the line voltage have to be done.

One power cord corresponding to your wall outlet is delivered with the Mercury jukebox. Connect the Mercury with the line.

4.5.1 Operation Check Up After Setup

After finishing the setup you may switch on the jukebox. After switching on the following information should be displayed after a few seconds:

D1:--,	D2:--,
D3:--,	D4:--,

For further information about the LCD display see the Mercury user manual.

Setup

Settings in the Power-On Menu

4.6 Settings in the Power-On Menu

4.6.1 Power-On Menu



The Power-on menu is the mode of the Mercury where all the settings and alignments of the jukebox can be done. While the jukebox is in the Power-on menu, the serial interface of the jukebox is disabled. Make sure the jukebox is set back to normal operation mode after the settings are finished.

Activating the Power-on menu

Power-on menu
Function?

The Power-on menu of the Mercury jukebox is activated by pressing the **'F' key** while powering up the jukebox. The display shows the following message:

A setting always has to be confirmed by pressing the **'Enter' key**. To leave the Power-on menu press the **'ESC' key**.



The Power-on menu offers several functions to align the lift and the picker of the jukebox. These settings must not be changed, otherwise the jukebox might run into serious problems.

4.6.2 Setting the RS232-ID

The RS232-ID for jukeboxes with SCSI controlled robotics (Mercury 40 S / 31 S / 40 SD / 31 SD / 31 SDD) always has to be set to 00.



The factory default setting of the RS232-ID for all Mercury models is 00.

To change the RS232-ID proceed as follows:

Set the jukebox to the Power-on menu.

Press the **'3' key** to edit the RS232-ID:

Use the **'<='** and **'>=' key** to increase or decrease the value.

Press the **'Enter' key** twice to store the setting.

Set RS232-ID to:
00

4.6.3 Setting the SCSI-ID for the SCSI-Robotics-Interface

For the Mercury models 40 S / 31 S / 40 SD / 31 SD and 31 SDD the robotics of the jukebox is also controlled via the SCSI interface. The SCSI-ID of the robotics can be set between 0 - 7.

The factory default setting of the SCSI-ID for all Mercury SCSI models is 2.

To change the SCSI-ID proceed as follows:

Set the jukebox to the Power-on menu.

Press the **'4' key** to edit the SCSI-ID:

Use the **'<='** and **'>=' key** to increase or decrease the value.

Press the **'Enter' key** to store the setting.

**Set SCSI-ID of
Controller to 02**

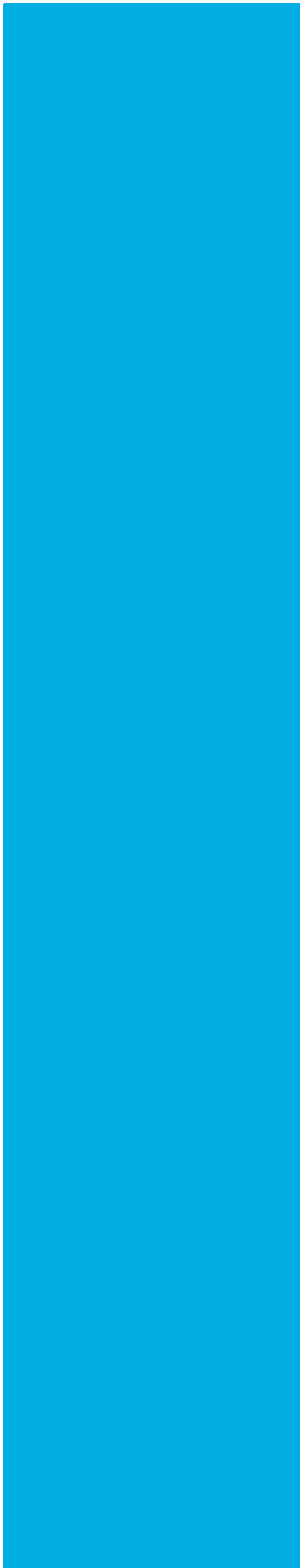
4

Setup
Settings in the Power-On Menu

Kap.2.fm/ 03.06.1998/02.08.2001

Appendix A

- Technical Data



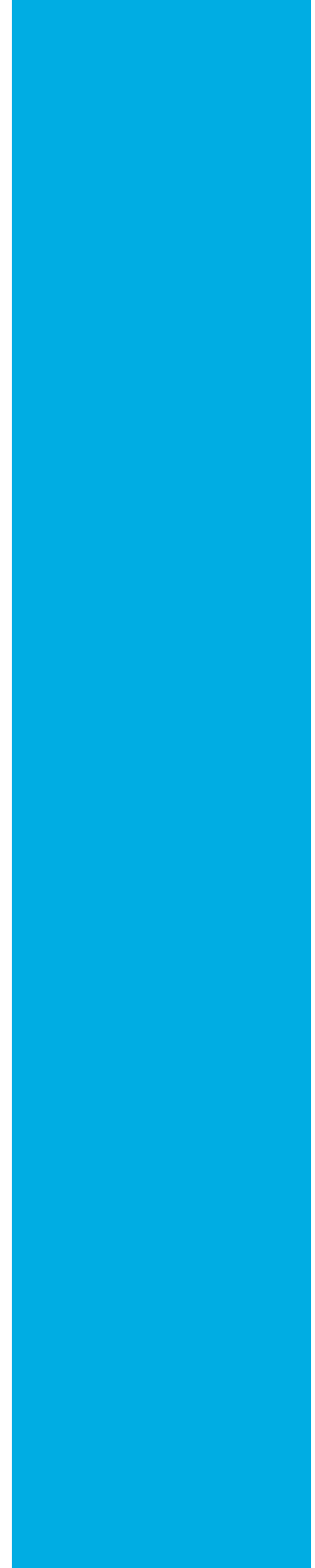
5 Appendix A

5.1 Technical Data

Factory settings		
RS232-interface	RS232-ID	0
	Baud rate	9600 Baud
	Number of start bits	1
	Number of data bits	8
	Number of stop bits	1
	Parity check	no parity
SCSI-2-robotic interface	Robotic SCSI ID	2
Operating conditions		
Ambient temperature		
Operating	10°C – 37°C	50°F – 98,6°F
Gradient of temperature	11°C/h	19,8°F/h
Relative humidity operating	10 % – 75 %	non condensing
Power supply		
Line voltage	90 V - 240 V / 2 A	
Frequency range	50 / 60 Hz	
Power consumption normal	40 W - 65 W	depending on drive configuration
Power consumption max.	85 W - 130 W	depending on drive configuration
Dimension and Weight		
Dimension	Width 218 mm	
	Height 519 mm	
	Depth 600 mm	
Weight without CDs	30,2 kg	jukebox with 4 drives

Appendix B

- FCC Declaration
- Declaration of Conformity





6 Appendix B

6.1 FCC Declaration

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Important: This product was FCC verified under test conditions that include use of shielded cables and connectors between system components. It is important that you use shielded cables and connectors to reduce the possibility of causing interference to radios, TV sets, and other electronic devices.

Should you have any problems contact your dealer.

Any change or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the user's authority to operate such equipment.

Appendix B

Declaration of Conformity



6.2 Declaration of Conformity

EG-Konformitätserklärung	EC-Declaration of Conformity	CE-Déclaration de Conformité
<p>mit den Richtlinien 89 / 336 / EWG und 73 / 23 / EWG.</p> <p>Hiermit wird bestätigt, daß das Produkt</p> <p style="text-align: center;">CD/DVD Jukebox CDC 150 Mercury</p> <p>mit den folgenden Normen bzw. normativen Dokumenten übereinstimmt:</p> <p>EN 55022: 1997 Kategorie B Grenzwerte und Meßverfahren für Funkentstörungen von informationstechnischen Einrichtungen</p> <p>EN55024: 1998 Störfestigkeit von informationstechnischen Einrichtungen</p> <p>EN 60950 A4, A11 Sicherheit von Einrichtungen der Informationstechnik</p> <p>Das Qualitätssicherungssystem der NSM garantiert die Konformität.</p> <p>Hersteller:</p> <p>DISC GmbH Im Tiergarten 20 - 30 D-55411 Bingen am Rhein</p> <p>Ausstellungsdatum: 02.08.2001</p>	<p>per 89 / 336 / EEC and 73 / 23 / EWG.</p> <p>This is to confirm with that the product</p> <p style="text-align: center;">CD/DVD Jukebox CDC 150 Mercury</p> <p>is in compliance with the following standards or other normative documents:</p> <p>EN 55022: 1997 class B Limits and methods of measurement of radio interference characteristics of information technology equipment</p> <p>EN55024: 1998 Information technology equipment-Immunity Characteristics- Limits and methods of measurement</p> <p>EN 60950 A4, A11 Safety of information technology equipment</p> <p>NSM quality assurance system assures compliance.</p> <p>Manufacturer:</p> <p>DISC GmbH Im Tiergarten 20 -30 D-55411 Bingen am Rhein</p> <p>Date of issue of the declaration: 08-02-2001</p>	<p>avec 89 / 336 / CEE et 73 / 23 / EWG.</p> <p>Nous déclarons que le produit</p> <p style="text-align: center;">Jukebox CD/DVD CDC 150 Mercury</p> <p>est conforme aux normes ou autres documents normatifs suivants:</p> <p>EN 55022: 1997 categorie B Limites et methodes de mesure des caractéristiques de perturbation radioélectriques produites par les appareils de traitement de l'information</p> <p>EN 55024: 1998 Appareils de traitement de l'information - caractéristiques d'immunité - Limites et methodes de mesure</p> <p>EN 60950 A4, A11 Sécurité des matériels de traitement de l'information</p> <p>La système assurance de la qualité de NSM garantit la conformité.</p> <p>Fabricant:</p> <p>DISC GmbH Im Tiergarten 20 -30 D-55411 Bingen am Rhein</p> <p>Date d'établissement de la déclaration: 02.08.2000</p>

Kap.4.lim/31.01.1997/02.08.2001

R. Kergaßner
Manager

H. Schellong
Development Department



Worldwide:

**DISC GmbH
Im Tiergarten 20-30
D-55411 Bingen
Phone: +49 (0)6721 964-430
Fax: +49 (0)6721 964-414**



Part - No.: 239 355



