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1 Preface

1 Preface

CLASS 1
LASER PRODUCT
to IEC 825

This Product is a Laser Class 1 device. Disk access is carried out by using a laser beam. The laser does not represent any risk for the user.

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

Conventions for this handbook:

D I S C GmbH is the manufacturer of the CD-ROM-jukebox Mercury abbreviated **DISC in this manual.**

- As **CD-ROM Compact Disk Read Only Media** corresponding to the following standards may be used:
 - Red book, Yellow book
 - CD-ROM XA
 - Photo CD
 - CD Bridge
 - CD-I, CD-I Ready



In the user's manual each of these media are referred to as **CD**.

- Inside the jukebox CDs are transported only laying on a tray. The trays with inserted CDs are stored in CD-magazines and are moved on request between magazine and corresponding drive or the CD-mailslot.
- Importing or exporting of CDs via the mailslot is called change of CDs in the following text.
- In the following the identification number or unit addresses are abbreviated **ID numbers** (or **ID**).

1 Preface

Edition 0801

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Any changes based on the expected technical progress are subject to be made without notice.

2 Safety instructions



2 Safety instructions

Intended use

The Mercury jukebox is exclusively determined to access and write CD's, controlled by a host computer.

Any other usage apart from this is regarded as not intended.

The technology of the DISC Mercury jukebox corresponds to the state of the art and is very reliable when operating.

Improper use of the Mercury jukebox may cause residual risks if it is operated or used by non-authorized persons. Any person who is engaged to operate the jukebox Mercury has to read and understand this user's manual, especially these safety instructions.

Residual risks

In this user's manual residual risks are marked as follows:

Warning

Disregarding the safety message following „Warning“ can cause material damage (damage of parts).

2 Safety instructions



Danger	Disregarding the safety messages following „Danger“ can cause personal damage.
Ban of arbitrary reversions and changes	The jukebox Mercury must not be changed in construction or concerning safety regulations. Any change will lead to the exclusion of liability of DISC GmbH concerning the resulting damages. Especially defective parts must be replaced only by original spare parts of DISC.
Repair	Repair must be carried out only by the D service staff, or by qualified and authorized service staff.

2 Safety instructions



Warning:

Setup:

Before you connect this unit to the mains, please check your mains voltage and compare it with the setting of the unit. If your mains voltage does not correspond to the mains voltage setting of the unit, please change the setting according to the instruction in this manual. Replace fuses only with same types and values!

Self-adhesive labels on the CD's:

Do not use self-adhesive labels for the lettering your CD's. This labels may loosen itself and then cause damages of the drives and the CD's.

Fire damages:

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

Opening device:.

To prevent electrical shock, remove power line before opening this appliance!

2 Safety instructions



Danger:

Disassembling parts and changing of any adjustments, apart from those specified within this manual, may result in exposure to hazardous laser radiation.

Security for data

Access to the CD magazines is possible only with opening the door of the jukebox. This can be done with the original key or through the superior host computer. Access to CD's via mailslot is only possible by key or by CD-release through the superior host computer. You have the responsibility to allow access to the stored data only to authorized persons. I. e. only the system administrator is instructed to handle the key and thus to have access to the data.

Electro Magnetic Compatibility

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

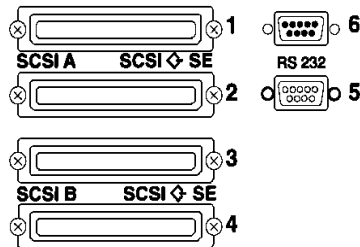
3 Mercury Overview



3 Mercury Overview

The Mercury is a CD-ROM jukebox with 3 magazines (carrying 50 CD's each).

Depending on the type of the unit you will get different configurations of CD drives and interfaces.



SCSI drive	SCSI bus A	SCSI 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

3 Mercury Overview



SCSI drive	SCSI bus A	SCSI bus B	Position in jukebox
DVD drive 1	X		1
DVD drive 2	X		2
DVD drive 3	X		3
DVD drive 4	X		4
SCSI robotic controller	X		

For models with CD-R and DVD drives, the CD-R drives are always mounted to position 1 (and 2) inside the jukebox.

For Mercury models with 4 CD ROM drives, SCSI bus B is not equipped.

Models with SCSI controlled robotic have a serial service interface. This service interface can not be used to operate the jukebox with a standard host application.

3 Mercury Overview



Models with a Differential Ended SCSI interface can only be connected to a Differential Ended SCSI host adapter. Connecting a Differential Ended SCSI interface to a Single Ended SCSI host adapter can cause damage to the jukebox and the SCSI host adapter.

The magazines can be exchanged without much difficulty. The change of CD's is comfortably made with the CD-mailslot at the front of the unit.

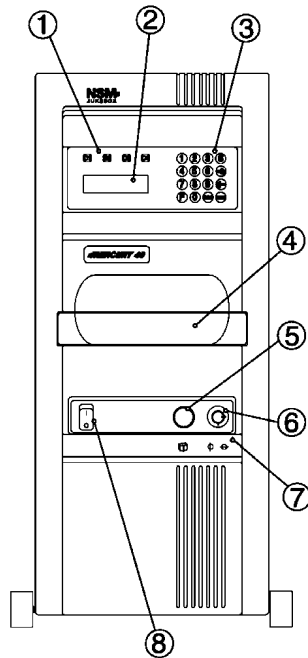
The basic functions are controlled manually via the keyboard panel and the LCD-display (off-line without control of the host computer).

Access to the CD's and the CD magazines is secured with a key-operated lock.

3 Mercury Overview



3.1 The Mercury front



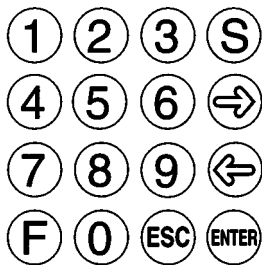
- (1) LED display: Status of the drives (D1-D4)
- (2) LCD display: Dialog display for manual operation and for information about the mode of operation of the jukebox
- (3) Keyboard
- (4) CD mailslot for removal and insertion of single CD's;
- (5) Key: Open door
- (6) Key-operated safety lock
- (7) Emergency door open
- (8) Power-on switch




3 Mercury Overview



3.2 Keyboard of the Mercury

With the keyboard you may enter preoperational commands or commands and data while operating the unit.



- Key  to confirm input
- Key  to cancel input
- Key  to change CD's via the mailslot or to activate service functions

3 Mercury Overview



3.3 Display of Mercury

The LCD-display and the LEDs will give you information about the actual status of the unit.

LCD-display - Basic

The LCD-display indicates in the basic state which CD's are placed in the single drives.

D1: -.- D2: -.-
D3: -.- D4: -.-

The detailed meaning of the displayed information:

Dn:m.s

Dn = Number of the drive (D1-D4)

m = Number of the CD-magazine (1-3)

ps = Position number of the CD (01-50)

3 Mercury Overview



Example (Mercury 40):

```
MS: 1.27  D1: 2.03  
D2: -.-   D3: -.-
```

This example means:

CD number 27 of CD magazine 1 is placed in the mailslot (MS).

CD number 03 of magazine 2 is placed in drive 1.

No CD's in drive 2 and 3.

The status of drive 4 is not displayed because the status of the mailslot is displayed.

LCD-display - Text

Informations about status and system messages.

LED display

The 4 LED's (D1-D4) will show the status of the drives.

3 Mercury Overview



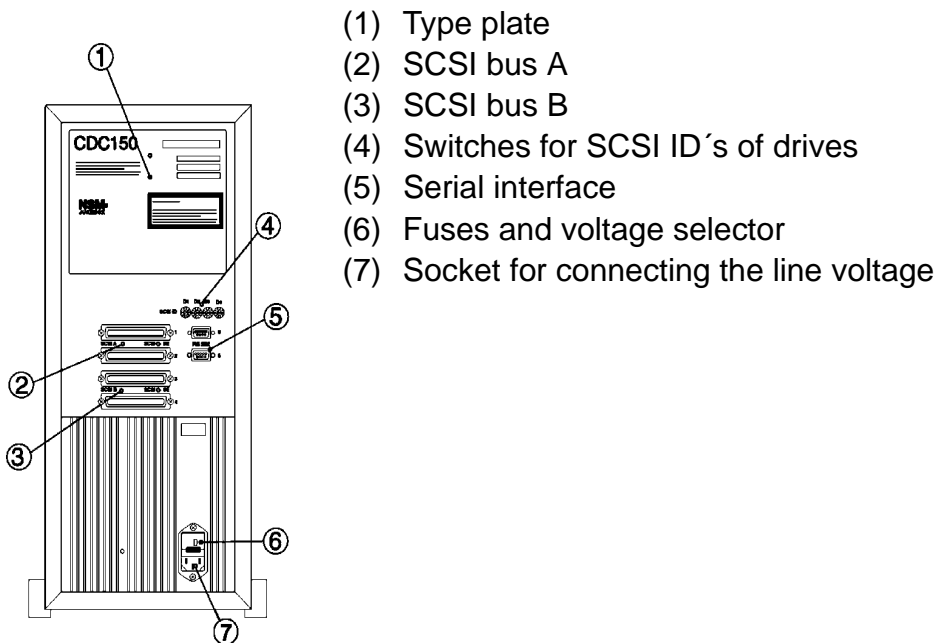
off	No CD-tray in drive.
short time out	Drive is loaded.
on	Drive is ready to play.

Note: The messages shown above are always displayed when a CD-tray is loaded into a drive even if there is no CD within the tray.

3 Mercury Overview



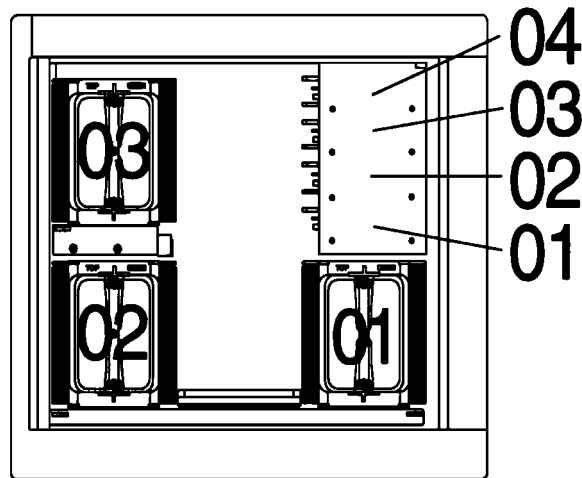
3.4 The rear side of the Mercury



3 Mercury Overview



3.5 Magazine and drive numbering



4 Operating



4 Operating

The Mercury has two operating levels depending on the position of the key operated safety lock in order to change CD's.

Lock secured

In the „locked“ position the entire control is performed by the host computer. A change of CD's is possible only by using the mailslot function if the host computer has initiated this change.

Lock open

In the position „unlocked“ the Mercury will not execute any command of the host computer except status request:

- Changing single CD's via mailslot is possible.
- Opening the doors and changing CD magazines or CD's is possible.

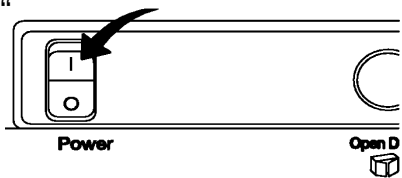
4 Operating



4.1 Power on

Note

Always power-on the jukebox before you power on your host computer. Otherwise it is possible that the host computer will not recognize the jukebox.

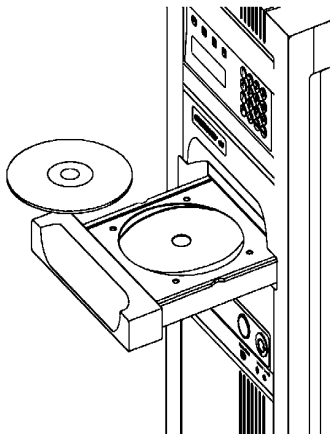
Action	Display / status
<p>Turn the line switch „Power“ to position „I“</p> 	<p>Mercury shortly displays type and date of the firmware for 2 sec.</p> <p>Mercury-40 V0306 18/06/97</p>

4 Operating



Action	Display / status
	Mercury displays the status. D1: -.-- D2: -.-- D3: -.-- D4: -.--
	Mercury is ready.

4.2 CD change in „locked“ mode



In the position „locked“ of the safety lock you can change CD´s via the mailslot.

The CD to be changed is selected or released by the host computer.

Note:

- 1) Always put CD´s with label up on a tray.
 - 2) Never insert the CD into the mailslot without a tray.
- Otherwise serious faults may occur in the Mercury.

4 Operating



4.2.1 CD change via host computer

At your request the host computer selects the CD to be changed and starts the change process.

CD change via host computer

Action	Display / status
Request a CD to be changed (at the host computer).	Mercury opens the mailslot which carries the requested CD.
	Mercury shows the origin of this CD (magazine No. 1; CD No. 27). MS: 1.27 D1: 2.03 D2: -.-- D3: -.--

4 Operating



Action	Display / status
	Mercury opens the mailslot. Export done
Take the CD out of the mailslot. Insert new CD.	
Confirm this new CD. Depending on the control software this confirming is done - by pressing „ENTER“ at Mercury - at the host computer.	Mercury closes the mailslot. D1: 2.03 D2: -.- D2: -.- D3: -.-
	The CD change is finished.

4.2.2 CD change via keyboard

To change a CD in this mode you enter magazine and CD number via keyboard. The CD has to be released by the host computer.

Confirm entries by pressing key „ENTER“ or cancel action with key „ESC“.

Action	Display / status
Press key „F“.	Export element MS: ?.--
Enter magazine number and CD number, press key „ENTER“.	Export element MS: 1.27 Start?

4 Operating



Action	Display / status
	Mailslot is opened. Export done
Take CD out of mailslot. Insert new CD.	
Press key „ENTER“.	The mailslot is closed and Mercury will lay back the CD. D1: 2.03 D2: -- D2: -- D3: --
	The CD change is finished.



4.2.3 Problems

Problems?

Problem	Reason / remedy
There is no tray in the mailslot.	Mercury has accessed a magazine number without CD-tray. Always insert a new CD only in a CD-tray. On no account you should insert a CD if there is no tray in the mailslot.
There is no CD on the tray.	Mercury has accessed a magazine number without CD.



4.3 CD and magazine change in „unlocked“ position

CD change - When is it possible to change?

The CD's are secured against unauthorized access with a safety lock. The host computer normally serves a data base concerning the inserted CD's of the Mercury.

If you change a CD or a magazine you must take care that the host's data base is updated.

4.3.1 CD change via keyboard and mailslot

To change a CD in this mode you enter magazine and CD number via keyboard. Confirm entries by pressing the key „ENTER“ or cancel with key „ESC“.

4 Operating

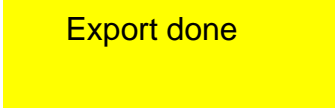
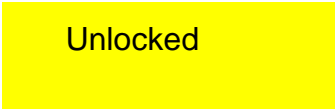


CD change via keyboard

Action	Display / status
Turn key in position „unlocked“.	Unlocked
Press key „F“.	Export element MS: ?.--
Enter magazine number and CD number, press key „ENTER“.	Export element MS: 1.27 Start?

4 Operating



Action	Display / status
	Mailslot will be opened. 
Take CD out of mailslot. Insert new CD.	
Press key „ENTER“.	Mercury will lay back the CD. 

4 Operating



Action	Display / status
To change more CD's: Again press key „F“. Turn the key back to position „locked“.	The CD change is finished.



4.3.2 Survey of magazine change

Changing magazines or CD's within magazines should be performed as follows:

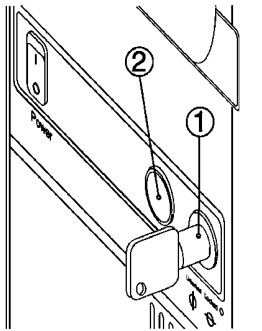
- Turn key into position „unlocked“; open the door
- Take out magazine
- Insert CD's
- Re-insert magazine
- Close the door; turn the key into position „locked“

For details see next pages.

4 Operating



Warning: When the door is open you have access to the Inside of the unit. You must not handle inside the unit using any tools. There is the risk that in doing so components are being damaged.


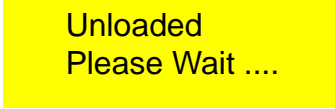
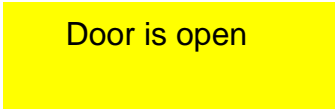


The door of the Mercury is secured by a lock. Access to the CD's is only possible if this safety lock is in position „unlocked“.

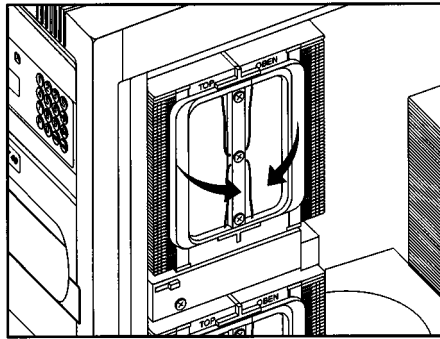
Action	Display / status
Turn the key into position „unlocked“ (1).	Unlocked

4 Operating

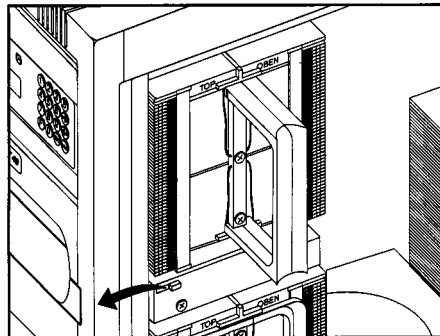


Action	Display / status
Press buton „Open Door“ (2) for 3 sec.	 
	Mercury opens the door. 
Now you may take out the magazines.	

4 Operating

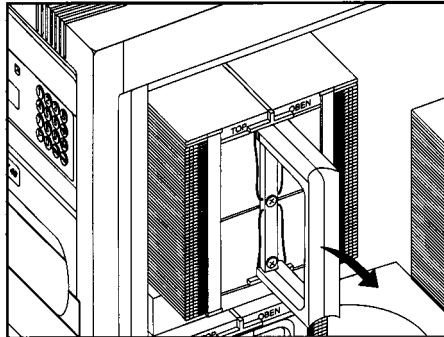


Fold out the handle of the magazine



Release the magazine

4 Operating

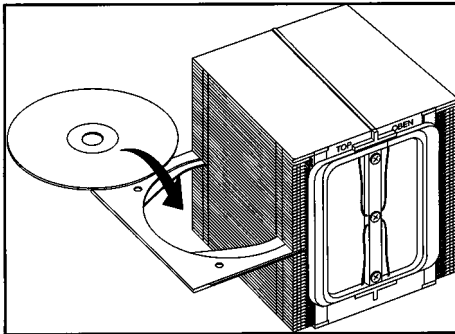


Take out the magazine

4 Operating



Exchanging CD's

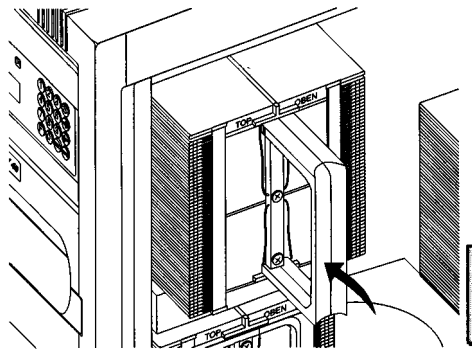


- Pull out CD-tray half the way.
- Insert CD face up into the CD-tray.
- Push in CD-tray.
- Repeat these steps for further CD's.

4 Operating



Insert magazine



- Insert the magazine.
- The magazine must snap in clearly audible.
- The locking lever must be in the position „locked“.

Note:
Observe the sticker „TOP/OBEN“ on the CD magazine.

4 Operating



Close the door;
turn the key into
position „locked“

Action	Display / status
	Door is open
Close the door.	Unlocked
Note: First close the backside door.	
Turn the key into position „locked“.	Mercury performs a RESET. D1: -.-- D2: -.- D3: -.-- D4: -.-
	Mercury is ready.

5 Setup



5 Setup

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

Warning:

Bevor connecting to mains:

- 1. Check the voltage setting.**
- 2. Remove the transportation fixtures inside the jukebox.**

5 Setup



5.1 Delivery

Note: Store the packaging of the jukebox for a possible later transport. Thus you can ship the jukebox safely.

	Mercury RS 232	Mercury SCSI	Mercury SCSI Diff.
Power cord	3	3	3
RS 232 cable	1	--	--
Single Ended Terminator	1 per SCSI bus	1 per SCSI bus	--
Differential Terminator	--	--	1 per SCSI bus
Fuses	3	3	3
Keys	2	2	2

5 Setup



	Mercury RS 232	Mercury SCSI	Mercury SCSI Diff.
Emergency pin	1	1	1
Quick Installation Guide	1	1	1
User Manual CD	1	1	1
Unit Mercury	1	1	1

Please check if the delivery is complete.



5.2 Placing the jukebox

The Mercury jukebox is intended to be used in offices.

Note: After delivery the temperature of the jukebox 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

5 Setup



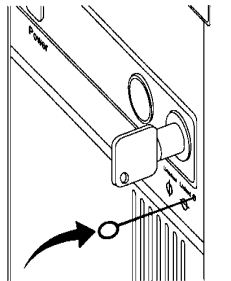
The right location:

- has a stable, even support
- sufficient space to pull out the unit

5.3 Removing the transportation fixtures

Warning:	The unit must be switched on only when the transportation fixtures have been removed.
Note:	Store the transportation fixtures in a safe place. Insert them always to the jukebox before transporting the unit.

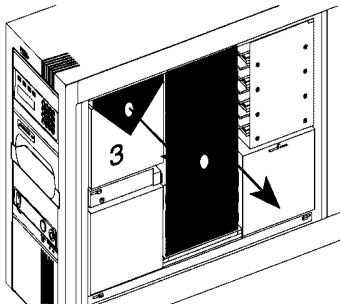
5 Setup



5.3.1 Manually unlocking the door

To remove the transportation fixtures from the inside of the unit, open the doors with the emergency pin.

- 1) Turn the key to position „unlocked“.
- 2) Insert the emergency pin into the aperture beside the key and press in as deep as necessary to get the door open.



5.3.2 Removing the transportation fixtures

- 1) Remove the transportation fixture above magazine 3.
- 2) Remove the transportation fixture between the magazines.
- 3) Take out the magazines and remove the two red transportation fixtures which fix the trays.
- 4) Return the magazines.
- 5) Close the doors.
- 6) Set the key to „locked“.



5.4 Connecting a host computer

5.4.1 Connecting the serial interface (RS 232) for the robotic

Warning:	Switch off the Mercury and the host computer when connecting the cable, otherwise the interfaces might be damaged.
-----------------	---

Description

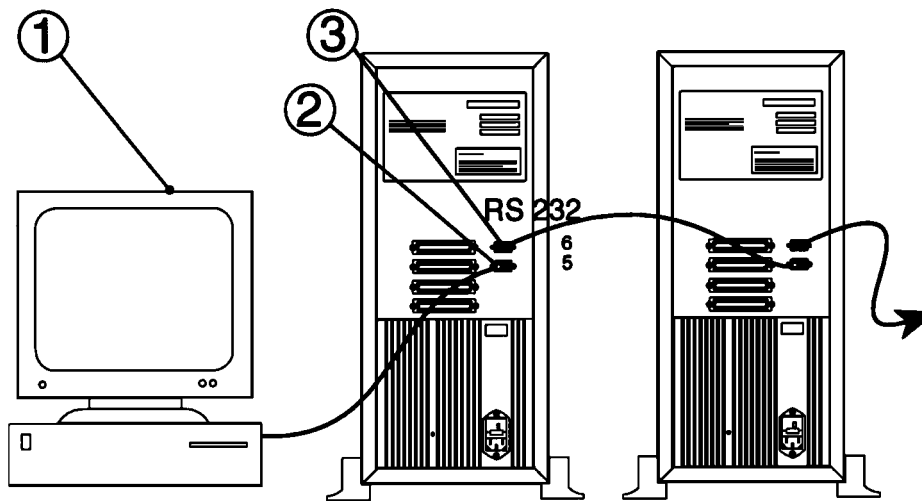
The Mercury can have a serial interface (RS 232) for robotics control or optional a SCSI robotics interface.

Models with serial robotics control have two RS 232 interfaces (in and out), models with SCSI robotics control have only one serial service interface which can not be used for normal jukebox control.

Further jukeboxes

If necessary further jukeboxes can be cascaded to the RS 232 out interface. The complete length of the serial bus should not be more than 15 m. Do not connect more than 3 units to one serial bus. Each unit has a unique RS 232 ID which can be set with the operator panel (see 5.6.2).

5 Setup



- 1) Host computer
- 2) Connection host computer to RS 232 interface
- 3) Connection to next jukebox on the serial bus (6)



5.4.2 Connecting the SCSI interface

Warning: Switch off the jukebox and the host computer before connecting the SCSI interface, otherwise the interfaces might be damaged.

SCSI robotics control

Units with SCSI robotics control require an extra SCSI ID for the robotic on the SCSI bus. The SCSI ID for the robotic can be set / changed via the operator panel (see chapter 5.6.3). For units with 2 SCSI busses, the robotic interface is always connected to SCSI bus A.

Differential Ended SCSI

Warning: Do not connect Differential Ended SCSI devices to Single Ended SCSI host adapters. The device and the host adapter will be damaged.

Units equipped with Differential Ended SCSI interface have a note on the

5 Setup



backplane next to the SCSI interface. For terminating Differential Ended SCSI busses do only use Differential Ended SCSI terminators.

SCSI cable

Use only high quality SCSI cables. For the maximum cable length of the SCSI bus see table below.

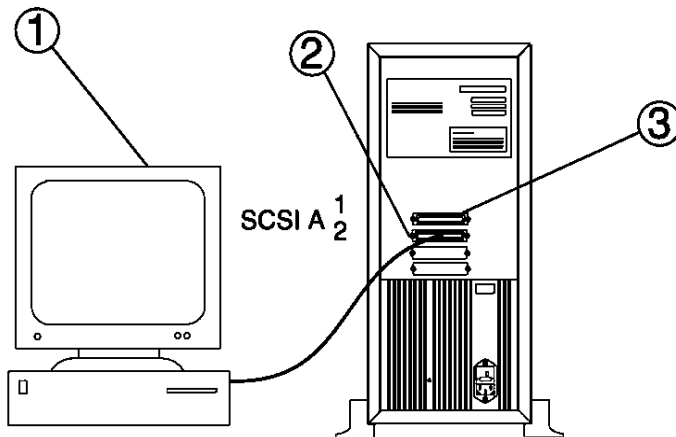
Data Mode	Single Ended	Differential
Asynchronous mode (5 MB/s)	6 m	25 m
Synchronous mode (5 MB/s)	6 m	25 m
Synchronous mode Fast (10 MB/s)	3 m	12 m
Ultra SCSI mode (20 MB/s)	1,5 m	6 m

The length of the SCSI cable inside the jukebox is 60 cm.

5 Setup



Units with one SCSI bus



- 1) Host computer
- 2) Connection host computer to SCSI A2
- 3) Connection additional SCSI devices to SCSI A1

If the jukebox is the last device on the SCSI bus, the SCSI bus has to be terminated with an external SCSI terminator.

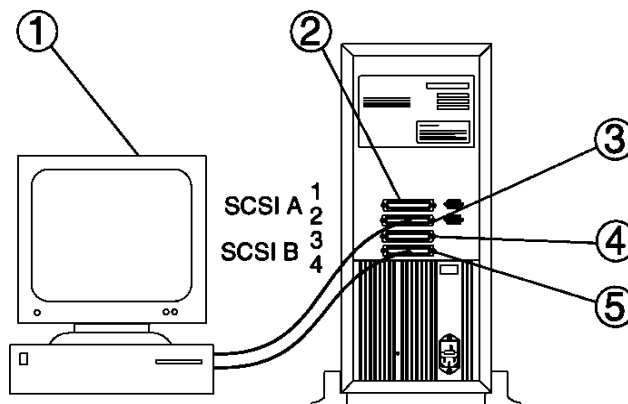
5 Setup



Units with two SCSI busses

Jukeboxes, which are equipped with CD-R or DVD drives have two SCSI busses. For a table with the drive assignment see chapter 3.

Connecting the jukebox to 2 SCSI host adapters



- 1) Host computer
- 2) Connection to additional SCSI device or external SCSI terminator to SCSI A1
- 3) Connection host computer to SCSI A2
- 4) Connection to additional SCSI device or external SCSI terminator to SCSI B3
- 5) Connection host computer to SCSI B4

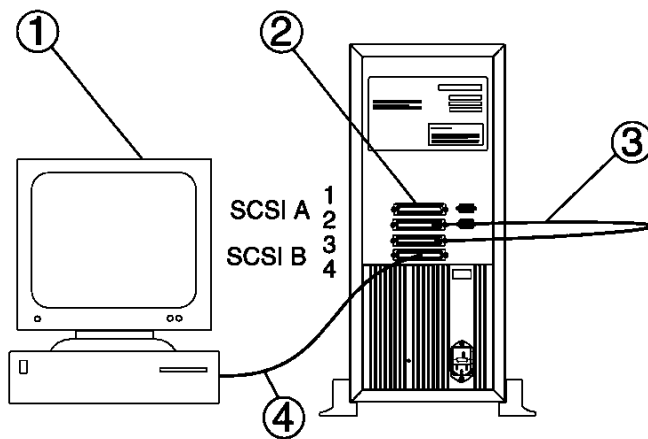
If during the writing process of CD-R media the CD-ROM or DVD drives should be accessible for other users, it is recommended to connect the recorder(s) to an extra SCSI bus.

5 Setup



Connecting units with 2 SCSI busses to 1 SCSI host adapter

To connect all drives of units with 2 SCSI busses to 1 SCSI host adapter, the SCSI busses of the jukebox can be daisy chained.

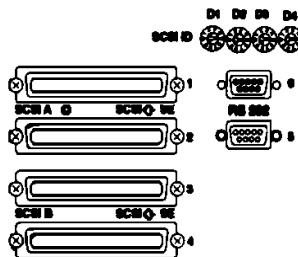


- 1) Host computer
- 2) Connection to additional SCSI device or external SCSI terminator to SCSI A1
- 3) Connection SCSI B3 to SCSI A2
- 4) Connection host computer to SCSI B4

5 Setup



5.4.3 Setting the SCSI ID's



The SCSI ID's of the CD ROM, CD-R and DVD drives can be changed with the ID switches at the rear of the jukebox.

For models with SCSI robotic control it might be necessary to change the SCSI ID for the robotic. For information how to change the SCSI ID for the robotic see chapter 5.6.3.

The ID range for the drives and the robotic is 0 to 6. For CD-R devices it is recommended to use SCSI ID 6 (and 5) because of the higher priority of these ID's on the SCSI bus.

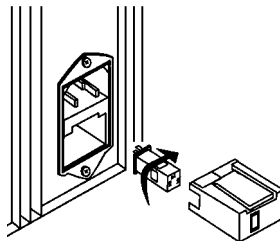
5.5 Connecting to mains

5.5.1 Changing the line voltage (old power supply unit only)

Warning:

Before connection the jukebox to line voltage, check if the voltage setting fits to the line voltage of your country. If not change the voltage setting.

Unplug the power cord before changing the voltage setting.



- Open drawer extra safe with a suitable screw driver and pull out. Take care that the fuses do not fall out..
- Pull out the grey insert (voltage selector) for voltage setting.
- Turn voltage selector and insert in such way that the desired voltage is visible in the small window.
- Push in again the insert.

5 Setup



5.5.2 Connecting to mains

With the Mercury a power cord corresponding to your common wall outlet is delivered. Use this power cord to connect the jukebox to mains.

5.5.3 Power on

After finishing the setup, the jukebox can be switched on. After powerin up the jukebox the display shows the firmware revision level of the jukebox for a few seconds and then goes to the status display of the drives.

Mercury-40
V0308 18/06/97

D1: -.- D2: -.-
D3: -.- D4: -.-



5.6 Settings via the operator panel

The Mercury offers a special mode (Power-on menu) in which several parameters of the jukebox can be set and edited.

Aktivating the Power-on menu

To activate the Power-on menu press the keys '**F**' + '**1**' + '**Enter**' at the same time. Alternately the Power-on menu can be activated by switching off the jukebox and holding the '**F**' key while the jukebox is powerd on again. The Power-on menu can only be activated while the jukebox is in „unlocked“ mode.

Leaving the Power-on menu

After finishing and storing the settings with '**Enter**', press '**Esc**' to leave the Power-on menu. The jukebox returns to normal operation mode.

Note:

During the Mercury is set to the Power-on meu, the RS 232 interface is not available.

5 Setup



Warning:

In the Power-on menu, the Mercury offers several functions to adjust the settings for the lift and for the pickers. These functions should only be used by authorized service providers. Changing the settings for the lift or the pickers by accident can cause serious problems.

If you active one of those service functions by accident, leave this function emediatly by pressing the 'ESC' key.

Functions of the Power-on menu

Key	Function	Description
0	Clear Loader Status	Deletes all status information
1	Picker Reference	For service only
2	Lift Reference	For service only
3	RS 232 ID	Setting the RS 232 ID for the robotic
4	SCSI ID Robotic	Setting the SCSI ID for the robotic



Key	Function	Description
5	Lift Adjustment	For service only
6	CDC 150 Demo	Demolrun for jukebox robotic
7	Quick Test	For service only
8	Self Test	For service only
9	Bootloader	Bootloader for firmware updates

5.6.1 Clear Loader Status

For information about the Clear Loader Status function see chapter 6.3.

5.6.2 Setting the RS 232 ID for the robotic

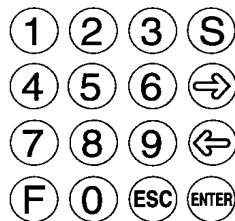
The factory default setting for the RS 232 ID is 00. The ID range for the RS 232 ID is 00 to 15.

5 Setup





Changing the RS 232 ID is only necessary if more than 1 jukebox should be connected to the same serial bus.

Note: For units with SCSI controlled robotic, the RS 232 ID has to be set to ID 0. This setting must not be changed.



Activity	Display / status
Aktiviere thePower-on menu	Power-on menu Function?
Press ③	Set RS232-ID to: 00
Use ⬅ and ➡ to select the RS 232 ID	Set RS232-ID to: 02



Activity	Display / status
Confirm selection with 	<div data-bbox="1346 561 1661 654" style="background-color: yellow; padding: 5px; text-align: center;"> RS232-ID set to 02 </div> <div data-bbox="1346 683 1661 776" style="background-color: yellow; padding: 5px; text-align: center;"> Power-on menu Function? </div>
Press  and set key to „locked“	<div data-bbox="1346 841 1661 933" style="background-color: yellow; padding: 5px; text-align: center;"> D1: _ . _ _ D2: _ . _ _ D3: _ . _ _ D4: _ . _ _ </div>

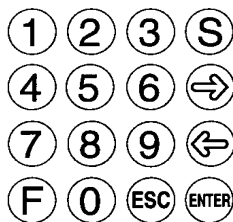
5.6.3 Setting the SCSI ID for the robotic

The factory default setting for the robotic SCSI ID is 6. To avoid ID conflicts with other SCSI devices, the SCSI ID for the robotic can be changed. The range for the SCSI robotic ID is 0 to 7.

5 Setup



Note: Normally SCSI ID 7 is assigned to the SCSI host adapter.



Activity	Display / status
Aktiviere the Power-on menu	Power-on menu Function?
Press ④	The ID setting for the drives is displayed. Set SCSI-ID of Drive 1 to 3

5 Setup



Activity	Display / status
Press ENTER 4 times to select the setting for the robotic SCSI ID	<p>Set SCSI-ID of Controller to _ _</p>
Use ← and → to select the ID	<p>Set SCSI-ID of Controller to 02</p>
Confirm with ENTER	<p>SCSI IDs set</p> <p>Power-on menu Function?</p>
Press ESC and set key to „unlocked“	<p>D1: _ . _ _ D2: _ . _ _ D3: _ . _ _ D4: _ . _ _</p>



6 Disturbances

6.1 Avoiding disturbances

Reason of disturbances

Mechanical disturbances mostly are caused by:

- Errors during the loading process of the magazines
- A wrong manual change of the CDs
- Self-adhesive labels for the lettering the CDs

To avoid disturbances please adhere to the following recommendations:

6 Disturbances



No self-adhesive labels

Do not use self-adhesive labels for the lettering your CDs. This labels may loosen itself and then cause damages of the drives and the CDs.

Use CD-tray

Put CDs only into the mailslot laying on CD-trays. CDs can only be transported if they are placed on trays.
If you insert a CD without tray this will lead to mechanical disturbances.

Load CD magazines completely

Load the CD magazines completely with trays even if you do not fill in all trays with CDs.
Operate the Mercury only with all 150 trays installed. By factory setting all magazines are equipped with all trays. **Do not remove trays.**

Insert CD magazines correctly

When inserting CD magazines pay attention to the TOP position. The magazines must snap in clearly audible. An incorrectly inserted CD magazine will lead to mechanical disturbances.

6 Disturbances



6.2 Reports on the display

In the table some display reports are listed. The given information is intended to help you to remove disturbances.

Report	Reason	Accomodation
Door is open	The doors of Mercury are open. CD magazines can be exchanged.	If you want a normal operating mode: Close the doors manually.
unlocked	The key of the safety lock is in position „unlocked“. Mercury cannot perform any command (e.g. CD change) from the host computer except status request. In this position of the key the doors can be opened and there is access to the power-on menu.	Turn key to position „locked“.

6 Disturbances



Report	Reason	Accomodation
Unloading Please Wait	Mercury removes all CDs from the drives and the mailslot and puts them back into the respective magazines. This process is performed always before it is possible to open the door.	None, wait until the process is terminated.
locked	Message in power-on menu. Entries are not possible.	Turn key to position „unlocked“ if necessary.
Access denied	Safety lock in position „locked“. You have tried to make input which are admissible only in the position „unlocked“.	Turn key to position „unlocked“.

6 Disturbances



6.3 Setting Mercury to the initial state

When required?

Depending on incorrect change of magazines or CDs by the operator or by Mercury the internally stored informations do not longer correspond to the actual positions of CDs.

6 Disturbances



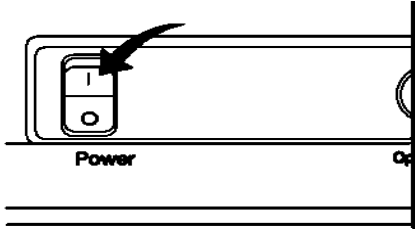
Status of the Mercury

The unit does not react correctly.

Steps:	Actions:	
Step 1: Take out all magazines and trays of Mercury.	Power-on the unit at the „Power-on“ switch.	
	Turn key to position „unlocked“.	
	Open the door: Press key „Open Door“ and wait until door will open.	
	Power-off the unit.	
	Take out all magazines (see page 3-6).	
Note: Do not remove trays from the lift.	Take out all trays of the drives and the mailslot.	

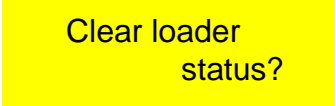
6 Disturbances



Steps:	Actions:	
Step 2: Clear „loader status“.	Press key „F“ and hold on until menu is displayed; switch on the unit	Mercury enters power-on menu. <div data-bbox="1297 618 1629 724" style="background-color: yellow; padding: 5px; margin-top: 10px;"> Power-on-menu: Function? </div>
Danger: Do not handle inside the open Mercury while clearing the „loader status“. In this mode the lift can move up/down and there is a risk of injury for your hands.		

6 Disturbances



Steps:	Actions:	
	Select „Clear loader status“ by pressing key „0“.	
	Confirm clearing by pressing key „ENTER“.	Status is cleared.
	Press key „ESC“.	
Step 3: Remove tray from mailslot.	If there was a tray left in the lift it is automatically placed in the mailslot. Remove the tray from the mailslot (see page 3-2).	

6 Disturbances



Steps:	Actions:	
Step 4: Insert magazines.	Correctly place all trays with CDs into the magazines and insert the magazines into the Mercury. Close the door.	
	Turn key to position „locked“.	Mercury is ready. D1: -.-- D2: -.-- D3: -.-- D4: -.--

6 Disturbances

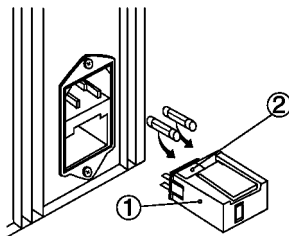
6.4 Replacing line fuses (old power supply unit only)

Danger:

**Unplug the power cord before exchanging line fuses.
Use only fuses as specified below.**

Note:

The two line fuses have the value T 2,5 A; 250 V for all line voltages (100/120/230 V).



- Open drawer extra safe (1) using a suitable screw driver and pull out. Take care that the fuses do not fall out.
- Don't pull out the grey voltage selector (2). The line voltage must not be changed!
- Replace always both fuses.
- Re-insert the drawer extra safe (1).



7 Appendix

7.1 Technical Data

Interfaces		
RS 232 interface	RS 232 ID	0
	Baud rate	9600 Baud
	Startbits	1
	Stopbits	1
	Databits	8
	Parity	none
	ID range	ID 0 - 15
SCSI-2 interface	SCSI ID (robotic)	2
	ID range	ID 0 - 7

7 Appendix

Operating conditions

Ambient temperature operating	10°C - 33°C	50°F - 91,4°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
Power consumption max.	85 W - 130 W

**Dimensions and weight**

Dimensions	Width	218 mm
	Height	519 mm
	Depth	600 mm
Weight without CD's	2 drives	28,6 kg
	4 drives	30,2 kg

Robotic

	Media load time min:	1 sec.
	Media load time max:	2,5 sec.
	Media swap time	4 sec. (average)

7 Appendix

Robotic		
	MSBF (mean swaps between failure)	2.500.000 cycles

Drives		
	DVD - ROM	Toshiba SD-M1401
	CD-R	Plextor 12/10/32 S

Supported formats:

Red book, Yellow book, CD-ROM XA, Photo CD , CD Bridge, CD-I, CD-I Ready; packet writing. Please take care your CD-R media suport 12X writing.

7 Appendix

7.2 Service

Necessary service is supported by your distributor.

Hot-Line:

International: +49 6721 964 222
Germany: 0 6721 964 222
USA: +1 631 273 4600 extension 107 or 108

Internet: <http://www.nsmstorage.com>



7.3 Declaration of conformity



EG-KONFORMITÄTserklärung mit der Richtlinien 89/336/EEG/ und 73/23/EEG.	EC-DECLARATION OF CONFORMITY per 89/336/EEC, and 73/23/EEG.	CE-DECLARATION DE CONFORMITE avec 89/336/CEE et 73/23/EEG.
Hiermit wird bestätigt, daß das Produkt CD-ROM Jukebox CDC 150	This is to confirm that the product CD-ROM Jukebox CDC 150	Nous déclarons que le produit Jukebox CD-ROM CDC 150
mit den folgenden Normen bzw. normativen Dokumenten übereinstimmt:	is conform with the following standards or other normative documents:	est conforme aux normes ou autres documents normatifs suivants:
EN 50081-1, EN 550 22, EN 61 000-3-2, EN 61 000-3-3 EN 50082-1, IEC 801-2, IEC 801-3, IEC 801-4, EN 60950.	EN 50081-1, EN 550 22, EN 61 000-3-2, EN 61 000-3-3 EN 50082-1, IEC 801-2, IEC 801-3, IEC 801-4 EN 60950.	EN 50081-1, EN 550 22, EN 61 000-3-2, EN 61 000-3-3 EN 50082-1, IEC 801-2, IEC 801-3, IEC 801-4, EN 60950.
Das Qualitätssicherungssystem der NSM garantiert die Konformität.	NSM quality assurance system assures compliance.	Le système d'assurance de la qualité de NSM garantit la conformité.
NSM Jukebox GmbH Im Tiergarten 20-30 D-55411 Bingen am Rhein	NSM Jukebox GmbH Im Tiergarten 20-30 D-55411 Bingen am Rhein, Germany	NSM Jukebox GmbH Im Tiergarten 20-30 D-55411 Bingen am Rhein, Allemagne
Ausstellungsdatum: 07.03.1996	Date of issue of the declaration: 03-07-1996	Date d'établissement de la déclaration: 07.03.1995

A. Frank

Geschäftsführer

P. Lober

Projektleiter



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