

Instruction manual
for
NSM Phonographs

FLOOR SERIES A
ESVI-technology

part-no.: 180 144

Phonograph type list:

COSMIC BLAST



Copyright-Note

All rights reserved.

Copyright © NSM MUSIC GmbH – October 2000

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 NSM MUSIC GmbH • 55411 Bingen/Rhein • Im Tiergarten 20-30 • Germany.

Disclaimer

NSM MUSIC GmbH and all of its subsidiaries makes no representation 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 NSM MUSIC GmbH, 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.

Subject to technical modification without obligation to modify equipment already delivered!

Our Internet-address: *<http://www.nsmmusic.com>*

Version: 1.03/2000

Date: 02/11/2000

Part number of this manual: 180 144

For quick orientation

Who should use this manual?

- This manual is made for the operator of the phonograph. It guides him through the installation and normal operation of it.

How can I operate this appliance without risk of hazard?

- Regard the safety instructions - see page 1-1.

How can I quickly find my way through this manual?

- Read this page.
- See table of contents on the following page.
- See catchword register at the end of this manual.

How can I change single CDs?

- Via inserting it into the magazine - see page 4-6.

How can I change many CDs at a time?

- By changing a whole magazine - see page 4-6.

What to do in case of disturbances?

- See page 5-1.
- See page 7-5 (Service, Hot-line).

How can I power-on the phonograph?

- See page 4-1 (Set-up) and 3-1.

Are there options available for this phonograph?

- A list of available options is included within the "Spare parts list" – see page 6-2.

How can I program individual settings to the phonograph?

- See Attachment B: "Service Program ES VI-technology".

Document conventions

The following symbols are used to graphically identify residual risks of this product :

Symbol:



Meaning:

This symbol indicates that a dangerous voltage constituting a risk of electric shock is present within this unit

This symbol indicates that there are important operating and maintenance instruction in the literature accompanying this unit

Caution: Disregarding the following message may cause personal damage!

Notes: The following information simplifies the usage of this product.

This page left blank intentionally.

Table of contents

1	IMPORTANT SAFETY INSTRUCTIONS	1-1
1.1	SAFETY PRECAUTIONS.....	1-4
2	GENERAL SURVEY OF THE UNIT	2-1
2.1	SURVEY OF FRONT SIDE.....	2-1
2.2	KEYBOARD OF THE PHONOGRAPH	2-1
2.3	DISPLAY OF THE PHONOGRAPH.....	2-2
2.4	SURVEY OF THE INNER COMPONENTS.....	2-3
2.4.1	<i>Survey of the interface board</i>	<i>2-4</i>
3	OPERATING.....	3-1
3.1	POWER-ON	3-1
3.2	INSERTING COINS.....	3-2
3.3	SELECTING TITLES FOR PLAYING.....	3-2
3.4	VIEWING THE TITLE SHEETS IN THE TITLE DISPLAY	3-2
3.5	IR REMOTE CONTROL RC601 AND RC 602	3-3
3.5.1	<i>How to use the remote control</i>	<i>3-4</i>
3.5.2	<i>Mounting remarks for IR receiver.....</i>	<i>3-5</i>
3.6	WIRED REMOTE CONTROL.....	3-6
4	SET-UP.....	4-1
4.1	SURVEY OF SET-UP	4-1
4.2	WHAT TO DO AT FIRST?	4-2
4.2.1	<i>Check if the delivery is complete</i>	<i>4-2</i>
4.3	PREPARE SITE.....	4-2
4.4	PREPARE THE APPLIANCE	4-3
4.4.1	<i>Observe when placing the appliance.....</i>	<i>4-3</i>
4.4.2	<i>Open the appliance</i>	<i>4-3</i>
4.4.3	<i>Transportation security devices</i>	<i>4-3</i>
4.4.4	<i>Removing the transportation fixtures</i>	<i>4-4</i>
4.4.5	<i>External connections</i>	<i>4-5</i>
4.4.6	<i>Check the CD trays after transport</i>	<i>4-6</i>
4.4.7	<i>Loading CDs</i>	<i>4-6</i>
4.4.8	<i>Re-insert the CD magazine.....</i>	<i>4-6</i>
4.4.9	<i>Loading title strips to the title display.....</i>	<i>4-7</i>
4.4.10	<i>Check all wiring and components</i>	<i>4-8</i>
4.4.11	<i>Power-on the appliance</i>	<i>4-8</i>
4.4.12	<i>Initialize the CDs to the central unit ESVI.....</i>	<i>4-8</i>
5	DISTURBANCES.....	5-1
5.1	AVOIDING DISTURBANCES	5-1
5.2	REPORTS ON THE DISPLAY	5-2
5.3	REPLACING LINE FUSES	5-3
5.4	REPLACING THE SECONDARY FUSES	5-3
6	SPARE PARTS CATALOG.....	6-1

7	APPENDIX	7-1
7.1	TECHNICAL DATA.....	7-1
7.2	WIRING DIAGRAM.....	7-2
7.3	SERVICE BRANCH.....	7-5
7.4	DECLARATIONS	7-5
7.4.1	<i>CE-declaration</i>	7-5
7.4.2	<i>FCC declaration</i>	7-6
7.5	CATCHWORD REGISTER	7-7

Attachments

Attachment A CD-changer MBCIII-PRO

Attachment B Service program ES VI-technology

1 Important Safety Instructions

Read these instructions.

Keep these instructions.

Heed all warnings.

Do not use the apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with manufacturer's instructions.



Secure installation: Installation of this appliance must be carried out only by qualified and authorized technicians or NSM service staff.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

Use only with the cart, stand, tripod, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



Unplug this apparatus during lightning storms or when unused for long periods of time.

Repair:

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Repair must be carried out only by the NSM service staff, or by qualified and authorized service staff.

Warning:

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

Intended use

The phonograph is exclusively determined to play audio CDs according to the red book standard.

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

The technology of the NSM phonograph corresponds to the state of the art and is very reliable when operating.

Improper use of the phonograph may cause residual risks if it is operated or used by non-authorized persons.

Any person who is engaged to operate the phonograph has to read and to understand this instruction manual, especially these safety instructions.

Residual risks



Warning:

In this manual residual risks are marked as follows:

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



Caution:

Disregarding the safety messages following “Caution“ can cause personal damage.

Ban of arbitrary reversions and changes

The phonograph must not be changed in construction or concerning safety regulations.

Any change will lead to the exclusion of liability of NSM concerning the resulting damages. Especially defective parts must be replaced only by original spare parts of NSM.

Caution:

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

**CLASS 1
LASER PRODUCT**
According to IEC 825

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 21CFR chapter 1, subchapter J, applicable at the date of manufacturing. Accession number: 9520184

Explanation of Graphical Symbols



This symbol indicates that a dangerous voltage constituting a risk of electric shock is present within this unit



This symbol indicates that there are important operating and maintenance instruction in the literature accompanying this unit

1.1 Safety precautions



Set-up:

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 instructions in this manual. → Refer to chapter 4.



Fire damages:

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



Opening device: To prevent electrical shock, remove power cord before opening this appliance!



Caution:

Replace fuses only with same type and values!



Fire prevention: Position the appliance near to the wall outlet of the mains voltage. On fire risk or other disturbances pull out plug immediately.



Heat build-up in the appliance: Take care that the ventilation holes in the rear of the appliance are not covered.



Save the environment:

The Central Unit of this appliance is equipped with a battery buffered SRAM (IC21). Please take care to put this SRAM as toxic waste to the special waste dump for disposal.



Caution:

Danger of explosion if battery is incorrectly replaced.
Replace only with same or equivalent type.

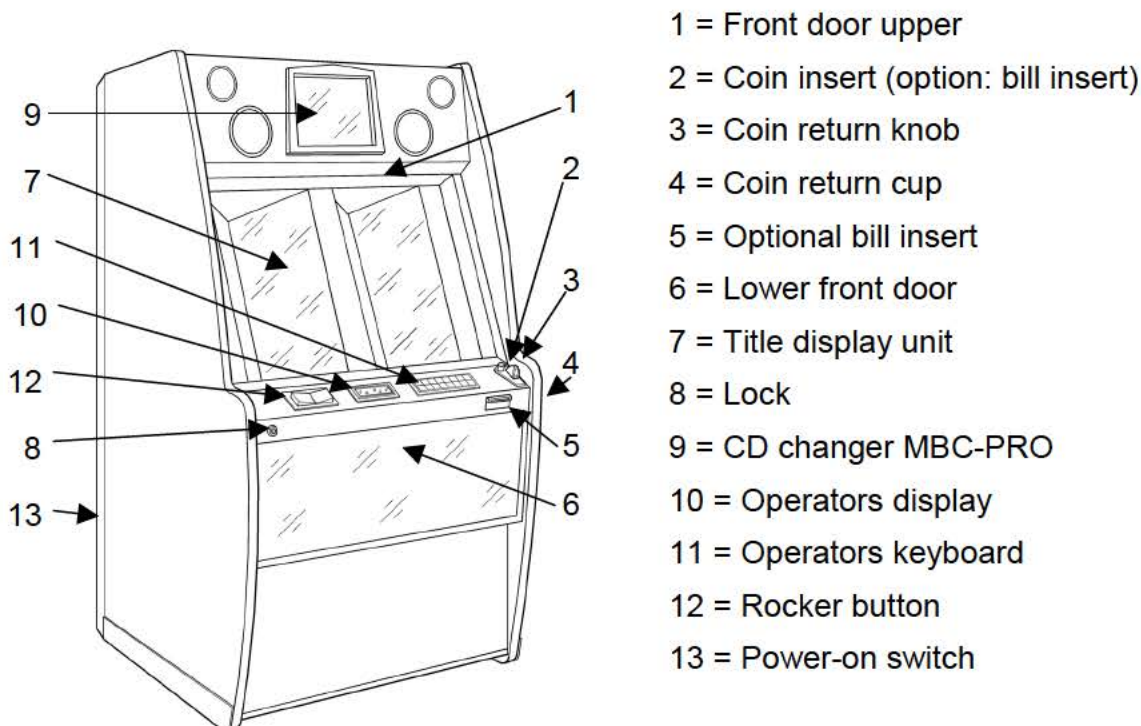
2 General survey of the unit

This phonograph is equipped with a CD changer MBC III-PRO capable of storing up to 50 CDs in one magazine.

The magazine can be exchanged without much difficulty. The change of CDs is comfortably made with CD-tray inside the magazine.

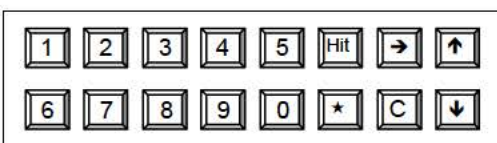
The basic functions are controlled manually via the keyboard and the LCD-display in the operators panel.

2.1 Survey of front side



- 1 = Front door upper
- 2 = Coin insert (option: bill insert)
- 3 = Coin return knob
- 4 = Coin return cup
- 5 = Optional bill insert
- 6 = Lower front door
- 7 = Title display unit
- 8 = Lock
- 9 = CD changer MBC-PRO
- 10 = Operators display
- 11 = Operators keyboard
- 12 = Rocker button
- 13 = Power-on switch

2.2 Keyboard of the phonograph



The phonograph is equipped with a 2 x 8 keyboard. With the keyboard you may enter pre-operational commands or commands and data while operating the phonograph.

The functions of the keys are:

1 to 0 = numeric input, e.g. title selection

Hit = to show hitparade

→ ↑ ↓ = to move cursor on display/ to swap display pages in service mode

★ = changing display mode during "Service operation"

C = to cancel input

2.3 Display of the phonograph

The LCD-display will give you information about the actual status of the phonograph.

The display is separated into three sections:



first line = information line

middle area = message window

last line = Command line / "Help messages"

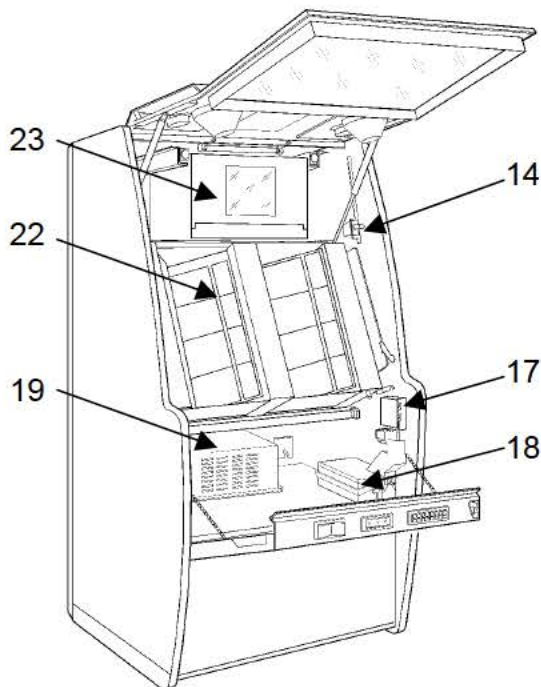
It is also possible to program customer specific information to be displayed on the LCD. Refer to the attached service program manual.

Note:

The messages shown on the display are depending on the functional state of the phonograph. They will have different meaning during "Service mode".

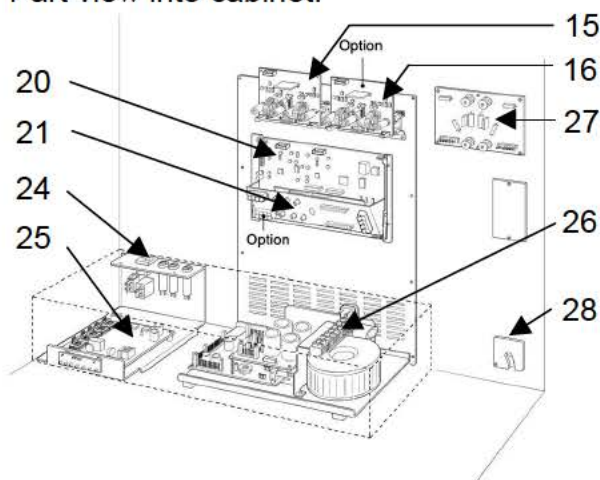
2.4 Survey of the inner components

Inside the phonograph you will additionally locate the following:



- 14 = Service switch to enter service mode
- 15 = Amplifier (module A) (behind title display)
- 16 = Optional amplifier (module B) (behind title display)
- 17 = Coin acceptor
- 18 = Cash box
- 19 = Electronic ballast and power supply (behind cover)
- 20 = Central unit ESVI board (behind title display)
- 21 = Interface board (behind title display)
- 22 = Title display unit
- 23 = CD changer MBCIII-PRO
- 24 = Additional 120V-socket
- 25 = Electronic ballast
- 26 = Power supply
- 27 = Cross-over network
- 28 = Cable outlet in cabinet rear wall

Part view into cabinet:



Within the left hand rear corner of the power supply shielding you may locate an additional connection socket for 120V-appliances (24). This is to connect the light box animation option.

Caution:

Line voltage connector! Do not contact the taps of this connector while phonograph is connected to the mains voltage.

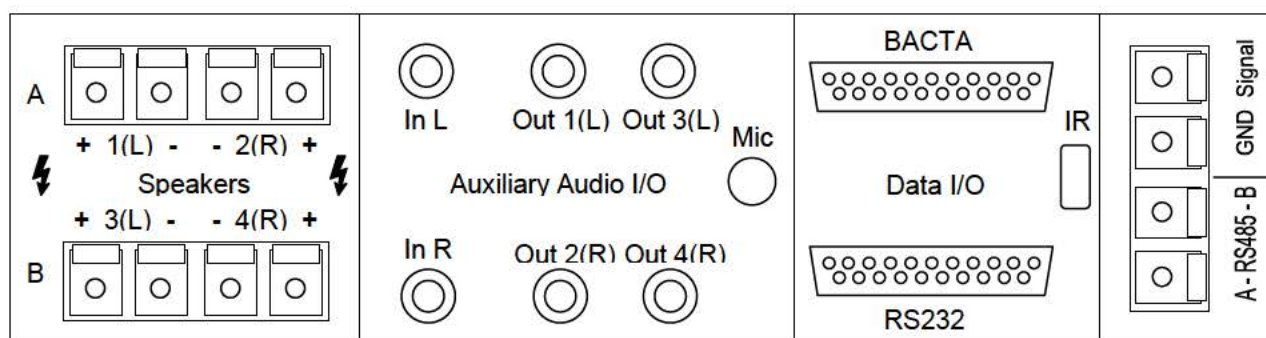
Warning:

Only connect appliances with power rating up to 100W!

2.4.1 Survey of the interface board

The interface board offers all necessary terminals for

- ◆ Loudspeakers output
- ◆ Auxiliary Audio signals (input and output)
- ◆ Microphone input
- ◆ Selector wall box interface
- ◆ DATA I/O:
- ◆ RS232 device
- ◆ reserved for future use (prepared RS485)
- ◆ Bacta interface
- ◆ IR interface



3 Operating

The phonograph is ready to operate using factory default settings.

Additionally you may program the phonograph for your personnel requirements or for the site requirements of the location the phonograph is to be operated. Therefore see the attached manual “Service program ESVI technology”.

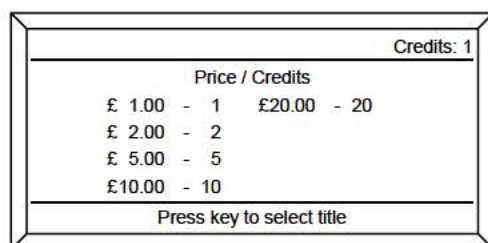
This chapter will describe the basic functionality of the phonograph.

3.1 Power-on

Power-on:

Action	Display / status
Turn the power-on switch to position “on”	<p>The phonograph displays type and date of the firmware for some seconds.</p> <div style="border: 1px solid black; padding: 5px;"> <p>NSM M.U.S.I.C. Jukebox ES6 Technology Software version 1.0</p> <p>Starting up . . .</p> </div>
	<p>Afterwards several messages appear on the operators display.</p>
Insert coins to earn credits.	<p>If enough credits are registered the phonograph offers the possibility to select titles.</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: right;">Credits: 10</p> <p style="text-align: center;">NSM M.U.S.I.C.</p> <p style="text-align: center;">Press key to select title</p> </div>
	<p>The phonograph is ready.</p>

3.2 Inserting coins



Fill in the required amount of coins necessary to earn credits at least to play one title.

One of the alternating display messages during idle mode will give an overview about the programmed prices for selecting titles at this location.

3.3 Selecting titles for playing

After insertion of coins to earn enough credit you may enter several titles.

Sequence of selection:

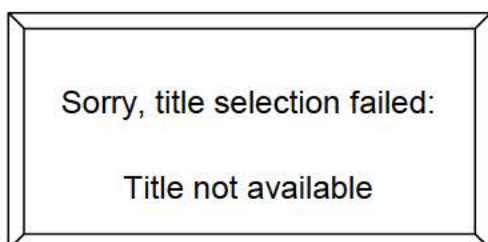


Type a 4-digit number using the numeric keys, representing

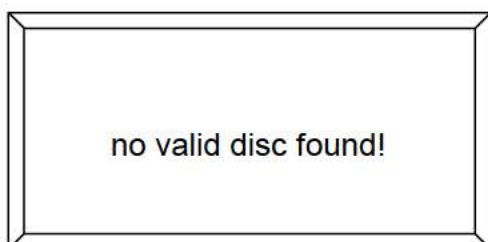
first 2 digits = CD.number from 00 to 99

second two digits = Title number of the desired track from 01 to xx (depending of the count of the selected CD)

Your input shall be automatically confirmed 2 seconds after pressing the fourth digit.



- If you have entered a wrong combination or
 - If the CD may be not initialized or
 - If the selected title is locked out from the operator
- the phonograph will give the corresponding error message.



During initialization process this message will be displayed only.

3.4 Viewing the title sheets in the title display

If you want to get an overview of the inserted CDs, press the illuminated red rocker button to turn the title pages of the title display.

On each button press the next side of four possible title sheets is displayed.

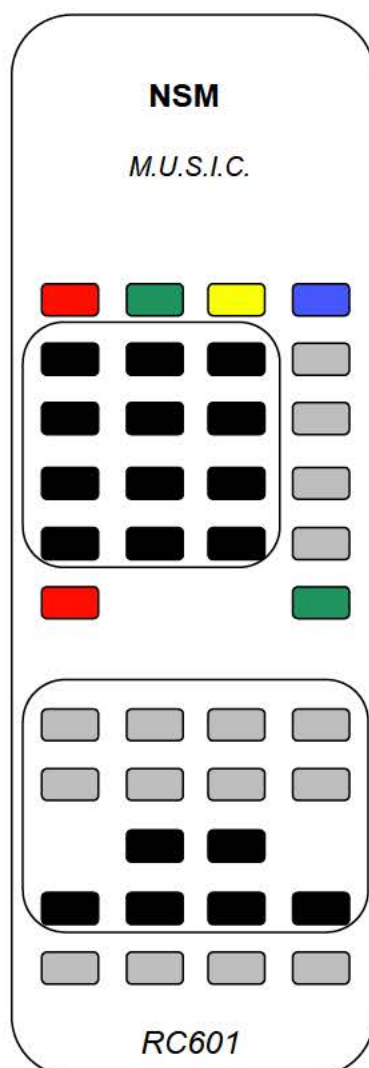
Title sheets are moved to direction corresponding to arrows printed on the rocker button.

3.5 IR Remote control RC601 and RC 602

Two infra-red remote controls are available to control the phonograph:

RC601 (part-no. 180118) giving full functionality and control

RC602 (part-no. 180237) with reduced functionality limited to basic functions.



The RC601 offers following possibilities

- ◆ selecting titles
- ◆ setting volume and sound
- ◆ function keys F1 to F4 programmable via service program (i.e. background mode, free credits, reject)

The functions of the keys are:

F1	F2	F3	F4
1ABC	2DEF	3GHI	↑
4JKL	5MNO	6PQR	↓
7STU	8VWX	9YZ	→
C	0Sym	★	Hit
Reject			VIP
C1	C2	C3	C4
C1/2	C3/4	C1-4	Mic
	Volume -	Volume +	
Treble -	Treble +	Bass -	Bass +
Surr	SRS	Mute	Norm

F1 to F4 = user defined function keys (free credit, background, etc.)

1 to 0 = numeric input keys

C = Cancel/Clear input

★ = Change display mode during "Service mode"

Hit = Show the Hitparade

VIP = select a VIP title

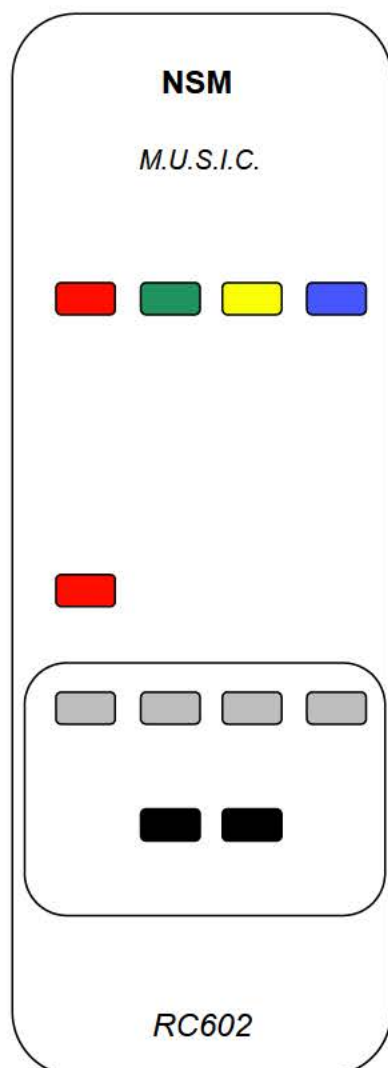
MIC = select microphone channel

Surr = activate surround sound

SRS = activate SRS sound

C1 to C4 = select audio channels

RC602 also offers



- ◆ use of function keys
- ◆ volume control (per channel only)

F1	F2	F3	F4
Reject			
C1	C2	C3	C4
	Volume -	Volume +	

The IR-receiver is connected to the CB "CENTRAL UNIT ESVI" via the 4-pol. connector "IR" in the lower right edge of the board.

3.5.1 How to use the remote control

Following you will find some examples of how to set volume or sound of the phonograph using the IR remote control.

Set volume of all channels (C1-C4):

press [**C1-C4**] and then [**Vol+**] or [**Vol-**]

Set volume of channel (C1) only:

press [**C1**] and then [**Vol+**] or [**Vol-**]

Set volume of channels (C3+C4):

press [**C3-C4**] and then [**Vol+**] or [**Vol-**]

Set treble for channels (C1+C2):

press [**C1-C2**] and then [**Treb+**] or [**Treb-**]

Set bass for channels (C3+C4):

press [**C3-C4**] and then [**Bass+**] or [**Bass -**]

Set microphone volume for channel (C3):

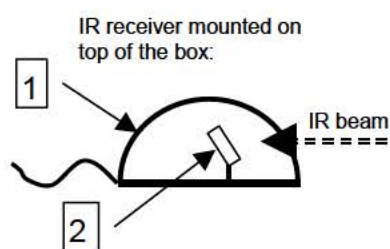
press [**C3**] [**Mic**] and then [**Vol+**] or [**Vol-**]

Set treble for this microphone channel:

press [**C3**] [**Mic**] and then [**Treb+**] or [**Treb-**]

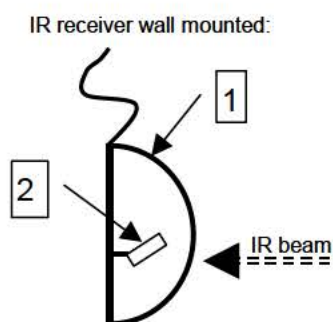
3.5.2 Mounting remarks for IR receiver

Regard the following mounting instruction for best function results of the IR receiver.



The IR receiver can be mounted either to the top of the phonograph or to a wall near the phonograph.

Regard the length of the connection cable.



Place the housing of the IR receiver (1) in that way, that the internally mounted IR-module (2) will meet the IR beam of the IR hand transmitter.

Take care to avoid that the IR beam “hits” the IR receiver from the side or the back (cable outlet). This will cause malfunction of the remote control.

3.6 Wired remote control

Alternatively the phonograph may be controlled with a wired remote control for:

- ◆ volume setting
- ◆ Mute
- ◆ Reject
- ◆ programmable functions F1 – F4

The function keys are:

F1 = user defined, i.e. "Stand-by"

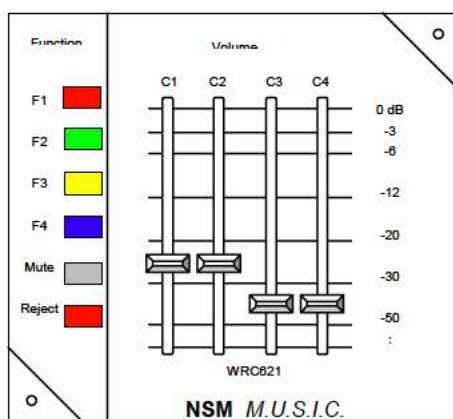
F2 = user defined, i.e. "Free credit"

F3 = user defined, i.e. "Voice canceler on/off"

F4 = user defined, i.e. "Background"

Mute = used to turn off/on the sound

Reject = used to reject the just playing title



Set the volume for the desired channel (C1 – C4) using the assigned slide control.

The wired remote control unit is to be fixed to a wall

It is connected to the CB "CENTRAL UNIT ESVI" via the 4-pol. connector "wired" in the lower right edge of the board.

This page left blank intentionally.

4 Set-up

Warning

Read this set-up instructions.

In this chapter you will find all information being necessary to set-up the phonograph correctly.

4.1 Survey of Set-up

For the set-up perform the following steps.

Details to the single steps are explained in the following subchapters.

Steps:

What to do at first?

Check if the delivery is complete; see page 4-2 •

Prepare site

Position unit to its final place; see page 4-2, 4-3 •

Prepare the appliance

Open the unit; see page 4-3 •

Remove transportation fixtures; see page 4-4 •

Make external connections; see page 4-5 •

Load CDs; see page 4-6 •

Feed title display; see page 4-7 •

Check all wiring/components; see page 4-8 •

Power-on; see page 4-8 •

4.2 What to do at first?

4.2.1 Check if the delivery is complete

**Warning:**

Depending on the heavy weight of the appliance we recommend that two persons should work together to unpack the phonograph.

Unpack the unit and check if the delivery is complete:

1 phonograph

1 mains (power) cord

1 pair of keys to open the front door of the phonograph

1 instruction manual

If any parts are missing inform your supplier.

Please fill in the warranty card and send it back to
NSM MUSIC GmbH - Germany.

Note:

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

Check for transportation damages

If the shipping carton shows damage due to transport, this should at once be recorded on the delivery slip of the shipping papers and then endorsed by the person making the delivery.

Note:

The manufacturer is not liable for damages during transport!

4.3 Prepare site

In order to guarantee a correct functioning of the coin mechanism, and the CD changer, and the title display, place the appliance horizontally and vertically exactly.

A wall outlet for the mains supply should be available close to the final position of the phonograph.

4.4 Prepare the appliance

4.4.1 Observe when placing the appliance



Do not place appliance near to heaters!
Keep ventilation holes free.

Level the phonograph to secure correct functioning of the CD changer, the coin mechanism, and the title display unit.

The phonograph is heavy weighting.

Just do it only when you have a colleague or partner to help you.

4.4.2 Open the appliance



Caution

Find the keys for the housing lock fixed at the rear of the cabinet.

The lid opens up towards you. So take care not to hurt yourself.

Insert the delivered key into the lock at the right hand side.

Turn it clockwise to open the front door of the unit.

4.4.3 Transportation security devices



Warning

Before operating the appliance all security devices for safety and protection during transport have to be removed.

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

So first remove the transportation fixtures after opening the appliance.

Prior to any further transportation the security devices for safety and protection during transport have to be re-inserted.

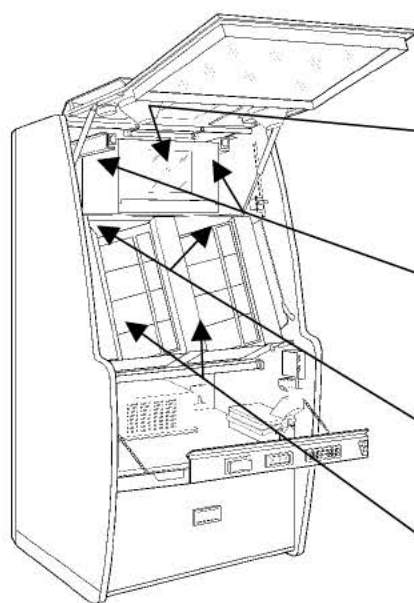
Note:

Store the transportation fixtures in a safe place. Re-insert them always into the unit before any transportation.

Follow the following safety instructions

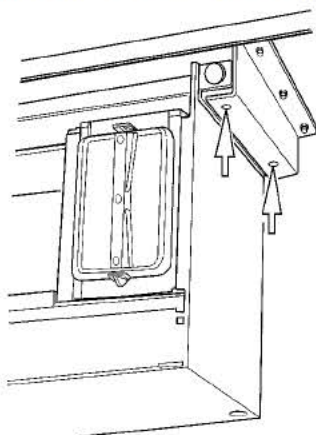
Remove all transportation security devices carefully from the phonograph and the CD-changer in order to avoid destruction and malfunctioning of it.

4.4.4 Removing the transportation fixtures



1. To open the phonograph turn the key and swing up the upper lid.
2. Remove the card board transportation fixture, located between the two CD storage magazines of the CD-changer.
3. Loosen the 4 screws of the transportation fixture, 2 screws each at the left and right top of the CD changer (supports). The CD-changer must be able to swing freely.
4. Loosen the screws and remove the two holding brackets at the upper rear left and right corner of the title display.
5. Remove the two card board transportation fixtures inside the title display which fix the title holders.

CD changer view to the right top side:



Remove transportation fixture screws also at the left top side

Afterwards visually check all components for incorrect placement and secure installation.



Caution:

Remember: Before connecting the power cord to the wall outlet:

1. Check the setting of the line voltage and compare it with the setting of the unit.
2. Remove all transportation fixtures.
Otherwise the appliance might be damaged.

4.4.5 External connections

Connection of loudspeakers

The appliance is equipped with a semi-digital, high-power amplifier to connect the loudspeakers to.

The internal loudspeakers are wired and connected via the integrated cross-over network, to get best sound results.

Regard the right polarity of the connected external speakers/speaker wires, to guarantee best sound results.



Warning:

Installation of necessary wiring must be carried out only by qualified and authorized technicians. Otherwise the amplifier might be damaged.

Lead the speaker cables through the outlet in the back of the phonograph's housing to the inside.



Caution:

Two wires for each channel have to be connected to the connecting taps on the interface board.

Power-off the appliance before connecting loudspeakers. Do not touch loudspeaker connectors. Risk of shock hazard through high voltage. Abuse, shortening or interconnecting of cabling may cause serious damage to amplifier!



Warning:

CLASS 2 wiring may be used!

There is a total power output of 250W RMS on each channel.

Remote control cabling

To simplify the operating of the phonograph you should use a remote control unit (infra-red or wired remote control).

Lead the connecting cable also through the outlet in the back of the phonograph into the inside. Then connect it to the desired plug connector "IR" / "WIRED", located on the CENTRAL UNIT.

Mains cabling



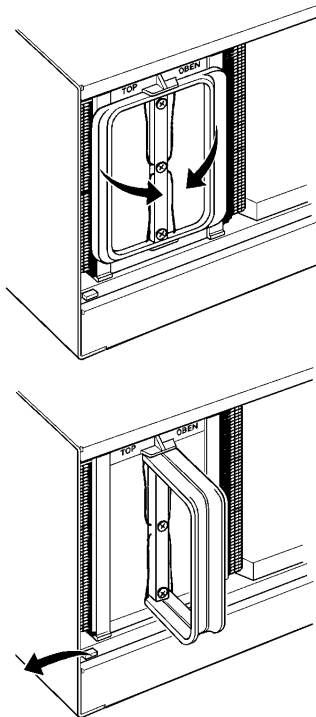
After checking all cabling is done well insert the mains plug into the mains connector on the rear side of the phonograph.

Avoid static discharge to the appliance. Electro Static Discharge (ESD) may destroy the opto-electronics and other ESD sensitive parts within the appliance.

4.4.6 Check the CD trays after transport

While transportation of the phonograph it may happen that single trays jump out off their leadings in the CD-magazine.

Remove the magazine



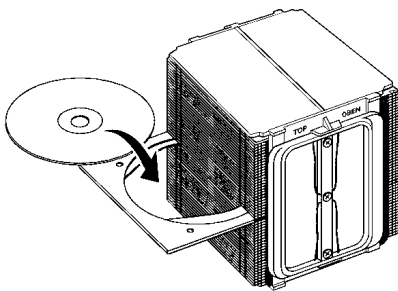
The magazine is equipped with tilting handles. Simply fold the two handles to the front.

Hold the magazine with one hand and press the release knob with the other to the left side.

The magazine will audible be released and jumps out of the lock.

Check that each tray is placed well in its parallel leadings.

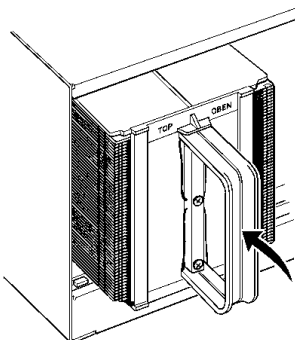
4.4.7 Loading CDs



Remove a number of trays corresponding to the number of CDs to be inserted.

Always place CDs face up (label up) into the recess of each tray, and thereupon slide the tray into the first/next available slot of the magazine.

4.4.8 Re-insert the CD magazine



When re-inserting the magazine take care that it locks audibly with a slight bump in the locking device. If you don't push the magazine strong enough, a malfunction of the CD changer may result herein!

Please don't store or transport magazine head foremost.

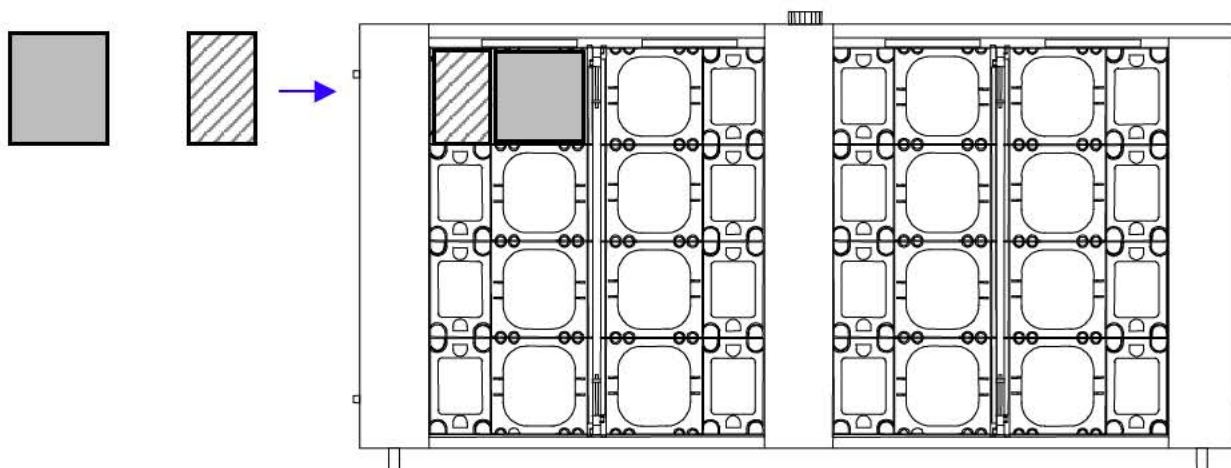
Note: Due to the construction of the CD magazine it can be transported outside the CD changer without any special transportation securities. Only when treated too rough the CD trays will be falling out of the magazine.

4.4.9 Loading title strips to the title display

The title display is capable of storing up to 112 (2x 7x8) CD covers and title strips.

Loading title strips and CD covers

If you want to insert or remove title strips and /or CD covers you first have to open the phonograph, if not already done. Firmly lift the lid.



Insert the title strips into the fields of the title display

You have to be careful while inserting the CD covers and title strips into the title holders.

Make sure CD covers and title strips are inserted under all the black plastic tabs. This will insure that they don't fall out.

The title display will always show 2x eight covers of inserted CDs.

Moving the title pages of the title display

You have to press the rocker button, placed in the operators console of the phonograph, if you want to move the title holders within the title display.

The title holders can be moved into the corresponding direction by pressing the rocker button in the operator's console.

Upon each button operation sixteen new CD-covers including title strips are shown. Lamps inside the rocker button will light to show the possible direction of moving the title holders.

What to do in case of limited number of CDs?

In case of a limitation of selectable CDs you have to take care to insert only the corresponding number of title strips and CD covers, refer to manual "Service program ES VI technology".

4.4.10 Check all wiring and components

After finishing the installation of wiring, the insertion of CDs and title sheets you should check once more

- if all wiring is correctly made
- if all components are placed in a correct manner

Afterwards plug in the mains plug into the corresponding wall outlet.

4.4.11 Power-on the appliance

The power-on switch is located right hand at the bottom side of the appliance. To turn on the power just switch it to the opposite position (marked "I" or "ON" or "1").

If all installation was ok the lights should go bright and the initialization routine should be displayed on the operators display.

After a moment the appliance is ready.

4.4.12 Initialize the CDs to the central unit ESVI

You have two possibilities to initialize the inserted CDs. After inserting

- if you only have inserted one or a few of CDs just play the first track of each CD.
- if you have inserted a lot of CDs it is easier to call up the service program and start the initialization routine of the phonograph.

See manual "Service program ES VI technology".

5 Disturbances

5.1 Avoiding disturbances

Reason of disturbances

Errors during the loading process of the magazine or a wrong manual insert of the CDs mostly result in mechanical disturbances.

To avoid disturbances please adhere to the following recommendations:

Use CD-tray

Put CDs only into the trays label-up.

Inside the CD changer CDs can only be transported if they are placed on trays.

Load CD magazine completely

Load the CD magazine completely with trays even if you do not fill in all trays with CDs.

Operate the phonograph only with all trays installed.

By factory setting the magazine is equipped with all trays.

Do not remove trays.

Insert CD magazine correctly

When inserting a CD magazine pay attention to the **TOP** position.

The magazine must snap in clearly audible.

An incorrectly inserted CD magazine will lead to mechanical disturbances.

5.2 Reports on the display

The following table contains some display reports of the phonograph.

The given information is intended to help you to remove disturbances.

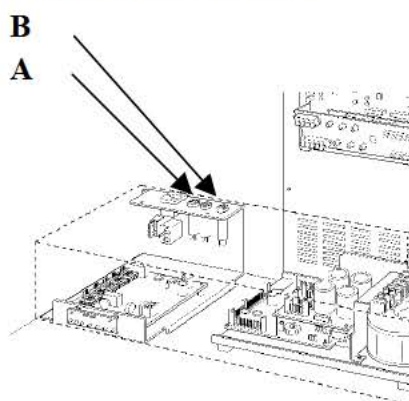
Report	Reason	Accomodation
Title not available	No CD in tray or CD not initialized	Insert CD and run initialization routine
no valid disc found		Perform initialization routine

5.3 Replacing line fuses

Danger

Always unplug the power cord before exchanging line fuses.
Use only fuses as specified below.

Part view into cabinet:



Two line fuses (A) have the following values:

T 5 AL for line voltage 230 V

T 8 A for line voltage 120 V

One fuse (B) for illumination has the following value:

T 2 AL for line voltage 230 V

T 1,6 A for line voltage 120 V

The fuses are located in the bottom part of the phonograph cabinet. To get access to the fuses

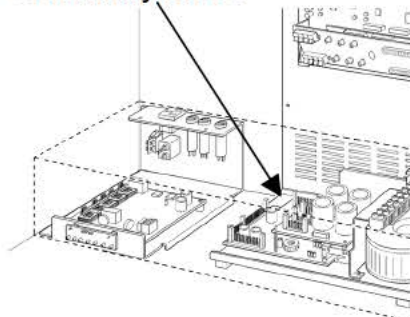
- Power-off the phonograph and unplug the power cord.
- Open the front door.
- Take the title display unit with both hands and swing up into horizontal position, it will audible lock.
- In the left hand rear corner of the power supply shielding you will see the fuse holders .
- Open the fuse caps and replace the fuses.
- Re-build the original state of the phonograph and power-on again.

Warning

Replace fuses only with same type and value! Otherwise the phonograph may be damaged in hole.

5.4 Replacing the secondary fuses

Part view into cabinet:
secondary fuses



The secondary fuses are placed on the two printed boards of the power supply unit.

The secondary fuses have the following values:

T 6,3 AL for 60 V_A

T 6,3 AL for 60 V_B

T 1 AL for 30 V

T 3,15 AL for 15 V

T 3,15 AL for 12 V

T 3,15 AL for 5 V

Warning

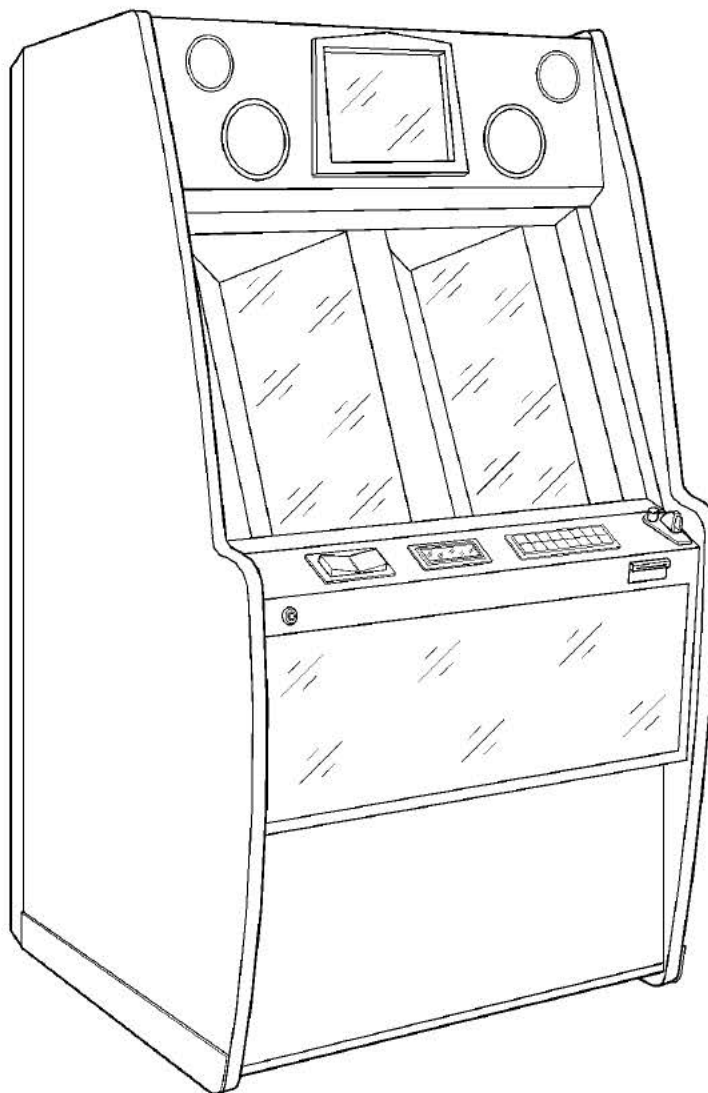
Replace fuses only with same type and value! Otherwise the phonograph may be damaged in hole.

This page left blank intentionally.

6 Spare parts catalog

The following spare parts and options are available for the phonographs of the "Floor series A".

COSMIC BLAST:



This spare parts list is valid only for phonographs of the "FLOOR Series A" built with ESVI-technology.
Each spare parts order must contain the following information:

1. Phonograph type
2. Serial number
3. Parts quantity
4. Parts number
5. Parts description

Example of a correctly filled-out order sheet:

Type	Serial no.	Qty.	Part-no.	Description	Remarks
COSMIC BLAST	060481504	1	223 478	Transformer	900VA
		2	235 228	Interference filter	FN9222-10/06
	060482376	1	225 040	Starter	S10

Note:

When ordering your spare parts please indicate model and serial number by all means. By doing so, you will avoid annoying further enquiry.

Please forward your spare parts orders only to your wholesale dealer or to the NSM MUSIC-Organisation.

NSM MUSIC GmbH
Im Tiergarten 20-30
D-55411 BINGEN / Rhein
Germany

Information and illustration contained in this spare parts list are correct at the time of printing.

Subject to technical modification without obligation to modify equipment already delivered!

123 456

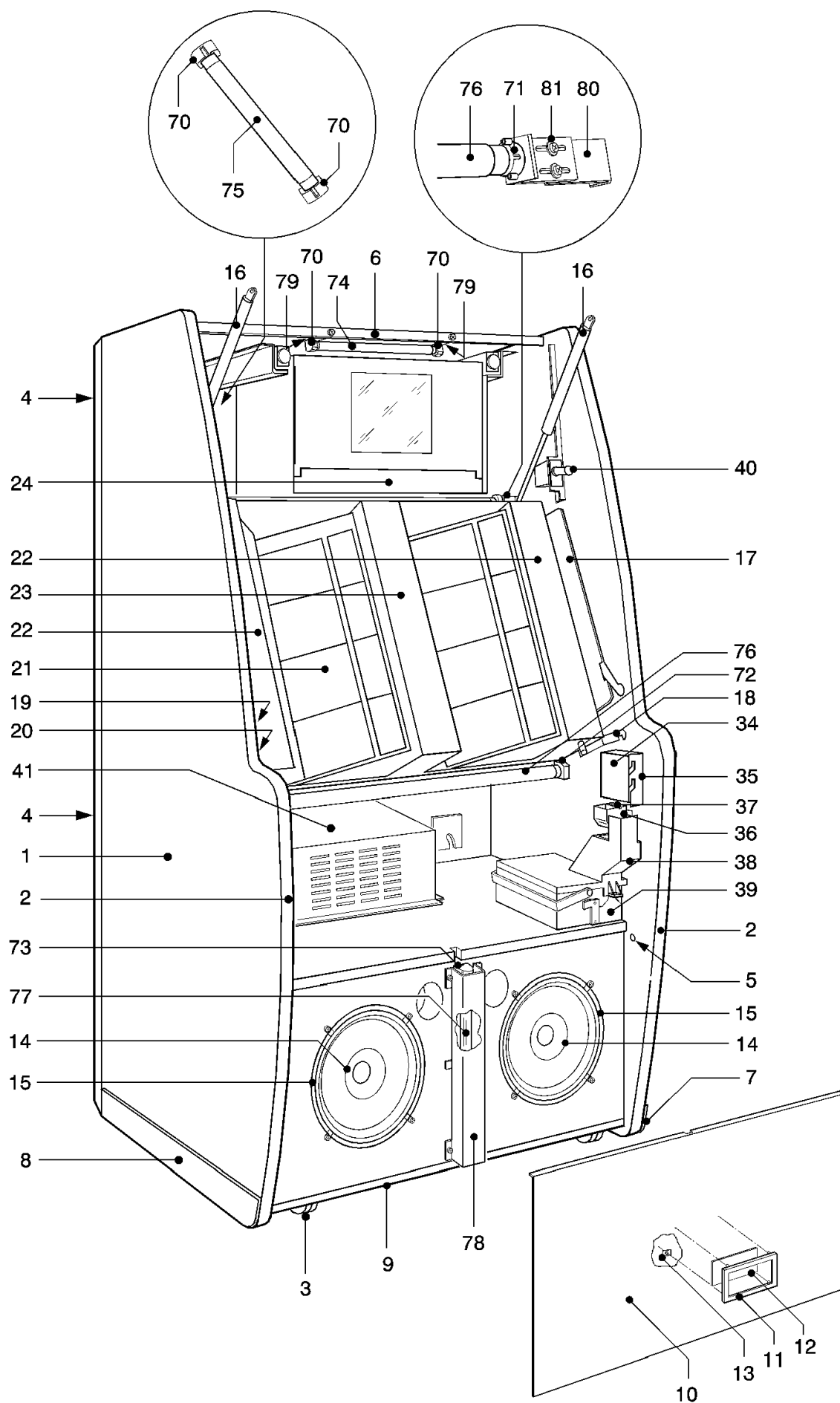
Table entries marked that way indicate the corresponding spare part as not available for all models.

Options

Part no.	Description	Remarks / data
180 118	IR remote control unit, assy.	RC 601; see page 3-3 of this manual
180 237	IR remote control unit, assy.	RC 602; see page 3-3 of this manual
216 830	Wired remote control unit, assy.	see page 3-6 of this manual
180 189	Amplifier module, assy.	
180 213	Lightbox animation, assy.	Lightplay behind lower front door
180 144	Instruction manual, english	FLOOR Series A with ES VI technology

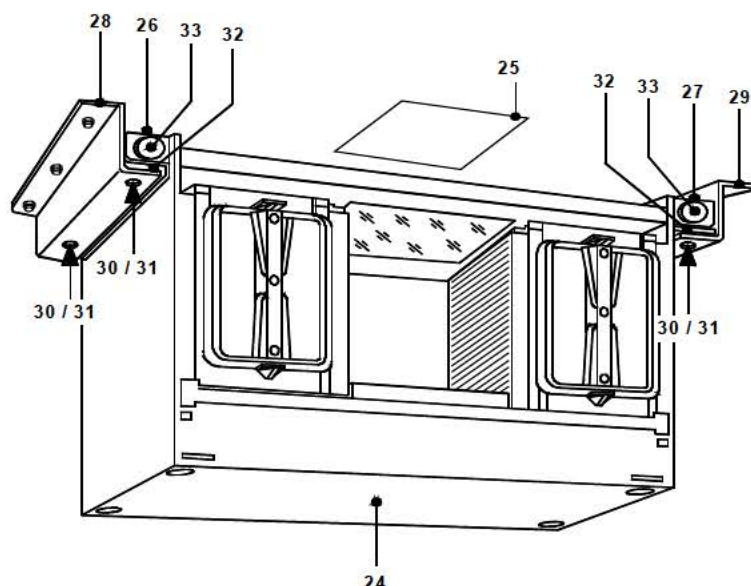
Cable harnesses

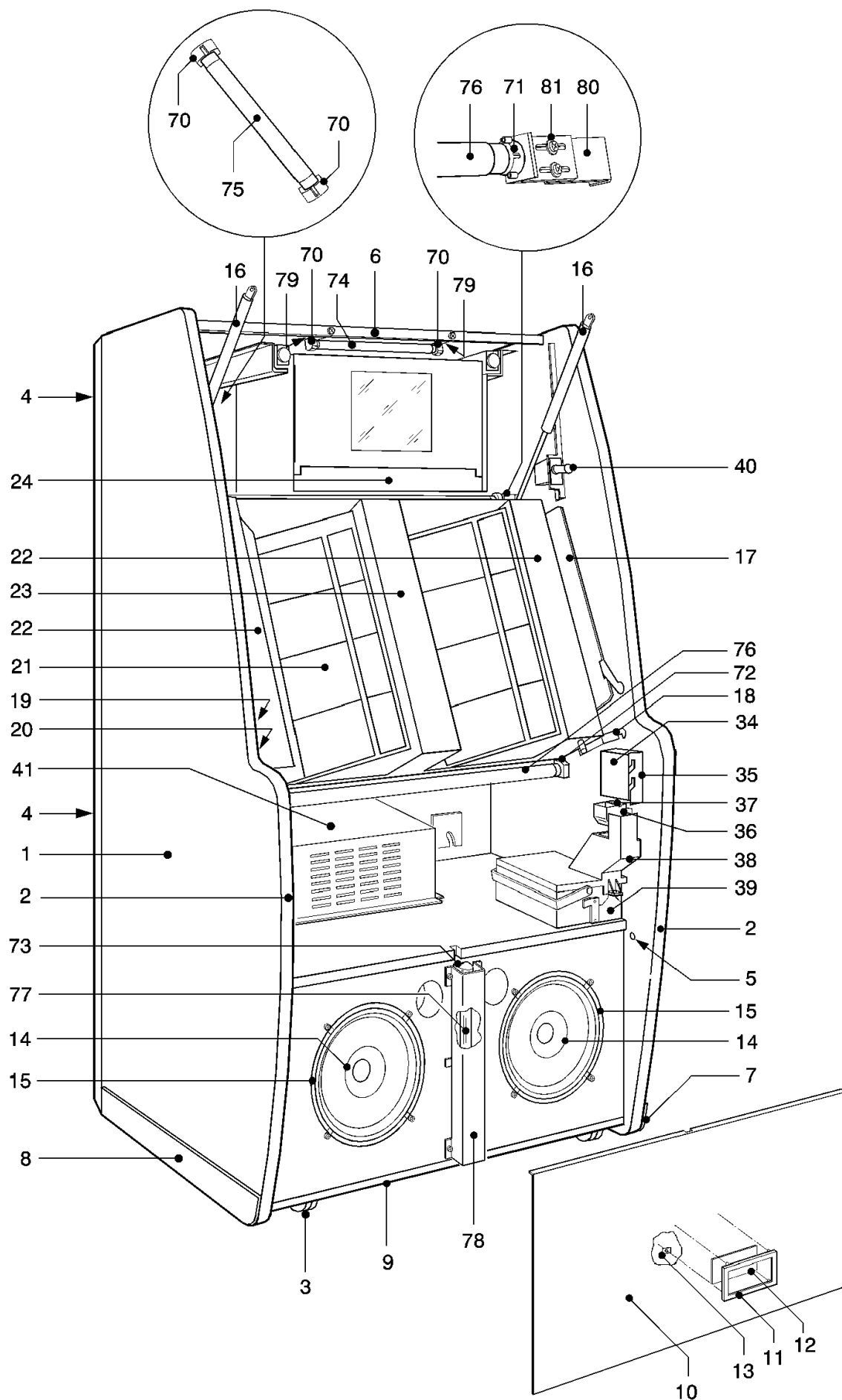
Part no.	Description	Remarks / data
227 528	Power cord 110-127V	*USA*, length=2500mm
227 629	Power cord with plug	*GB*, length=2500mm
227 433	<i>Power cord EURO</i>	<i>*D*/EXP*, length=2500mm</i>
227 529	<i>Power cord w/o plug</i>	<i>*AUS*/NZ*, length=2500mm</i>
180 185	Power supply unit – CB Central Unit	8 pole, length=600mm
179 884	Power supply unit – Amplifier	6 pole, length=1500mm
179 880	Power supply unit – Electronic ballast	6 pole, length=670mm
179 996	Power supply unit – CB LED BAR	4 pole, length=650mm
179 972	Power supply unit – CB LED BAR	6pole, length=700mm
179 962	CB Power Filter – CB Converter	12 pole, length=200mm
179 879	Amplifier – Loudspeaker connector	4 pole, length=450mm
180 179	Crossover network – Bass loudspeakers	
179 523	Crossover network – Loudspeakers in upper front door	
113 115	CB Display – Rocker button	6 pole, length=200mm
178 012	CB Central Unit – Title display	10 pole, length=1470mm
179 893	CB Central Unit – Service switch	2 pole, length=850mm
180 176	CB Central Unit – CB Display	8 pole, length=2300mm
179 905	CB Central Unit – AMP	8 pole, length=340mm
180 180	CB Central Unit – Coin switch	2pole, length=1500mm
179 891	CB Central Unit – MBC III	15 pole, length=880mm
179 856	CB Central Unit – I/O-Panel	18 pole, length=100mm
179 881	CB Central Unit – MBC III	8 pole, length=1300mm
179 857	CB Central Unit – I/O-Panel	20 pole, length=100mm
	Illumination:	
180 177	Fluorescent lamp 8/16W, 2x 6W	
180 178	Fluorescent lamp 16W	
180 181	Fluorescent lamp 8W	



Pos	Art.-no.	Description	Data	Qty.
1	203 886	Cabinet	*COSMIC BLAST*	1
2	212 941	Bandings 3/4", Flexible "T"	length=1990mm	1
3	217 506	Apparatus-Casters		4
4	170 852	Handle		4
5	179 280	Flange sleeve	Bearing of lower front door	2
6	179 376	Cover, pointed		1
7	179 679	Edge protection, right		1
8	179 680	Edge protection, left		1
9	179 281	Edge protection, front		1
10	180 127	Speaker grid, spot welded		1
11	172 531	Frame	for NSM Logo	1
12	212 517	Mask, printed	NSM Logo	1
13	671 006	Spring nut 6	Frame fixation	4
14	224 291	Loud speaker	120W / 8Ohm	2
15	239 449	Black light wire ø8mm	length=0.969m	2
16	216 655	LIFT-O-MAT	F1=350N	2
	179 364	Bond pin with flute	for LIFT-O-MAT	2
17	179 387	Insert plate right, pre-mounted	for title display	1
18	179 389	Bar, right	single	1
19	179 388	Insert plate left, pre-mounted	for Title display	1
20	179 390	Bar, left	single	1
21	117 200	Title display 112 , complete (w/o design parts)	see page 6-5	1
22	179 455	Decoration mask	Option Design	2
23	180 126	Decoration mask, printed	Cosmic Blast	1
	239 319	Title stripe		30
24	179 530*	CD-changer MBC III-PRO , complete	see Attachment A	1
		(w/o locking bracket left + right, w/o magazines)		
25	180 188	Design foil MBC III, red		
26	179 826	Locking bracket left, riveted	to unscrew at changer's exchange	1
27	179 827	Locking bracket right, riveted	to unscrew at changer's exchange	1
28	179 312	Holding bar left, pointed		1
29	179 313	Holding bar right, pointed		1
30	140 285	Damping foot		4
31	205 353	Wire spring		4
32	179 317	Glide plate		2
33	614 003	Knurled screw	M4x8	2

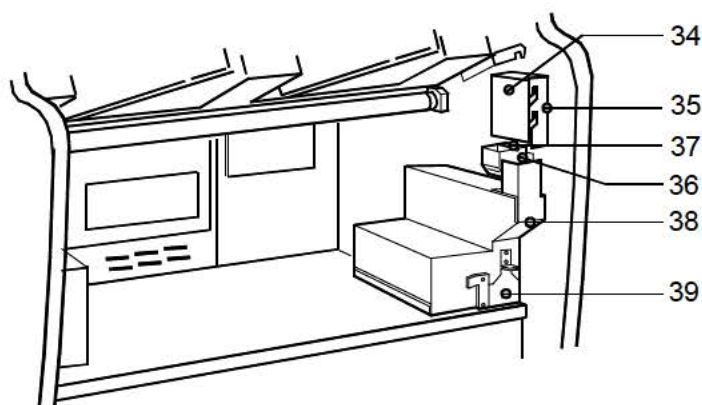
* = Exchange unit





Pos	Art.-no.	Description	Data	Qty.
		Coin acceptors		
34	216 280	- Cashflow 330, Assumption left	*GB* Option	1
34	216 774	- Coin Controls C120	*GB* Option	1
34	216 254	- Cashflow 330, Assumption left	*AUS* Option	1
34	216 675	- mechanical 25c	*USA* Option	1
34	216 792	- mechanical 5Peso	*MEX* Option	1
	180 142	Coin validator – Coin Controls	*UNI* Option	1
35	179 336	Coin validator holding plate, complete		1
	179 896	CB-Coin adapter ES VI, complete		1
	171 289	Distance sleeve	below CB-Coin adapter	3
	179 435	Cable harness coin adapter	8 poles, length=1600mm	1
	180 138	Coin validator – mechanical validator 25c	*USA* Option	1
35	179 336	Coin validator holding plate, complete		1
	205 913	Switch lever	to micro switch	1
	180 180	Cable harness coin validator	with micro switch	1
	222 604	Micro switch	for mech. coin acceptor	1
	180 141	Coin validator	*MEX* Option	1
35	179 336	Coin validator holding plate, complete		1
	178 896	CB-Coin adapter ES VI, complete		1
	171 289	Distance sleeve	CB-Coin adapter	3
	113 425	Cable harness coin adapter	12 poles, length=1400mm	1
	180 180	Cable harness coin validator	with micro switch	1
	222 604	Micro switch	for mech. coin acceptor	1
	205 913	Switch lever	to micro switch	1
36	029 335	Coin return cup		1
37	102 495	Coin lid		1
38	179 509	Cash box, complete		1
39	179 373	Cash box guidance, riveted and spot welded		1

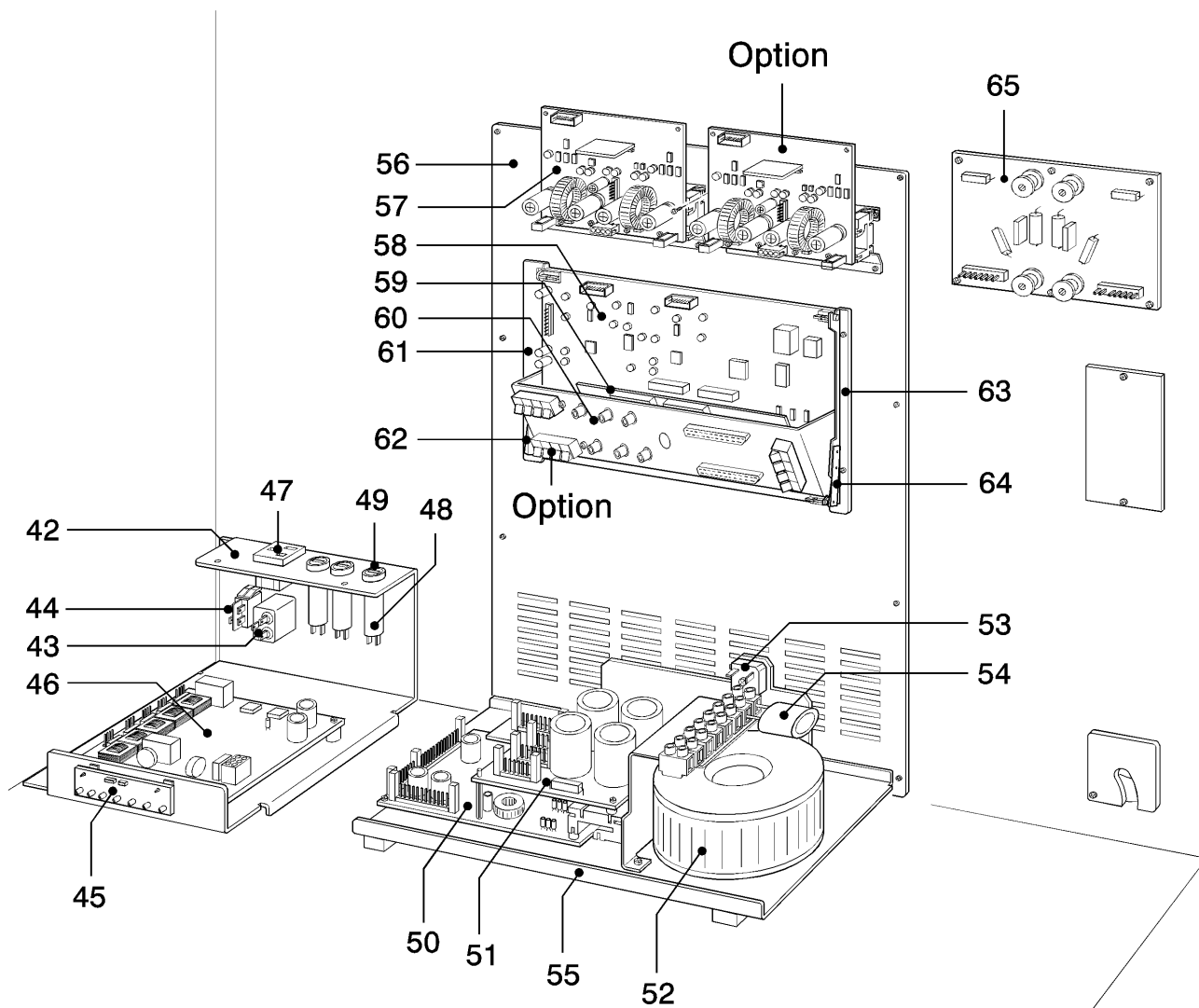
Part view of Illustration page 14:



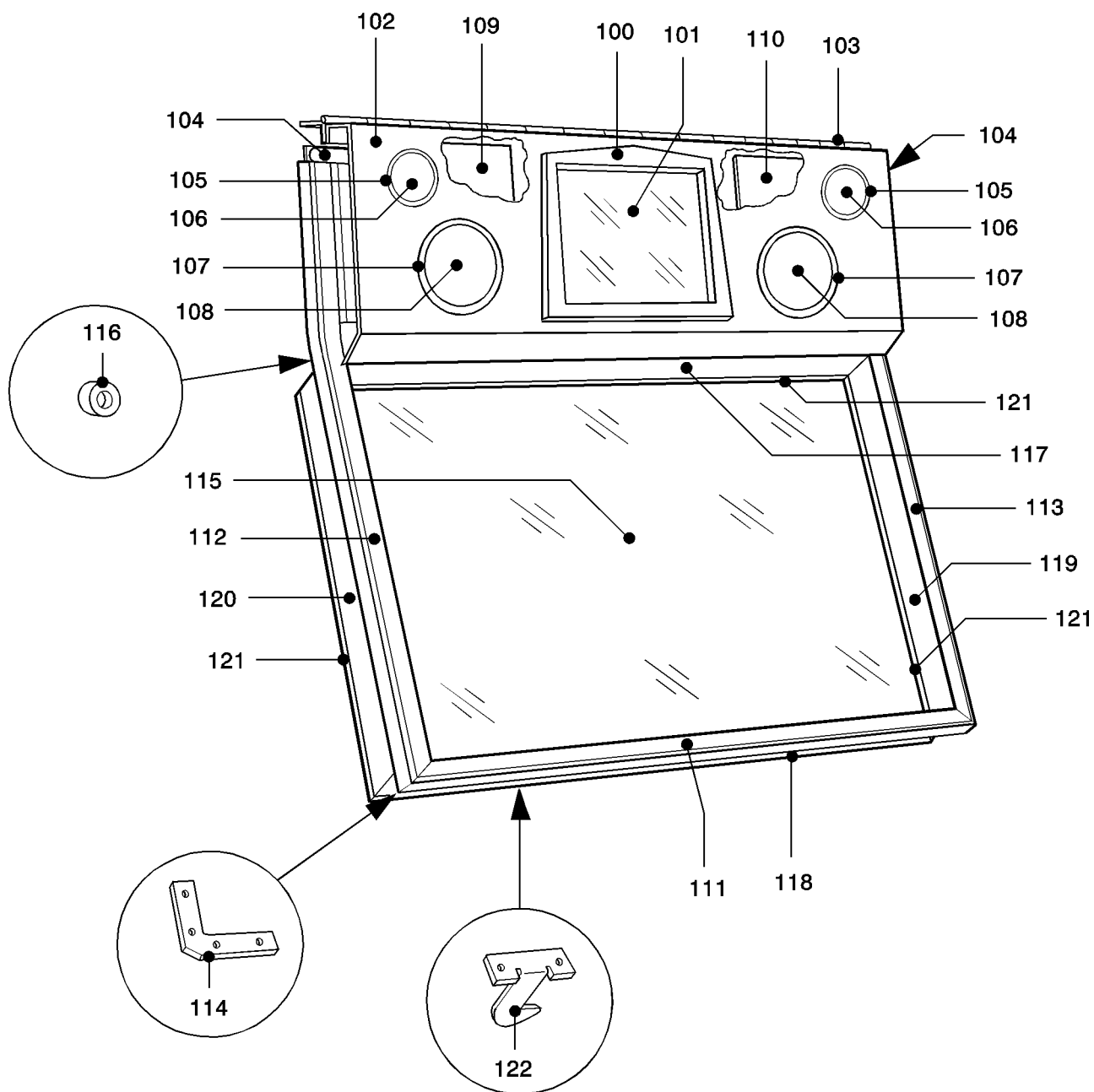
w/o illustration:

	216 501	Dollar Bill Acceptor	*USA* Option	1
	179 425	Holding plate left, pressed in	fixation Dollar Bill	1
	179 426	Holding plate right, pressed in	fixation Dollar Bill	1
	179 889	Cable harness Dollar Bill		1

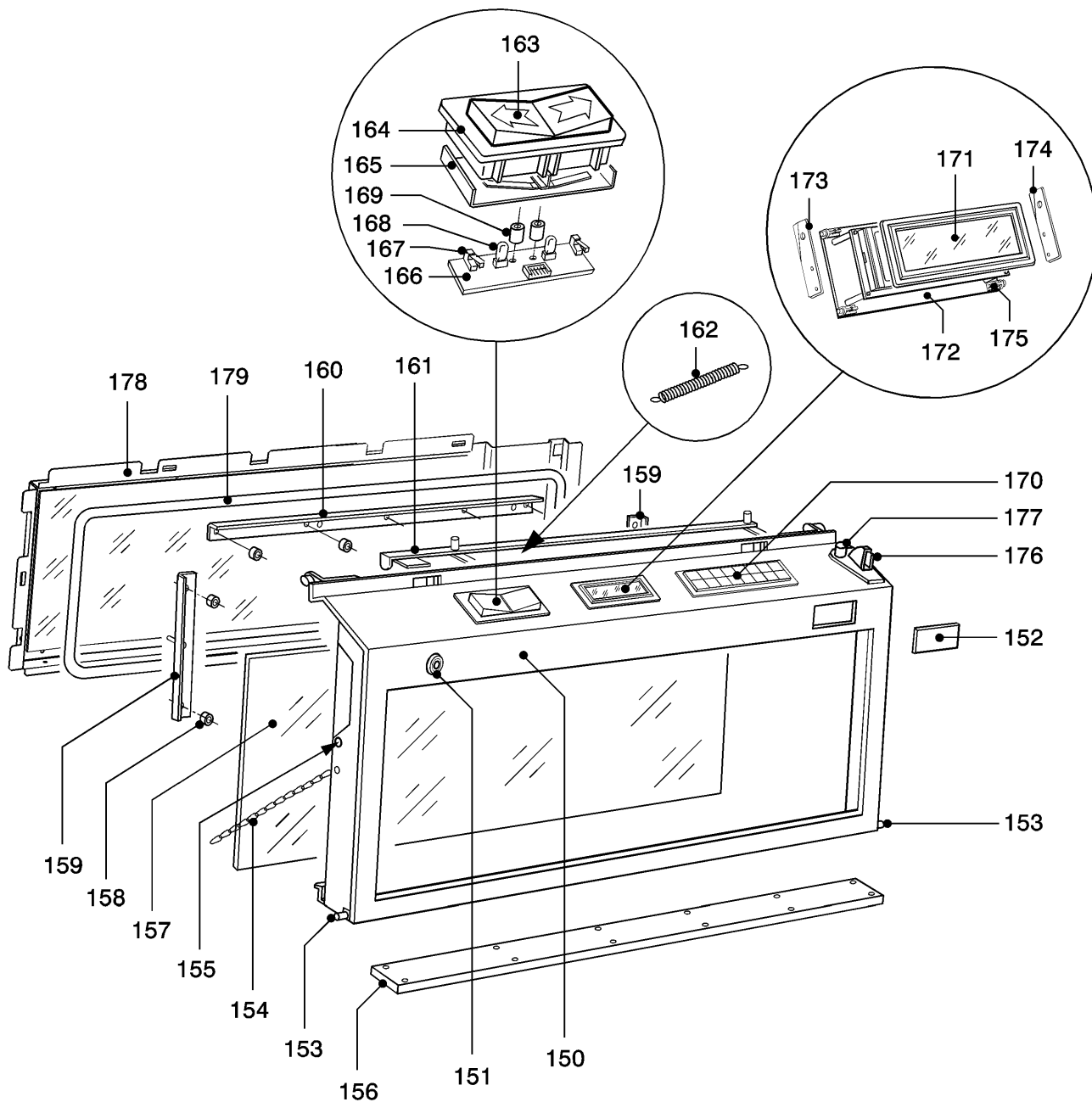
Note: The Dollar Bill Acceptor is mounted to the lower front door.



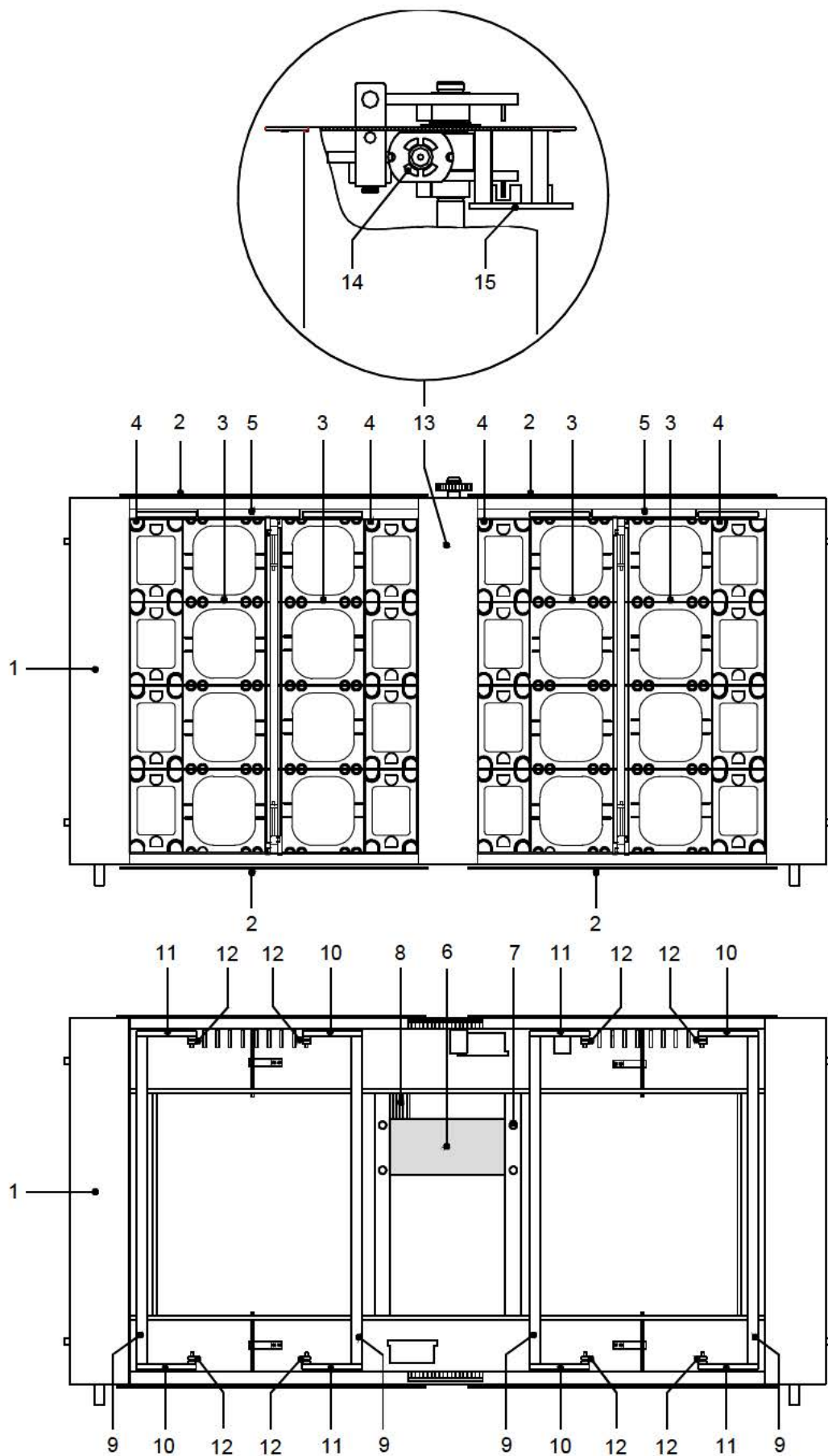
Pos	Art.-no.	Description	Data	Qty.
40	222 509	Service switch	cabinet switch	1
41	180 154	Shielding box for power supply		1
42	180 153	Mounting bracket line input		1
43	235 228	Interference filter		1
44	222 574	Line switch	Power-on/off	1
45	179 971	CB LED BAR, assy.		1
46	180 152	CB ELECTRONIC BALLAST, assy.	120V/230V AC	1
47	222 619	120V AC Outlet	socket	1
48	235 135	G-fuse holder		3
		120V		
	225 541	G-fuse	T8A/125V	2
	225 760	G-fuse	T1,6A/250V	1
49	225 138	Cap	60Hz	3
		230V		
	225 537	G-fuse	T5,0A	2
	225 033	G-fuse	T2,0A	1
49	225 137	Cap	50Hz	3
50-54	179 950*	Power supply unit, pre-mounted		1
50	179 956	CB Power Converter, assy.		1
51	179 957	CB Power Filter, assy.		1
52	223 478	Transformer with toroidal core	900 VA	1
53	221 085	Bridge rectifier		1
54	221 110	NTC resistor	type S364 /2.5 / M	1
55	179 951	Basic plate, power supply		1
56	180134	Mounting plate		1
		Electronics:		
57	216 864*	Amplifier, assy.		1
58	179 853*	CB Central Unit ES6, assy.		1
59	179 854*	CB I/O-Panel, assy.		1
60	179 872	Holding plate, printed	I/O-Panel	1
61	179 966	Holding bracket, left, riveted	Central Unit + I/O-Panel	1
62	171 626	Stop spring, right		1
63	179 967	Holding bracket, right, riveted	Central Unit + I/O-Panel	1
64	171 714	Stop spring, left		1
65	180 221	Cross-over network, assy.		1
		Illumination:		
	180 177	Cable harness fluorescent lamps	8W/16W/2x6W	1
70	225 365	Lamp socket type 2004		6
71	225 756	Lamp socket		2
	180 178	Cable harness fluorescent lamps	16W	1
72	225 756	Lamp socket		2
	180 181	Cable harness fluorescent lamps	8W	1
73	225 365	Lamp socket type 2004		2
74	226086	Fluorescent lamp	L8W/20	1
75	226113	Fluorescent lamp	Black light, TL6W/08	2
76	226074	Fluorescent lamp	28" Cool Wh	2
77	226112	Fluorescent lamp	Black light, TL8W/08	1
78	180182	Lamp cover		1
79	179394	Distance bolt for lamp socket type 2004	length=30mm	2
80	179411	Lamp bracket I		4
81	179413	Lamp bracket II		4



Pos.	Art.-no.	Description	Data	Qty.
100-122	180125	Front door, complete	upper front door	1
100	179 278	Frame mask	Front plate	1
101	214 216	Plate	mirrored	1
	217 507	Rubber profile	length=820mm	1
102	179 360	Front plate, spot welded and riveted	black	1
103	211 778	Hinge		1
104	179 395	Spacer bolt	length=49,7mm	2
105	179 322	Frame small, loudspeaker		2
106	179 681	Speaker grid, small	black	2
	224 288	Loudspeaker, type HIFI DOME TW.	100W / 8Ohm	2
107	179 323	Frame great, loudspeaker		2
108	179 682	Speaker grid, big	black	2
	224 292	Loudspeaker, type KF-130-1318	50W / 8Ohm	2
	179 275	Cover	for loudspeaker	2
	179 523	Harness loudspeaker cover		1
109	213004	Illuminated plate left		1
110	213005	Illuminated plate right		1
	212969	Rubber washers for illuminated plates		16
111	250 496	Frame profile		1
112	250 497	Frame profile, left		1
113	250 498	Frame profile, right		1
114	179 396	Hitch plate		2
115	214 218	Plate, top		1
	217 507	Rubber profile	length=2160mm	1
116	179 397	Role	sight protection at the top	5
117	179 398	Sight protection at the top		1
118	179 399	Sight protection at the bottom		1
119	179 400	Sight protection right		1
120	179 401	Sight protection left		1
121	217 479	Edge protection profile for sight protection	length=2632mm	1
122	179 402	Locking bracket		2

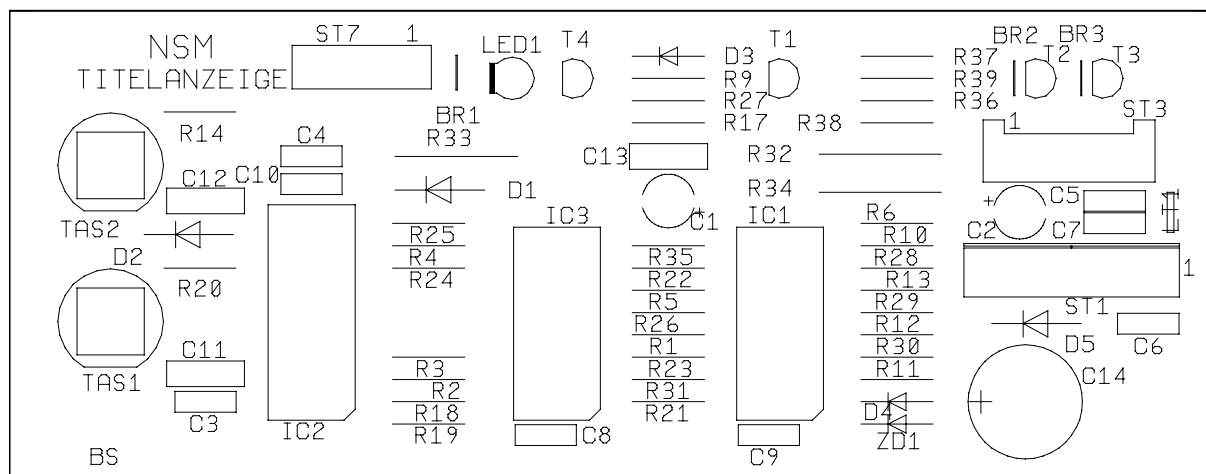


Pos.	Art.-no.	Description	Data	Qty.
150-179	180 147	Lower front door, complete, chromium plated	*UNI*	1
		(w/o design foil)		
150-179	180 145	Lower front door, complete, chromium plated	*USA* with Dollar Bill chute	1
		(w/o design foil)		
150-179	180 146	Lower front door, complete, chromium plated	*USE* without Dollar Bill chute	1
		(w/o design foil)		
150	180 148	Lower front door (pult-plate), riveted		1
151	217 814	Cylinder lock / 1 key	*Export*	1
	179 446	Closing lever	*Export*	1
151	206 903	Lock type 3293-13 FC3/16	*USA*	1
	179 447	Closing lever	*USA*	1
152	180 204	Cover plate, pointed , chromium plated	Closing for pult-plate opening	1
153	179 292	Spacer bolt	location pult plate	2
154	211 084	Knot chain K16, zinc coated	2x250mm long	1
155	229 230	Plastic-body-bound rivet 3,5	lateral spacer	2
156	212 947	Light mask		1
157	214 311	Plate, bottom, mirrored		1
	217 507	Rubber profile	length 1640mm	2
158	117 493	Sleeve		9
159	179 295	Holding bracket	plate side	2
160	179 293	Holding bracket	plate top	1
161	179 440	Lock bar, pre-mounted		1
162	205 538	Tension spring	for lock bar	1
163	175 974	Pushbutton	rocker button	1
164	176 574	Frame		1
	207 199	Rubber band black	Length 100mm	1
165	179 297	Cover plate, pre-mounted		1
166	179 356	CB Rocker button, complete		1
167	222 597	Micro switch	single, standing	2
168	226 049	Lamp	12-15V / 2W single	2
169	174 115	Sleeve	fixation of printed boards	2
170	179 902	Keyboard, assy.	16 buttons	1
171	180 171	Bezel and glass for display, assy.		1
172	179 900	Display, assy.		1
173	171 626	Catch spring, right		1
174	171 714	Catch spring, left		1
175	171 629	Holder for CB Display	red	2
176	179 276	Coin insert	Standard	1
176	179 277	Coin insert	*USA*	1
	179 304	Closing coin insert	*USA*	1
177	179 197	Press-pin		1
	205 683	Pressure spring	for press-pin	1
	179 279	Plate	for press-pin	1
	640 033	Screw M4x10	for press-pin	1
	110 186	Ring	fixation coin insert	3
178-179	180 213	Lightbox animation, assy.		1
179	226 114	Ropelight, assy.		1



	179 200	Title display 112, complete w/o design parts	Design parts see page 6-5	1
1	179 201	Housing, pre-mounted		1
2	212 940	Cover mask	white	4
3	179 225	Title holder,		16
4	219 861	Adhesive sticker	numbered 00-99	2
5	179 217	Spacer		2
6	179 251	CB-Title display, assy.	<i>see next page</i>	1
7	229 157	Spacer for CB-Title display	LCBS-4N	4
8	179 222	Cable harness Opto-title display	10 poles, length=130mm	1
9	179 229	Bar		4
10	179 218	Lever, right		4
11	179 219	Lever, left		4
12	140 908	Retaining washer	for lever	8
13	179 202	Gear unit, complete		1
14	179 213	Motor, complete		1
15	179 250	CB-Opto, complete		1
	231 322	Opto coupler	LTH-301A-N	3

	179 251	CB-Title display, assy.		1
ST3	225 992	Pin plug red	6 poles standing	1
ST1	225 440	Plug connector	10 poles	1
St7	225 873	Sub-connector AMP-Micro-Match	10 poles	1
IC2	231 805	IC-Motor-driver	L6202	1
IC1	221 771	IC-Logic	HEF4094B	1
IC3	221 763	IC-Logic	HEF4021B	1
T1	221 459	Si-Transistor	PNP BC556B	1
T2, T3	221 492	Si-Transistor	NPN BC517	2
D1, D2	231 863	Si-Diode	UF4004	2
D3	221 114	Si-Diode	1N4148	1
D5	221 115	Si-Diode	1N4004	1
R27	221 620	Resistor	22Ω/0,34W	1
R31	221 600	Resistor	100 Ω/0,34W	1
R14	221 098	Resistor	390 Ω/0,34W	1
R28-30, R36,37	221 033	Resistor	3,3K Ω/0,34W	5
R10-13	221 035	Resistor	10K Ω/0,34W	4
R17-26, R38,39	221 604	Resistor	22K Ω/0,34W	12
R1-5	221 038	Resistor	47K Ω/0,34W	5
R32, R34	221 273	Resistor	10 Ω/0,5W	2
R33	231 139	Metox-Resistor	1,2 Ω/0,5W	1
C11, C12	220 344	Ceramic capacitor	0,022μF/63V	2
C3-10	220 481	Ceramic capacitor	0,1μF/63V	8
C13	220 334	MKT-capacitor	0,1μF/63V	1
C1,2	220 162	Electrolytic-capacitor	10μF/63V	2
C14	220 391	Electrolytic-capacitor	220μF/63V	1



7 Appendix

7.1 Technical data

Electrical data

Mains voltage	120V / 230V	50/60Hz
Power consumption	100W	stand-by
	600W	play mode
RMS power / load (sine wave power)	each channel 170Wrms / 8Ω 250Wrms / 4Ω	
Music power (tone burst)	2 x 200W / 8Ω 2 x 300W / 4Ω 2 x 400W / 2Ω	4 x 175W / 8Ω 4 x 250W / 4Ω 4 x 250W / 2Ω *) *) = limited by overcurrent protection!

Operating conditions

Ambient temperature operating	10°C — 40°C	50°F — 104°F
Gradient of temperature	11°C/h	19,8°F/h
Relative humidity operating	10 % - 75 %	non condensing

Dimension and Weight

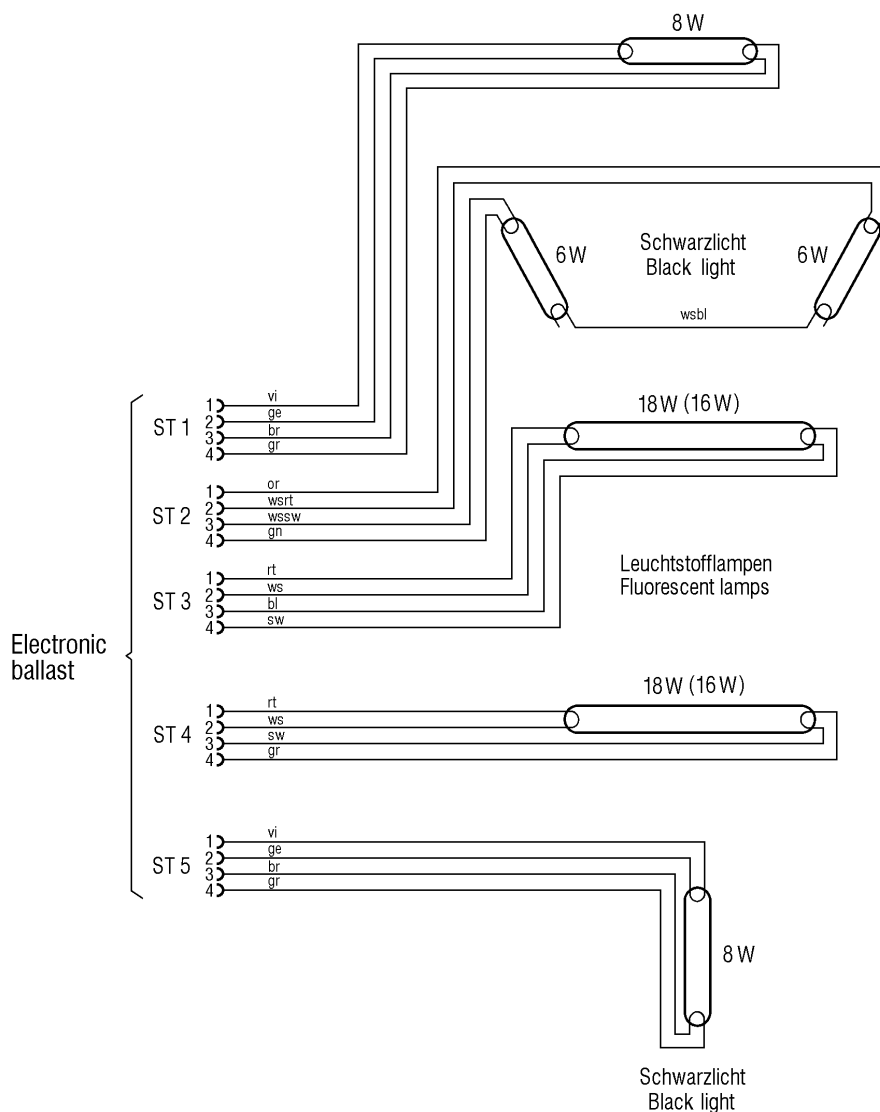
Dimension	Width	970 mm/appr.38"
	Height	1620 mm/appr.64"
	Depth	633 mm/appr.25"
Weight w/o CDs	appr.	150 kg

Interfaces

Auxiliary Interface	2 x input	4 x output
Serial interface	1 x RS232 1 x BACTA 1 x Selector box	
Operators panel	16 key keyboard LCD-display	

7.2 Wiring diagram

Wiring diagram Illumination for phonograph "COSMIC BLAST"

Farb Spiegel
Color code

ws	weiß	white
bl	blau	blue
br	braun	brown
ge	gelb	yellow
gn	grün	green
gr	grau	grey
or	orange	orange
rs	rosa	pink
rt	rot	red
sw	schwarz	black
vi	violett	violet

Farbangaben ohne Gewähr.
Color indication without warranty.

ÄNDERUNGEN IM SINNE DES TECHN. FORTSCHRITTES VORBEHALTEN,
JEDOCH KEINE NACHRÜSTPFLICHT !

SUBJECT TO TECHNICAL MODIFICATION WITHOUT OBLIGATION
TO MODIFY EQUIPMENT ALREADY DELIVERED !

NSM M.U.S.I.C ES VI TECHNOLOGY

Schaltbild Beleuchtung
Wiring diagram Illumination

COSMIC BLAST

Dat.	20.06.00	Gez.	Braun	Bearb.	Wes.	Gepr.	Wes.
------	----------	------	-------	--------	------	-------	------

7.3 Service branch


Necessary service is supported by your distributor.

Hot-line:

☎ GB	0044 113 271 37 08
☎ USA	001 630 860 51 00
☎ Germany	0180 22 56 39 36

7.4 Declarations

7.4.1 CE-declaration


EC-DECLARATION OF CONFORMITY per 89/ 336 / EEC .
This is to confirm that the product
phonograph ESVI-technology
is conform with the following standards or other normative documents:
EN 55022 EN 55024
Our quality assurance system assures compliance.
NSM Music GmbH
D-55411 Bingen am Rhein, Germany

7.4.2 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.

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.

7.5 Catchword register

Appendix	7-1	IR.....	3-3
CD trays		Wired.....	3-6
Checking	4-6	Repair	1-2
Loading CDs.....	4-6	Repair failures.....	5-1
Connection		Replacing fuses	5-3
Loudspeakers.....	4-5	Residual risks.....	1-2
Declarations	7-5	Safety	
CE	7-5	Class1 definition	1-3
FCC	7-6	Precautions	1-4
Display		Safety message	
Reports while operation.....	5-2	Caution	1-2
Disturbances		Warning.....	1-2
Avoid	5-1	Secondary fuses	
General survey		Values	5-3
Phonograph.....	2-1	Selecting titles.....	3-2
Hot-line.....	7-5	Service	
Initialize CDs	4-8	Replacing fuses.....	5-3
Inserting coins.....	3-2	Spare parts catalog	6-1
Intended use	1-2	Service branch	7-5
Keyboard.....	2-1	Set-up	
Line fuses		Set-up the phonograph.....	4-1
Exchange	5-3	Spare parts catalog.....	6-1
Values	5-3	Survey of	
Loading		Components	2-3
CD magazine.....	5-1	Display.....	2-2
CDs	4-6	Front side	2-1
Title sheets	4-7	Inside.....	2-3
Operators display.....	2-2	Interface board	2-4
Options.....	6-2	Keyboard	2-1
Power-on.....	3-1	Set-up.....	4-1
Quantity delivered	4-2	Title display unit	4-7
Remote control		Viewing title sheets	3-2

Attachment A - The CD changer MBC III-PRO

On the following pages please find the technical manual for the CD changer MBC III-PRO.

Attachment B - Service program ES VI-Technology

On the following pages please find the description of the service program ES VI-technology for this phonograph.

Instruction manual

for

NSM Phonographs

GEM-SERIES ESVI

part-no.: 180 079



Copyright-Note

All rights reserved.

Copyright © NSM MUSIC GmbH – October 2000

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 NSM MUSIC GmbH • 55411 Bingen/Rhein • Im Tiergarten 20-30 • Germany.

Disclaimer

NSM MUSIC GmbH and all of its subsidiaries makes no representation 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 NSM MUSIC GmbH, 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.

Subject to technical modification without obligation to modify equipment already delivered!

Our Internet-address: *<http://www.nsmmusic.com>*

Version: 1.03/2000

Date: 30/10/2000

Part number of this manual:180 079

For quick orientation

Who should use this manual?

- This manual is made for the operator of the phonograph. It guides him through the installation and normal operation of it.

How can I operate this appliance without risk of hazard?

- Regard the safety instructions - see page 1-1.

How can I quickly find my way through this manual?

- Read this page.
- See table of contents on the following page.
- See catchword register at the end of this manual.

How can I change single CDs?

- Via inserting it into the magazine - see page 4-7.

How can I change many CDs at a time?

- By changing a whole magazine - see page 4-7.

What to do in case of disturbances?

- See page 5-1.
- See page 7-3 (Service, Hot-line).

How can I power-on the phonograph?

- See page 4-1 (Set-up) and 3-1.

Are there options available for this phonograph?

- A list of available options is included within the "Spare parts list" – see page 6-2.

How can I program individual settings to the phonograph?

- See Attachment B: "Service Program ES VI-technology".

Document conventions

The following symbols are used to graphically identify residual risks of this product :

Symbol:



Meaning:

This symbol indicates that a dangerous voltage constituting a risk of electric shock is present within this unit

This symbol indicates that there are important operating and maintenance instruction in the literature accompanying this unit

Caution: Disregarding the following message may cause personal damage!

Notes: The following information simplifies the usage of this product.

This page left blank intentionally.

Table of contents

1	IMPORTANT SAFETY INSTRUCTIONS	1-1
1.1	SAFETY PRECAUTIONS.....	1-4
2	GENERAL SURVEY OF THE UNIT	2-1
2.1	SURVEY OF FRONT SIDE.....	2-1
2.2	KEYBOARD OF THE PHONOGRAPH	2-1
2.3	DISPLAY OF THE PHONOGRAPH.....	2-2
2.4	SURVEY OF THE INNER COMPONENTS	2-3
2.4.1	<i>Survey of the interface board</i>	<i>2-3</i>
3	OPERATING.....	3-1
3.1	POWER-ON	3-1
3.2	INSERTING COINS.....	3-2
3.3	SELECTING TITLES FOR PLAYING.....	3-2
3.4	VIEWING THE TITLE SHEETS IN THE TITLE DISPLAY	3-2
3.5	IR REMOTE CONTROL RC601 AND RC 602	3-3
3.5.1	<i>How to use the remote control</i>	<i>3-4</i>
3.5.2	<i>Mounting remarks for IR receiver.....</i>	<i>3-5</i>
3.6	WIRED REMOTE CONTROL.....	3-6
4	SET-UP.....	4-1
4.1	SURVEY OF SET-UP	4-1
4.2	WHAT TO DO AT FIRST?	4-1
4.2.1	<i>Check if the delivery is complete</i>	<i>4-1</i>
4.3	PREPARE SITE.....	4-2
4.3.1	<i>Use NSM Mounting bracket</i>	<i>4-2</i>
4.3.2	<i>Example of mounting the NSM mounting bracket using nylon dowel-pins</i>	<i>4-2</i>
4.3.3	<i>Drill hole geometry</i>	<i>4-2</i>
4.3.4	<i>Drill process.....</i>	<i>4-2</i>
4.3.5	<i>Pull-out values, safety factors</i>	<i>4-3</i>
4.3.6	<i>Installing the appliance to a plaster board wall</i>	<i>4-4</i>
4.4	PREPARE THE APPLIANCE	4-5
4.4.1	<i>Observe when fixing the appliance to the wall.....</i>	<i>4-5</i>
4.4.2	<i>Open the appliance</i>	<i>4-5</i>
4.4.3	<i>Transportation security devices</i>	<i>4-5</i>
4.4.4	<i>External connections</i>	<i>4-6</i>
4.4.5	<i>Check the CD trays after transport</i>	<i>4-7</i>
4.4.6	<i>Loading CDs</i>	<i>4-7</i>
4.4.7	<i>Re-insert the CD magazine.....</i>	<i>4-7</i>
4.4.8	<i>Loading title strips to the title display.....</i>	<i>4-8</i>
4.4.9	<i>Check all wiring and components</i>	<i>4-8</i>
4.4.10	<i>Power-on the appliance</i>	<i>4-8</i>
4.4.11	<i>Initialize the CDs to the central unit ESVI.....</i>	<i>4-8</i>

5	DISTURBANCES.....	5-1
5.1	AVOIDING DISTURBANCES	5-1
5.2	REPORTS ON THE DISPLAY	5-2
5.3	REPLACING LINE FUSES	5-3
5.4	REPLACING THE SECONDARY FUSES	5-3
6	SPARE PARTS CATALOG.....	6-1
7	APPENDIX	7-1
7.1	TECHNICAL DATA.....	7-1
7.2	WIRING DIAGRAM.....	7-2
7.3	SERVICE BRANCH.....	7-3
7.4	DECLARATIONS.....	7-3
7.4.1	<i>CE-declaration</i>	7-3
7.4.2	<i>FCC declaration</i>	7-4
7.5	CATCHWORD REGISTER.....	7-5
	ATTACHMENT A: CD-CHANGER MBCIII-PRO	
	ATTACHMENT B: SERVICE PRORGAM ES VI-TECHNOLOGY	

1 Important Safety Instructions

Read these instructions.

Keep these instructions.

Heed all warnings.

Do not use the apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with manufacturer's instructions.



Secure installation: Installation of this appliance must be carried out only by qualified and authorized technicians or NSM service staff.

→ Use NSM Mounting bracket.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

To avoid heat build-up use NSM Mounting bracket.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

Use only with the cart, stand, tripod, or table specified by the manufacturer, or sold with the apparatus. When

**a cart is used, use caution when moving the cart/
apparatus combination to avoid injury from tip-over.**



**Unplug this apparatus during lightning storms or
when unused for long periods of time.**

Repair :

**Refer all servicing to qualified service personnel.
Servicing is required when the apparatus has been
damaged in any way, such as power-supply cord or
plug is damaged, liquid has been spilled or objects
have fallen into the apparatus, the apparatus has
been exposed to rain or moisture, does not operate
normally, or has been dropped.**

**Repair must be carried out only by the NSM service
staff, or by qualified and authorized service staff.**

Warning:

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

Intended use

**The phonograph is exclusively determined to play
audio CDs according to the red book standard.**

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

**The technology of the NSM phonograph corresponds to
the state of the art and is very reliable when operating.**

**Improper use of the phonograph may cause residual
risks if it is operated or used by non-authorized
persons.**

**Any person who is engaged to operate the
phonograph has to read and to understand this
instruction manual, especially these safety
instructions.**

Residual risks

In this manual residual risks are marked as follows:



Warning:



Caution:

**Disregarding the safety messages following “Warning“ can
cause material damage (damage of parts).**

**Disregarding the safety messages following “Caution“ can
cause personal damage.**

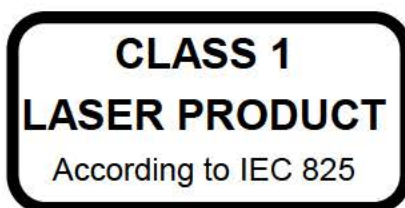
Ban of arbitrary reversions and changes

The phonograph must not be changed in construction or concerning safety regulations.

Any change will lead to the exclusion of liability of NSM concerning the resulting damages. Especially defective parts must be replaced only by original spare parts of NSM.

Caution:

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



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 21CFR chapter 1, subchapter J, applicable at the date of manufacturing. Accession number: 9520184

Explanation of Graphical Symbols



This symbol indicates that a dangerous voltage constituting a risk of electric shock is present within this unit



This symbol indicates that there are important operating and maintenance instruction in the literature accompanying this unit

1.1 Safety precautions



Set-up:

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 instructions in this manual. → Refer to chapter 4.



Fire damages:

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



Opening device:

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



Caution:

Replace fuses only with same type and values!



Fire prevention: Position the appliance near to the wall outlet of the mains voltage. On fire risk or other disturbances pull out plug immediately.



Heat build-up in the appliance: Take care that the ventilation holes in the rear of the appliance are not covered. → Use NSM Mounting bracket.



Save the environment:

The Central Unit of this appliance is equipped with a battery buffered SRAM (IC21). Please take care to put this SRAM as toxic waste to the special waste dump for disposal.



Caution:

Danger of explosion if battery is incorrectly replaced.
Replace only with same or equivalent type.

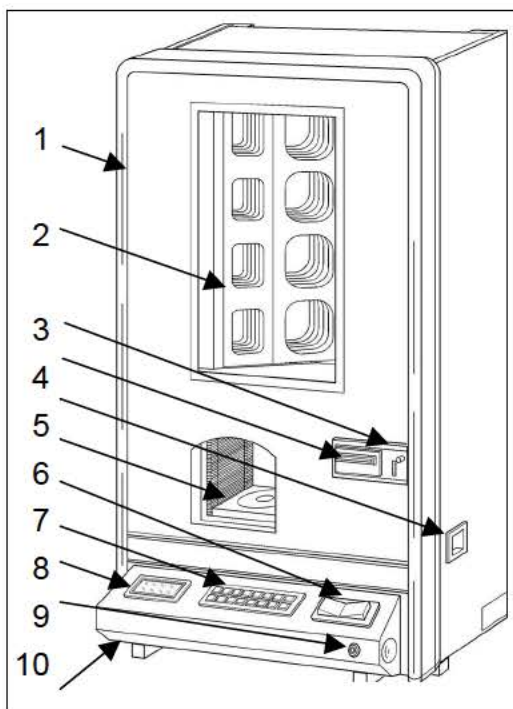
2 General survey of the unit

This phonograph is equipped with a CD changer MBC-PRO capable of storing up to 50 CDs in each magazine.

The magazine can be exchanged without much difficulty. The change of CDs is comfortably made with CD-tray inside the magazine.

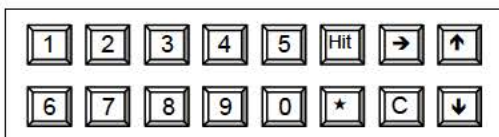
The basic functions are controlled manually via the keyboard and the LCD-display in the operators panel.

2.1 Survey of front side



- 1 = Front door
- 2 = Title display unit
- 3 = Coin insert, Coin return knob
- 4 = Bill insert (option)
- 5 = Coin return cup
- 6 = CD changer MBC-PRO
- 7 = Rocker button for moving title cards
- 8 = Operators keyboard
- 9 = Operators display
- 10 = Lock
- 11 = Power-on switch

2.2 Keyboard of the phonograph



The phonograph is equipped with a 2 x 8 keyboard. With the keyboard you may enter pre-operational commands or commands and data while operating the phonograph.

The functions of the keys are:

1 to 0 = numeric input, e.g. title selection

Hit = to show hitparade

→ ↑ ↓ = to move cursor on display/ to swap display pages in service mode

★ = changing display mode during "Service operation"

C = to cancel input

2.3 Display of the phonograph

The LCD-display will give you information about the actual status of the phonograph.

The display is separated into three sections:



first line = information line

middle area = message window

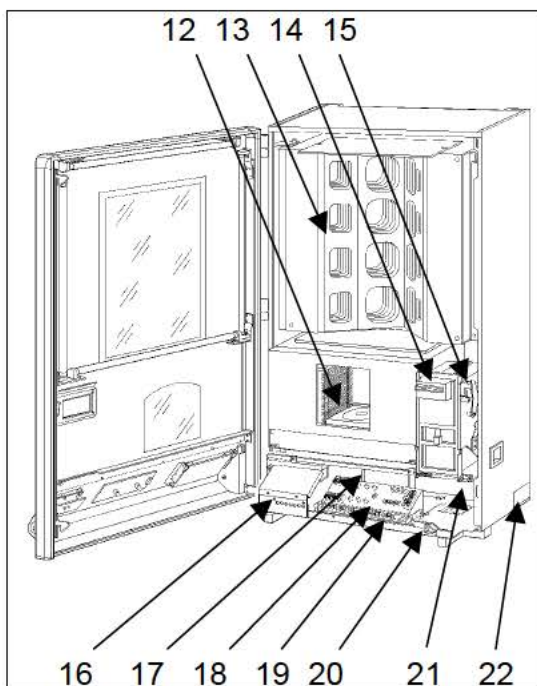
bottom line = Command line / "Help messages"

It is also possible to program customer specific information to be displayed on the LCD, refer to the attached programming manual.

Note:

The messages shown on the display are depending on the functional state of the phonograph. They will have different meaning during "Service mode".

2.4 Survey of the inner components



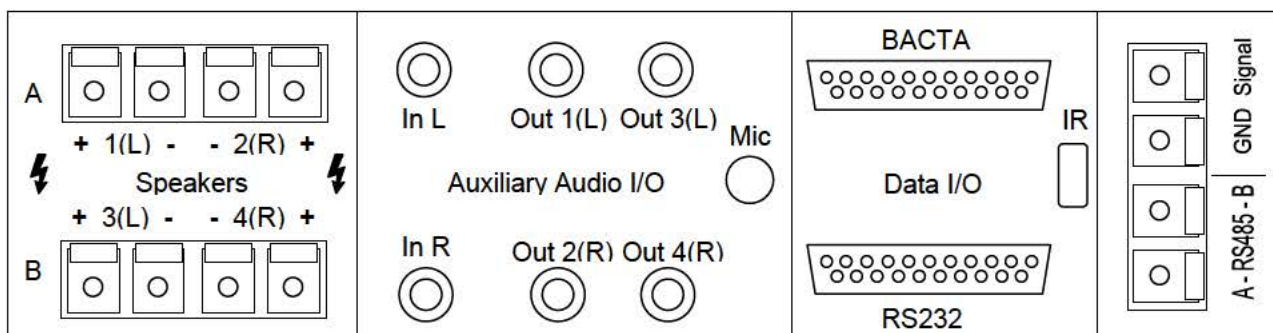
Inside the phonograph you will additionally locate the following:

- 12 = CD changer MBC III-Pro
- 13 = Title display unit
- 14 = Bill acceptor (option)
- 15 = Coin acceptor
- 16 = Power supply unit
- 17 = Amplifier channels C1 and C2 (module A)
optional amplifier C3 and C4 (module B)
- 18 = Central unit ESVI board
- 19 = Interface board (I/O-panel)
- 20 = Service switch, pull to enter service mode
- 21 = Cash box
- 22 = *Type plate*

2.4.1 Survey of the interface board

The interface board offers all necessary terminals for

- ◆ Loudspeakers output
- ◆ Auxiliary Audio signals (input and output)
- ◆ Microphone input
- ◆ Selector wall box interface
- ◆ DATA I/O:
 - RS232 device
 - reserved for future use (prepared RS485)
 - Bacta interface
 - IR interface



This page left blank intentionally.

3 Operating

The phonograph is ready to operate using factory default settings.

Additionally you may program the phonograph for your personnel requirements or for the site requirements of the location the phonograph is to be operated. Therefore see the additional available manual “Service program ESVI technology”.

This chapter will describe the basic functionality of the phonograph.

3.1 Power-on

Power-on:

Action	Display / status
Turn the power-on switch to position “on”	<p>The phonograph displays type and date of the firmware for some seconds.</p> <div style="border: 1px solid black; padding: 5px;"> <p>NSM M.U.S.I.C. Jukebox ES6 Technology Software version 1.0</p> <p>Starting up . . .</p> </div>
	Afterwards several messages appear on the operators display.
Insert coins to earn credits.	<p>If enough credits are registered the phonograph offers the possibility to select titles.</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: right;">Credits: 10</p> <hr/> <p style="text-align: center;">NSM M.U.S.I.C.</p> <hr/> <p>Press key to select title</p> </div>
	The phonograph is ready.

3.2 Inserting coins

Credits: 1			
Price / Credits			
\$ 1.00	- 1	\$20.00	- 20
\$ 2.00	- 2		
\$ 5.00	- 5		
\$10.00	- 10		

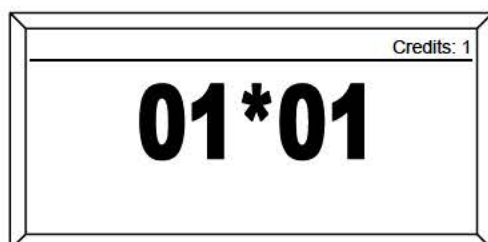
Fill in the required amount of coins necessary to earn credits at least to play one title.

One of the alternating display messages during idle mode will give an overview about the programmed prices for selecting titles at this location.

3.3 Selecting titles for playing

After insertion of coins to earn enough credit you may enter several titles.

Sequence of selection:

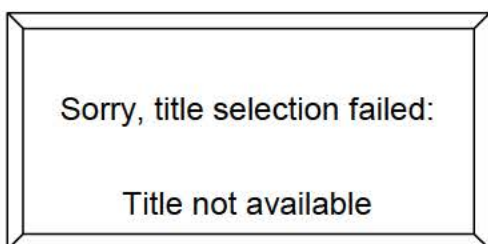


Type a 4-digit number using the numeric keys, representing

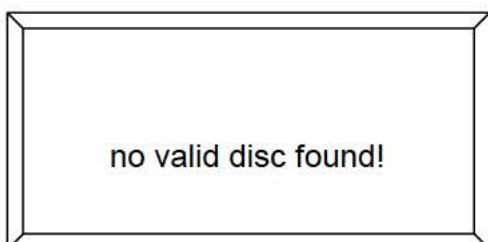
first 2 digits = CD.number from 00 to 99

second two digits = Title number of the desired track from 01 to xx (depending of the count of the selected CD)

Your input shall be automatically confirmed 2 seconds after pressing the fourth digit.



- If you have entered a wrong combination or
 - If the CD may be not initialized or
 - If the selected title is locked out from the operator
- the phonograph will give the corresponding error message.



During initialization process this message will be displayed only.

3.4 Viewing the title sheets in the title display

If you want to get an overview of the inserted CDs, press the illuminated red rocker button to turn the title pages of the title display.

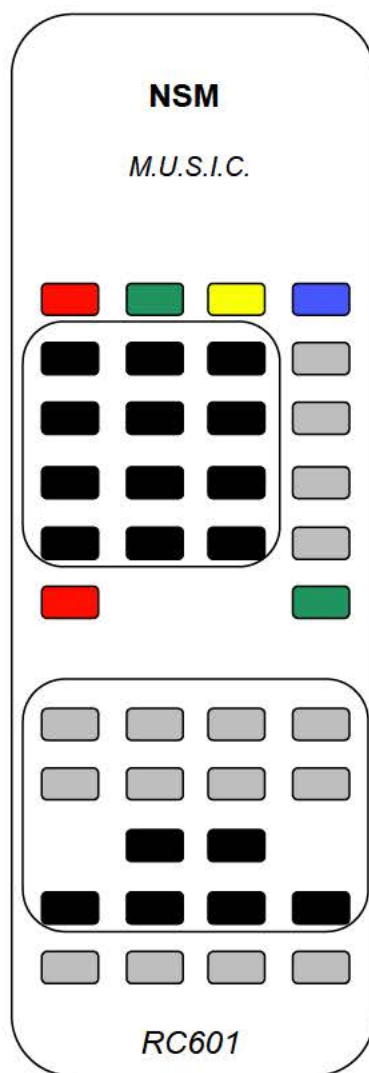
On each button press the next side of the respective direction (◀ ▶) is displayed (endless function).

3.5 IR Remote control RC601 and RC 602

Two infra-red remote controls are available to control the phonograph:

RC601 giving full functionality and control

RC602 with reduced functionality limited to basic functions.



The RC601 offers following possibilities

- ◆ selecting titles
- ◆ setting volume and sound
- ◆ function keys F1 to F4 programmable via service program (i.e. background mode, free credits, reject)

The functions of the keys are:

F1	F2	F3	F4
1ABC	2DEF	3GHI	↑
4JKL	5MNO	6PQR	↓
7STU	8VWX	9YZ	→
C	0Sym	★	Hit
Reject			VIP
C1	C2	C3	C4
C1/2	C3/4	C1-4	Mic
	Volume -	Volume +	
Treble -	Treble +	Bass -	Bass +
Surr	SRS	Mute	Norm

F1 to F4 = user defined function keys (free credit, background, etc.)

1 to 0 = numeric input keys

C = Cancel/Clear input

★ = Change display mode during "Service mode"

Hit = Show the Hitparade

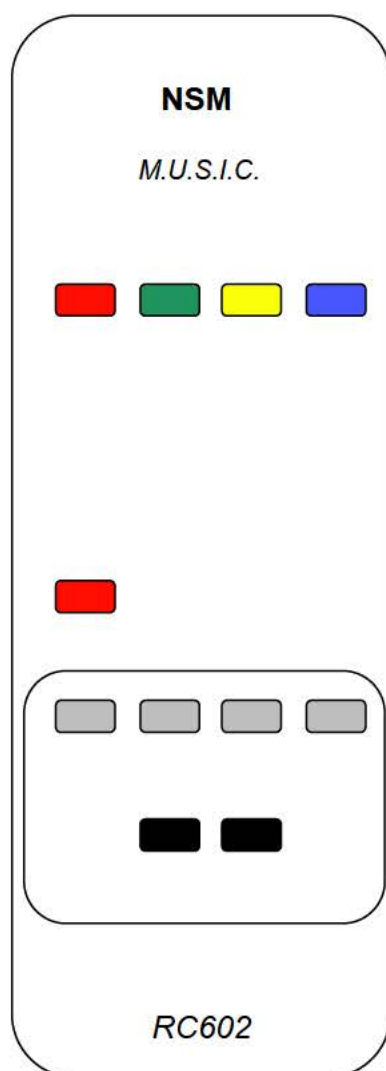
VIP = select a VIP title

MIC = select microphone channel

Surr = activate surround sound

SRS = activate SRS sound

C1 to C4 = select audio channels



RC602 also offers

- ♦ use of function keys
- ♦ volume control (per channel only)

F1	F2	F3	F4
Reject			
C1	C2	C3	C4
	Volume -	Volume +	

The IR-receiver is connected to the CB "CENTRAL UNIT ESVI" via the 4-pol. connector "IR" in the lower right edge of the board.

3.5.1 How to use the remote control

Following you will find some examples of how to set volume or sound of the phonograph using the IR remote control.

Set volume of all channels (C1-C4):

press [**C1-C4**] and then [**Vol+**] or [**Vol-**]

Set volume of channel (C1) only:

press [**C1**] and then [**Vol+**] or [**Vol-**]

Set volume of channels (C3+C4):

press [**C3-C4**] and then [**Vol+**] or [**Vol-**]

Set treble for channels (C1+C2):

press [**C1-C2**] and then [**Treb+**] or [**Treb-**]

Set bass for channels (C3+C4):

press [**C3-C4**] and then [**Bass+**] or [**Bass -**]

Set microphone volume for channel (C3):

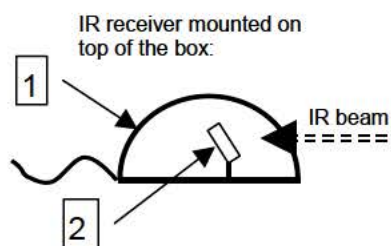
press [**C3**] [**Mic**] and then [**Vol+**] or [**Vol-**]

Set treble for this microphone channel:

press [**C3**] [**Mic**] and then [**Treb+**] or [**Treb-**]

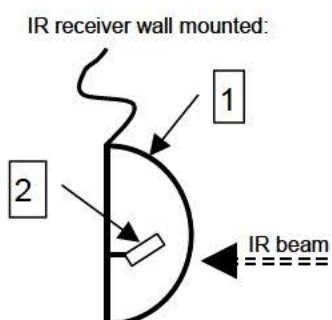
3.5.2 Mounting remarks for IR receiver

Regard the following mounting instruction for best function results of the IR receiver.



The IR receiver can be mounted either to the top of the phonograph or to a wall near the phonograph.

Regard the length of the connection cable.



Place the housing of the IR receiver (1) in that way, that the internally mounted IR-module (2) will meet the IR beam of the IR hand transmitter.

Take care to avoid that the IR beam "hits" the IR receiver from the side or the back (cable outlet). This will cause malfunction of the remote control.

3.6 Wired remote control

Alternatively the phonograph may be controlled with a wired remote control for:

- ◆ volume setting
- ◆ Mute
- ◆ Reject
- ◆ programmable functions F1 – F4

The function keys are:

F1 = user defined, i.e. "Stand-by"

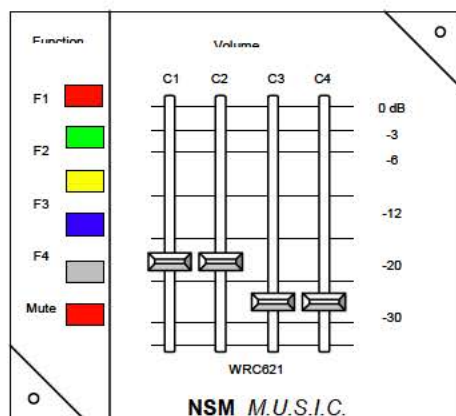
F2 = user defined, i.e. "Free credit"

F3 = user defined, i.e. "Voice canceler on/off"

F4 = user defined, i.e. "Background"

Mute = used to turn off/on the sound

Reject = used to reject the just playing title



Set the volume for the desired channel (C1 – C4) using the assigned slide control.

The wired remote control unit is to be fixed to a wall

It is connected to the CB "CENTRAL UNIT ESVI" via the 4-pol. connector "wired" in the lower right edge of the board.

4 Set-up

Warning

Read this set-up instructions.

In this chapter you will find all information being necessary to set-up the phonograph correctly.

4.1 Survey of Set-up

For the set-up perform the following steps. Details to the single steps are explained in the following subchapters.

Step

What to do at first?

Check if the delivery is complete; see below •

Prepare site

Mount the mounting bracket; see page 4-2 •

Mount unit to its final place; see page 4-5 •

Open the appliance; see page 4-5 •

Make external connections; see page 4-6 •

Prepare the appliance

Remove transportation fixtures; see page 4-5 •

Load CDs; see page 4-7 •

Feed title display; see page 4-8 •

Check all wiring/components; see page 4-8 •

Power-on; see page 4-8 •

4.2 What to do at first?

4.2.1 Check if the delivery is complete



Warning:

Depending on the heavy weight of the appliance we recommend that two persons should work together to unpack the phonograph.

Unpack the unit and check if the delivery is complete:

1 phonograph

1 mains (power) cord

1 pair of keys to open the front door of the phonograph

1 instruction manual

If any parts are missing inform your supplier.

Please fill in the warranty card and send it back to
NSM MUSIC GmbH - Germany.

Note:

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

4.3 Prepare site

In order to guarantee a correct functioning of the coin mechanism mount the appliance horizontally and vertically exactly.

4.3.1 Use NSM Mounting bracket

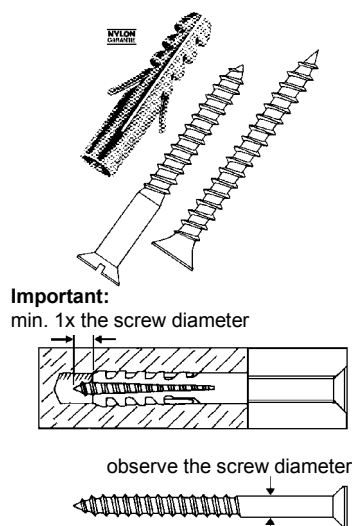
Therefore, we recommend usage of the practical NSM mounting bracket (part-no. 040 739).

Take care to mount the bracket untwisted since the rear of the cabinet otherwise can be twisted too.

When choosing the fastening material, take into account the weight of the appliance. We recommend nylon dowel pins in sufficient quantities.

The screws should be at least 6 mm (1/4") in diameter!

4.3.2 Example of mounting the NSM mounting bracket using nylon dowel-pins



First a few tips:

The maximum bearing capacity of nylon dowel pins may only be achieved with the greatest possible screw diameters and with screws exceeding the dowel point by the screw diameter again.

Please ensure that with fixings in hollow brick and hollow blocks the expansion zone of the dowel is completely anchored in at least one stone web.

Calculation of minimum screw length:

1xd (d= nominal diameter of screw)
 + dowel length
 + thickness of plaster and / or insulating material
 + thickness of mounting bracket 3 mm
 = minimum length of screws to be used.

Proposed length 60mm (2.5")

4.3.3 Drill hole geometry

The exact drill hole geometry dictates the load-bearing capacity of a dowel pin.

Therefore always drill at right-angles and do not change direction during drilling. This has especially to be observed in the case of soft materials.

4.3.4 Drill process

The following drilling methods are possible depending on the type of drilling machine:

- Rotary - without impact
- Impact drill-many impacts with a low amount of impact energy. Fast rotation

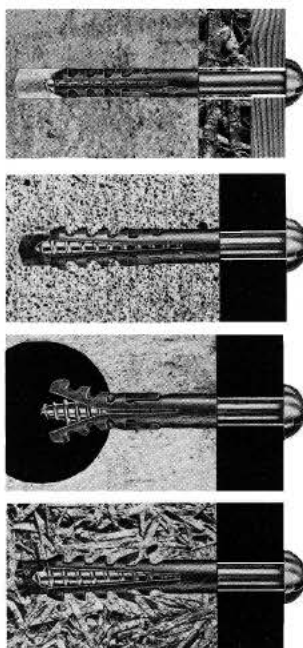
- Hammer drill - few impacts with a high amount of impact energy. Slow rotation

The material determines the drill process:

- Solid materials of dense structure: impact and hammer drilling
- Materials of low strength and aerated concrete: only rotary; so that the holes don't become too big.
- Hollow brick: only rotary; so that webs don't break out.

Never forget to remove the dust from the drill hole after drilling. Only then dowel pins performs safety fixing.

4.3.5 Pull-out values, safety factors



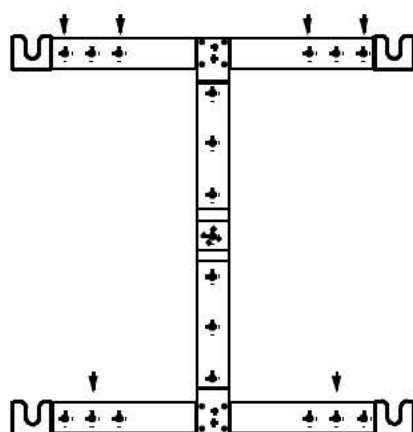
The pull-out values (breaking loads) given in this chapter are mean failure loads determined in at least 5 tests in un-cracked building material. Failure criteria may be: failure of building material, breaking of bolt, loosening of anchor, breaking of anchor.

Pull-out values in kN*. Determined in each case with the largest screw diameter (steel screw) and with flush fixing of the dowel in the load-bearing anchorage base.

Dowel size:	S8 (1.6x1/3")
Wood screws Ø	6 mm (1/4")
Concrete B25	4,5 kN
Aerated concrete GB 3,3	1,2 kN
Aerated concrete G 4	1,3 kN
Solid brick Mz 20	4,1 kN
Perforated brick Hlz 20	3,0 kN

The following points must be observed when drilling, irrespective of the material:

Allowance must be made for an appropriate safety factor. As safety factor we recommend for dowel pins $v > 7$.



Example: In aerated concrete GB 3,3 the pull-out value for dowel pins of type S8 and wood screws with a diameter of $\varnothing = 6\text{mm}$ is 1,2 kN.

This value divided by safety factor $v \geq 7$ becomes $1,2 \text{ kN} / 7$ is nearly $0,17 \text{ kN} = 17 \text{ kp}$ for 1 screw.

The weight of the appliance is nearly 85 kg.

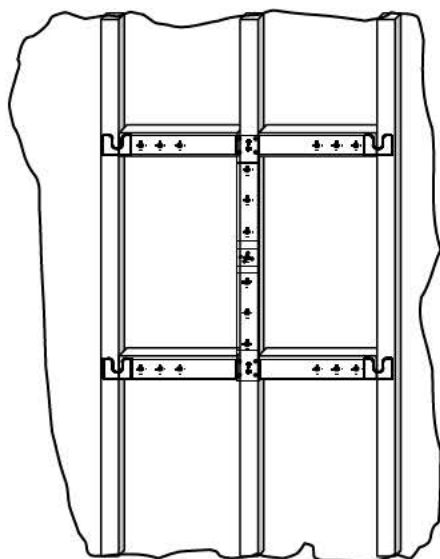
Therefore at least

$85 / 17 = 5$ screws are necessary.

For additional safety reasons and for better symmetry you should use 6 screws. Also see arrows in left hand figure.

4.3.6 Installing the appliance to a plaster board wall

Installing the appliance to a plaster board wall is not allowed unless specification of the wall according to the description below is fully covered.



Required Parts:

Plaster board wall

Mounting bracket

Twelve wood screws of 1/4" X 3"

1. Build a plaster wall structure using at minimum 2" X 4" studs. The studs should be placed in such a way to allow the mounting bracket to be secured 8-1/4" on center (horizontally) and 19" on center (vertically).
2. Use a minimum of twelve wood screws of 1/4" X 3" or larger dimension, 8 horizontal (4 top and 4 bottom) and 4 vertical to secure mounting bracket to plaster board wall.
3. Test the holding strength of the bracket by pulling down on it with reasonable force in excess of the weight of the appliance of nearly 85 kg (about 177 lbs).

4.4 Prepare the appliance

4.4.1 Observe when fixing the appliance to the wall

Note: *Plug in connection cables before hanging up the appliance.*

To secure the appliance to the mounting bracket, a holding screw with sleeve M 10x20 (part no. 176 999) is to be used (->accessory bag).

Caution

Secure mounting of the appliance is very important since besides the danger of severely damaging the appliance, the operator is responsible for all damages caused by an incorrectly mounted appliance.

When fixing the appliance to the wall, make sure the air circulation is not hindered in its function.

When using the mounting bracket, there is normally enough distance between cabinet and wall for air circulation. Plush wall hangings decrease this distance; in that case the bracket has to be fastened to a flat board.



**Do not mount appliance above heaters!
Keep ventilation holes free.**

Now you can mount the phonograph onto the mounting bracket. Regard your wellness.

The phonograph is heavy weighting.

Just do it only when you have a colleague or partner to help you.

After you have mounted the appliance to the wall or the stand you have to prepare it for operation.

4.4.2 Open the appliance

Insert the delivered key into the lock at the right hand side.
Turn it clockwise to open the front door of the unit.

4.4.3 Transportation security devices

Before operating the appliance all security devices for safety and protection during transport have to be removed.



Warning

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

So first remove the transportation fixtures after hanging it onto the wall mounting bracket.

Prior to any further transportation the security devices for safety and protection during transport have to be re-inserted.

Note:

Store the transportation fixtures in a safe place. Re-insert them always into the unit before any transportation.

Avoid static discharge to the appliance. Electro Static Discharge (ESD) may destroy the opto-electronics and other ESD sensitive parts within the appliance.



Caution:

Before connecting the power cord to the wall outlet:

- 1. Check the setting of the line voltage and compare it with the setting of the unit.**
 - 2. Remove all transportation fixtures.**
- Otherwise the appliance might be damaged.**

4.4.4 External connections

Connection of loudspeakers

The appliance is equipped with a semi-digital, high-power amplifier to connect the loudspeakers to.

Regard the right polarity of the connected speaker cables to get best sound results.



Warning:

Installation of necessary wiring must be carried out only by qualified and authorized technicians.
Otherwise the amplifier might be damaged.

Lead the speaker cables through the outlet in the back of the phonograph housing phonograph through the cable channel in the bottom to the inside.

Two wires for each channel have to be connected to the connecting taps on the interface board.



Caution:

Power-off the appliance before connecting loudspeakers.
Do not touch loudspeaker connectors. Risk of shock hazard through high voltage. Abuse, shortening or interconnecting of cabling may cause serious damage to amplifier!



Warning:

CLASS 2 wiring may be used!

There is a total power output of 250W RMS on each channel.

Remote control cabling

To simplify the operating of the phonograph you should use a remote control unit (infra-red or wired remote control).

Lead the connecting cable also through the outlet in the back of the phonograph through the cable channel in the bottom into the inside. Then connect it to the desired plug connector "IR" / "WIRED", located on the CENTRAL UNIT.

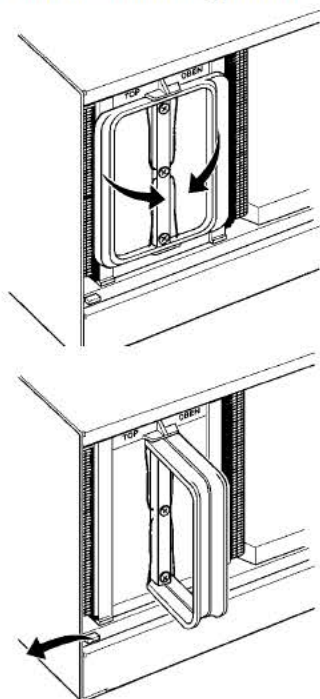
Mains cabling

After checking all cabling is done well insert the mains plug into the mains connector on the rear side of the phonograph.

4.4.5 Check the CD trays after transport

While transportation of the phonograph it may happen that single trays jump out off their leadings in the CD-magazine.

Remove the magazine



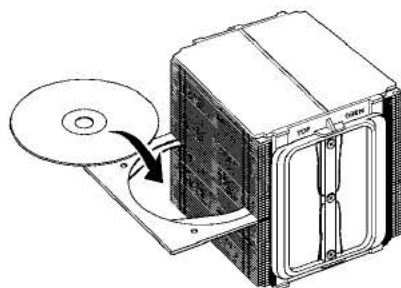
The magazine is equipped with tilting handles. Simply fold the two handles to the front.

Hold the magazine with one hand and press the release knob with the other to the left side.

The magazine will audible be released and jumps out of the lock.

Check that each tray is placed well in its parallel leadings.

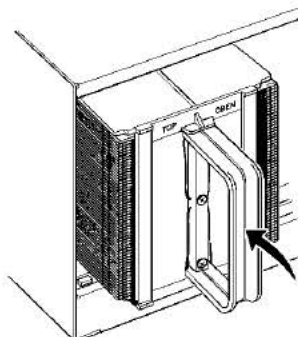
4.4.6 Loading CDs



Remove a number of trays corresponding to the number of CDs to be inserted.

Always place CDs face up (label up) into the recess of each tray, and thereupon slide the tray into the first/next available slot of the magazine.

4.4.7 Re-insert the CD magazine



Note:

When re-inserting the magazine take care that it locks audibly with a slight bump in the locking device. If you don't push the magazine strong enough, a malfunction of the CD changer may result herein!

Please don't store or transport magazine head foremost.

Due to the construction of the CD magazine it can be transported outside the CD changer without any special transportation securities. Only when treated too rough the CD trays will be falling out of the magazine.

4.4.8 Loading title strips to the title display

The title display consists of 14 carriers and is designed to show 104 title strips (13 times 8).

Loading title strips and CD covers

If you want to insert or remove title strips and /or CD covers you first have to open the phonograph, if not already done.

Insert the title strips into the fields of the title display

- You have to be careful while inserting the CD covers and title strips into the title holders. Be sure CD covers and title strips are inserted under all the black plastic tabs. This will insure that they don't fall out. The title display will always show eight covers of inserted CDs.
- You have to press the rocker button, placed in the operator console of the phonograph, if you want to move the title holders to the next position.
- You have to take care to insert only the corresponding number of title strips and CD covers.

4.4.9 Check all wiring and components

After finishing the installation of wiring, the insertion of CDs and title sheets you should check once more

- if all wiring is correctly made
- if all components are placed in a correct manner

Afterwards plug in the mains plug into the corresponding wall outlet.

4.4.10 Power-on the appliance

The power-on switch is located right hand at the bottom side of the appliance. To turn on the power just switch it to its opposite position.

If all installation was ok the lights should go bright and the initialisation routine should be displayed on the operators display.

After a moment the appliance is ready.

4.4.11 Initialize the CDs to the central unit ES VI

You have two possibilities to initialize the inserted CDs. After inserting

- if you only have inserted one or a few of CDs just play the first track of each CD.
- if you have inserted a lot of CDs it is easier to call up the service program and start the initialization routine of the phonograph.

See manual "Service program ES VI technology".

5 Disturbances

5.1 Avoiding disturbances

Reason of disturbances

Errors during the loading process of the magazine or a wrong manual insert of the CDs mostly result in mechanical disturbances.

To avoid disturbances please adhere to the following recommendations:

Use CD-tray

Put CDs only into the trays label-up.

Inside the CD changer CDs can only be transported if they are placed on trays.

Load CD magazine completely

Load the CD magazine completely with trays even if you do not fill in all trays with CDs.

Operate the phonograph only with all 50 trays installed.

By factory setting the magazine is equipped with all trays.

Do not remove trays.

Insert CD magazine correctly

When inserting a CD magazine pay attention to the **TOP** position.

The magazine must snap in clearly audible.

An incorrectly inserted CD magazine will lead to mechanical disturbances.

5.2 Reports on the display

The following table contains some display reports of the phonograph.

The given information is intended to help you to remove disturbances.

Report	Reason	Accomodation
Title not available	The corresponding CD is not available or unknown	Insert CD; initialize CD#
no valid disc found		terminate initialization routine

5.3 Replacing line fuses

Caution

Always unplug the power cord before exchanging line fuses. Use only fuses as specified below.

The two line fuses have the following values:

- **T 5 AL for line voltage 230 V**
- **T 8 A for line voltage 120 V**

The line fuses are located in the bottom part of the phonograph cabinet. To get access to the fuses

- Power-off the phonograph and unplug the power cord.
- Open the front door.
- Remove 2 screw and fold the operator panel towards you.
- Nearly in the middle of the bottom part you will see the two fuse holders.
- Open the fuse caps and replace the fuses.
- Re-build the original state of the phonograph and power-on again.

Warning

Replace fuses only with same type and value! Otherwise the phonograph may be damaged in hole.

5.4 Replacing the secondary fuses

The secondary fuses are placed on the two printed boards of the power supply unit.

The secondary fuses have the following values:

- **T 6,3 AL for 60 V_A**
- **T 6,3 AL for 60 V_B**
- **T 1 AL for 30 V**
- **T 3,15 AL for 15 V**
- **T 3,15 AL for 12 V**
- **T 3,15 AL for 5 V**

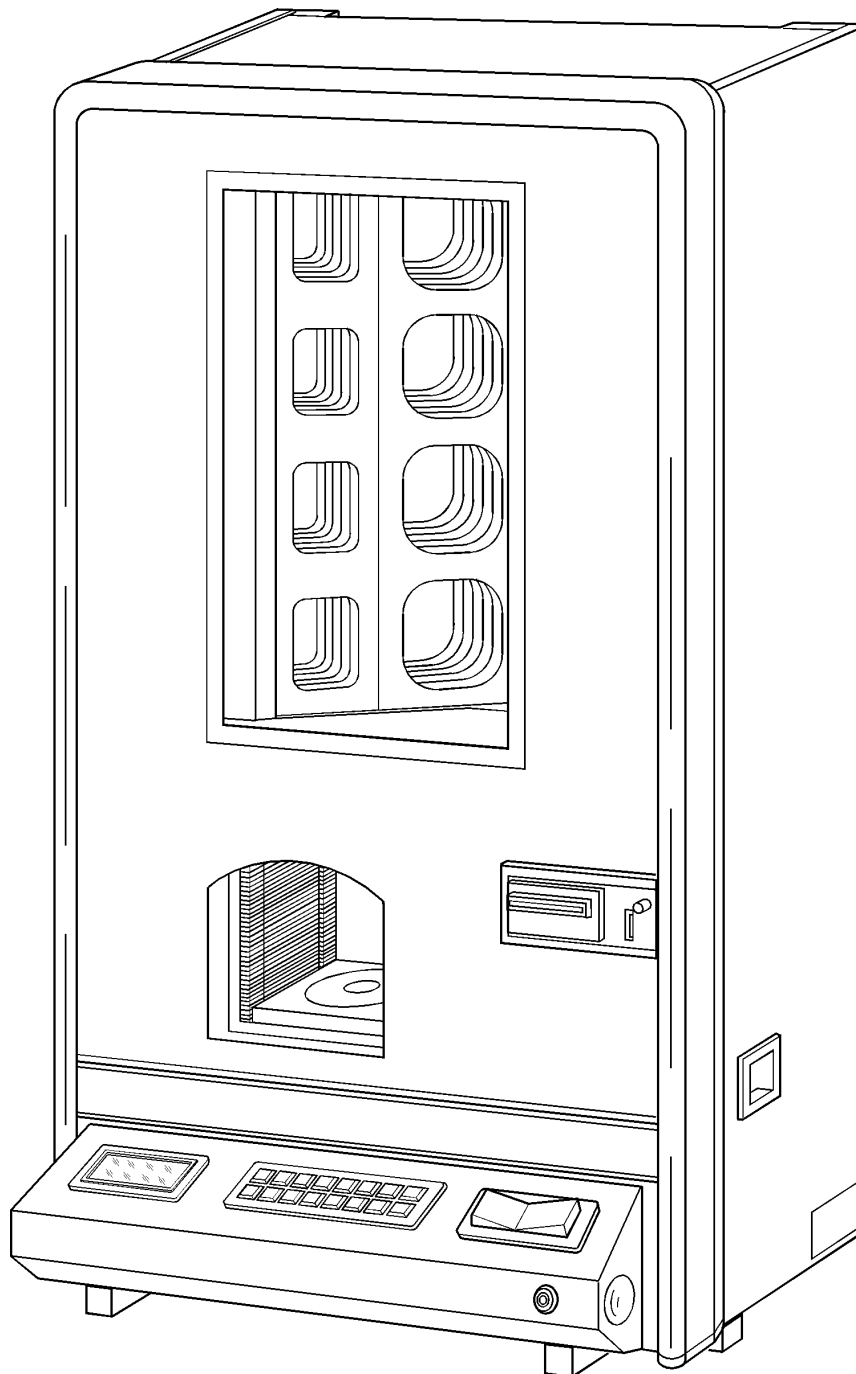
Warning

Replace fuses only with same type and value! Otherwise the phonograph may be damaged in hole.

This page left blank intentionally.

6 Spare parts catalog

The following spare parts and options are available for the ESVI-phonograph:



This spare parts list is valid only for the “GEM-series” phonographs with ESVI-technology.

Each spare parts order must contain the following information:

1. Phonograph type
2. Serial number
3. Parts quantity
4. Parts number
5. Parts description

Example of a correctly filled-out order sheet:

Type	Serial no.	Qty.	Part-no.	Description	Remarks
Cosmic Burst	060431504	1	223 478	Transformer	900VA
		2	235 228	Interference filter	FN9222-10/06
		1	226 075	Fluorescent lamp	TL13W/33

Note:

When ordering your spare parts please indicate model and serial number by all means. By doing so, you will avoid annoying further enquiry.

Please forward your spare parts orders only to your wholesale dealer or to the NSM MUSIC-Organisation.

NSM MUSIC GmbH
Im Tiergarten 20-30
55411 BINGEN / Rhein
Germany

Information and illustration contained in this spare parts list are correct at the time of printing.

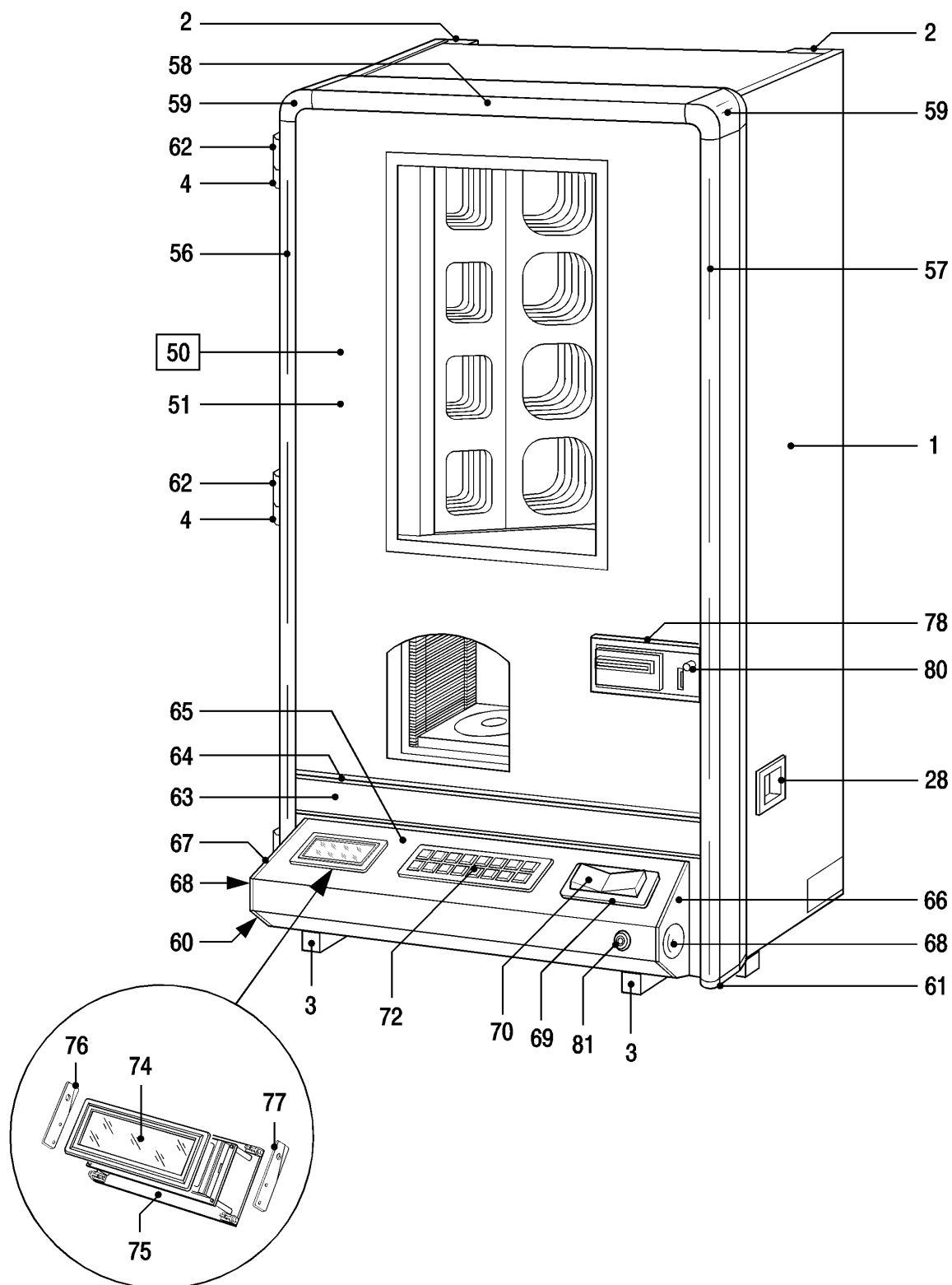
Subject to technical modification without obligation to modify equipment already delivered!

123 456

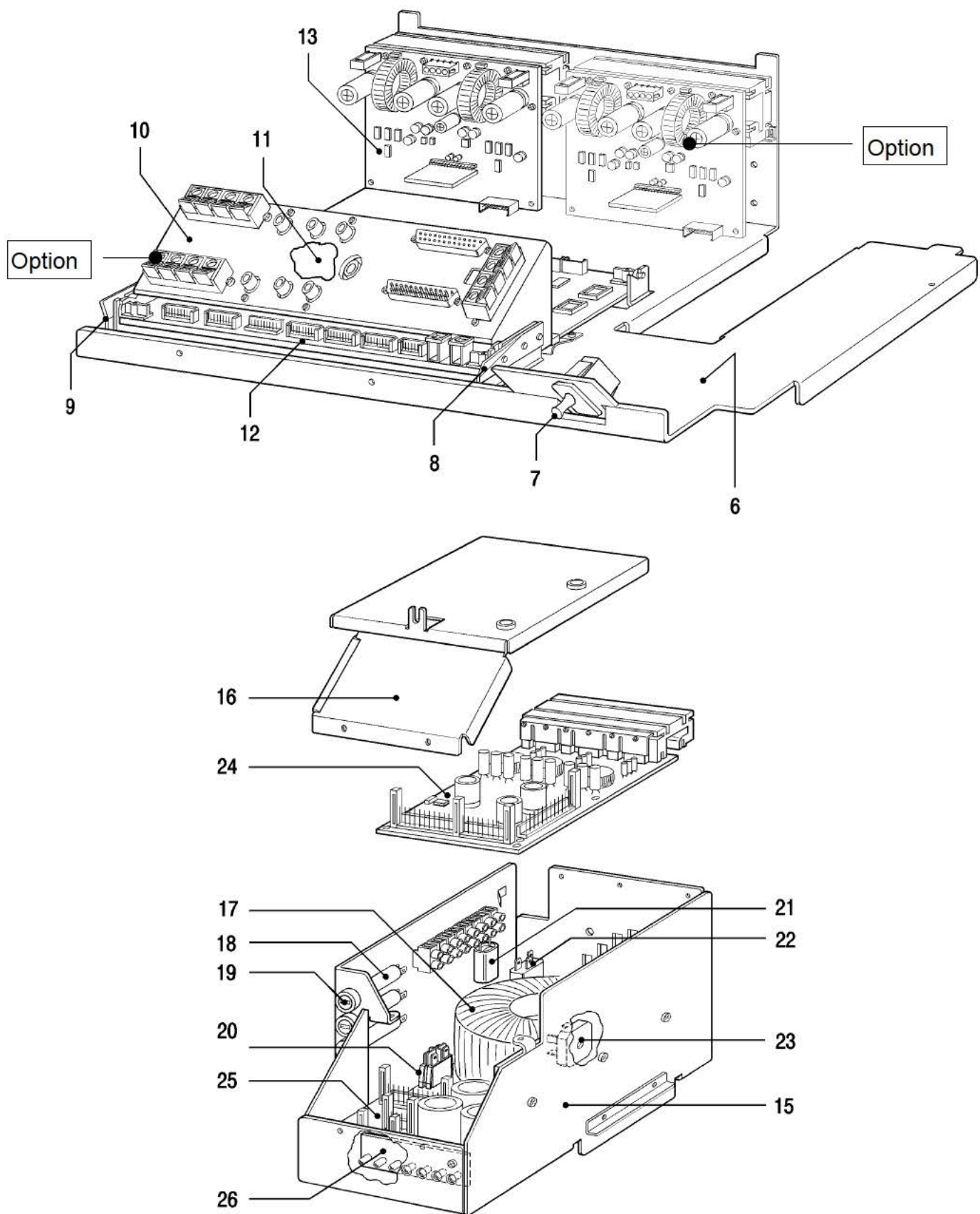
Table entries marked that way indicate the corresponding spare part as not available for all models.

Options

Part no.	Description	Remarks / data
180 118	IR remote control unit, assy.	RC601
180 237	IR remote control unit, assy.	RC602
216 830	wired remote control unit, assy.	
180 189	Amplifier module, assy.	
180 079	Instruction manual, English	GEM-Series with ES VI technology

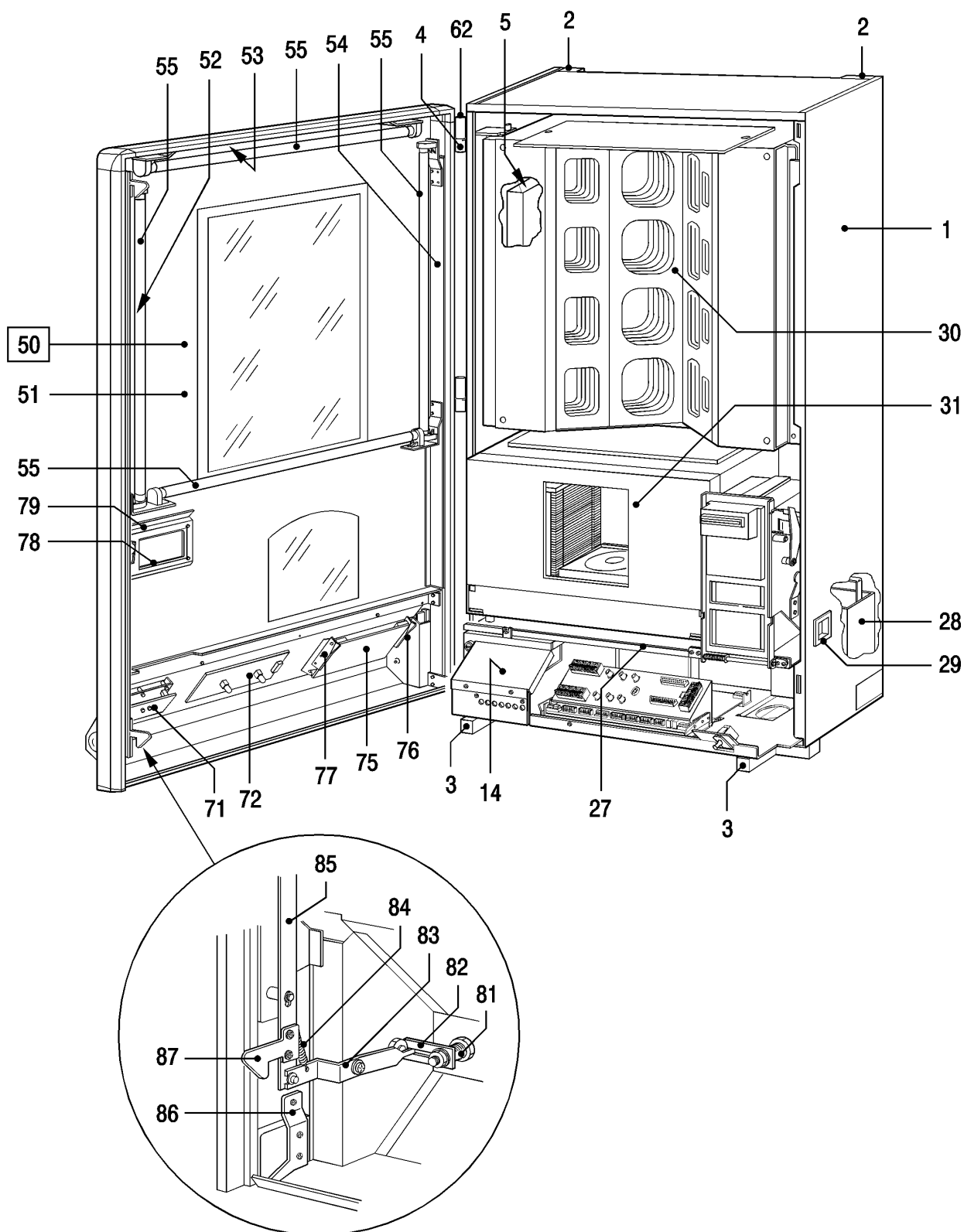


Pos.	Part no.	Description	Remarks / data
1	180 037	Cabinet, spot-welded	
2	179 553	Stopper, top	
3	179 539	Cabinet foot	
4	113 326	Hinge, lower part	



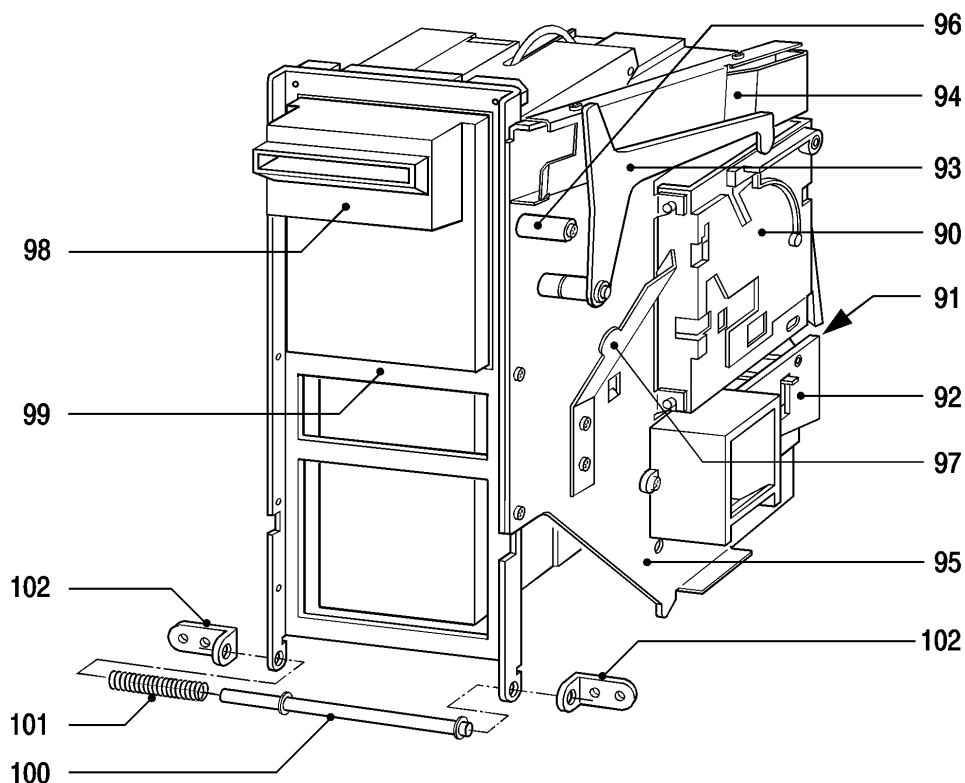
Pos.	Part no.	Description	Remarks / data
5	179 970	CB Electronic ballast, w/o PFC	120/230 V AC
6	180 056	Mounting plate	for electronics
7	222 509	Pushbutton switch	Service switch
8	171 626	Stop spring, right	
9	171 714	Stop spring, left	
	171 629	Holder for CB Central unit ESVI	red
10	179 872	Holding plate, printed	I/O-Panel
11	179 854*	CB I/O-Panel, assy.	
12	179 853*	CB Central Unit ESVI, assy.	
13	216 864*	Amplifier ESVI, assy.	Module
14	180 074*	Power supply unit ESVI, assy.	*120V*
14	180 075*	Power supply unit ESVI, assy.	*230V*
15	180 063	Transformer housing, spot-welded	
16	179 639	Cover for transformer housing	
17	223 478	Transformer with toroidal core	900 VA
18	235 135	G-fuse holder	120V
Si1, Si2	225 541	G-fuse	8A/125V (mains fuses)
Si3	225 760	G-fuse	1,6A/250V (illumination fuse)
19	235 138	Cap	60Hz
18	235 135	G-fuse holder	230V
Si1, Si2	225 537	G-fuse	T5A/250V (mains fuses)
Si3	225 227	G-fuse	T1A/250V (illumination fuse)
19	235 137	Cap	50Hz
20	222 574	Power-on switch	
21	221 110	NTC resistor	type S364/2,5/M
22	235 228	Interference filter	FN9222-10/06
23	221 085	Bridge rectifier	
24	179 956	CB Power Converter, assy.	
25	179 957	CB Power Filter, assy.	
26	179 971	CB LED-BAR, assy.	
27	179 727	Mounting plate	
28	180 049	Cash box, spot-welded	
	180 051	Cover for cash box	
29	179 664	Coin return cup	
30	179 540	Title display unit (type 104)	see page 6-9
31	179 155*	CD-changer MBC III-PRO, w/o Magazine	see Attachment A

* = Exchange unit

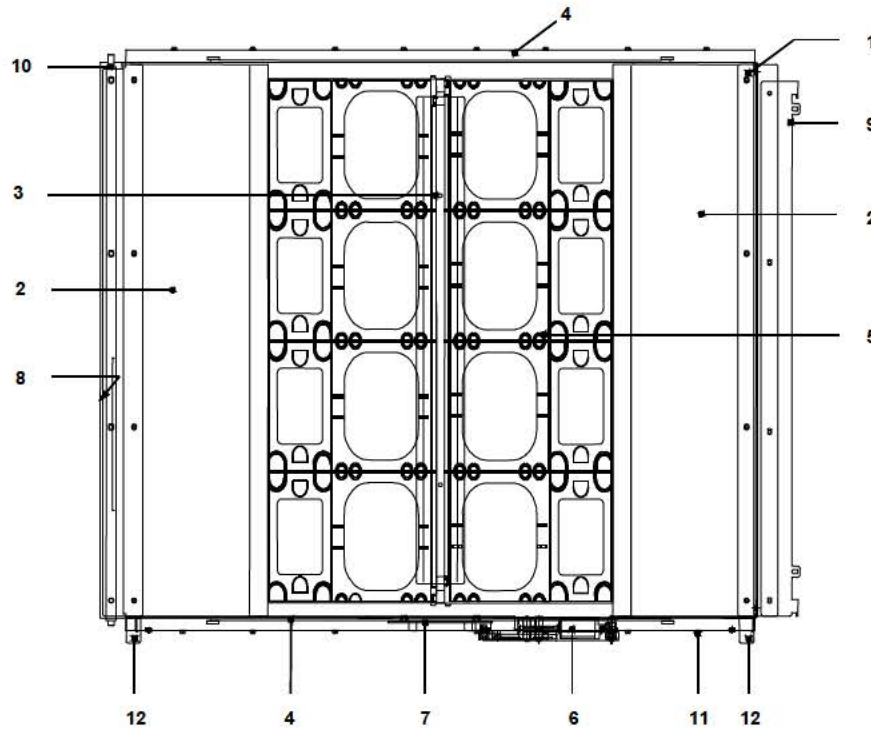


Pos.	Part no.	Description	Remarks / data
50	180 072	Front door, complete *USA*	USA version only
50	180 073	Front door, complete *USE*	export version
51	160 168	Front glass	*COSMIC BURST*
	217 507	Rubber profile	2x780mm; 2x600mm

Pos.	Part no.	Description	Remarks / data
52	179 746	Front glass holder, left	
53	179 737	Front glass holder, upper	
54	179 597	Front glass holder, right	
55	226 075	Fluorescent lamp	white, TL13W/33
56	250 564	Frame, left	black
57	250 565	Frame, right	black
58	250 566	Frame, upper	black
59	119 635	Edge connector	black
60	121 367	End connector, left	black
61	121 368	End connector, right	black
62	250 457	Hinge, upper part	
63	180 014	Pult plate, spot-welded	
64	250 529	Cross profile, bottom	
65	239 360	Cross profile, cover	
66	179 537	Pult plate cover, right	
67	179 538	Pult plate cover, left	
68	179 683	Decor plate, small	
69	176 574	Frame for rocker button	
70	175 974	Rocker button	
71	179 297	Cover, pre-mounted	
72	179 902	Keyboard, assy.	16 buttons
74	180 171	Bezel and glass for display, assy.	
75	179 900	CB Display, assy.	
76	171 626	Catch spring, right	
77	171 714	Catch spring, left	
	171 629	Holder for CB Display	red
78	179 551	Frame *USA*	for Dollar Bill Acceptor
78	179 552	Frame Standard	for Coin acceptor only
79	180 052	Holding plate for frame	
80	179 197	Coin return lever	
	205 683	Pressure spring	
	179 279	Washer, plastic	
81	206 903	Lock	*USA*
82	179 593	Lever for lock	
81	217 814	Cylinder lock	*UNI*
82	180 167	Lever for lock	
83	179 630	Closing lever	
	179 631	Flange sleeve	
84	205 582	Tension spring	
85	179 627	Closing bar, riveted	
86	179 821	Lifting protection	
87	179 629	Closing hook	



Pos.	Part no.	Description	Remarks / data
		Coin and bill mechanism:	
90	216 279	Coin acceptor MARS Cashflow 330	*D*
90	216 280	Coin acceptor MARS Cashflow 330	*GB*
90	216 254	Coin acceptor MARS Cashflow 330	*AUS*
	179 896	CB Coin adapter, assy.	for MARS Cashflow
90	216 675	Coin acceptor, mechanical	*USA* MP25c
91	222 602	Micro switch for mech. coin acc.	
92	179 573	Joining piece	cash box / coin return cup
93	179 736	Return lever, riveted	
94	179 654	Coin channel	
95	179 650	Holding plate for coin acceptor	
	179 655	Coin acceptor nest	
96	178 043	Stopper for coin return lever	
97	179 659	Locking lever for coin mechanism	
98	216 501	Dollar Bill Acceptor	
99	179 656	Holding plate for Dollar bill acc.	
100	179 658	Axle, slotted	
101	205 858	Pressure spring	
102	179 657	Axle bearing	
		Cable harnesses:	
	180 114	MARS coin acc. – CB Coin adapter	
	114 085	CB Coin adap. – Central unit ES VI	12 pole length=600mm
	179 886	Mech. coin acc. – Central unit ES VI	2 pole length=700mm
	179 887	Dollar bill acc. - Central unit ES VI	4 pole length=700mm



Pos.	Part no.	Description	Remarks / data
	179 540	Title display 104, complete	
1	179 541	Cabinet, complete	w/o design parts
	217 479	Edge protection	black, 4x102mm
	206 414	Edge protection	DX2, 2x155mm, for lower handle
2	179 792	Decor mask	white
3	179 688	Decor mask	black
4	212 967	Cover mask	white
5	179 225	Title holder	
	219 861	Adhesive sticker	00 – 99
6	179 542	Gear, pre-mounted	
	179 702	Cover plate for gear, riveted	
	179 544	Toothed wheel, double	z=69, z=15
	179 545	Toothed wheel	z=23
	179 707	Motor, complete	
	116 365	Step bearing	
	173 432	Worm gear	
	205 568	Tension spring	
7	179 709	CB Opto, complete	
	231 322	Opto coupler	LTH-301A-N
8	179 708	CB Title display 104, complete	
	229 157	Spacer	
9	179 718	Clamping bracket	
10	211 785	Bar with projection	
11	179 549	Guiding	
12	179 238	Foot, long	

Cable harnesses

Part no.	Description	Remarks / data
227 433	Power cord EURO	*D*/*EXP*, length=2500mm
227 629	Power cord with plug	*GB*, length=2500mm
227 529	Power cord w/o plug	*AUS*/*NZ*, length=2500mm
227 528	Power cord (110-127V)	*USA*, length=2500mm
179 882	Power supply unit – CB Central Unit	8 pole, length=450mm
180 034	Power supply unit – Electronic ballast	6 pole, length=1100mm
179 885	Power supply unit – AMP	6 pole, length=600mm
179 962	CB Power Filter – CB Converter	12 pole, length=200mm
179 879	AMP – Loudspeaker connector	4 pole, length=450mm
179 905	CB Central Unit –AMP	8 pole, length=340mm
179 856	CB Central Unit – I/O-Panel	18 pole, length=100mm
179 857	CB Central Unit – I/O-Panel	20 pole, length=100mm
179 895	CB Central Unit –Service switch	2 pole, length=250mm
179 892	CB Central Unit – MBC III	15 pole, length=1200mm
178 012	CB Central Unit – Title display	10 pole, length=1470mm
177 478	CB Central Unit – CB Display	8 pole, length=1100mm
179 888	Display – Rocker button	6 pole, length=700mm
180 035	Front door illumination	

7 Appendix

7.1 Technical data

Electrical data

Mains voltage	120V / 230V	50/60Hz
Power consumption	115W 600W	stand-by play mode
RMS power / load (sine wave power)	each channel 170Wrms / 8Ω 250Wrms / 4Ω	
Music power (tone burst)	2 x 200W / 8Ω 2 x 300W / 4Ω 2 x 400W / 2Ω	4 x 175W / 8Ω 4 x 250W / 4Ω 4 x 250W / 2Ω *) *) = limited by overcurrent protection!

Operating conditions

Ambient temperature operating	10°C — 40°C	50°F — 104°F
Gradient of temperature	11°C/h	19,8°F/h
Relative humidity operating	10 % - 75 %	non condensing

Dimension and Weight

Dimension	Width	650 mm ≈ 25.5"
	Height	1042 mm ≈ 41"
	Depth	361 mm ≈ 14.2"
Weight w/o CDs	nearly	85kg

Interfaces

Auxiliary Interface	2 x input	4 x output
Serial interface	1 x RS232 1 x BACTA 1 x Selector box	
Operators panel	16 key keyboard LCD-display	

7.2 Wiring diagram

7.3 Service branch

Necessary service is supported by your distributor.

Hot-line:

☎ UK 0044 113 271 3708

☎ Germany 06721 22 56 39 36

☎ USA 001 630 860 5100

7.4 Declarations

7.4.1 CE-declaration



EC-DECLARATION OF
CONFORMITY

per **89/ 336 / EEC**.

This is to confirm that the product

phonograph
ESVI-technology

is conform with the following
standards or other normative
documents:

EN 55022

EN 55024

NSM quality assurance system
assures compliance.

NSM Music GmbH

D-55411 Bingen am Rhein,
Germany

7.4.2 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.

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.

7.5 Catchword register

Appendix.....	7-1	IR.....	3-3
CD trays		Wired.....	3-6
Checking	4-7	Repair	1-2
Loading CDs.....	4-7	Replacing fuses	5-3
Connection		Residual risks.....	1-2
Loudspeakers.....	4-6	Safety	
Declarations		Class1 definition	1-3
CE	7-3	Instructions	1-1
FCC	7-4	Precautions	1-4
Display		Safety message	
Reports while operation.....	5-2	Caution	1-2
Disturbances		Warning.....	1-2
Avoid	5-1	Secondary fuses	
General survey		Values	5-3
Phonograph.....	2-1	Selecting titles.....	3-2
Hot-line.....	7-3	Service	
Initialize CDs	4-8	Replacing Fuses.....	5-3
Inserting coins.....	3-2	Spare parts catalog	6-1
Intended use	1-2	Service branch	7-3
Keyboard.....	2-1	Set-up	
Line fuses		Set-up the phonograph.....	4-1
Exchange	5-3	Spare parts catalog.....	6-1
Value	5-3	Survey of	
Loading		Components	2-3
CD magazine.....	5-1	Display.....	2-2
CDs	4-7	Front side	2-1
Title sheets	4-8	Inside.....	2-3
Mounting bracket	4-5	Interface board	2-3
Operators Display	2-1	Keyboard	2-1
Options.....	6-2	Set-up.....	4-1
Power-on.....	3-1	Technical data	7-1
Quantity delivered	4-1	Title display unit	4-8
Remote control		Viewing title sheets	3-2

Attachment A: The CD changer MBC III-PRO

On the following pages please find the technical manual for the CD changer MBC III-PRO.

Attachment B: Service program ES VI-Technology

On the following pages please find the programming manual for the “Service program ES VI-Technology”.

Service program

ES VI-Technology

Program version: 1.06
Date: 17/10/2000
Author: Manfred Zimmer

The information and illustration contained in this manual are up to date at the time of publication.

Subject to technical modification without obligation to modify equipment already delivered!

No reprint in full or part unless approved!

Manufactured in Germany

Copyright by NSM MUSIC GmbH – 55411 Bingen/Rhein - Germany

Part number of this manual: 180 166

Table of contents

BASICS OF OPERATING THE SERVICE PROGRAM.....	6
DEFINITIONS	6
OPERATING	6
SERVICEPROGRAM	7
/0 MAIN MENU	7
/1. >SETUP	7
/1.1 >CD-Initialization.....	7
/1.1.1 Initialize Discs	7
/1.1.2 Show Disc Database	8
/1.1.3 Clear Disc Database.....	8
/1.2 Date & Time	9
/1.3 Box ID and Location	9
/1.4. Change Security Code.....	10
/1.5 Reset to Factory Defaults	11
/2. >SETTINGS	12
/2.1 >Monetary & Prices	12
/2.1.1 >Monetary	12
/2.1.1.1 Value Per Channel.....	12
/2.1.1.2 Mech. Coinmeter Value	12
/2.1.1.3 Currency Settings	13
/2.1.2 >Price Lists	13
2.1.2.1 List #1	13
2.1.2.2 List #2.....	13
2.1.2.3 List #3.....	14
2.1.2.3 List #4.....	14
/2.1.3 >Time Windows	14
/2.1.3.1 - /2.1.3.8 Monday...Sunday, All Days.....	14
/2.1.4 Conversion.....	14
/2.1.5 >Free Credits	15
/2.1.5.1 >Restrictions	15
/2.1.5.2 Free Credit Settings.....	15
/2.1.5.3 Free Credits per Weekday	16
/2.1.5.4 Time Windows	16
/2.2 >Categories.....	17
/2.2.1 Compilations.....	17
/2.2.2 Special Titles	18
/2.2.3 >Autoplay	20
/2.2.3.1 Autoplay Settings	20
/2.2.3.2 >Time Windows.....	20
/2.2.4 >Advertisement	22
/2.2.4.1 Advertisement Settings	22
/2.2.4.2 >Time Windows.....	22
/2.2.5 >Background	24
/2.2.5.1 Background Settings	24
/2.2.5.2 >Time Windows.....	24
/2.2.6 > Title Lockout	26
/2.2.6.1 > Operator Lockouts	26
/2.2.6.2 >Time Restricted Lockouts	26
/2.2.6.3 >Automatic Lockouts.....	27
/2.2.6.4 Lockout Preferences.....	27
/2.3 >Hardware.....	28
/2.3.1 >Amplifier Settings	28
/2.3.1.1 Music	28
/2.3.1.2 Microphone	29
/2.3.1.3 Input Gain & AVC.....	30
/2.3.1.4 Audio Modes.....	31

Service program for ESVI Technology

/2.3.1.5 Attenuation	32
/2.3.1.7 >MORE	32
/2.3.2 Title Display	35
/2.3.3 >Remote Control	36
/2.3.3.1 General Settings	36
/2.3.3.2 Function Keys.....	37
/2.3.4 >Display.....	38
/2.3.4.1 Display Pages 1	38
/2.3.4.2 Display Pages 2	38
/2.3.5 >Key-Pad	39
/2.3.6 >Data Transmission.....	40
/2.4 Selection	41
/2.5 Playing.....	42
/2.6 >Credit & Selection Decay	43
/2.6.1 Delete Credits	43
/2.6.2 Delete Selections	43
/2.6.3 Decay Times	43
/3. >BOOKKEEPING	44
/3.1 Popularity.....	44
/3.1.1 Last reset.....	44
/3.1.2 Show Least Selected CD	44
/3.1.3 Show Most Selected CD.....	44
/3.1.4 Show Most Selected Titles	45
/3.1.5 Reset Popularity.....	45
/3.2 Accounting within period	45
/3.2.1 Last reset.....	45
/3.2.2 >Accounting Global.....	45
/3.2.2.1 Play Report.....	46
/3.2.2.2 Paid Credits Per Hour.....	46
/3.2.2.3 Event Log	46
/3.2.2.4 Power On/Off Periods	47
/3.2.3 Accounting Within Period For Main Jukebox	48
/3.2.3.1 Cash Takings	48
/3.2.3.2 Monetary Entries	48
/3.2.3.3 Selections	48
/3.2.3.4 Credits	49
/3.2.4 Accounting Within Period For Selectors	49
/3.2.4.1 Cash Takings	49
/3.2.4.2 Monetary Entries	49
/3.2.4.3 Selections	49
/3.2.4.4 Credits	49
/3.2.5 Reset Accounting Data	50
/3.3 Accounting Total	50
/3.3.1 >Accounting Global.....	50
/3.3.1.1 Play Report.....	50
/3.3.2 Accounting Total For Main Jukebox	50
/3.3.2.1 Cash Takings	50
/3.3.2.2 Monetary Entries	50
/3.3.2.3 Selections	51
/3.3.2.4 Credits	51
/3.3.3 Accounting Total For Selectors	51
/3.3.3.1 Cash Takings	51
/3.3.3.2 Monetary Entries	51
/3.3.3.3 Selections	51
/3.3.3.4 Credits	51
/3.4 Send or Print.....	52
/4 >SERVICE FUNCTIONS.....	54
/4.1 >CD Changer.....	54
/4.1.1 >CD-Changer Adjustment.....	54

Service program for ESVI Technology

/4.1.1.1 Adjust Gripper Reference.....	54
/4.1.1.2 Adjust Lift Reference	55
/4.1.2 CD-Changer Test.....	56
/4.1.2.1 CD-Changer Opto Test.....	56
/4.1.2.2 Interactive CD-Changer Test	56
/4.2 >CPU & Memory Test.....	58
/4.2.1 CPU Test	58
/4.2.2 Volatile Memory Test.....	58
/4.2.3 Non Volatile Memory Test.....	58
/4.3 I/O Test.....	58
/4.3.1 Test Display.....	59
/4.3.2 Key pad Test.....	59
/4.3.3 Input Ports	59
/4.3.4 Output Ports.....	59
/4.3.5 Remote Control	59
/4.4 Title Assembly Test.....	60
/4.5 >Continuance Tests	60
/4.6 >Error Logbook.....	62
/4.6.1 Show Error Log	62
/4.6.2 Clear Error Log.....	62
/4.6.3 Automatic Lockouts	62
/4.7 Data Transmission	63
/4.7.1 Serial Interface Test.....	63
/4.7.2 Upload New Software	63

Basics of operating the service program

Definitions

Normal mode:	I.e. normal operating mode for customers. The phonograph accepts money insert and plays selected titles.
Service mode:	The service operating mode for the operator of the phonograph or the service staff. The door of the phonograph is open and the service switch is pulled out. Settings are possible, phonograph statistics can be read out, or several tests can be made.
Menu:	This is a list of different service functions.
Direct access:	Direct access of a service function is possible by entering the corresponding number. Regard the syntax: Menu points are separated by dots (e.g.: 2.3.1.1).
Dialog box:	Group of matching input fields (mask).

Operating

By pulling out the service switch the phonographs service program is entered. The service program is menu driven. It is separated into multiple sections. The service program is operated via the operators key pad in the operating console of the phonograph or via the IR-remote control.

For your orientation: The menu number (e.g. /2.1.5.4) is displayed in the lower left corner of the operators display.

A service function can be accessed directly by entering the corresponding menu number ("direct access"). For example, if you want to modify the sound setting of the phonographs amplifier, just enter the corresponding number 2.3.1.1 directly. Afterwards the dialog field for sound settings appears in the operators display.

If there is a ">" sign in front of a menu name, it indicates that there is another menu field following this one. For example "2.>Settings" means, that another menu will appear after entering "2".

Entering the number "0" within any menu position takes you back to the main menu. This is optimized for operators that always jump to service functions directly using "direct access".

For stepping through the entry fields within a dialog box use the arrow keys (→, ↑, ↓).

For your orientation: Within the upper right corner of the operators display the corresponding name of the entry field is displayed.

After closing the front door the service switch is automatically pushed in, and the service program is terminated. The phonograph re-enters the normal mode.

While not otherwise specified the keys of the operators key pad have the following meaning if the phonograph is in service mode:

- 1...0: Input of menu item or parameter values.
- C: „Cancel input“ (1. pressing) or „Back one menu level“ (2. pressing).
- →: Within dialog box step right one entry field.
- ↑: Within dialog box step up one entry field.
- ↓: Within dialog box step down one entry field.
- Hit: Confirm entry.
- *: step to the next possible parameter, switch display mode, or switch upper case/lower case while in text input mode.
- A-Z: Text input. Here the number keys (1...0) have a different meaning (see also layout of the IR remote control transmitter). Key 1 is also designed as "ABC", key 2 as "DEF" and so on. In this mode the first pressing of key 1 works as "A", two times pressing gives you a "B" and so on.
- Symbols: This is for entering symbols, such as monetary symbols, while you are in text input mode. The different symbols are displayed by repeatedly pressing the symbols key.

Serviceprogram

/0 Main menu

```
1:>Setup
2:>Settings
3:>Bookkeeping
4:>Service Functions

C-Back
```

After pulling the service switch (push button switch) the phonograph switches to service mode, and the service program is entered.

The service mode can be terminated by either pushing the service switch back into its closed position or by confirming „YES“ after pressing the „C“ key (on the IR transmitter or the operators key pad).

/1. >Setup

```
1:>CD-Initialization
2: Date&Time
3: Change Security Code
4:>Reset To Factory Presets

/1 C-Back
```

This service program section is used for the basic initialization of the phonograph.

/1.1 >CD-Initialization

```
1: Initialize Discs
2: Show Disc Database
3: Clear Disc Database

/1.1 C-Back
```

Newly inserted CD must be initialized (read in of table of contents), thus to enable correct title selection and credits calculation for selected album (different number of tracks/titles).

CDs may be classified as „known“, „not known“, or „not available“.

Each time a CD is played, it is newly initialized. New inserted can be initialized by selecting track 1 once.

/1.1.1 Initialize Discs

```
Initialize Discs From
Enter disc(s): 1 - 100
Start
```

Enter the range of CDs to be initialized. Afterwards select **Start** and press the „Hit“ key to start the initialization routine.

Service program for ESVI Technology

Enter disc(s):

From: First CD to be initialized.
To: Last CD to be initialized.
Start: To start the initialization routine.

```
Initialize Discs
Press C to Cancel
Press Hit to select more
Press * to view title memory

1-Found, 10 Audio 40:19
2-Found, 13 Audio 53:13
3-Found, 12 Audio 48:43
```

First the data of the entered range are cleared. Afterwards the defined CDs are read-in one after another to be initialized. The display shows number of titles and total play time of the CD.

While initialization the keys have the following function:

"C" key = To cancel the initialization routine.
"Hit" key = Change the range of CDs to be initialized.
"*" key = Display the initialized title memory.

Note: If you have started the initialization routine you may push the service switch (close the door / lid of the phonograph). After finishing the initialization the phonograph then directly goes into normal play mode.

Regard that the initialization routine only can be interrupted by pressing the "C" key if the service switch is pulled.

/1.1.2 Show Disc Database

```
Show Disc Database      Page 01/03
001-10      007-13      013-18
002-13      008-10      014-16
003-12      009-10      015-11
004-10      010-15      016 --
005-08      011-19      017 --
006-10      012-16      018 --
```

The initialized information of all CDs is shown (format: **CD-tracks**). Press the arrow keys to step through multiple screens. Press "C" key to leave this menu.

/1.1.3 Clear Disc Database

```
Clear Disc Database      From
Enter disc(s): 1 - 100
                Start
```

Enter the range of CDs of which the data base should be cleared.
Afterwards select **Start** and press the "Hit" key to start this routine.

Enter disc(s):

From: First CD to be cleared.
To: Last CD to be cleared.
Start: To start clearing routine.

/1.2 Date & Time

Date & Time		Hours
Time: (HH,MM,SS)	<input type="text" value="9"/>	<input type="text" value="49"/>
Date: (DD,MM,YYYY)	<input type="text" value="10"/>	<input type="text" value="3"/>
Date Format:	<input type="text" value="MM/DD/YY"/>	

This function is used to set date and time. The internal real-time clock is used to control various functions within special time windows, such as auto-play, background, happy-hour, and so on.

Time:

The actual time. Format: hours, minutes, seconds.

Date:

The actual date. Format: day, month, year.

Date Format:

Select desired display format of the date display:

DD/MM/YY: day / month / year

MM/DD/YY: month / day / year

DD.MM.YY: day . month . year

Remark: The week-day (monday...sunday) is automatically calculated from the entered date.

/1.3 Box ID and Location

Box ID and Location	
Number:	<input type="text" value="0"/>
Name:	<input type="text"/>
Location:	<input type="text"/>

This inputs may be used to identify the machine or the location. With the data exchange via DataPrint or PC, this settings will be transmitted.

Number:

The machine number for identifying the machine.

Assign every machine it's own free defined number.

Name:

The name of the machine. I.e. „TRADITION“, „ULTIMATE“, etc.

Usage:

Regard the layout of the number keys of the remote control (1/ABC, 2DEF.. 0/Sym). The first pressing of key "1" works as "A", two times pressing gives you a "B" and so on. Use key "0" to enter symbols.

Use "*" key to switch between upper and lower case. Save your message by pressing the "Hit" key.

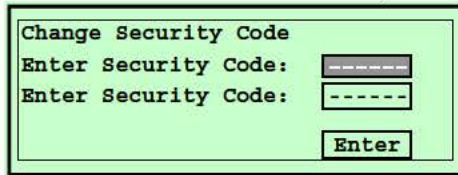
The "C" key has different functions:

1. If the background of the display is darkened, e.g. after pressing the "Hit" key, pressing the "C" key will terminate/cancel this entry mode.
2. If the background of the display is high-lighted, e.g. after entering a character, you are in entry mode. Pressing the "C" key works as 'delete previous character'.
3. Press and hold the "C" key for 3 s to re-build the original entry (undo). The corresponding key on the IR remote control is named "VIP" key.

Service program for ESVI Technology

Regard that different characters have different width. So it may happen that the local message is not displayed correctly in stand-by mode if you enter to much wide characters.

/1.4. Change Security Code



By defining a security code (password) you can protect your phonograph against unauthorized usage. Service functions can only be started by authorized service staff who knows the right password. After pulling the service switch you are requested to enter the right password.

Enter Security Code:

Input of security code.

Input is requested twice to exclude typing errors.

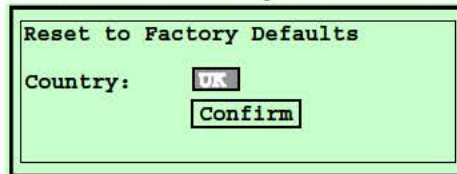
If you enter the code = "0" this function is disabled.

Enter:

Select **Enter** and press the "Hit" key to store the newly entered security code.

Attention: Note the security code (password) and store it in a safe place, because if you lost the password you will not have any access to the service program!

/1.5 Reset to Factory Defaults



The phonograph is prepared to use default values set at the factory site. Call this function to reset the phonograph to this settings. For different countries different price and monetary settings (basic settings) are programmed:

GB:	Settings for GB
USA:	Settings for USA
AUS:	Settings for Australia
D:	Settings for Germany

To confirm your selection select **Confirm** and press "Hit" key. Afterwards the desired factory default settings are activated and the phonograph's program will be restarted.

/2. >Settings

```
1: >Monetary & Prices
2: >Categories
3: >Hardware
4: >Selection
5: >Playing
6: >Decay

/2 C-Back
```

Use this menu to change different parameter settings of the phonograph.

/2.1 >Monetary & Prices

```
1: >Monetary
2: >Price lists
3: >Time Windows
4: Conversion
5: >Free credits

/2.1 C-Back
```

Settings for monetary values, prices, or free credits can be changed here.

/2.1.1 >Monetary

```
1: Value Per Channel
2: Mech.Coinmeter Value
3: Currency Settings

/2.1.1 C-Back
```

Settings for currency and monetary values.

/2.1.1.1 Value Per Channel

Value Per Channel	
Ch1: 100	Ch5: 200
Ch2: 20	Ch6: 0
Ch3: 10	Bill1: 0
Ch4: 50	Bill2: 0

Use this function to value up to 6 coin channels and up to 2 bill channels. Just enter the corresponding value of coins and/or bills related to the smallest value unit of your country. For example: 50c = 50, 1\$ = 100.

Tip: With insertion of a coin into the coin chute the program automatically activates the corresponding entry field, and you directly may enter the expected value. Repeat this steps for all valid coins used in your country.

/2.1.1.2 Mech. Coinmeter Value

```
Mech.Coinmeter Value

Count every: 10
```

Use this function to define the monetary value being necessary to indicate an impulse to the electromechanical cash counter.

Example: Setting = 10: Inserting 1\$ makes 10 impulses to the electromechanical cash counter. That means the cash counter counts in steps of 10c.

/2.1.1.3 Currency Settings

Currency Settings	
Symbol Position	Leading
Currency Symbol	\$
Point Position	2

Setting the currency.

Symbol Position:

Define whether the currency symbol is displayed in front of the value (Leading), or following the value (Behind). Press the "*" key to change the setting.

Currency Symbol:

Define the currency symbol to be displayed with the price information on the operators display. Enter symbol using the IR remote control transmitter, press key "1" for letters ABC; press key "2" for letters DEF and so on.

For input of symbols like \$, £, or so, press the "0" key as long as necessary to meet the desired symbol.

Point Position:

Use this function to define the position of the decimal point displayed with the monetary value.

Example: Setting = "0": Value 100 (e.g. 1\$) is displayed as 100.

Example: Setting = "2": Value 100 (e.g. 1\$) is displayed as 1.00.

/2.1.2 >Price Lists

1: List #1 (Normal)
2: List #2 (Happy Hour)
3: List #3 (Special 1)
4: List #4 (Special 2)
/2.1.2 C-Back

Use this command to define different prices for different time windows, i.e. different daily or weekly events.

2.1.2.1 List #1

List #1 (Normal)		Price	
30	= 1	0	= 0
50	= 2	0	= 0
100	= 5	0	= 0
200	= 11	0	= 0

Defines the pricing for normal operation. Example setting 50 = 2: that means you need 50 monetary impulses to get 2 credits for selections. Enter prices sorted by increasing monetary values. Regard the settings of menu 2.1.4 (Conversion) to ensure either direct or indirect conversion is to be used.

2.1.2.2 List #2

Bonus pricing in HAPPY HOUR time windows.

Service program for ESVI Technology

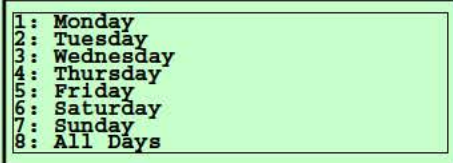
2.1.2.3 List #3

Bonused pricing for special occasions or operating times.

2.1.2.3 List #4

Bonused pricing for other special occasions or operating times.

/2.1.3 >Time Windows

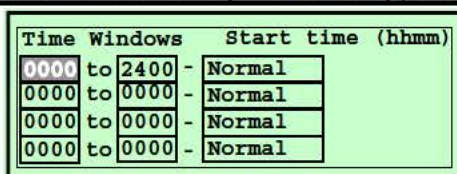


A screenshot of a menu with a light green background and a black border. It contains a list of days of the week and 'All Days' numbered 1 through 8:

- 1: Monday
- 2: Tuesday
- 3: Wednesday
- 4: Thursday
- 5: Friday
- 6: Saturday
- 7: Sunday
- 8: All Days

Settings for different pricing for different daily and weekly time periods.

/2.1.3.1 - /2.1.3.8 Monday...Sunday, All Days



A screenshot of the 'Time Windows' settings screen. It has a light green background and a black border. The title 'Time Windows' is at the top left, and 'Start time (hhmm)' is at the top right. Below the title, there is a table with four rows, each representing a time window. Each row has a 'Start time' field, a 'to' field, and a 'Price list #' field. The first row shows '0000' to '2400' with 'Normal' as the price list. The other three rows show '0000' to '0000' with 'Normal' as the price list.

Start time	to	Price list #
0000	2400	Normal
0000	0000	Normal
0000	0000	Normal
0000	0000	Normal

Program up to four independent time windows for each week-day using different price lists. Enter time values in format "hhmm", i.e. 1015 for a quarter past ten o'clock.

Start time:

Enter time for the beginning of the time window.

Stop time:

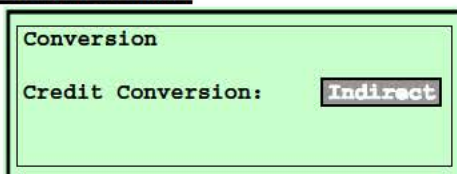
Enter time for the end of the time window.

Price list #:

Use "*" key to select the price lists to be active while time window.

"Normal",
"Happy-Hour",
"Special1", or
"Special2".

/2.1.4 Conversion



A screenshot of the 'Conversion' settings screen. It has a light green background and a black border. The title 'Conversion' is at the top left. Below the title, there is a label 'Credit Conversion:' followed by a button labeled 'Indirect'.

Direct: The conversion of inserted coins into given credits is performed on each inserted coin directly (coin related).
Example: 50c = 1credit, 1\$ = 3 credits → insertion of 2x50c gives 2 credits.

Indirect: The conversion of inserted coins into given credits is performed indirectly, that means related to the total amount of inserted coins.
Example: 50c = 1credit, 1\$ = 3 credits → insertion of 2x50c gives 3 credits.

/2.1.5 >Free Credits

```

1: Restrictions
2: Free Credit Settings
3: Free Credits per Weekday
4: >Time Windows

/2.1.5          C-Back
    
```

Menu for programming free credits.

/2.1.5.1 >Restrictions

```

Restrictions
Allow albums?      No
Allow special titles? No
Discard free selections? Yes
    
```

Restrictions while using free credits.

Allow Albums?:

Setting to allow album selection (selection of track 00) while phonograph is in free credit mode.

Allow Special Titles?:

Setting to allow selection of special tracks while phonograph is in free credit mode.

Discard Free Selections?:

Use this setting to define if selections in free credit mode are deleted from the title memory after termination of the free credit mode (either by using remote control or automatically by running out of the programmed time window).

/2.1.5.2 Free Credit Settings

```

Free Credit Settings
Remaining Free Credits: 0000
Service Credits:      ---
    
```

Settings for free credits.

Remaining Free Credits:

Setting of the total number of free credit to be given.

The programmed value is decreased by 1 each time a free credit is given until the value is "0". If the value is = "0" no further free credits are given until this program step is performed again.

Exception: programmed value = "999" means endless amount of free credits.

Service Credits:

Setting the number of free credits given after pulling the service switch and if the "normal" credit counter (credit display) is "0".

This function is used to enable the service technician to make title selections for service purposes without money insert.

Service program for ESVI Technology

/2.1.5.3 Free Credits per Weekday

Free Credits Per Weekday			
Monday	10	Friday	10
Tuesday	10	Saturday	10
Wednesday	10	Sunday	10
Thursday	10		

Settings different numbers of maximum free credits for each day of the week.

/2.1.5.4 Time Windows

1: Monday
2: Tuesday
3: Wednesday
4: Thursday
5: Friday
6: Saturday
7: Sunday
8: All Days

Within different time windows you may activate free credits to be given automatically or after pressing a function key on the remote control.

/2.1.5.4.1 - /2.1.5.4.8 Monday...Sunday, All Days

Monday		Start time (hhmm)	
0000	to 2400	- Single	Limited
0000	to 0000	- Bulk	Limited
0000	to 0000	- Bulk	Limited
0000	to 0000	- Bulk	Limited

4 independent entries are possible for each week-day to activate free credits automatically or for selection via remote control.

Settings:

Start time:

Enter time for the beginning of the time window.

Stop time:

Enter time for the end of the time window.

Mode:

Use “*” key to select the mode of free credits to be given:

“**Single**”: The defined free credits for this week-day may be called one by one by pressing the corresponding function key.

“**Bulk**”: The defined free credits for this week-day may be called all at once by pressing the corresponding function key.

“**Auto**”: The defined free credits for this week-day may be called all at once automatically at start windows time.

“**None**”: No free credits while this time window is active.

Limitation:

Use “*” key to select between:

“**Limited**”: Free credits are limited to the defined number of free credits for this week-day (see /2.1.5.3 Free credits per week-day).

“**Unlimited**”: The number of free credits is not limited within this time window.

/2.2 >Categories

```

1: Compilations
2: Special Titles
3: >Autoplay
4: >Advertisement
5: >Background
6: >Title Lockout
/2.2                                C-Back

```

Summary of functional categories

/2.2.1 Compilations

Compilations are summaries (lists) of different titles or albums (CDs). These summaries are to be used for "Autoplay" (automated attract mode within time intervals), "Advertisement" (automated playing of ad tracks within time intervals), "Background" (automated back ground music), and "Title Lockout". You can also enable the audience to select Compilations. Thus you can expand your musical offering or categorize it.

Up to 100 Compilations can be programmed, each with up to 100 entries (single tracks or albums).

The total number of entries over all compilations is limited to 1000.

Compilations are split into three number categories,

1. 1 to 199 (these are used for audience selection by creating a virtual CD, i.e. selection 103*05 when using a 100 Changer or 51*06 when using a 50 Changer, this will enlarge the music offering. Use virtual CD's to build special music categories, i.e. rock pop, country & western, classic, dance etc.
2. Compilations 200-249 are not selectable, because they are reserved to be played as "Autoplay titles", "Advertisement titles", or "Background titles and lockouts". i.e. compilation 201 is a file. Within that file you enter the group of CD's or tracks to be used within one of the above features, i.e. background titles etc.
3. Compilation 250 is a factory default setting that contains all the CD's within the jukebox, making them all selectable within "Autoplay" or "Background" feature. Compilation 250 cannot be changed.

```

Compilation                Page: 01/01
200 201
Hit-Select

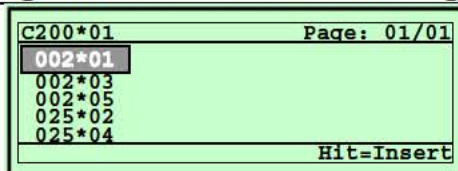
```

Usage:

Select the desired category using the arrow keys (Compilations). In the lower right corner of the display the function of the "Hit" key is displayed (i.e. "Hit=Select"). By pressing the "*" key you can choose between the following functions: "Select", "Insert", and "Delete".

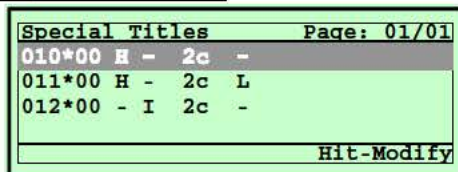
Activate the *insert function* by pressing the "*" key until "Hit=Insert" is displayed. Then press the "Hit" key to add a new compilation.

Activate the *delete function* by pressing the "*" key until "Hit=Delete" is displayed. Then press the Hit key to delete an existing compilation.



Activate the *select function* by pressing the “*” key until “Hit=Select” is displayed. Then press the “Hit” key to display the contents of a compilation. In this mode you can add new titles or delete titles from the selected compilation.

12.2.2 Special Titles



“Special Titles” are titles or albums which are defined with special features. This features are displayed as:

- H = HideTrack1 (1. title is hidden)
- I = Immediate Play (title is played next after selection)
- xc = Credits Special (x credits are deducted for playing this title)
- L = Left Channel (play only left channel of the audio signal, Karaoke)
- R = Right Channel (play only right channel of the audio signal, Karaoke)
- S = Stereo (play both channels of the audio signal, Karaoke)

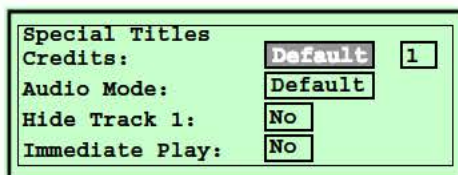
Usage:

Select the desired category using the arrow keys (Special Title). In the lower right corner of the display the function of the “Hit” key is displayed (i.e. “Hit=Insert”). By pressing the “*” key you can choose between the following functions: “Insert”, “Modify”, and “Delete”.

Activate the *insert function* by pressing the “*” key until “Hit=Insert” is displayed. Then press the “Hit” key to add a new special title.

Activate the *delete function* by pressing the “*” key until “Hit=Delete” is displayed. Then press the “Hit” key to delete an existing special title.

Activate the *modify function* by pressing the “*” key until “Hit=Modify” is displayed. Then press the “Hit” key to change the features of a selected title or CD.



After selection of “Hit=Insert” enter the number of the desired title and press the “Hit” key. Input of title 00 i.e. 02*00, means that the whole CD is defined as “Special”.

Features:

Credits:

In this entry field you may define how many credits are to be deducted for selection of this title/CD. Here you have the possibility to define different prices for different titles, some more expensive and some for free. Change entry by pressing the "*" key:

Default: As many credits are deducted as defined.

Special: A different number of credits is deducted for this title. See entry in next field.

Audio-Mode:

Enter the audio channel of the amplifier to which the reproduction of this title is switched to. This setting is to be used, i.e. for "Karaoke-CDs" where sound and voice is recorded to one channel (left channel), and only sound is recorded to the other channel (right channel).

Use a function key of the remote control to switched this features between "Left", "Right" and "Stereo". See also "/2.3.3.2 Function Keys".

Default: A predefined audio channel is switched to the amplifier.

Left: The left channel of the audio signal is switched to the both channels of the stereo amplifier.

Right: The right channel of the audio signal is switched to the both channels of the stereo amplifier.

Stereo: Normal setting. Both channel are switched to the stereo amplifier. Remark: This setting is independent from setting "Mono/Stereo" as described in "/2.3.1.4 Audio Modes".

Note: With Setting "Left" or "Right" the music will not attenuated, independently of the settings under „Settings/Hardware//Music/Attenuation“

Hide Track 1:

On most Video CDs track 1 is used as intro or table of contents. In this case the printed cover of this CD differs from the real contents of the CD. Use this setting to suppress track 1, that means on selection of track 1 track 2 is played (selection of xx*01 plays xx*02).

No: Track #1 is not suppressed.

Yes: Track #1 is suppressed.

This entry field becomes active only if the corresponding CD was initialized as "Video CD".

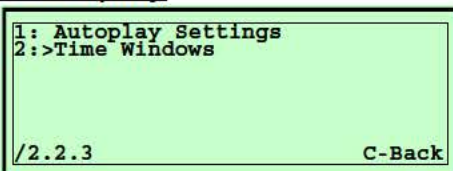
Immediate Play:

Certain titles can be played directly after selection independent of previously selections. For example: A "Happy Birthday" title to be played at a predefined moment.

No: The title is not played immediately (normal setting)

Yes: After selection the title is played next.

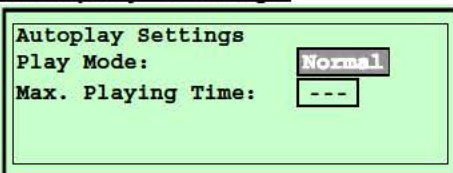
/2.2.3 >Autoplay



Use "Autoplay" to play certain titles automatically in predefined time intervals. This function becomes active if it is enabled in at least one of four time windows of the corresponding week day and if the phonograph is in stand-by (no actions on the phonograph).

A selection of a title will fade out the actually played "Autoplay" title.

/2.2.3.1 Autoplay Settings



Settings:

Play Mode:

Normal: Titles are played in order of the programmed compilation used.

Random: Titles are played randomly from the programmed compilation.

Off: Autoplay is deactivated. No Autoplay titles are played.

Max. Playing Time:

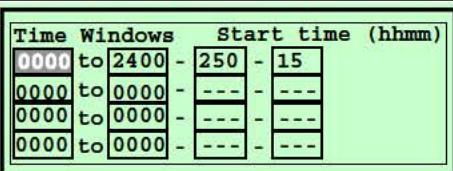
This is the maximum time an Autoplay title is played. After the programmed time in seconds the title is faded out.

/2.2.3.2 >Time Windows



Within different time windows you may activate Autoplay to start automatically.

/2.2.3.2.1 - /2.2.3.2.8 Monday...Sunday, All Days



4 independent entries are possible for each week-day to activate Autoplay automatically.

Settings:

Start time:

This is the beginning time of the time window.

Stop-Time:

This is the ending time of the time window.

Compilation #:

Number of the programmed compilation to be played in the Autoplay mode.

Interval (min):

Time in minutes between two Autoplay titles, respectively the time the phonograph is in stand-by before an Autoplay title is played automatically.

/2.2.4 >Advertisement

```
1: Advertisement Settings
2:>Time Windows

/2.2.4 C-Back
```

Use this function to play special advertisement titles within predefined time intervals. This function becomes active if it is enabled in at least one of four time windows of the corresponding week.

/2.2.4.1 Advertisement Settings

```
Advertisement Settings
Play Mode:      Normal
Max. Playing Time:  ---
```

Settings:

Play Mode:

- Normal: Titles are played in order of the programmed compilation used.
- Random: Titles are played randomly from the programmed compilation.
- Off: Advertisement is deactivated. No advertisement titles are played.

Max. Playing Time:

This is the maximum time an Advertisement title is played. After the programmed time in seconds is over the title is faded out.

/2.2.4.2 >Time Windows

```
1: Monday
2: Tuesday
3: Wednesday
4: Thursday
5: Friday
6: Saturday
7: Sunday
8: All Days
```

Within different time windows you may activate Advertisement titles to start automatically.

/2.2.4.2.1 - /2.2.4.2.8 Monday...Sunday, All Days

Time Windows		Start time (hhmm)	
0000	to 2400	250	15
0000	to 0000	---	---
0000	to 0000	---	---
0000	to 0000	---	---

4 independent entries are possible for each week-day to activate automatically playing of Advertisement titles.

Settings:

Start time:

This is the beginning time of the time window.

Stop-Time:

This is the ending time of the time window.

Compilation #:

Number of the programmed compilation to be played in the Advertisement mode.

Interval (min):

Time in minutes between two advertisement titles. After this time the next advertisement title is played from the programmed compilation regardless of eventually existing title selections.

/2.2.5 >Background

```
1: Activate/Deaktiviere
2:>Time Windows

/2.2.6.1 C-Back
```

In Background mode titles are played from 3 predefined compilations as long as no titles are selected by audience. A selected title will fade-out a just playing background title. Background mode becomes active if it is enabled in at least one of four time windows of the corresponding week-day.

/2.2.5.1 Background Settings

```
Background Settings
Play Mode:      Normal
Max. Playing Time: ---
Play Video Titles: Yes
```

Settings:

Play Mode:

Normal: Titles are played in order of the programmed compilation used.

Random: Titles are played randomly from the programmed compilation.

Off: Background mode is deactivated. No Background titles are played.

Max. Playing Time:

This is the maximum time a background title is played. After the programmed time in seconds is over the title is faded out.

Play Video Titles:

Video title can be locked Use the "*" key to select "No" for this setting if you don't want video titles (e.g. part of standard compilation 250) to be played as background titles.

/2.2.5.2 >Time Windows

```
1: Monday
2: Tuesday
3: Wednesday
4: Thursday
5: Friday
6: Saturday
7: Sunday
8: All Days
```

Within different time windows you may activate background titles to start automatically.

/2.2.5.2.1 - /2.2.5.2.8 Monday...Sunday, All Days

Time Windows		Start time (hhmm)			
0000	to 0000	-	250	---	Auto
0000	to 0000	-	---	---	Key
0000	to 0000	-	---	---	Key
0000	to 0000	-	---	---	Key

4 independent entries are possible for each week-day to activate automatically playing of background titles.

Settings:

Start time:

This is the beginning time of the time window.

Stop-Time:

This is the ending time of the time window.

Compilation #:

Number of a programmed compilation to be played as background music.

3 different compilations may be predefined. Titles from one of these 3 compilations are played until the background mode is terminated by reaching the end of the time window or by pressing the function key on the remote control. With each call-up of the background mode the compilation is changed.

Mode:

Mode of operation for background music.

Auto: Background mode will start automatically if one of four time windows will start. Background music is played automatically. By pressing the function key on the remote control you may deactivate the background mode (ref. /2.3.3.3 Function Keys).

Key: Background mode will start automatically if one of four time windows will start. Background music is played after pressing the function key on the remote control.

/2.2.6 > Title Lockout

```
1: Operator Lockouts
2:>Time Restricted Lockouts
3: Automatic Lockouts
4: Lockout Preferences
```

/2.2.6

C-Back

Selection of titles or albums can be locked out basically, or automatically, or time depending.

/2.2.6.1 > Operator Lockouts

Operator Lockouts	Empty
Hit=Insert	

Enter titles or albums to be locked out basically. Use this function to lock out certain titles or CDs to avoid malfunction on playing defective CDs.

Usage:

By pressing the "*" key you can choose between the following functions: "Insert", and "Delete".

Activate the *insert function* by pressing the "*" key until "Hit=Insert" is displayed. Then press the "Hit" key to add a new special title.

Activate the *delete function* by pressing the "*" key until "Hit=Delete" is displayed. Then press the "Hit" key to delete an existing special title.

Select position using the arrow keys.

/2.2.6.2 >Time Restricted Lockouts

```
1: Monday
2: Tuesday
3: Wednesday
4: Thursday
5: Friday
6: Saturday
7: Sunday
8: All Days
```

Titles or albums may be locked for each week-day separately.

/2.2.6.2.1 - /2.2.6.2.8 Monday...Sunday, All Days

Time Windows		Start time (hhmm)	
0000	to 0000	-	---
0000	to 0000	-	---
0000	to 0000	-	---
0000	to 0000	-	---

4 independent entries are possible on each week-day for time depending lockouts.

Settings:

Start time:

This is the beginning time of the time window.

Stop-Time:

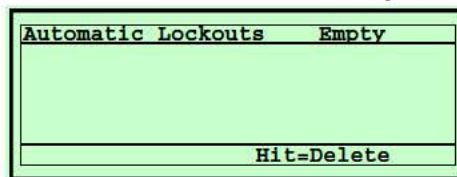
This is the ending time of the time window.

Compilation #:

Number of a programmed compilation including titles to be locked against selection.

/2.2.6.3 >Automatic Lockouts

Titles or albums having problems while playing because of pollution or scratches can automatically be locked out.

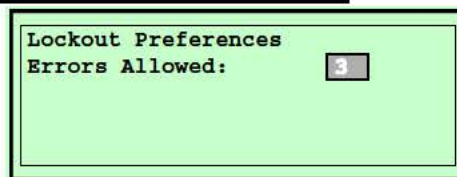


The screenshot shows a green rectangular window with a black border. At the top, the text "Automatic Lockouts" is on the left and "Empty" is on the right. Below this is a large empty rectangular area. At the bottom, the text "Hit=Delete" is centered.

Locked out titles within the corresponding list can be released to enable them to be selectable again.

Use the arrow keys to select the desired title. Press the "Hit" key to confirm your selection.

/2.2.6.4 Lockout Preferences



The screenshot shows a green rectangular window with a black border. At the top, the text "Lockout Preferences" is displayed. Below it, the text "Errors Allowed:" is followed by a small grey box containing the number "3".

Errors Allowed:

Enter number of errors that may occur to lockout a corresponding title automatically.

Enter "0" to disable this function.

/2.3 >Hardware

```
1:>Amplifier
2: Title Display
3:>Remote Control
4:>Display
5:>Key-Pad
6:>Data Transmission
/2.3 C-Back
```

Summary of the functional units: Amplifier, Title display, Remote control, Operators display, Operators key pad, and CD changer.

/2.3.1 >Amplifier Settings

```
1: Music
2: Microphone
3: Input Gain & AVC
4: Audio Modes
5: Attenuation
6:
7: >MORE
/2.3.1 C-Back
```

Summary of all settings for audio reproduction.

/2.3.1.1 Music

Music	Channel 1			
Volume (-db):	41	41	41	41
Treble (db):	0		0	
Middle (db):	0		0	
Bass (db):	0		0	

Settings for volume and sound of music.

Volume:

Attenuation in “dB” of the actual music volume of the four audio channels:

0dB = No attenuation (maximum volume).

-79dB = Full attenuation (minimum volume).

Treble:

Equalizer-setting in “dB” for the high frequencies of music for channel 1/2 or channel 3/4.

0dB = normal setting

14dB = maximum treble boost.

-14dB = maximum treble cut.

Enter the desired value. Press “*” key to toggle polarity (+/-).

Middle:

Equalizer-setting in “dB” for the middle frequencies of music for channel 1/2 or channel 3/4.

0dB = normal setting

14dB = maximum middle boost.

-14dB = maximum middle cut.

Enter the desired value. Press “*” key to toggle polarity (+/-).

NOTE: This setting cannot be changed via remote control.

Bass:

Equalizer-setting in "dB" for the low frequencies of music for channel 1/2 or channel 3/4.

0dB = normal setting

14dB = maximum bass boost.

-14dB = maximum bass cut.

Enter the desired value. Press "*" key to toggle polarity (+/-).

NOTE: The setting for volume, treble, and bass are changing by pressing the corresponding keys on the IR remote control respectively by sliding the controls on the wired remote control.

/2.3.1.2 Microphone

Microphone		Channel 1			
Volume (-db):	20	20	20	20	20
Treble (db):		0			
Bass (db):		0			
Enabled:	Yes	Yes	Yes	Yes	Yes

Settings for volume and sound of a connected MIC.

Volume:

Attenuation in "dB" of the actual MIC volume of the four audio channels:

0dB = No attenuation (maximum volume).

-37dB = Full attenuation (minimum volume).

Treble:

Equalizer-setting in "dB" for the high frequencies of the MIC for channel 1/2 or channel 3/4.

0dB = normal setting

14dB = maximum treble boost.

-14dB = maximum treble cut.

Enter the desired value. Press "*" key to toggle polarity (+/-).

Bass:

Equalizer-setting in "dB" for the low frequencies of the MIC for channel 1/2 or channel 3/4.

0dB = normal setting

14dB = maximum bass boost.

-14dB = maximum bass cut.

Enter the desired value. Press "*" key to toggle polarity (+/-).

NOTE: The defined settings are changing by pressing the corresponding keys for MIC volume and sound on the IR remote control.

/2.3.1.3 Input Gain & AVC

Input Gain & AVC		
Gain Music:	<input type="text" value="6"/>	db
AVC Response Time:	<input type="text" value="20"/>	<input type="text" value="yes"/>
Gain AUX:	<input type="text" value="0"/>	db
Gain MIC:	<input type="text" value="0"/>	db

Gain:

It is possible to set the input gain of 3 different input channels separately. Depending on the type of connected audio source (CD-Player/SAT-Receiver/Tape or capacitor microphone/dynamic microphone) the output level of the source can vary extremely and therefore optimization of this setting is required.

12dB = maximum input sensitivity

0db = minimum input sensitivity

AVC:

The volume dynamic of CDs often is not equal. So we have integrated an automatic volume control (AVC = Automatic Volume Control) for the CD player, thus to avoid extreme volume changes while playing different CDs.

Settings:

Gain Music:

This is input sensitivity in dB for the CD input.

6db = normal setting

AVC Response Time:

This is the response time for the AVC.

No: = AVC deactivated

Yes: = AVC activated

Gain AUX:

This is input sensitivity in dB for the AUX-In input.

Gain MIC:

This is input sensitivity in dB for the MIC input.

2.3.1.4 Audio Modes

Audio Modes		Channel 1/2	
Signal:	Stereo	Stereo	
AUX-Mode:	Fixed	Fixed	
AUX-Priority:	Idle	Idle	

Different modes for playing of music or for the auxiliary inputs/outputs (AUX-In/AUX-Out) can be set paired for the audio channels (1/2 or 3/4).

Signal:

Select between MONO and STEREO. Press the "*" key to select.

Stereo: Music reproduction is performed in "Stereo". Use this setting only for rooms where it is possible to hear the stereo effect.

Mono: Music reproduction is performed in "Mono". Use this setting if an equal positioning of loudspeakers for stereo is not possible, or if different rooms should be exposed with different volumes.

AUX-Mode:

The mode of operation of the 2x2 AUX-outputs (1/2 or 3/4) can be set differently. Use the "*" key to change the mode:

Fixed: The output level of the outputs is fixed that means it is independent from the volume setting and sound setting of the phonograph. Use this setting i.e. for connecting a tape recorder or an additional amplifier with integrated volume control.

3 Band: The output level of the outputs is depending on the setting for volume and sound of the phonograph. Use this setting i.e. for connecting an additional amplifier without integrated volume and sound control.

Surround: For using this phonograph with *real surround sound* you need at least four loudspeakers for that different sound material. An external amplifier to drive the surround speakers must be connected to the AUX-Out connectors.

Variable: Equivalent to "3 Band" the output level depends on the setting of the phonograph.

AUX-Priority:

The priority of the "AUX-In"-inputs (1/2 or 3/4) can be set differently. Use the "*" key to change the priority:

Idle: Playing a CD has priority. The phonograph fades the AUX - In signal to the amplifier only if no CD is played (stand-by).

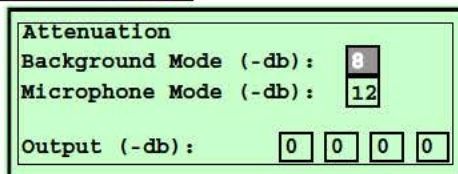
Detect: The external device has priority. The phonograph fades the AUX -In signal to the amplifier immediately after detecting an audio signal.

Aux: The phonograph switches the AUX-In signal to the amplifier immediately after detecting an audio signal. If no signal is detected the amplifier is deactivated. In this mode CD music is not played to the corresponding channels (1/2 or 3/4).

Through: The "AUX-In"-input is always switched to the amplifier, even if there is no signal. In this mode the CD music is not played to the corresponding channels (1/2 or 3/4).

Off: The "AUX-In"-input is deactivated.

/2.3.1.5 Attenuation



```
Attenuation
Background Mode (-db): 0
Microphone Mode (-db): 12
Output (-db): 0 0 0 0
```

The output level can be attenuated differently for different mode of operation.

Background Mode:

Attenuation of music volume in background mode.

If background titles are played the volume is automatically decreased by the programmed value.

0dB: = no attenuation.

-36dB: = maximum attenuation.

Microphone Mode:

Attenuation of music volume if a MIC signal is detected. Example: For any message broadcasting it is useful to reduce the music volume.

0dB: = no attenuation.

-36dB: = maximum attenuation.

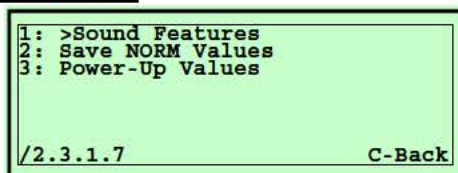
Output:

The total output level of the four channels can be attenuated differently. Use this setting for limiting the volume or the output power.

0dB: = no attenuation.

-36dB: = maximum attenuation.

/2.3.1.7 >MORE

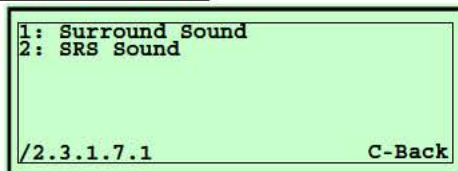


```
1: >Sound Features
2: Save NORM Values
3: Power-Up Values

/2.3.1.7 C-Back
```

More settings for sound reproduction.

/2.3.1.7.1 >Sound Features



```
1: Surround Sound
2: SRS Sound

/2.3.1.7.1 C-Back
```

Two different sound effects are available within this phonograph. They can be activated via the IR remote control. The parameter for this sound effects can be set or changed as desired.

/2.3.1.7.1.1 Surround Sound

Surround Sound		Mode
Mode		Music
Effect Control (-dB):	6	
Phase Shift:	2222	

Mode:

4 different modes can be set:

Simulated: A stereo effect is simulated built from a mono input signal.

Music: Optimized setting for music-CDs

Movie: Optimized setting for movie sound tracks

Off: Surround sound is deactivated and cannot be activated via remote control.

Effect Control:

The intensity of the surround effect can be attenuated to the following values:

-6dB = minimum attenuation

-21dB = maximum attenuation

/2.3.1.7.1.2 SRS Sound

SRS Sound		Mode
Mode		-Surround
Space Control (-dB):	12	
CenterControl (-dB):	6	

Mode:

You may select between 3 different modes:

-Surround: The original audio signal is the input signal for the SRS-module

+Surround: The audio signal modified by the surround module is the input signal for the SRS module.

Off: SRS is deactivated and is not to be activated by the IR remote control.

Space Control:

The space effect of the sound reproduction can be set to:

0dB = maximum "space effect".

-31dB = minimum "space effect".

Center Control:

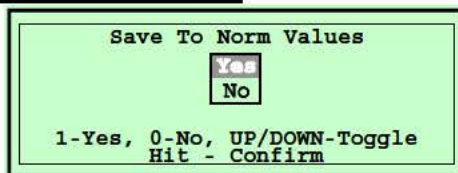
The center effect of the sound reproduction can be set to:

0dB = maximum "center effect".

-31dB = minimum "center effect".

Service program for ESVI Technology

/2.3.1.7.2 Save NORM Values



Save To Norm Values

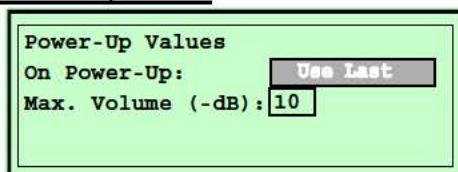
1-Yes, 0-No, UP/DOWN-Toggle
Hit - Confirm

The actual setting for sound reproduction as VOLUME, BASS, MIDDLE, TREBLE, SURROUND, and SRS are saved as NORM values.

You can recall these saved values every time by pressing the "NORM" key on the IR remote control.

Use the arrow keys to select YES or the "1" key and confirm your selection by pressing the "Hit" key.

/2.3.1.7.3 Power-Up Values



Power-Up Values

On Power-Up:

Max. Volume (-dB): 10

Within this program step you can predefine which settings should be used for audio reproduction after power-on the phonograph.

On Power-Up:

Use Last: The actual settings just before power-off are taken as new settings after power-on.

Use NORM: The settings saved as NORMAL settings are used after power-on (see "Save NORM Values").

Use the "*" key to toggle.

Max. Volume:

Setting to define the maximum power-on pre-set volume. This setting is useful i.e. to avoid high volume at the silent morning after a big party.

2.3.2 Title Display

Title Display	Pages
Valid Pages:	13
Animation Intervall:	---
Advertisement Intervall:	---
Pages:	-- -- -- -- -- -- -- --

For the mechanical title display unit several settings can be taken.

Valid Pages:

The number of display positions in the title display.

- .25 = sliding title display showing 4 covers on each position.
- .13 = wall boxes with 8 viewable covers on each position.
- .7 = stand alone phonographs with 16 viewable covers on each position.

Animation Interval:

The time interval (in minutes) until the move to the next position is performed. This function is useful to attract attention to the phonograph.

Enter "0" to deactivate this function.

Advertisement Interval:

The time interval (in minutes) until the next automatic move to the next defined position is performed.

This function is useful to show preferred **pages** in defined time intervals.

Enter "0" to deactivate this function.

Pages:

Enter the pages (positions) to be displayed after the "Advertisement Interval" time is reached. 8 different positions are possible. After reaching the interval time the next position is moved to.

/2.3.3 >Remote Control

1: General Settings	
2: Function Keys	
/2.3.3 C-Back	

Settings for the remote control.

/2.3.3.1 General Settings

General Settings	Minutes
Max. Mute time:	6
Credits required?	Yes
Standby Priority:	High
Enable clearing code?	No

Max. Mute Time:

This is the maximum time in minutes the phonograph stays MUTE. Use this function to avoid that the phonograph stays in MUTE mode by mistake too long.

Credits required:

Title selection via remote control can be done without credits. Use the "*" key to toggle (No/Yes):

No: No credits necessary.

Yes: Credits necessary.

Stand-by Priority:

This is to define the reaction of the phonograph after pressing the "Stand-by" key (see Function Keys).

Low: The phonograph terminates all functions first and then goes into Stand-by mode.

High: The phonograph immediately goes into stand-by mode after pressing the "Stand-by" key.

Enable clearing code?:

The combined pressing of the "MUTE" key and the "REJECT" key gives you the possibility to clear the whole title memory. Therefore you have to press the following sequence within 10 seconds: *Mute, Reject, Reject, Reject*. Use the "*" key to activate or deactivate this function.

No: Function deactivated.

Yes: Function activated.

/2.3.3.2 Function Keys

Function Keys	
F1:	Unassigned
F2:	Unassigned
F3:	Free Credits
F4:	Background Music

The function keys F1 to F4 can be programmed according to the following list. To change the function use the “*” key to select between the following possibilities:

Stand-by: Stand-by function. After pressing this function key the phonograph goes into stand-by mode (see /2.3.3.3 “General Settings / Stand-by Priority”). After pressing the function key once more this mode is stopped.

Free Credits: Free credit function (see: /2.1.5 „Settings / Free Credits“).

Voice Cancel: Use this function to cancel the soloists voice from a music title. This can be done using customary music CDs. The quality of the voice canceling depends on the recording method of the CD. Ideally CDs are recorded having the voices within the middle of the stereo signal. Use this function i.e. for Karaoke events.

Background Music: Background function (see /2.2.5 „Settings / Background“).

Switch Channels: Karaoke-CD's (Video) normally have the music including voice recorded to the right channel and music without voice recorded to the left channel. Use this predefined function to toggle between:

- Play left channel
- Play right channel
- Play in stereo

Change MIC Volume After pressing the corresponding function key you may use the slide controls of the wired remote control to vary the volume of the connected MIC. To terminate function press this function key again.

Unassigned: The function key is deactivated.

/2.3.4 >Display

1: Display Pages 1	
2: Display Pages 2	
3: Local Message	
/2.3.4 C-Back	

Settings for the liquid crystal display in the operators panel (LCD).

/2.3.4.1 Display Pages 1

Display Pages 1	Seconds
Pricing: 8	Top Cds: 4
Current Title: 4	
NSM MUSIC: 4	
Top Hits: 4	

Used to set the display time for several standard pages. Enter "0" to turn off the corresponding page.

Pricing:

Time in seconds for displaying the price information.

Current Title:

Time in seconds for displaying the actually played title/track.

NSM MUSIC:

Time in seconds for displaying the NSM MUSIK logo.

Top Hits:

Time in seconds for displaying the "10 Top-Hits".

Top CDs:

Time in seconds for displaying the "10 Top-Discs".

/2.3.4.2 Display Pages 2

Display Pages 2	Seconds
Local Msg: --	Date&Time: 4
Next Tracks: 4	
Happy Hour: 4	
Free Credits: 4	

Local Msg:

Time in seconds for displaying a local message (see /2.3.4.4 "Local Message").

Next Tracks:

Time in seconds for displaying the next title to be played.

Happy Hour:

Time in seconds for displaying the "Happy-Hour" information (see /2.1.2.2 "Price List #2").

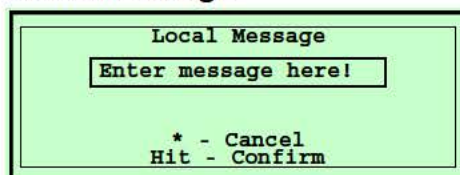
Free Credits:

Time in seconds for displaying the "Free Credit" information.

Date & Time:

Time in seconds for displaying the "Date and Time" information.

/2.3.4.3 Local Message



You have the possibility to enter a 2-line local message which is displayed while the phonograph is in stand-by mode if activated via /2.3.4.2.

Usage:

Regard the layout of the number keys of the remote control (1/ABC, 2DEF.. 0/Sym). The first pressing of key "1" works as "A", two times pressing gives you a "B" and so on. Use key "0" to enter symbols.

Use "*" key to switch between upper and lower case. Save your message by pressing the "Hit" key.

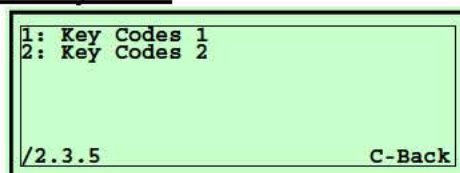
The "C" key has different functions:

4. If the background of the display is darkened, e.g. after pressing the "Hit" key, pressing the "C" key will terminate/cancel this entry mode.
5. If the background of the display is high-lighted, e.g. after entering a character, you are in entry mode. Pressing the "C" key works as 'delete previous character'.
6. Press and hold the "C" key for 3 s to re-build the original entry (undo).

The corresponding key on the IR remote control is named "VIP" key.

Regard that different characters have different width. So it may happen that the local message is not displayed correctly in stand-by mode if you enter too much wide characters.

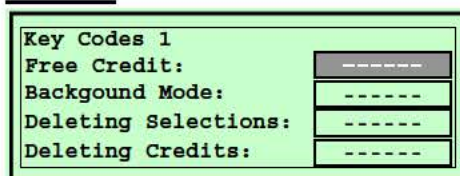
/2.3.5 >Key-Pad



Several 6 digit codes can be defined to activate different functions via the operators key pad.

To activate the corresponding function first press "C" key twice then press "*" key twice followed by your 6 digit code for the desired function.

Codes:



Free Credit

Code for activating the free credit function.

Background Mode

Code for activating the background mode.

Deleting Selections

Code for deleting the title memory.

Deleting Credits

Code for deleting of still existing credits.

Key Codes 2	
Reject Title:	5000
Volume Control:	6000

Reject Title

Code for interrupting the now playing title (reject).

Volume Control

Code for changing the volume via the key pad. For changing the volume just use the arrow keys afterwards.

/2.3.6 >Data Transmission

--

Data transmission to a printer or personal computer (PC).

Selection:	
Max. CDs/Tracks:	100 35
Overplay Limitation:	1
Enable Albums?	No
Enable Hits?	No

Settings concerning the title selection.

Max CDs/Tracks:

The number of selectable CDs and tracks/titles can be limited. Thus to avoid selection of not existing titles by mistake.

Max. CDs Number of installed CDs in the CD-changer. Use this function if you have not equipped all CD trays.

Max. Tracks Number of selectable tracks per CD. Use this function to define the number of titles/tracks you are able to display on the title strips.

Overplay Limitation:

The number of equal titles to be stored in the title memory while selection can be limited. If this value is exceeded the corresponding title will not be stored in the title memory again but credits are deducted for it.

Enable Album:

Use this function to enable album selection (selected as track 00). Use the “*” key to toggle (Yes/No).

Yes: Album selection enabled.

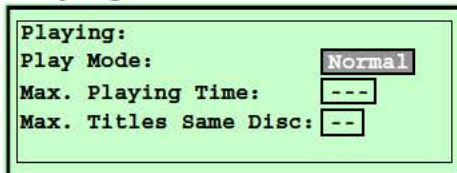
No: Album selection disabled.

Enable Hits:

Use this function to enable hit selection. Use the “*” key to toggle (Yes/No).

Yes: Hit selection enabled.

No: Hit selection disabled.



A screenshot of a menu titled 'Playing:'. It contains three settings: 'Play Mode:' with a value of 'Normal' in a box, 'Max. Playing Time:' with a value of '---' in a box, and 'Max. Titles Same Disc:' with a value of '--' in a box.

Settings concerning the reproduction of CDs.

Play Mode:

Define the playing sequence for the selected titles. Use the arrow keys to toggle and confirm your selection by pressing the "Hit" key.

Normal: Selected titles are played in sequence of selection.

Random: Selected titles are played randomly.

Max. Playing Time

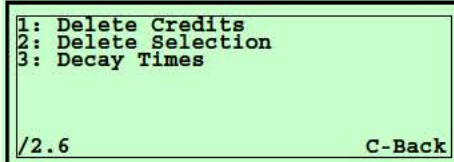
Define the maximum playing time in minutes for one title. After this time limit is reached the title will be faded out.

Max. Titles Same Disc:

This function is used to define the maximum number of titles played from the same CD. If this value is reached the next title is played from another CD. Use this function to get more variety of music reproduction.

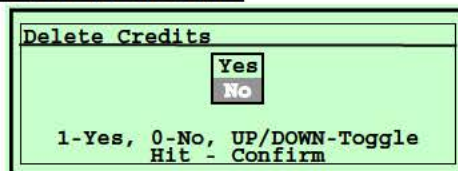
Enter "0" to deactivate this function.

/2.6 >Credit & Selection Decay



Settings for automatically or manually deleting of existing credits or title selections in the title memory.

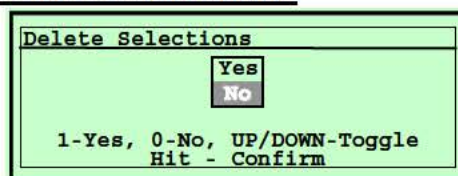
/2.6.1 Delete Credits



The credit memory is cleared.

Use arrow keys or key "1" to select YES and confirm selection by pressing the "Hit" key.

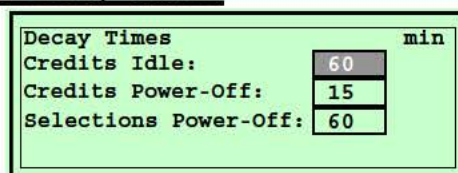
/2.6.2 Delete Selections



The title memory is cleared.

Use arrow keys or key "1" to select YES and confirm selection by pressing the "Hit" key.

/2.6.3 Decay Times



Credits Idle:

After this programmed time (in minutes) the automated deleting of existing credits is started if the phonograph is in stand-by mode.

Credits Power-Off:

After this programmed time (in minutes) the automated deleting of existing credits is started if the phonograph is powered-off.

Selections Power-Off:

After this programmed time (in minutes) the automated deleting of existing selection in the title memory is started if the phonograph is powered-off.

/3. >Bookkeeping

```
1: >Popularity
2: >Accounting Within Period
3: >Accounting Total

/3                                     C-Back
```

Statistics functions as bookkeeping, statistics, cash box values, popularity, counters, and so on.

/3.1 Popularity

```
1: Last reset
2: Show Least Selected CD
3: Show Most Selected CD
4: Show Most Selected Titles
5: Reset Popularity

/3.2                                   C-Back
```

Read out of the popularity of CDs and single titles.

/3.1.1 Last reset

```
Friday, 01/07/2000 16:14

Press key to continue...
```

Displays date and time the popularity counter was cleared at last.

/3.1.2 Show Least Selected CD

```
Show Least Selected CD    >>More
001:00    007:00    013:00
002:00    008:00    014:00
003:00    009:00    015:00
004:00    010:00    016:00
005:00    011:00    017:00
006:00    012:00    018:00
```

Display of all CD popularities in order of least played CDs. Example: 051:03 = CD51 was selected 3 times.

The display is capable of displaying 18 entries on each page. Press any key to turn pages.

/3.1.3 Show Most Selected CD

```
Show Most Selected CD
020:12
031:07
023:05
032:04
```

Display of all CD popularities in order of most played CDs.

The display is capable of displaying 18 entries on each page. Press any key to turn pages.

/3.1.4 Show Most Selected Titles

```
Show Most Selected Titles
020*04:08 023*01:01
020*05:07 032*01:01
023*03:05
031*01:05
032*01:03
031*03:02
```

Display of all title popularities in order of most played title. Example:
020*04: 08 = title 20*04 was played 8 times.

The display is capable of displaying 18 entries on each page. Press any key to turn pages.

/3.1.5 Reset Popularity

```
Reset all popularity counters?
  Yes
  No
1-Yes, 0-No, UP/DOWN-Toggle
Hit - Confirm
```

All Popularity counters are set to "0".

Use arrow keys or key "1" to select YES and confirm selection by pressing the "Hit" key.

/3.2 Accounting within period

```
1: Last reset
2:>Accounting Global
3:>Accounting Main Jukebox
4:>Accounting For Selectors
5: Reset Accounting Data
/3.3 C-Back
```

All accounting data within one accounting period.

/3.2.1 Last reset

```
Last resetted
Friday, 01/07/2000 16:14
Press key to continue...
```

Display of date and time the accounting data were deleted the last time.

/3.2.2 >Accounting Global

```
1: Play Report
2: Paid Credits Per Hour
3: Event Log
4: Power On/Off Periods
/3.3.2 C-Back
```

General accounting data within the accounting period.

/3.2.2.1 Play Report

Play Report	
Regular Titles:	5
Background Titles:	0
Autoplay Titles:	0
Advertisement Titles:	0

Display of all playing results.

Regular Titles

Playing of "normally selected" titles.

Background Titles

Playing of background titles.

Auto-Play Titles

Playing of auto-Play titles.

Advertisement Titles

Playing of advertisement titles.

/3.2.2.2 Paid Credits Per Hour

0:	0	8:	0	16:	16
1:	0	9:	0	17:	0
2:	0	10:	0	18:	0
3:	0	11:	0	19:	0
4:	0	12:	0	20:	0
5:	0	13:	0	21:	0
6:	0	14:	0	22:	0
7:	0	15:	0	24:	0

Display of earned credits per each hour a day, within the accounting period. I.e. 13: 68, means between 1.00 and 2.00 p.m. you have earned money for 68 credits.

0:	0%	8:	0%	16:	100%
1:	0%	9:	0%	17:	0%
2:	0%	10:	0%	18:	0%
3:	0%	11:	0%	19:	0%
4:	0%	12:	0%	20:	0%
5:	0%	13:	0%	21:	0%
6:	0%	14:	0%	22:	0%
7:	0%	15:	0%	24:	0%

Press the "*" key to toggle to percentage display. I.e. 15: 24%, means between 3.00 and 4.00 p.m. you have earned 24% of the total cash box.

Use this information to find out at which time of a day you make the greatest amount. Thus to decide whether different prices for different times should be activated or not (see /2.1 Price Lists & Time Windows). Also you may find out that your idea was good to place HAPPY HOUR time (Price List #2) at this times as you did.

/3.2.2.3 Event Log

Event Log	
Background Music:	0
Mute Activations:	0
Title Display Movings:	0
Microphone Detections:	0
AUX In Detections:	0
> More	

Display the number of several events.

Use this function to find out if the phonograph is placed well at this location, how it is used, and which functions are used how often or not.

Background Music:

Number of activating the background mode.

Mute Activations:

Number of activating the MUTE function via remote control.

Title Display Movings:

Number of moves of the title display.

Microphone Detections:

Number of detecting a signal at "MIC"-input.

A microphone is detected if the audio level of a signal at the "MIC"-input reaches a defined level.

Aux-In Detections:

Number of detecting a signal at "AUX-in"-input.

An AUX-in-signal is detected if the audio level of a signal at the "AUX-in" input reaches a defined level.

Event Log	
Title Rejects:	0
Key Code Inputs:	0
Service Mode Activations:	16
Power On Time:	01:54
> More	

Press any key to turn pages to display more events.

Title Rejects:

Number of detecting a "Reject" key pressing.

Key Code Inputs:

Number of detecting a key code entries (see 2.3.6 Key-Codes).

Service Mode Activations:

Number of detecting an action on the service switch.

Power On Time:

The power-on time (in hours:minutes) of this phonograph since the last reset.

3.2.2.4 Power On/Off Periods

Power On/Off Periods			
01/15/00	08:17	-	01/15/00 22:59
01/14/00	08:20	-	01/14/00 23:17
01/13/00	09:15	-	01/13/00 22:17
01/12/00	08:14	-	01/12/00 23:19
01/11/00	09:13	-	01/12/00 01:14
01/10/00	10:12	-	01/10/00 22:12

Get a list of the last 6 power-on periods.

Here you can find out at which times the phonograph is normally powered on and off.

/3.2.3 Accounting Within Period For Main Jukebox

```
1: Cash Takings
2: Monetary Entries
3: Selections
4: Credits

/3.2.3 C-Back
```

Bookkeeping data of the main phonograph (w/o Selectors).

/3.2.3.1 Cash Takings

```
Cash Takings
Cash takings: 300
```

Display of the cash takings in monetary units of this phonograph.

/3.2.3.2 Monetary Entries

```
Monetary Entries
C1 (100) 3 B1 (20) 0
C2 (20) 0 B2 (50) 0
C3 (10) 0
C4 (50) 0
C5 (200) 0
C6 (0) 0
```

Number of coins and bills per channel of this phonograph:

C1-C6: Number off inserted coins.

B1-B2: Number off inserted bills.

/3.2.3.3 Selections

```
Selections
Total Titles 8
Regular Titles: 8
Special Titles: 0
Albums: 0
Overplay Regular: 0
Overplay Special: 0
```

Listing of the frequency of title selections at this phonograph.

Total Titles:

Total number of title selections.

Regular Titles:

Number of normal title selections.

Special Titles:

Number of paid for "special selections".

Albums:

Number off album selections.

Overplay Regular:

Number of not played "overplay selections" of regular (normal) titles. That are these titles which were selected although the overplay limit was reached.

Overplay Special:

Number of not played "overplay selections" of special titles. That are these titles which were selected although the overplay limit was reached.

/3.2.3.4 Credits

Credits	
Normal:	16
Happy hour:	0
Secial 1:	0
Secial 2:	0
Service:	0
> More	

Display of given credits of this phonograph.

Normal:

Number of credits based on price list #1 (Normal Price List).

Happy Hour:

Number of credits based on price list #2 (Happy-Hour Price List).

Special 1:

Number of credits based on price list #3 (Special1 Price List).

Special 2:

Number of credits based on price list #4 (Special2 Price List).

Press any key to turn to next page displaying given credits.

Credits	
Service:	16
Free credits:	0
> More	

Service: Number of credits given at pulling the service switch
(see /2.1.5.3 No.Credits Service Mode)

Free credits: Number of given free credits.

/3.2.4 Accounting Within Period For Selectors

Description refer to /3.2.3 "Accounting Within Period For Main Jukebox".

/3.2.4.1 Cash Takings

Display the cash takings in monetary units of all connected Selectors.

Description see /3.2.3.1.

/3.2.4.2 Monetary Entries

Number of coins and bills per channel of all connected Selectors.

Description see /3.2.3.2.

/3.2.4.3 Selections

Listing of the frequency of title selections at all connected Selectors.

Description see /3.2.3.3.

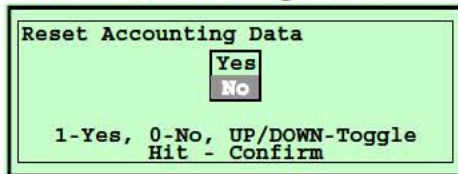
/3.2.4.4 Credits

Display of given credits at all connected Selectors.

Description see /3.2.3.4.

Service program for ESVI Technology

/3.2.5 Reset Accounting Data

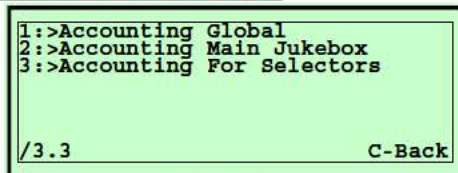


```
Reset Accounting Data
  Yes
  No
1-Yes, 0-No, UP/DOWN-Toggle
Hit - Confirm
```

All bookkeeping data are set to "0".

Use the arrow keys or key "1" or key "2" to select Yes / No. Press the "Hit" key to confirm your selection.

/3.3 Accounting Total



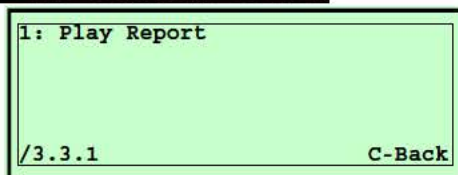
```
1:>Accounting Global
2:>Accounting Main Jukebox
3:>Accounting For Selectors

/3.3 C-Back
```

The cumulated data of all accounting information.

These information cannot be reset.

/3.3.1 >Accounting Global

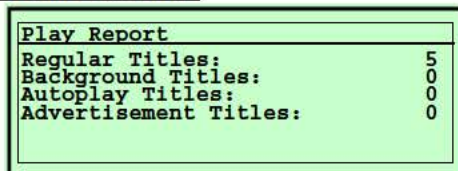


```
1: Play Report

/3.3.1 C-Back
```

General accounting information within the accounting period.

/3.3.1.1 Play Report

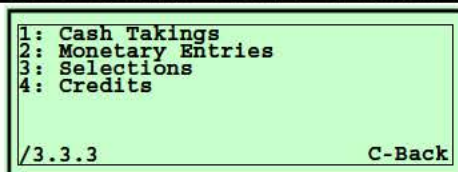


```
Play Report
Regular Titles: 5
Background Titles: 0
Autoplay Titles: 0
Advertisement Titles: 0

/3.3.1.1 C-Back
```

Display of all playing results. Description see /3.2.2.1

/3.3.2 Accounting Total For Main Jukebox



```
1: Cash Takings
2: Monetary Entries
3: Selections
4: Credits

/3.3.3 C-Back
```

Bookkeeping data of this phonograph (w/o Selectors). Description refer to "/3.2.3 Accounting Within Period For Main Jukebox."

/3.3.2.1 Cash Takings

Display off the cash takings in monetary units of this phonograph (w/o Selectors). Description see /3.2.3.1.

/3.3.2.2 Monetary Entries

Number of coins and bills per channel of this phonograph (w/o Selectors).
Description see /3.2.3.2.

/3.3.2.3 Selections

Listing of the frequency of title selections at this phonograph (w/o Selectors). Description see /3.2.3.3.

/3.3.2.4 Credits

Display of given credits at this phonograph (w/o Selectors).
Description see /3.2.3.4. – Normal, Happy Hour, Special 1, Special 2,
Service, Free Credits

/3.3.3 Accounting Total For Selectors

Bookkeeping data of all connected Selectors. Description see /3.2.3
“Accounting For Main Jukebox”.

/3.3.3.1 Cash Takings

Display off the cash takings in monetary units of all connected Selectors.
Description see /3.2.3.1.

/3.3.3.2 Monetary Entries

Number of coins and bills per channel of all connected Selectors.
Description see /3.2.3.2.

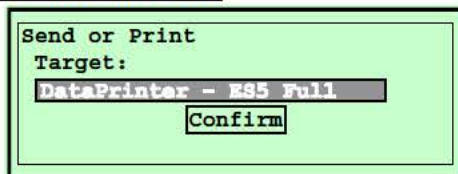
/3.3.3.3 Selections

Listing of the frequency of title selections at all connected Selectors.
Description see /3.2.3.3.

/3.3.3.4 Credits

Display of given credits at all connected Selectors.
Description see /3.2.3.4.

/3.4 Send or Print



For data exchange the bookkeeping data may send to the DataPrint (see accessories) or to a connected PC.

Target:

With the key "*" you may chose between the following possibilities:

- | | |
|----------------------------|--|
| DataPrinter – ES5 Full: | The bookkeeping data within accounting period will be sent to the DataPrint, compatible to the ES5-Technology. |
| DataPrinter – ES5 Hitlist: | The popularity and hit list will be sent to the DataPrint, compatible to the ES5-Technology. |
| DataPrinter Accounting: | All bookkeeping data within accounting period will be sent to the DataPrint. |
| DataPrinter Full: | All bookkeeping data within accounting period, and the accumulated data will be sent to the DataPrint. |
| PC – Full (XML): | All bookkeeping data within accounting period, and the accumulated data will be sent to a connected PC. |

Note when using DataPrint:

Connect the DataPrint to the BACTA interface via a serial interface adapter. (25pol male to 9pol female). The interface adapter you may purchase at a computer shop.

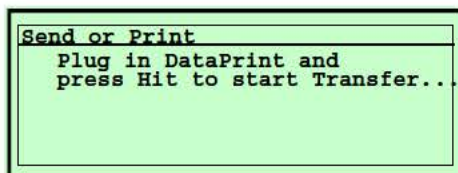
Note when using a PC:

Connect a PC or a Notebook to the RS232 interface via a NULL-MODEM Cable. A NULL-MODEM Vable (25pol female to 25pol female) you may purchase at a computer shop. Wiring of the NULL-MODEM Cable: 2/3, 4/5, 6,8/20, 1/1, 7/7.

For data transmission to the PC you may use the program „HyperTerminal“ within accessories of Windows95/98. The data will be send in the XML-format and displayed on the screen. With “HyperTerminal” you may use the function “Transmission/Receive file” to record the XML-data to the hard disk.

Confirm:

To confirm the selected transmission type, activate the field and press „Hit“.



Service program for ESVI Technology

Connect the DataPrint to the BACTA-interface respectively a PC to the RS232-interface and press the "Hit" button. The data transmission is started.

<p>Reset accounting data?</p> <p><input type="button" value="Yes"/> <input type="button" value="No"/></p> <p>1-Yes, 0-No, UP/DOWN-Toggle Hit - Confirm</p>	<p>Reset all popularity counters?</p> <p><input type="button" value="Yes"/> <input type="button" value="No"/></p> <p>1-Yes, 0-No, UP/DOWN-Toggle Hit - Confirm</p>
--	--

After data transmission to the DataPrint or a PC, the machine will ask to clear the accounting data and/or the popularity counters. Activate the field "Yes" if you like to clear the corresponding data, or press "C" to skip this function.

/4 >Service Functions

```
1:>CD Changer
2:>CPU & Memory Test
3:>Display & Keyboard Test
4:>Title Assembly test
5:>Continuance Tests
6:>Error Logbook
7:>Data Transmission
/4 C-Back
```

This menu offers functions for testing the phonograph.

Attention: These functions should be performed only by authorized service staff.

/4.1 >CD Changer

```
1:>CD-Changer Adjustment
2:>CD-Changer Test
/4.1 C-Back
```

Test- and adjustment functions for the CD changer MBC III used in this phonograph.

/4.1.1 >CD-Changer Adjustment

```
1: Adjust Gripper Reference
2: Adjust Lift Reference
/4.1.1 C-Back
```

Adjustment for the CD changer MBC III.

/4.1.1.1 Adjust Gripper Reference

The adjustment of the gripper reference is performed automatically.
First the already stored reference values will be displayed:

```
Adjust Gripper Reference
Current:
  Inner Distance: 19
  Outer Distance: 17
  Total Range: 1165
Press Hit to Start - C to Cancel
```

Afterwards press the "Hit" key to start the new adjustment procedure, or press the "C" key to cancel.

If the function is completed the following message is displayed:

```
Adjust Gripper Reference
New Gripper settings have been
saved successfully.
Press any key to continue
```

Press any key to display the new reference values.

The adjustment is completed and the new values are saved.

Press any key to terminate this function.

Note: For best function of the CD changer the values of "Inner-" and "Outer Distance" should be in the range of "12" to "25". The difference of both values should be less/equal to "5". This value "Total Range" is the distance in motor steps between inner and outer gripper position and is for your information only.

/4.1.1.2 Adjust Lift Reference

First the actually stored reference values are displayed.

Adjust Lift Reference	
Current:	
Sync Distance:	23
Corrected Distance:	23
Press Hit to Start - C to Cancel	

Press the "Hit" key to start the new adjustment procedure, or press "C" key to cancel.

Follow the instructions on the display:

Adjust Lift Reference	
STEP 1	
Press Lift down firmly	
* Press H when done (C - Cancel)	

Step 1:

Press the lift down firmly to the bottom of the CD changer. Afterwards press the "Hit" key.

Adjust Lift Reference	
STEP 2	
2,3,4 Move Tray	2> >3> >4
Up/Down Arrows	↑ 0 ↓
H - Save	
C - Cancel	

Step 2:

The lift automatically moves to position 49 of the CD magazine. In this position you can check if the gripper perfectly moves the CD tray out of / into the magazine. Therefore use the following keys:

Key "2": Grip left CD tray

Key "3": Replace CD tray

Key "4": Grip right CD tray.

Use the arrow keys Up / Down to move the lift in single steps to adjust the height. Afterwards press the "Hit" key.

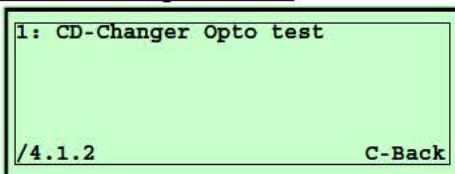
Adjust Lift Reference	
New Lift settings have been saved successfully.	
Press any key to continue	

Press any key to display the new reference values.

The adjustment is completed and the new values are saved.

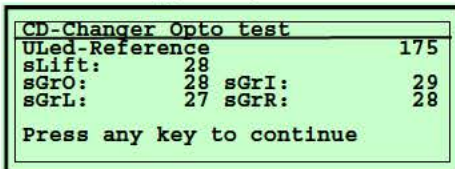
Press any key to terminate this function.

/4.1.2 CD-Changer Test



Functions to test the CD changer.

/4.1.2.1 CD-Changer Opto Test



The 5 optos in the MBC III CD changer can be checked automatically if they are defective, or dirty, or if they have not enough brightness.

Uled-Reference:	This reference value for the supply voltage of the optos should be in the range of 165 to 195.
sLift:	The value for this opto which controls the synchronization of the lift height should be in the range of 25 to 80.
sGrO, sGrI:	The values for these optos controlling the position of the grippers ("Gripper Outer" and "Gripper Inner") should be in the range of 25 to 80.
sGrL, sGrR	The values for these optos controlling the positions "Gripper Right" and "Gripper Left" should be in the range of 15 to 75.

Please note: If a 50 CD changer is installed, sGrL and sGrR will show 00.

The displayed values indicate the switching level of the optos in percent of the supply voltage. As lower the value is, as sensitive is the opto. A value 100 indicates that this opto is dead, a value 0 indicates stray light.

If the values are not in a "normal" range you should better change the corresponding opto.

Press any key to quit this function.

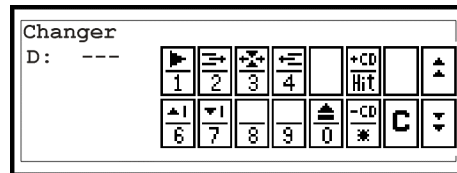
/4.1.2.2 Interactive CD-Changer Test

Functions for manually control the CD changer.

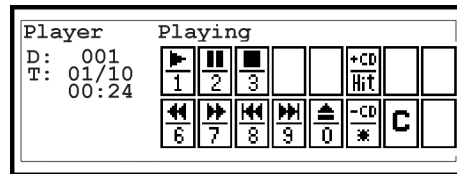
This test is performed on two levels:

1. "Changer" to control the changer mechanism (robotics) and to place a CD on the player. You may move the lift up and down, perform single motor steps, hold and replace CDs, or load the next/previous CD automatically. This level is active after starting the test. After a CD is placed on the player the program turns to level 2.
2. "Player" to control the CD-player, respectively to play a CD. You may check functions like Play, Pause, Stop, Next, Previous, Search forward/backward, or Load next or previous CD, Position to next track/previous track, or Restore the CD. After a CD is restored to its magazine place the program turns back to level 1.

Level 1:



Level 2:



The operator keys have different function depending on the active level.
The operators display shows the assigned function symbols.

/4.2 >CPU & Memory Test

```
1: CPU Test
2: Volatile Memory Test
3: Non Volatile Memory Test

/4.2 C-Back
```

Test functions for CPU and memory.

/4.2.1 CPU Test

```
CPU Test

The Test passed successfully
Press any key to continue
```

Functions to test the micro controller on the CB CENTRAL UNIT.
Press any key to quit this function.

/4.2.2 Volatile Memory Test

```
Volotaille Memory Test
Testing 200100 - 2001FF
```

The main memory of the micro controller is tested for correct functioning. Each address of the respective memory location checked is displayed.
Press "C" to cancel this function, or press any other key to quit the terminated test.

/4.2.3 Non Volatile Memory Test

```
Non Volotaille Memory Test
Testing 280100 - 2801FF
```

This battery buffered memory is tested for correct functioning. Each address of the respective memory location checked is displayed.
Press "C" to cancel this function, or press any other key to quit the terminated test.

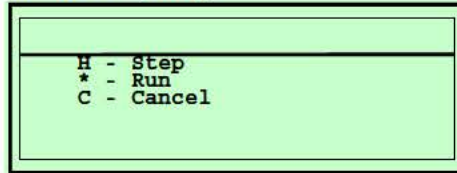
/4.3 I/O Test

```
1: Test Display
2: Test Keyboard
3: Test Input Ports
4: Test Output Ports
5: Test Remote Control

/4.3 C-Back
```

Functions for testing operating devices, inputs, and outputs.

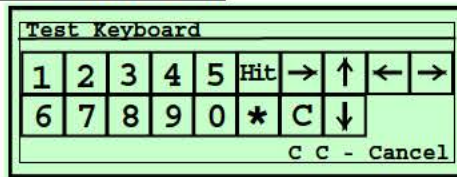
/4.3.1 Test Display



Function to test the operators display (LCD). Several test pattern are scrolled through the display horizontally and vertically. Check that all pixel are displayed. Use the following keys:

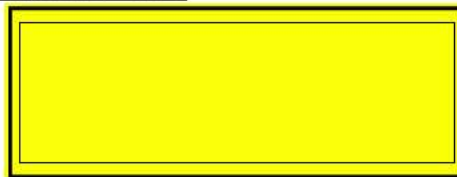
"Hit": Stop the test pattern.
"*": Continue the test.
"C": Quit the test.

/4.3.2 Key pad Test



The key pad layout is displayed on the operators display. On each key press of the key pad (or the remote control) the corresponding symbol is displayed inverted. Also the rocker button for moving the title display can be checked. To quit this test routine you must press the "C" key twice.

/4.3.3 Input Ports



Reserved.

Functions to test the input ports of the CB CENTRAL UNIT.

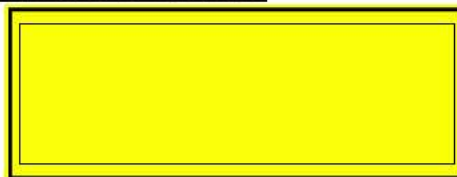
/4.3.4 Output Ports



Reserved.

Functions to test the output ports of the CB CENTRAL UNIT.

/4.3.5 Remote Control



Reserved.

Functions to test the IR remote control or the wired remote control.

/4.4 Title Assembly Test

Functions to test the title display types 7x16, 13x8, and 25x4.

Title Display Continuance Test	
Type:	25x4
Outputs:	Moving Pickup Right
Inputs:	1 2 3 - - - R

On activating the title display all input and output states will be displayed.

Type: Type of title display unit which is connected

Outputs: The actually performed action

Inputs: The input status of opto couplers and keys

/4.5 >Continuance Tests

1: Total Continuance Test
2: Play all (16sec)
3: Play Selected (16sec)
4: Load All
5: Load Selected
6: Twice T3 then T4
/4.5
C-Back

Continuous run test for the CD changer and for the title display.

While a continuance test is running the number of turns (Pxxx) and the number of occurred errors (E000) is displayed in the upper right corner of the display. Press "C" key to cancel this test routine.

/4.5.1 Total Continuance Test

Combination of "Play Selected 16sec" and "Continuance test Title Assembly".

/4.5.2 Play All (16sec)

Play All (16sec)		P000 E003	
1-Playing			
100-No Disc			
2-Playing			
99-No Disc			
3-Playing			
98-No Disc			
4-Playing			

All CDs are played for 16 seconds each.

/4.5.3 Play Selected (16sec)

Play Selected (16sec)							
Enter disc sequence:							
1	1	25	1	50	1	51	1
75	1	100	1	---	--	---	--
Hit here to Start							

Up to 8 different titles may be selected to be used for this test.

To start the test: Select **Hit here to Start** using the arrow keys and press the "Hit" key. Entering track 99 means the last track of the CD should be played.

Note: If you enter "99" for track number the last track of the corresponding CD is played always. This may be helpful to check if the CD player plays the outer tracks of a CD correctly.


```

Play Selected (16sec)  P000 E003
1-Playing
25-Playing
50-Playing
51-No Disc
75-No Disc
100-No Disc
1-Playing
    
```

The selected titles are repeatedly played for 16 seconds each.

/4.5.4 Load All

```

Load All              P000 E000
1-Loaded
100-Loaded
2-Loaded
99-Loaded
3-Loaded
98-Loaded
4-Loaded
    
```

All CDs are repeatedly loaded from and restored into the magazine.

/4.5.5 Load Selected

```

Load Selected
Enter disc sequence:
 1 1 25 1 50 1 51 1
75 1 100 1 --- -- --- --
Hit here to Start
    
```

Up to 8 different CDs may be selected to be used for this test.

To start the test: Select **Hit here to Start** using the arrow keys and press the "Hit" key.

```

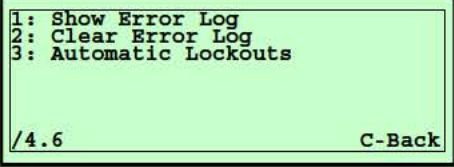
Play Selected (16sec)  P000 E000
1-Loaded
25-Loaded
50-Loaded
51-Loaded
75-Loaded
100-Loaded
1-Loaded
    
```

The selected CDs are repeatedly loaded from and restored into the magazine.

/4.5.6 Twice T4 then T3

Combination of 2 times running test 4 ("Load All") followed by repeatedly running test 3 ("Play Selected 16sec"). While this test is running also the title assembly is continuously tested.

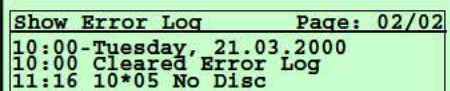
/4.6 >Error Logbook



A screenshot of a menu with a light green background and a black border. It contains three numbered options: '1: Show Error Log', '2: Clear Error Log', and '3: Automatic Lockouts'. At the bottom left is the text '/4.6' and at the bottom right is 'C-Back'.

The phonograph is equipped with a special memory to save all occurring errors. The last errors (up to 100 errors) are registered.

/4.6.1 Show Error Log

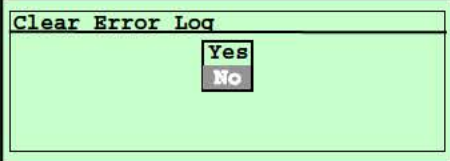


A screenshot of a screen with a light green background and a black border. The title 'Show Error Log' is at the top left and 'Page: 02/02' is at the top right. Below the title, the following text is displayed: '10:00-Tuesday, 21.03.2000', '10:00 Cleared Error Log', and '11:16 10*05 No Disc'.

Display of all errors occurred since the last reset.

After calling this function the last page is displayed. Use arrow keys to turn pages up and down.

/4.6.2 Clear Error Log



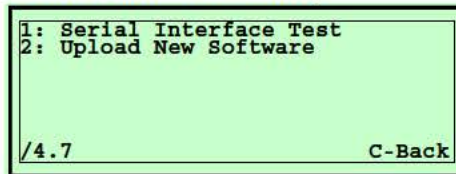
A screenshot of a confirmation screen with a light green background and a black border. The title 'Clear Error Log' is at the top left. Below it, there are two buttons: 'Yes' and 'No'.

To clear the error log memory use the arrow keys to select "YES". Press "Hit" key to confirm.

/4.6.3 Automatic Lockouts

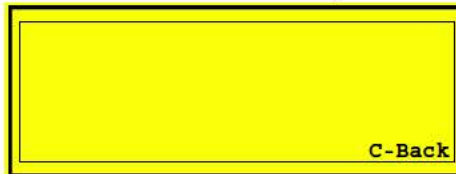
Display or Delete the automatically locked out titles. This test is identically to /2.2.6.3 .

/4.7 Data Transmission



Functions for serial data transmission via the RS232 interface.

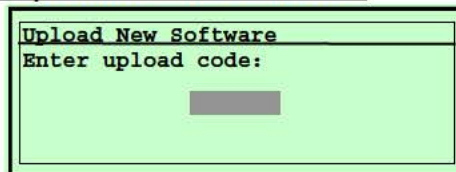
/4.7.1 Serial Interface Test



Reserved.

Function to test the serial interfaces.

/4.7.2 Upload New Software



Using a Personal-Computer (PC) you can download a new version of the phonograph's firmware (i.e. new program).

For protection against unauthorized usage a special security code is needed (Upload Code). Get this code if necessary from your local service department.

For transmitting data a standard terminal program may be used, i.e. „HyperTerminal“ (accessory from Win95®).

PC setting:

Baud rate: 38400 Baud

Protocol: X-Modem

Attention: After input of the valid security code the original firmware is deleted and the program asks for downloading the new version of firmware. The phonograph is operable again earliest after this download is completed!