

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.

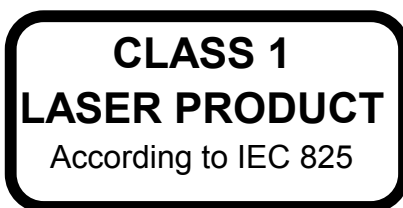
Ban of arbitrary reversions and changes

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.



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.**

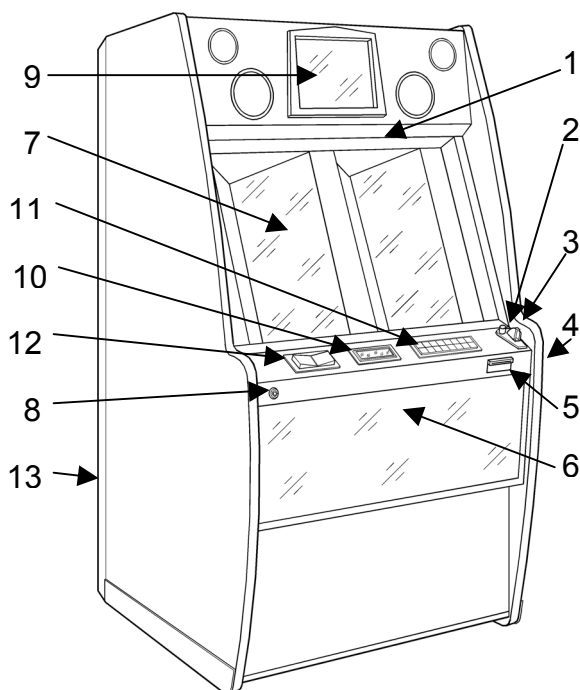
2 General survey of the unit

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.

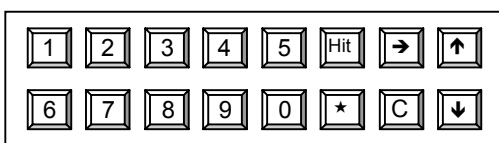
The basic functions are controlled manually via the keyboard and the LCD-display in the operators panel.

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"

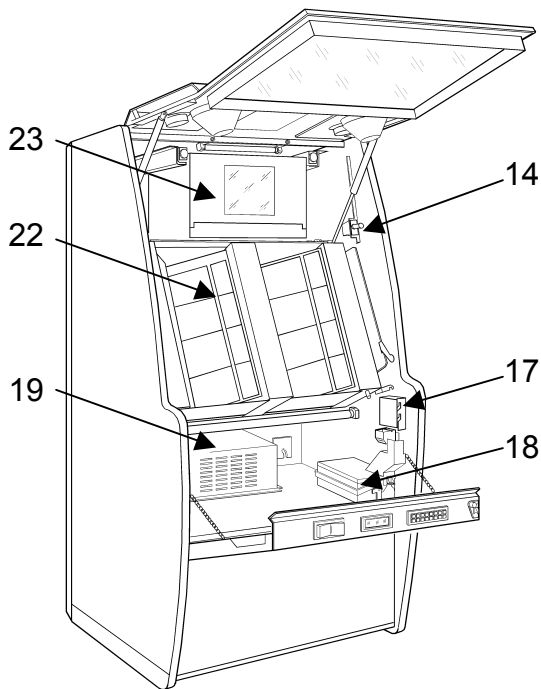
It is also possible to program customer specific information to be displayed on the LCD. Refer to the attached service program manual.

Note:

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

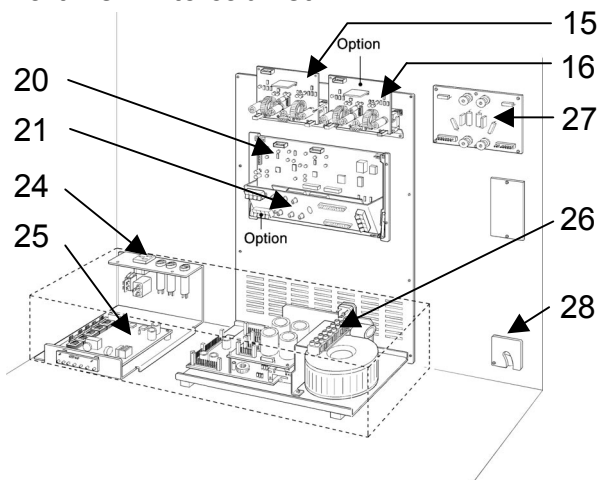
2.4 Survey of the inner components

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.

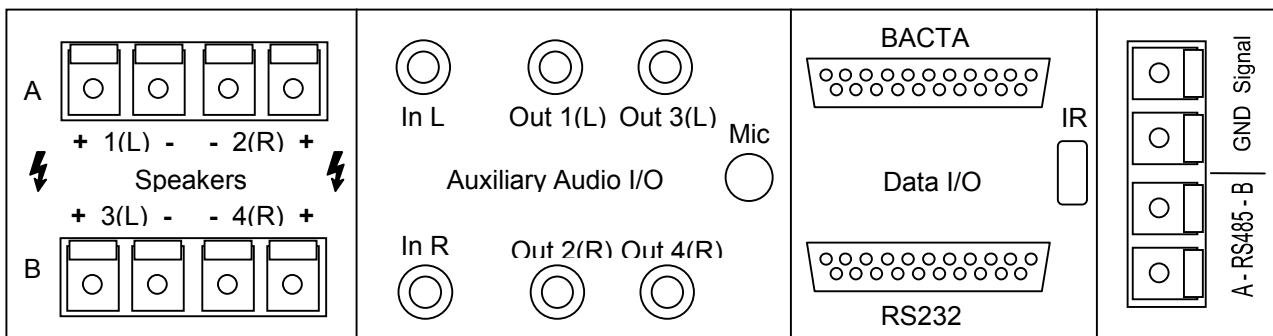
Warning:

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".

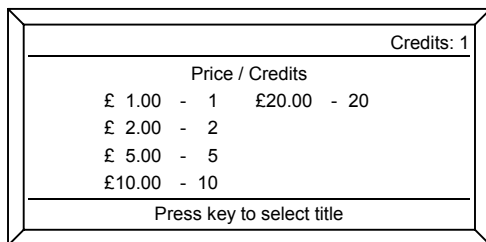
This chapter will describe the basic functionality of the phonograph.

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> <hr/> <p style="text-align: center;">NSM M.U.S.I.C.</p> <hr/> <p>Press key to select title</p> </div>
	<p>The phonograph is ready.</p>

3.2 Inserting coins



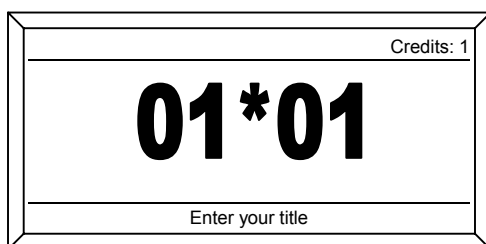
Fill in the required amount of coins necessary to earn credits at least to play one title.

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:

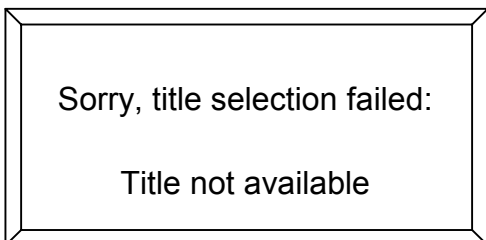


Type a 4-digit number using the numeric keys, representing

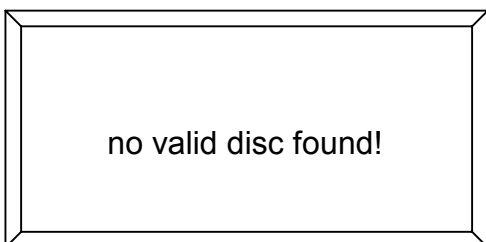
first 2 digits = CD.number from 00 to 99

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.

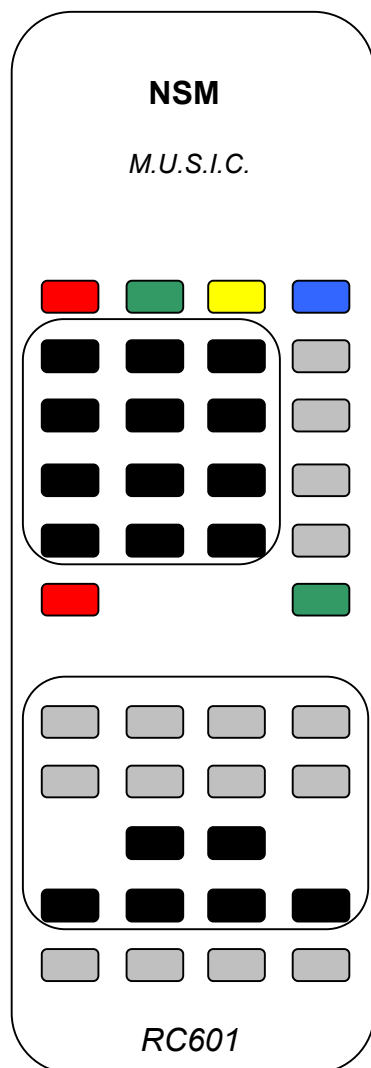
Title sheets are moved to direction corresponding to arrows printed on the rocker button.

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

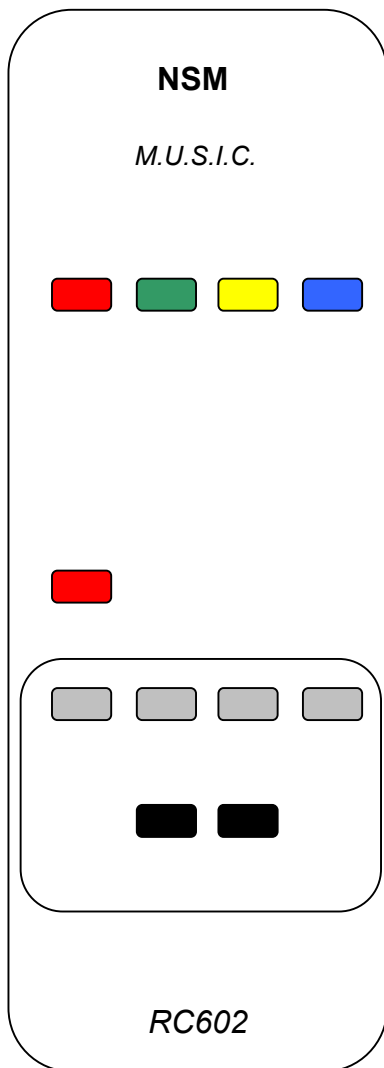
MIC = select microphone channel

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):

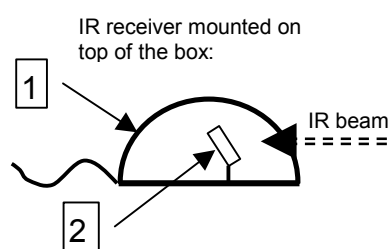
press [**C3**] [**Mic**] and then [**Vol+**] or [**Vol-**]

Set treble for this microphone channel:

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

3.5.2 Mounting remarks for IR receiver

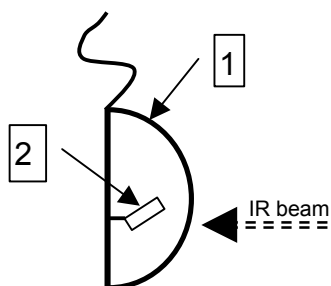
Regard the following mounting instruction for best function results of the IR receiver.



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.

IR receiver wall mounted:



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”

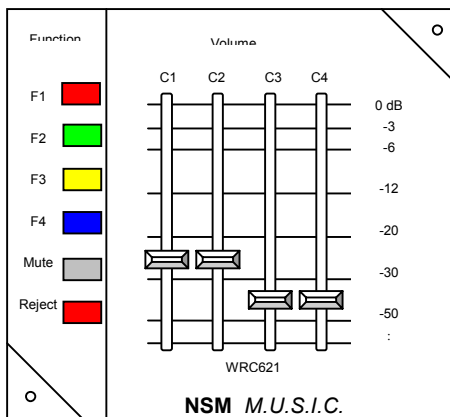
F2 = user defined, i.e. “Free credit”

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.

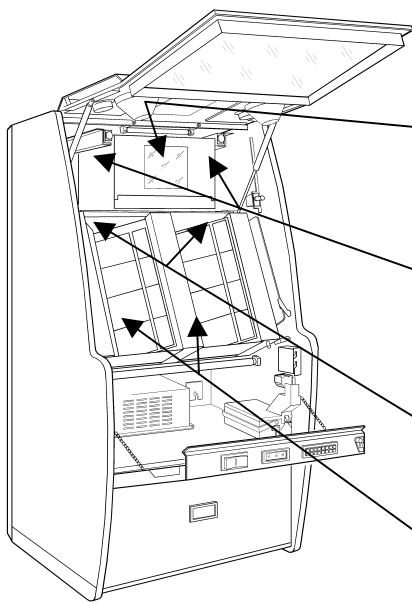
Note:

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

Follow the following safety instructions

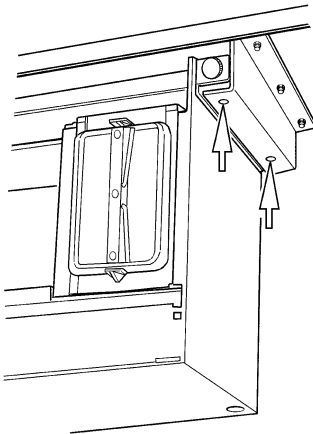
Remove all transportation security devices carefully from the phonograph and the CD-changer in order to avoid destruction and malfunctioning of it.

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.

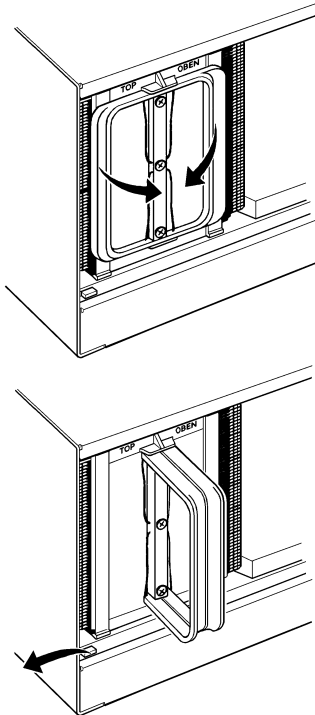


Avoid static discharge to the appliance. Electro Static Discharge (ESD) may destroy the opto-electronics and other ESD sensitive parts within the appliance.

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



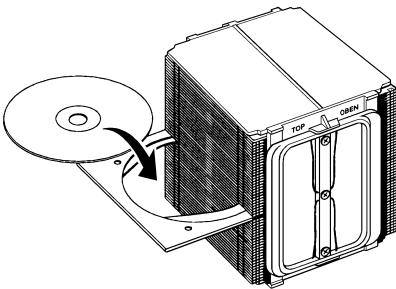
The magazine is equipped with tilting handles. Simply fold the two handles to the front.

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.

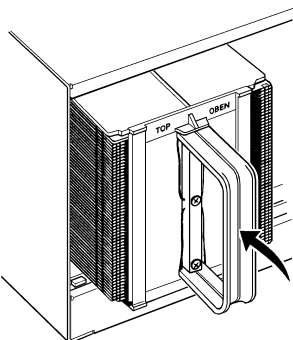
4.4.7 Loading CDs



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.

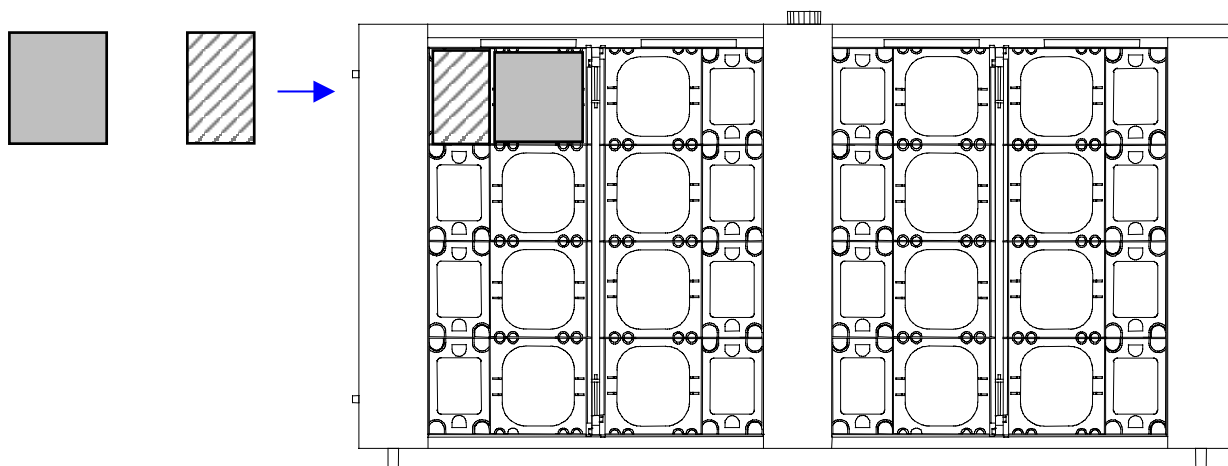
Note: Due to the construction of the CD magazine it can be transported outside the CD changer without any special transportation securities. Only when treated too rough the CD trays will be falling out of the magazine.

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.

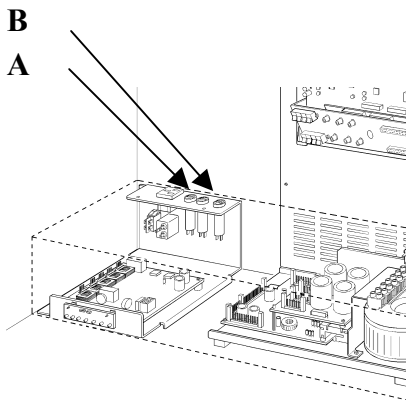
Report	Reason	Accomodation
Title not available	No CD in tray or CD not initialized	Insert CD and run initialization routine
no valid disc found		Perform initialization routine

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

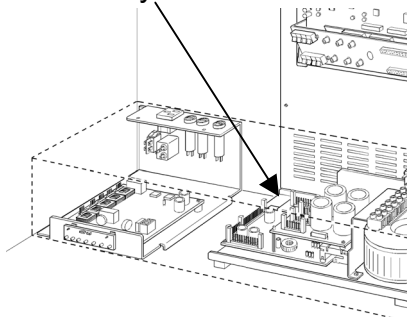
- Power-off the phonograph and unplug the power cord.
- Open the front door.
- Take the title display unit with both hands and swing up into horizontal position, it will audible lock.
- In the left hand rear corner of the power supply shielding you will see the fuse holders .
- Open the fuse caps and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

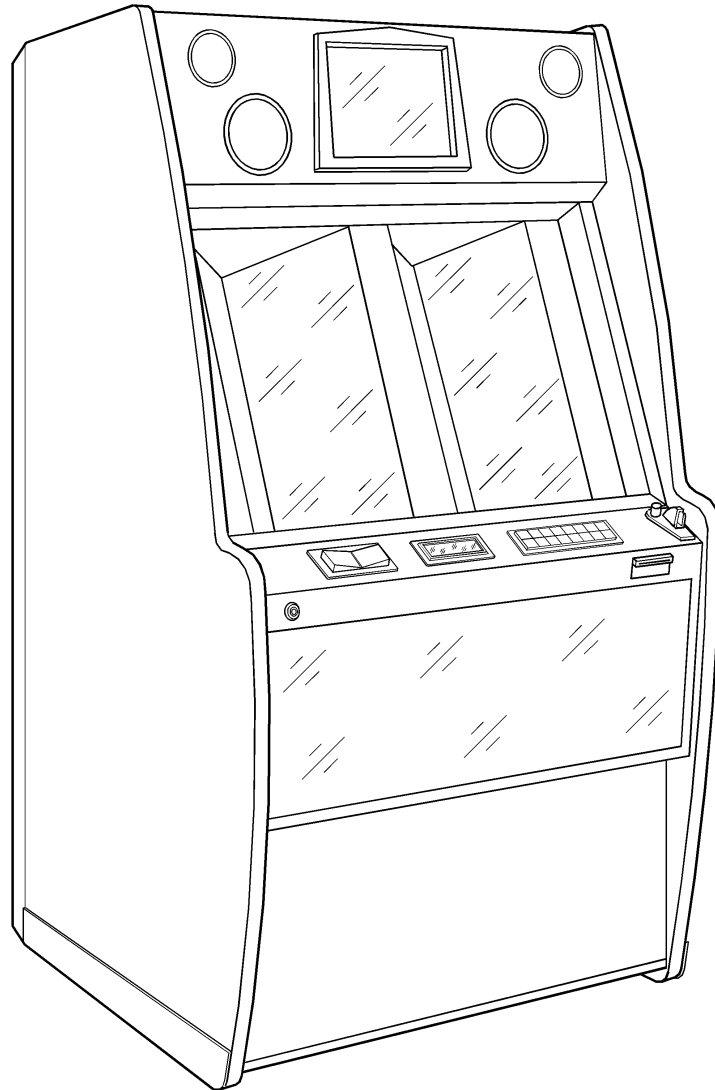
Replace fuses only with same type and value! Otherwise the phonograph may be damaged in hole.

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 you 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

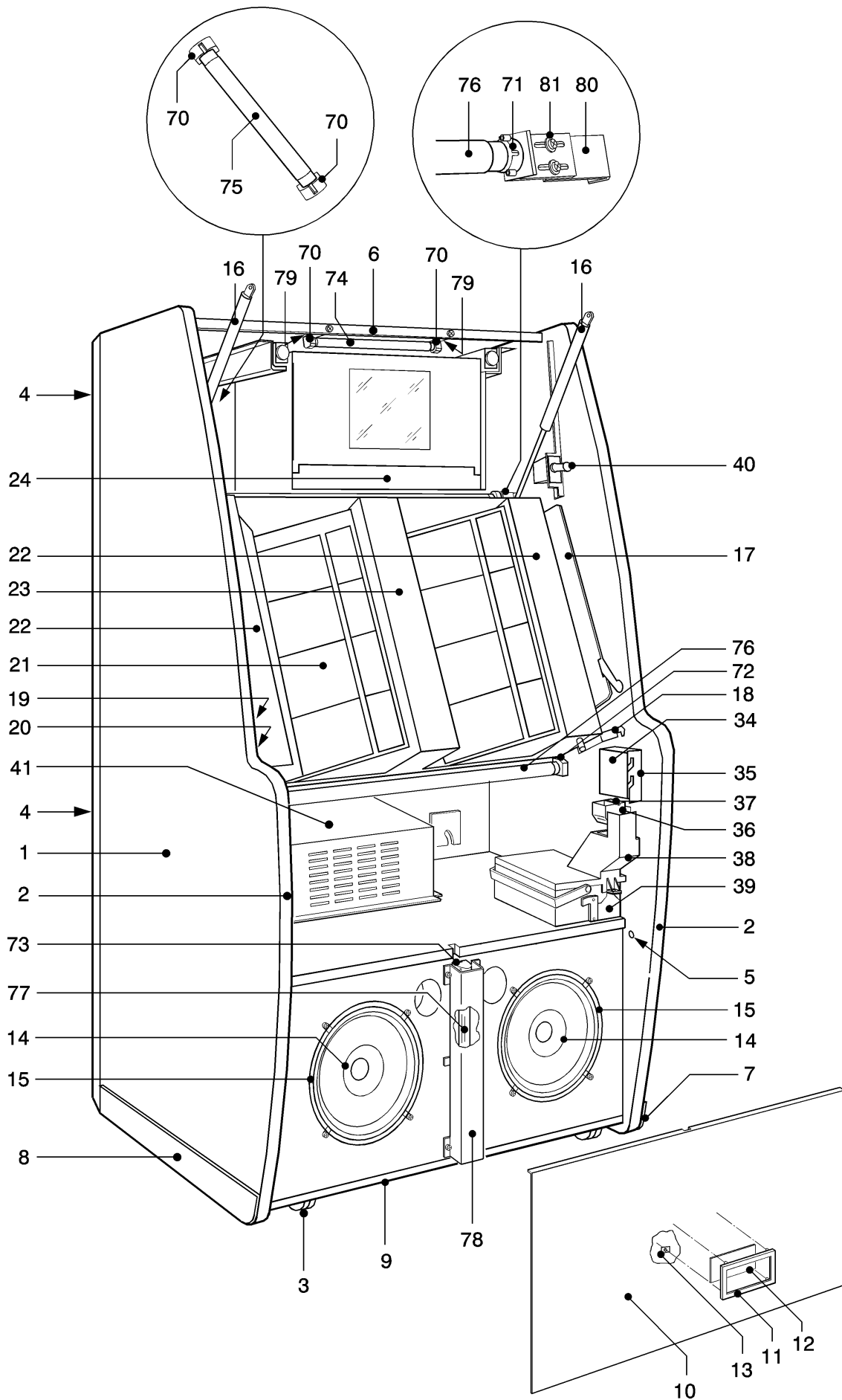
Table entries marked that way indicate the corresponding spare part as not available for all models.

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

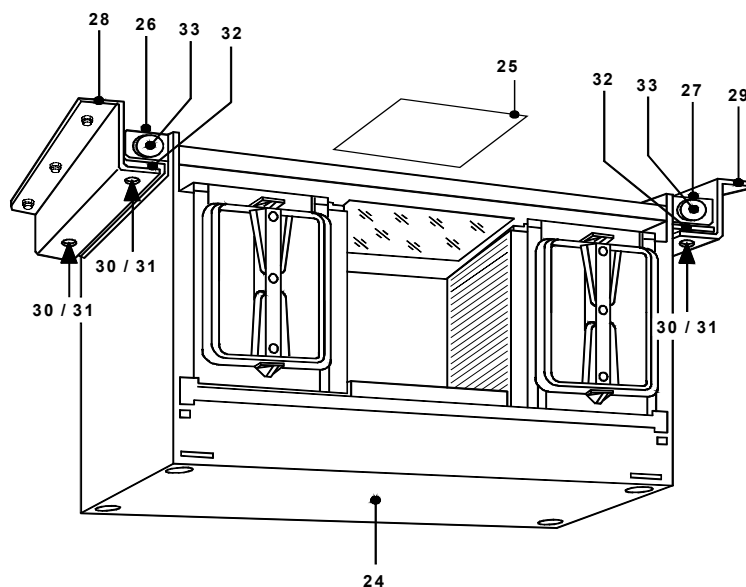
Cable harnesses

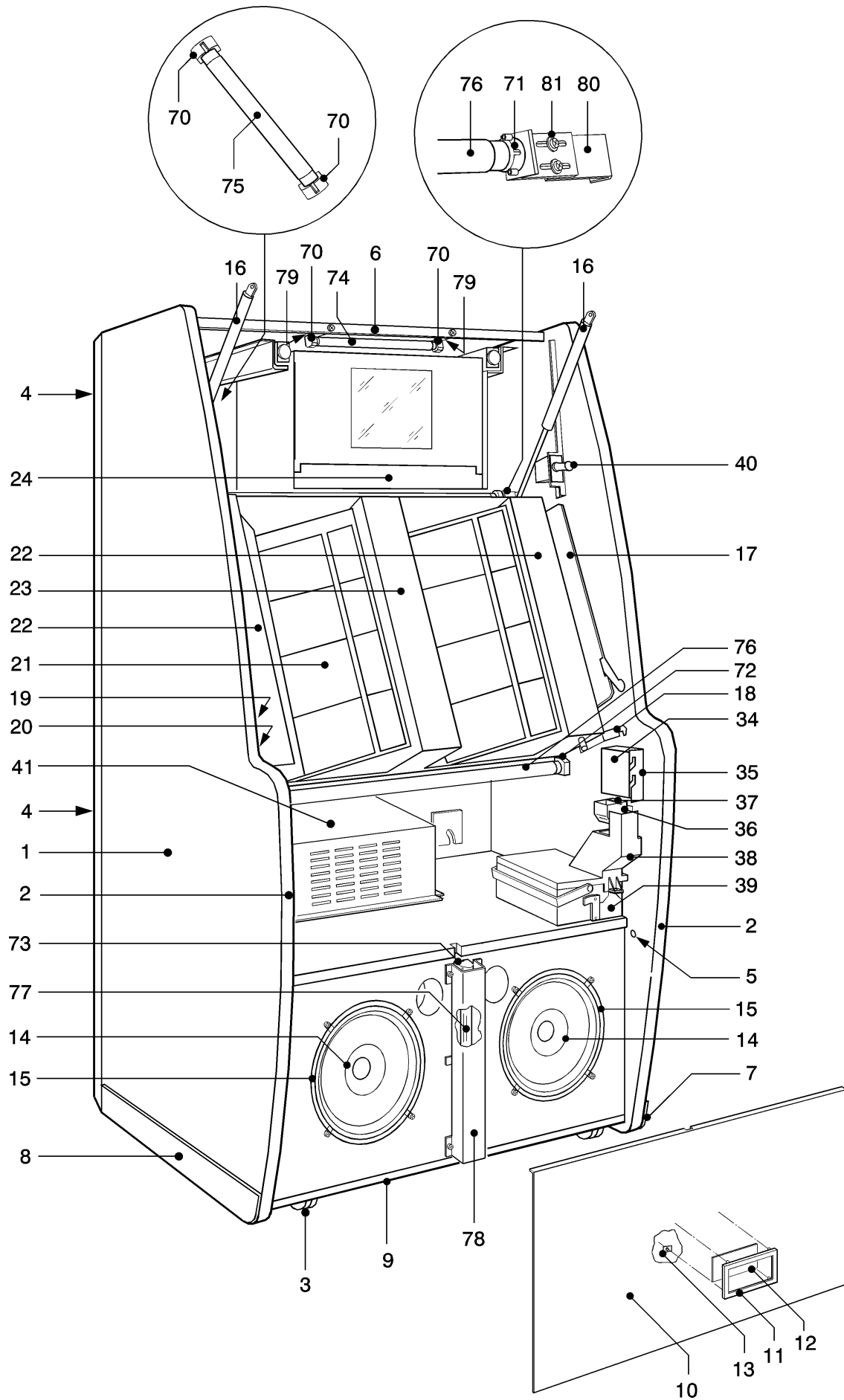
Part no.	Description	Remarks / data
227 528	Power cord 110-127V	*USA*, length=2500mm
227 629	Power cord with plug	*GB*, length=2500mm
227 433	<i>Power cord EURO</i>	<i>*D*/*EXP*, length=2500mm</i>
227 529	<i>Power cord w/o plug</i>	<i>*AUS*/*NZ*, length=2500mm</i>
180 185	Power supply unit – CB Central 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 (w/o locking bracket left + right, w/o magazines)	see Attachment A	1
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

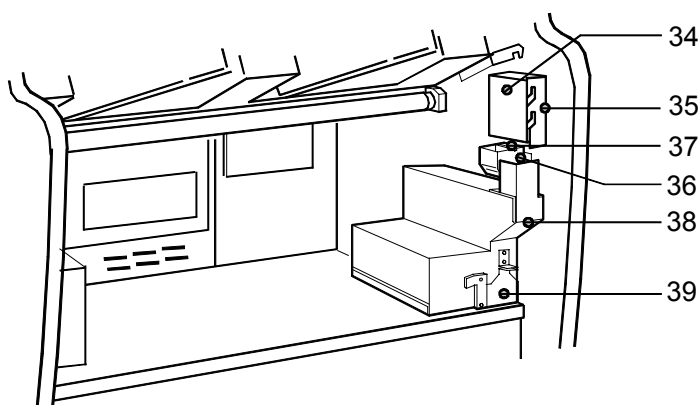
* = Exchange unit





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

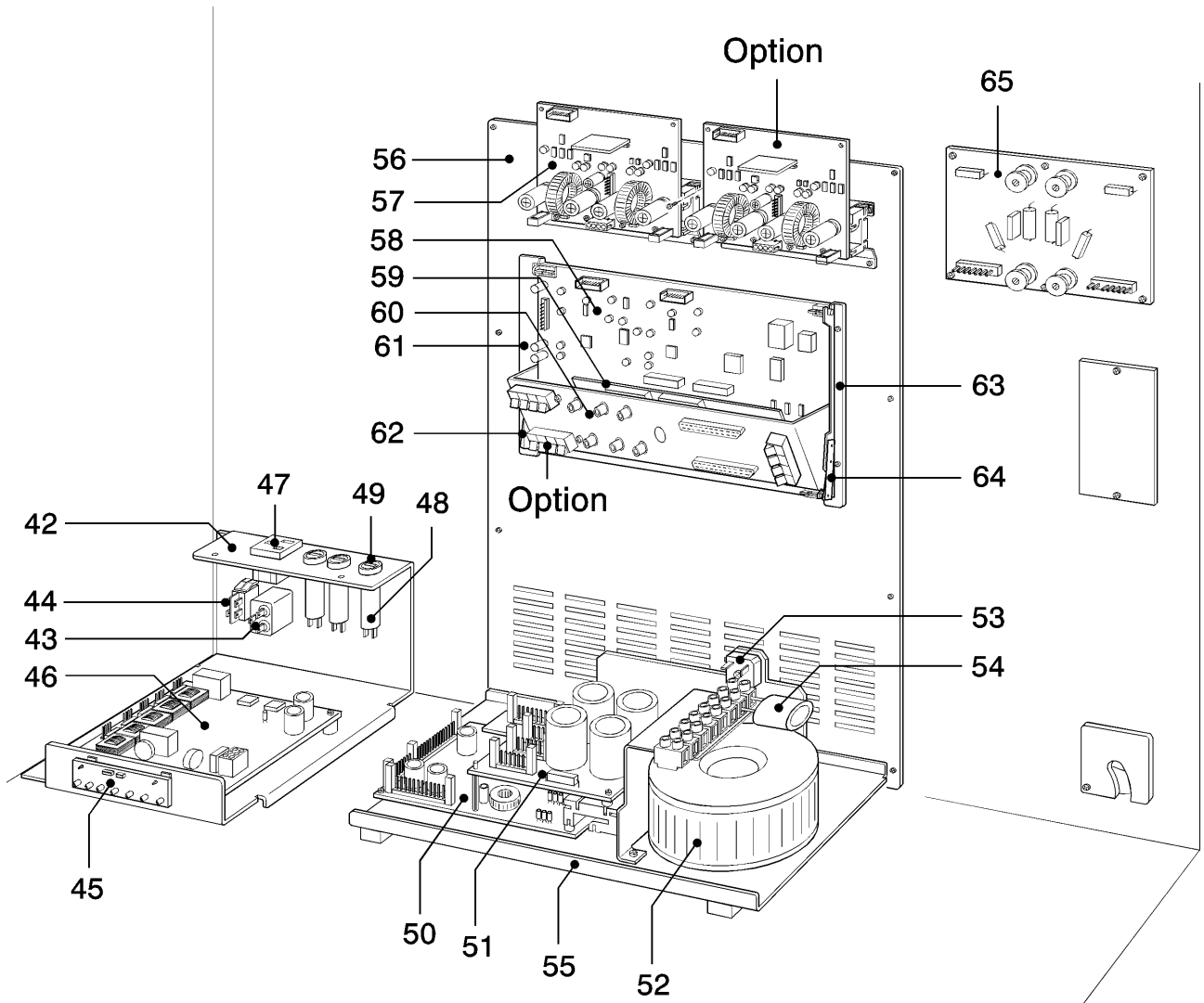
Part view of Illustration page 14:



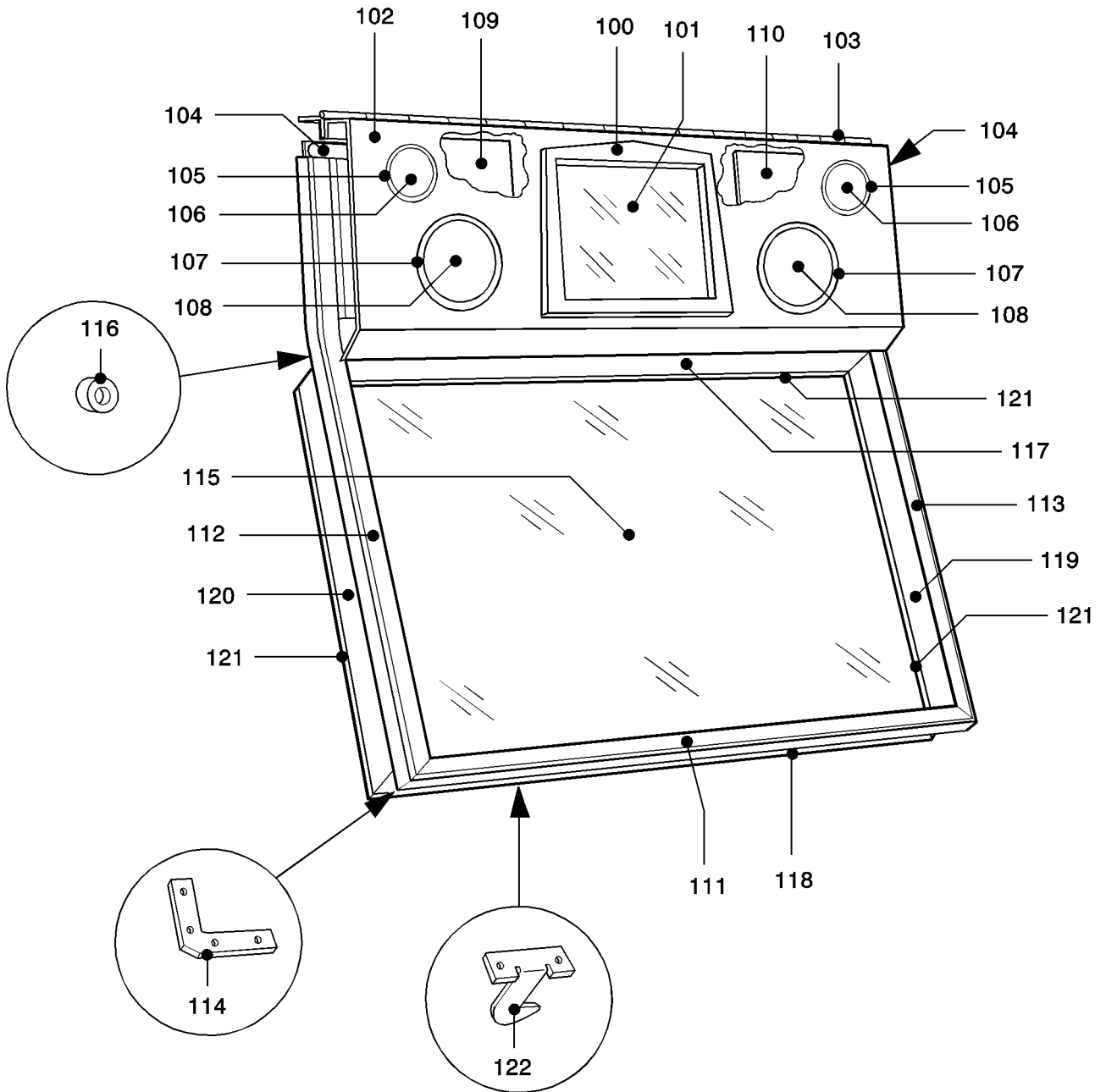
w/o illustration:

	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

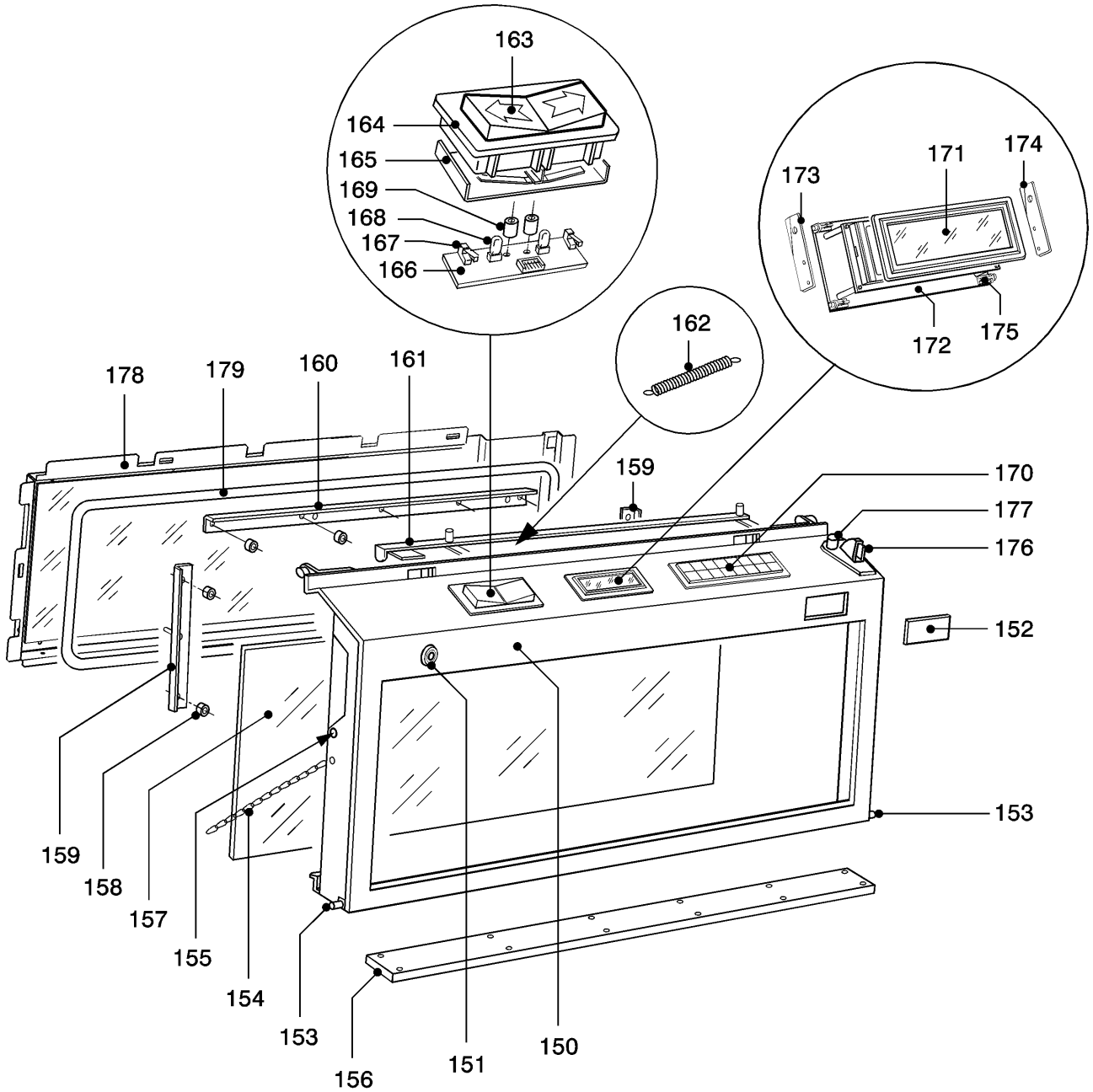
Note: The Dollar Bill Acceptor is mounted to the lower front door.



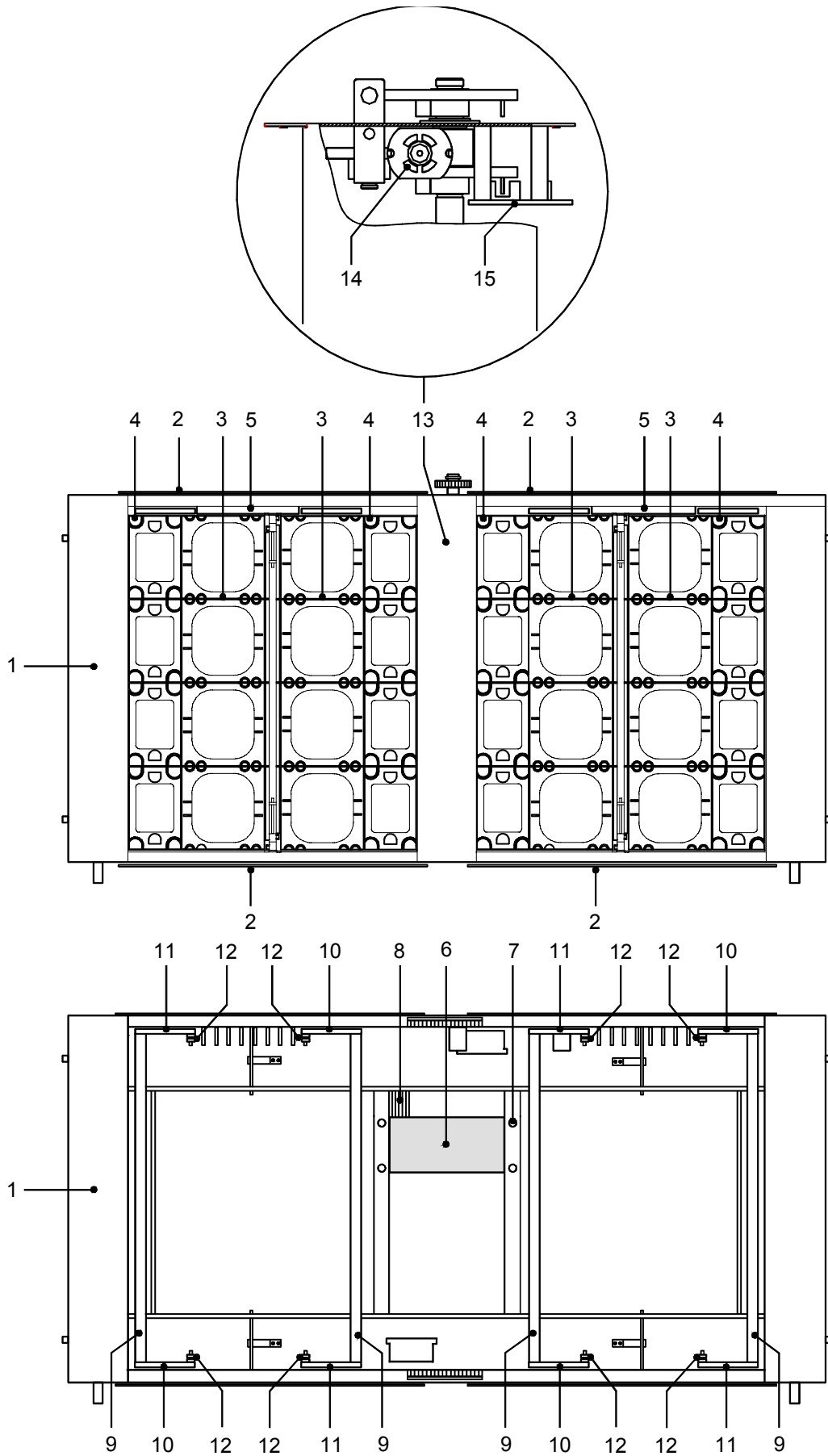
Pos	Art.-no.	Description	Data	Qty.
40	222 509	Service switch	cabinet switch	1
41	180 154	Shielding box for power supply		1
42	180 153	Mounting bracket line input		1
43	235 228	Interference filter		1
44	222 574	Line switch	Power-on/off	1
45	179 971	CB LED BAR, assy.		1
46	180 152	CB ELECTRONIC BALLAST, 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

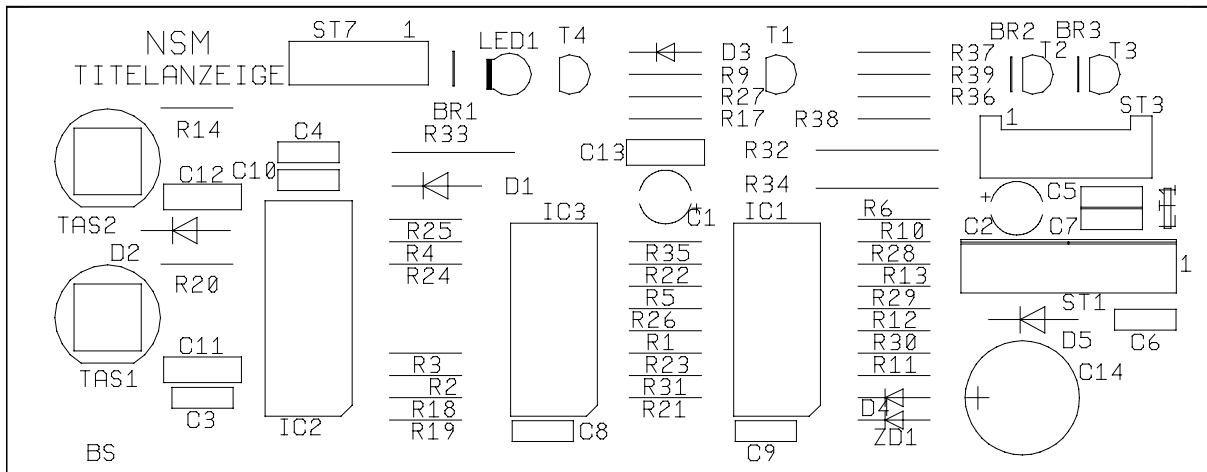


Pos.	Art.-no.	Description	Data	Qty.
150-179	180 147	Lower front door, complete, chromium plated (w/o design foil)	*UNI*	1
150-179	180 145	Lower front door, complete, chromium plated (w/o design foil)	*USA* with Dollar Bill chute	1
150-179	180 146	Lower front door, complete, chromium plated (w/o design foil)	*USE* without Dollar Bill chute	1
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



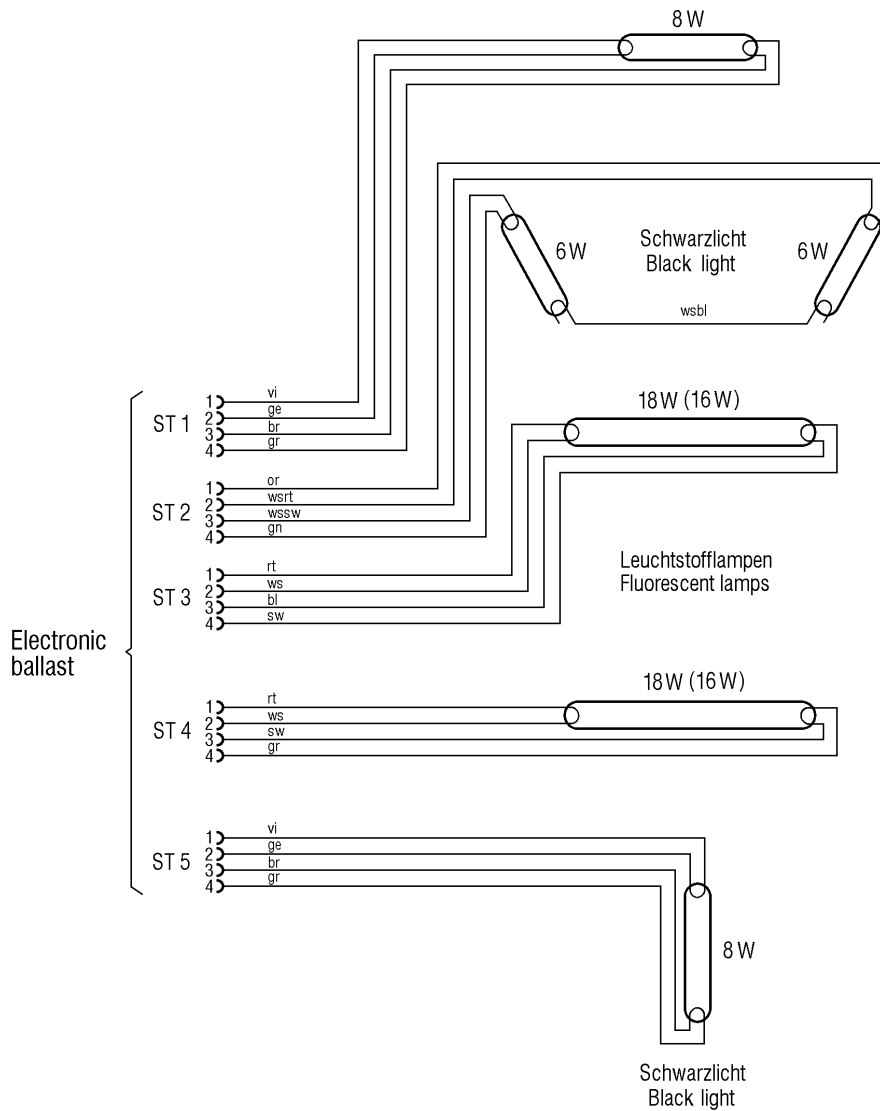
7 Appendix

7.1 Technical data

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

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

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.

