



This changes everything!

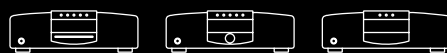


C A
D E
N Z
A
L I
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Understatement. Musik und Design
in begeisternder Harmonie.

CD-DAC C31
PREAMPLIFIER C11
INTEGRATED AMPLIFIER C51
STEREO POWER AMPLIFIER C21
MONO POWER AMPLIFIER C15

Owner's Manual
English





This changes everything!

WELCOME TO THE WORLD OF PERFECT SOUND

Thank you for your purchase of a high quality product from MBL. You've made the right choice, and one we hope you'll never regret. The enthusiasm for pure musical enjoyment at the highest level binds us together, as well as the pleasure in exclusive and lovingly crafted products.

The entire MBL team and I personally put our whole heart and great care into developing and manufacturing our products. The fruit of our labors now stands before you, waiting to be connected so that it can delight you with your favorite music.

To make your musical enjoyment and the use of your MBL products as trouble-free as possible, we've enclosed a few instructions for connection and operation. We've deliberately kept them short so as not to take up too much of your time, limiting our instructions to the most important points. By observing these instructions and recommendations, I'm certain you'll get many years of enjoyment from your MBL product.

Let yourself be enchanted by the music. Wishing you much musical pleasure,

Christian Hermeling, Owner MBL Akustikgeräte

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PRECAUTIONARY AND SAFETY MEASURES



PLEASE READ CAREFULLY BEFORE INSTALLING AND USING THE PRODUCT.

The measures listed here are intended to prevent the risk of injury and prevent damage to the product and to your own or other people's property. Strict compliance is required for the correct and safe use of the product.

Keep this manual after reading so that you can refer to it at any time.

- *Have the product checked or repaired only by the dealer from whom you purchased it or by qualified personnel at MBL.*
- *MBL is not liable for personal injury or material damage resulting from improper use or modifications of the product.*
- *This product is intended for use in private households. It is used to play music and speech. The product is not intended for concerts or other applications in commercial or public environments. Do not use it for applications that require high reliability, such as life support, health and care, or protection of valuable assets.*
- *This product is neither intended nor suitable for connection to musical instruments or amplifiers of musical instruments or synthesizers or similar "live" instruments.*

UNUSUAL OCCURRENCES

If one of the following abnormalities occurs, switch off the device immediately and unplug the power plug from the socket:

- *The power cord or the power plug is damaged*
- *The device suddenly produces an unusual odor, unusual noise, or smoke*
- *Foreign material or water has penetrated the interior of the speaker or electronic component*
- *Unexpected loss of sound or unknown loud noises occur during use*
- *The housing has severe cracks or other damage*

Continued use could result in electric shock, fire, and damage to the unit and connected equipment.

Have the device checked or repaired immediately by the dealer from whom you purchased it, or contact qualified personnel at MBL.

CHOICE OF THE PLACE OF INSTALLATION

Only install the device in closed rooms that are protected from weather influences.

Do not place the device in locations that become very hot (e.g. near a heater) or where it is exposed to direct sunlight for long periods of time.

Do not operate the device at temperatures below 10° C or above 40° C.

When choosing a location for installation, make sure that the device is adequately ventilated, otherwise it may overheat.

- *Do not cover the device with a cloth*
- *Do not place the device on a thick carpet or blanket*
- *Do not cover the ventilation openings of the device (cooling slots / heat sinks)*
- *Do not use the device in a closed cabinet or other confined space without sufficient ventilation*

Failure to follow the above instructions may cause heat to build up inside the unit, which could result in fire or malfunction. Always ensure that there is sufficient space around the device: at least 15 cm at the top and 5 cm on all sides.

Place the device at least 2 meters away from sources of electrical interference such as fluorescent tubes, cell phones, WLAN devices, or motors.

Do not place the device in locations where it is exposed to strong dust, corrosive gases, or salty air.

SETTING UP AND CONNECTING THE DEVICE

Do not connect musical instruments (e.g. electric guitar, etc.) directly to the device. This improper use of a component designed exclusively for music playback can lead to irreparable damage to the entire music system.

If the ambient temperature has changed drastically (e.g. during transport or in case of rapid heating/cooling), condensation may have formed. In this case, leave the unit unused and switched off for several hours until it is dry enough to operate. Using the device when condensation has occurred can cause malfunction and damage to the device.

Always place the unit horizontally on all feet of the housing so that the unit stands firmly and straight.

Never place the unit on an unstable surface that cannot support the weight of the unit or where it could accidentally fall or overturn. Secure furniture that supports the unit against falling by anchoring it to the wall. Non-observance of these points could result in life-threatening injuries.

If the device is particularly heavy (> 25 kg), you should always set it up, adjust or transport it with assistance. If you try to lift the device alone and without assistance, you could seriously injure your back, fingers or feet, or damage the device. It is best to hire professional persons experienced in handling such loads.

When setting up the unit, take care not to drop it or subject it to strong impacts.

Before moving the device, all connecting cables must be disconnected. Otherwise, the cables and connections may be damaged and you or other persons may trip and fall over them.

When connecting external devices, read their instructions carefully and follow them. Failure to do so may result in damage to the speaker or external equipment.

Route the speaker cables so that they cannot be damaged. In particular, cables should not be routed over hard, sharp edges, have other objects standing on them or get trapped, and should not be bent in too tight a radius. In addition, the cables should NOT be placed in such a way that they become a risk for falling or tripping.

Do not touch the speaker terminals when the unit is on and playing audio as this may result in painful and hazardous electric shock.

CAUTION

Failure to follow the measures listed below can result in life-threatening electric shock, fire, and damage to the device and connected equipment.

POWER SUPPLY

When setting up the device, make sure that the mains socket is easily accessible. If problems or malfunctions occur, turn the component off immediately and unplug the power cord from the wall outlet. Even if the power switch is turned off, the component is not disconnected from the power supply as long as the power cord is connected to the power outlet.

Only use the device with the mains voltage specified on the device.

Do not use a power socket in which the power plug is not sufficiently tight. Always insert the power plug completely into the power socket.

When you unplug the power plug, always pull on the plug itself and never on the cable. When unplugging the power plug, hold the power socket firmly so that it is not pulled out or damaged.

Only use the power cable included in the delivery or an equivalent power cable. Do not use the supplied power cord for other devices.

Do not use a damaged power cord and protect the power cord from damage by

- keep away from heaters and other heat sources
- do not bend
- do not change/alter
- do not expose to heavy loads by pressure or tension

Regularly check the condition of the power plug and remove any dirt or dust that has accumulated on it.

Do not touch the unit or the power cord when there is a risk of lightning.

If the unit is not expected to be used for a long time, disconnect the power cord from the wall outlet.

ATTENTION

Failure to follow the measures listed below may result in fire, burns to skin and eyes, blindness, and damage to the device.

USING RECHARGEABLE BATTERIES AND BATTERIES

Keep batteries out of the reach of children. Children may accidentally swallow batteries. Take a child who has swallowed a battery to a doctor immediately! Failure to do so may also result in burns from leaking liquid.

Never use batteries other than those specified.

Never use new batteries together with old ones, or batteries of different types or from different manufacturers. If possible, only use batteries from the same packaging together.

Always make sure that all batteries are inserted according to the polarity markings (+/-).

If the batteries are empty or if you do not use the unit for a long period of time, please remove the batteries from the remote control to avoid damage due to battery leakage.

Do not place the batteries in a bag or other container together with metal objects. The battery may short circuit and burst or leak, causing fire or injury.

Before storing or disposing of batteries, you should isolate the area around the poles with tape or other suitable protective material. Mixed storage with other batteries or metal objects may cause fire, burns or ignition from leaking battery fluid.

Do not disassemble batteries and accumulators. If the contents of the rechargeable battery or battery get on your hands or in your eyes, they may cause blindness, skin irritation or burns.

Do not throw batteries into fire. Do not expose an accumulator or battery to excessively high temperatures such as direct sunlight or fire. This may cause the battery to burst and cause fire or injury.

Never attempt to charge batteries that are not intended for multiple use and recharging. Charging may cause the battery to burst or leak, causing fire or injury.

If batteries or rechargeable batteries leak, avoid any contact with the leaked liquid. If the battery fluid comes in contact with eyes, mouth or skin, immediately rinse with water and seek medical attention. Battery fluid is corrosive and may cause vision loss or burns.

REMOTE CONTROL INFRARED EMITTER

The remote control uses an IR transmitter diode. This is located on the front of the remote control. Do not look directly into it and keep a distance of at least 20 cm to your eyes. Do not point IR emitters directly into the eyes of other people or living beings.

DO NOT DISASSEMBLE

Never attempt to disassemble, modify or repair the device yourself. This could result in fire, electric shock, injury, malfunction or damage.

DO NOT INSERT ANY OBJECTS INTO THE DEVICE

Do not insert foreign objects such as metal or paper into the device. Failure to follow these instructions may result in fire, electric shock, injury or malfunction.

DANGER FROM WATER OR OTHER LIQUIDS

Protect the device from rain, water and moisture and do not place containers filled with liquids such as vases, bottles or glasses on top of it. Liquids entering the device may cause fire, electric shock, malfunction, and damage.

Never insert or remove the power plug with wet hands. Never touch the appliance with wet hands. Failure to follow these instructions may result in electric shock or malfunction.

FIRE HAZARD

Keep burning objects and naked flames away from the unit. In particular, do not place candles on or near the unit.

EARTHQUAKE OR SIMILAR DANGEROUS SITUATIONS

Avoid staying near the equipment in hazardous situations such as an earthquake, as the equipment could fall or slip and cause serious injury. Find a safe place away from the device immediately.

HIGH VOLUME LEVELS WHEN SWITCHING ON OR DURING OPERATION

Do not listen at high or uncomfortable volume levels for long periods of time as this may result in permanent hearing loss. If you experience hearing loss or ringing in your ears, consult a physician.

Before connecting the device to a loudspeaker, turn it off.

Before turning components on or off, make sure that the volume controls on all components are set to minimum. Failure to do so may result in hearing loss, electric shock, or damage to the speaker.

*Always turn on the amplifier **LAST** within the audio chain to prevent hearing loss and damage to the speakers.*

*For the same reason, turn the amplifier **OFF FIRST**.*

Failure to follow the above instruction may cause hearing loss or damage to the speakers.

AVOID DURING USE:

Sitting or standing on the housing or placing heavy objects on the housing. This could cause structural damage to the speakers as well as damage to the high-quality and sometimes delicate surfaces.

Placing any objects on parts of the cabinet as this may damage or discolor the surfaces.

Applying excessive force to controls, switches, terminals and other parts of the speakers.

Touching and pulling on the connected cables.

The CD-DAC C31 works internally with a Class 1 laser. The device should not be opened, no internal covers removed and not operated in this way! The laser beam can damage your eyesight! Do not look directly into the beam! Unplug the device before opening it!

CLEANING AND MAINTENANCE

Before cleaning the device, unplug the power plug from the socket. Failure to do so may result in a health hazard, electric shock, and damage to the unit or connected equipment.

Clean the appliance only with a dry, soft cloth. First check in an invisible place to see if the cloth leaves any micro-scratches. The use of chemicals such as benzine or thinner, strong detergents, or abrasive cleaners may cause discoloration or damage to the surface.

DISPOSAL

CONSUMER INFORMATION ON THE COLLECTION AND DISPOSAL OF OLD ELECTRICAL APPLIANCES AND USED BATTERIES

Dispose of used batteries and accumulators in accordance with the applicable regulations.



If these symbols are found on the products, packaging and/or enclosed documents, used electrical appliances and batteries should not be disposed of with normal



household waste. In accordance with your national regulations, please take old equipment and used batteries to the appropriate collection points for proper disposal, recycling and reuse.



Cd

By disposing of electrical equipment and batteries correctly, you will help to conserve valuable resources and prevent potential negative effects on human health and the environment which could otherwise be caused by inappropriate waste disposal. For more information about collecting and recycling old electrical equipment and batteries, please contact your local city or

municipal government, waste disposal service or the seller of the product.

Information for business users in the European Union:

If you wish to dispose of electrical equipment, please contact your dealer or supplier for more information.

Disposal information for countries outside the European Union:

These symbols are only valid within the European Union. If you wish to dispose of such items, please contact your local authorities or your dealer and ask for the appropriate disposal method.

Note about the battery symbol (two symbol examples below):

This symbol can also be used in combination with a chemical symbol. In this case, it complies with the requirements of the EU Battery Directive on the use of chemicals.

CE-MARKING

All MBL devices comply with the safety and EMC guidelines in the area of the European Union.



FCC-MARKING

The devices of the Cadenza Line complies with Federal Communications Commission (FCC) regulations.



WARRANTY

Please pay attention to the details given in the warranty card which accompanies the unit. Warranty is only issued, if you send back the warranty card.

1. PACKAGE CONTENTS

Included in the packing of your MBL Cadenza Line device you will find:

A power supply cable

A system remote control

(Only included in the CD-DAC C31, Preamplifier C11 and Integrated Amplifier C51)

White gloves

Manual

Inspection Certificate

1.1 WHAT YOU STILL NEED

To connect the components of your Cadenza Line stereo system, you will need the following cables:

Audio connection cable

Loudspeaker cable

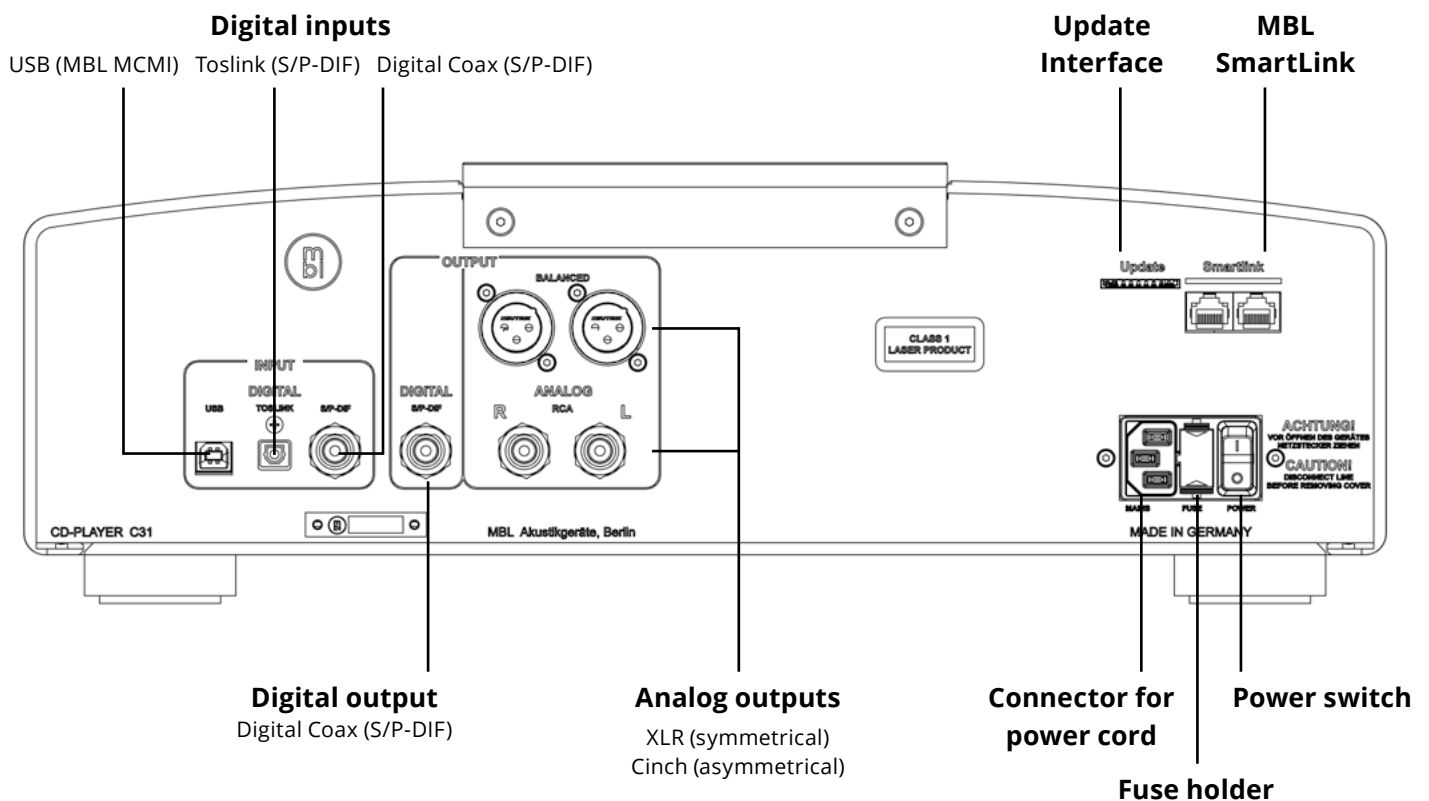
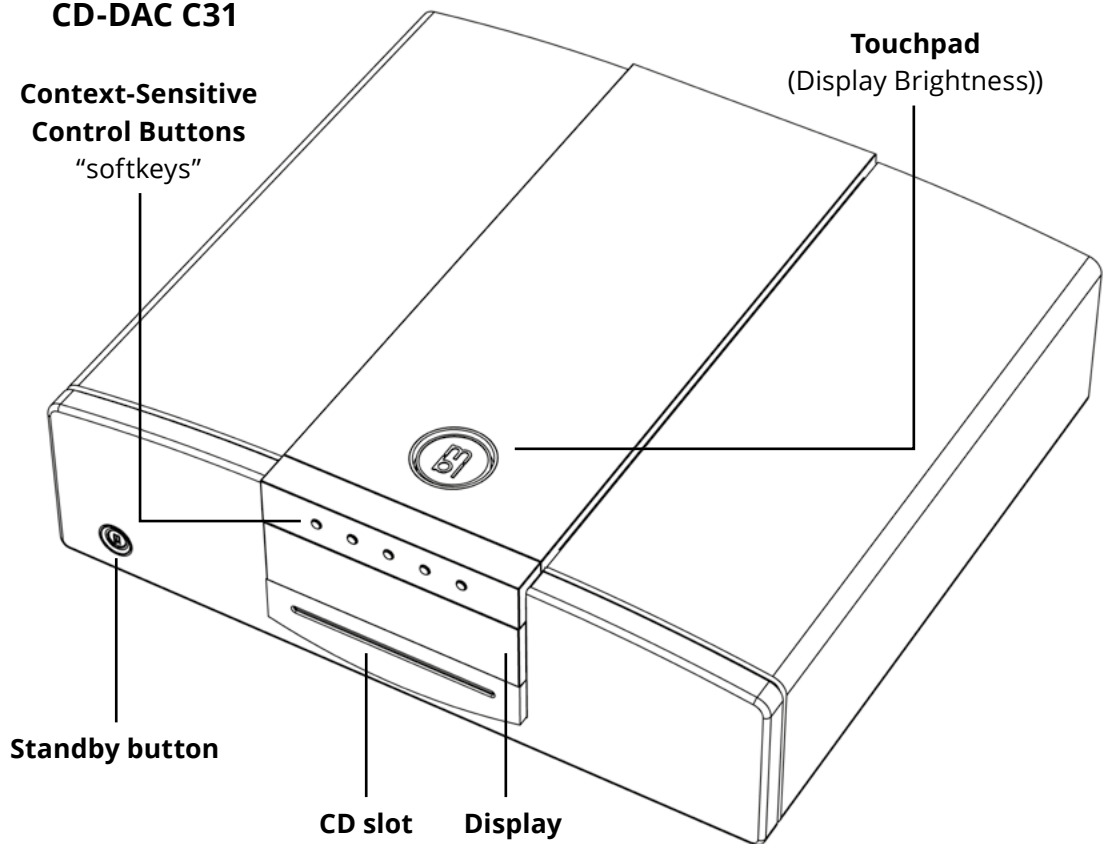
RJ45 patch cable

Your dealer will gladly advise you on the choice of the best audio cable. Please also read the "3. Wiring Set-Ups" on page 16.

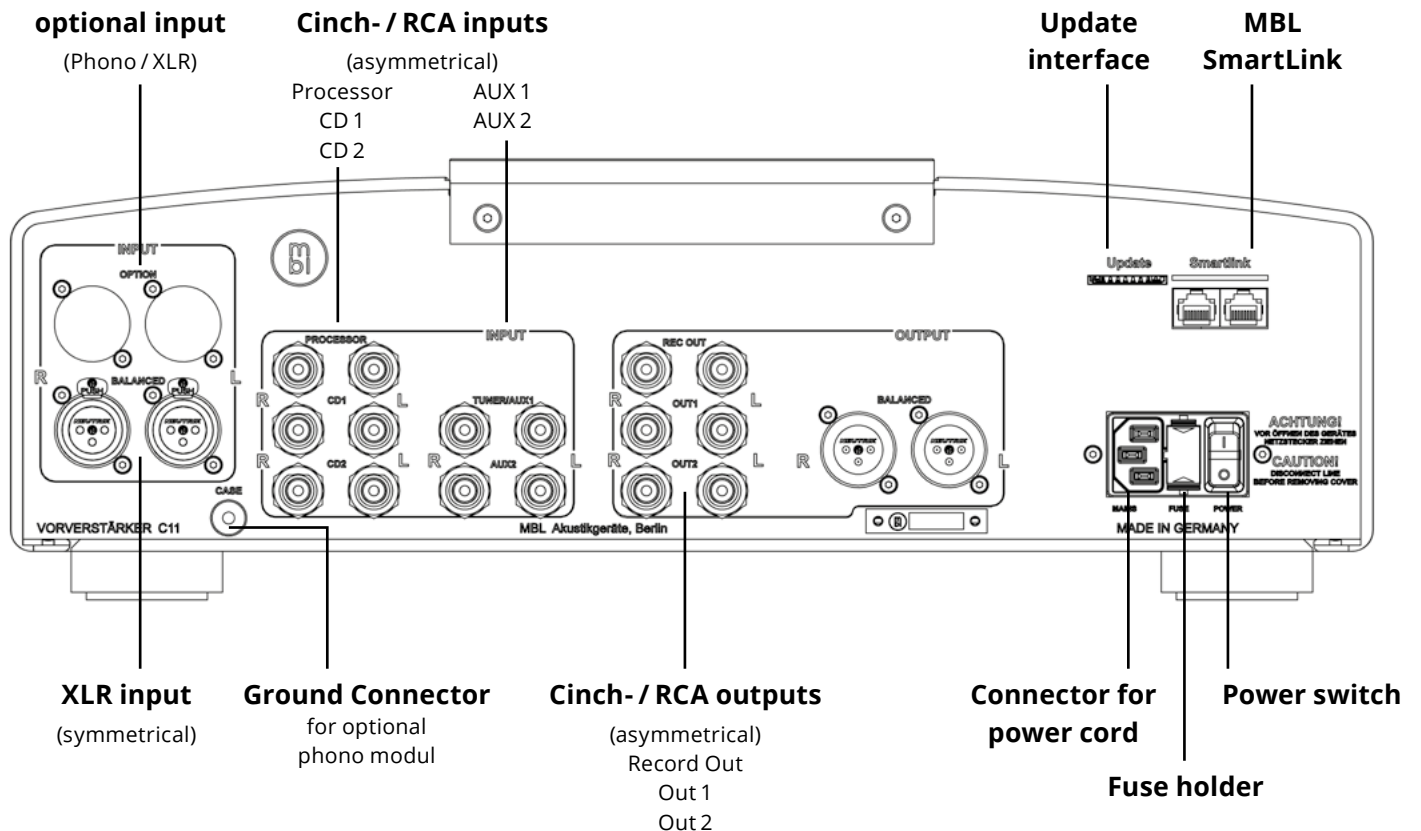
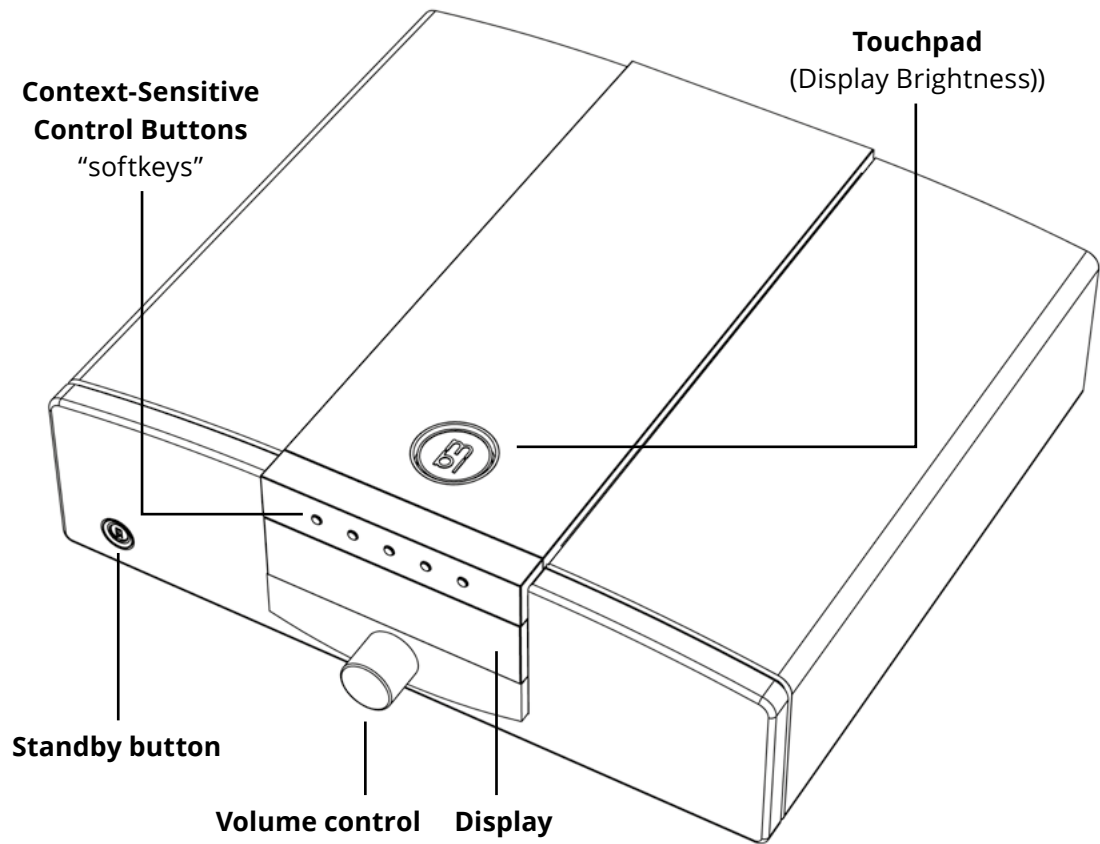
For wiring the MBL SmartLink busses, you can use standard RJ45 patch cable of the type used for networking computers. We recommend UTP – unshielded category 6 (CAT 6) cable.

2. DEVICE DIAGRAMS

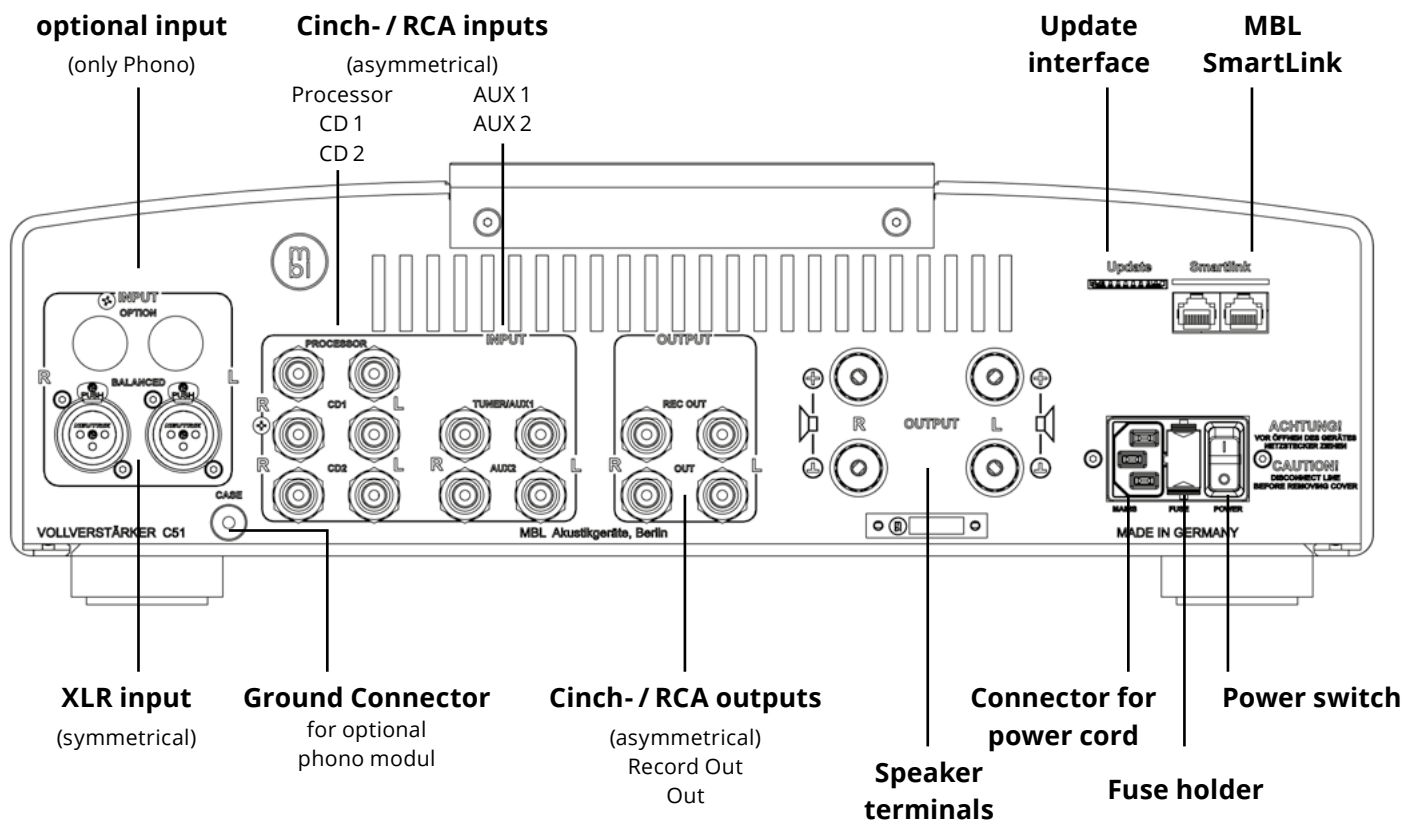
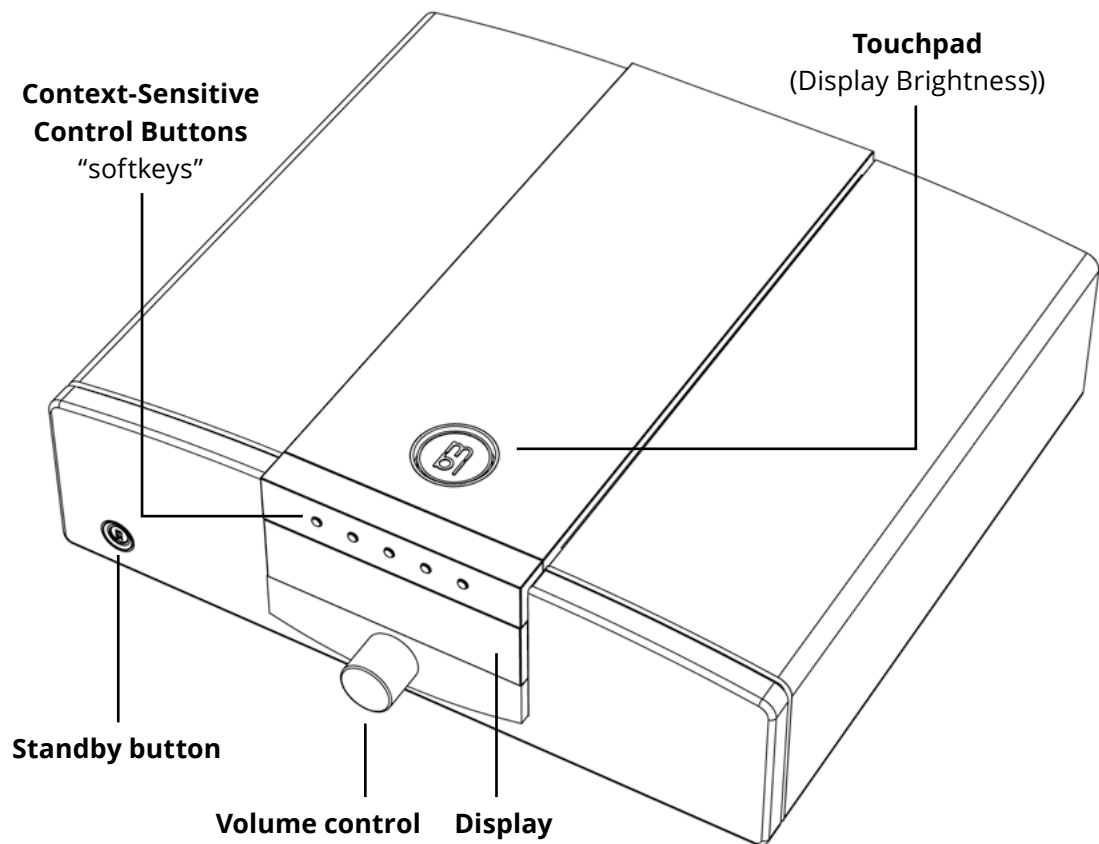
2.1 CD-DAC C31



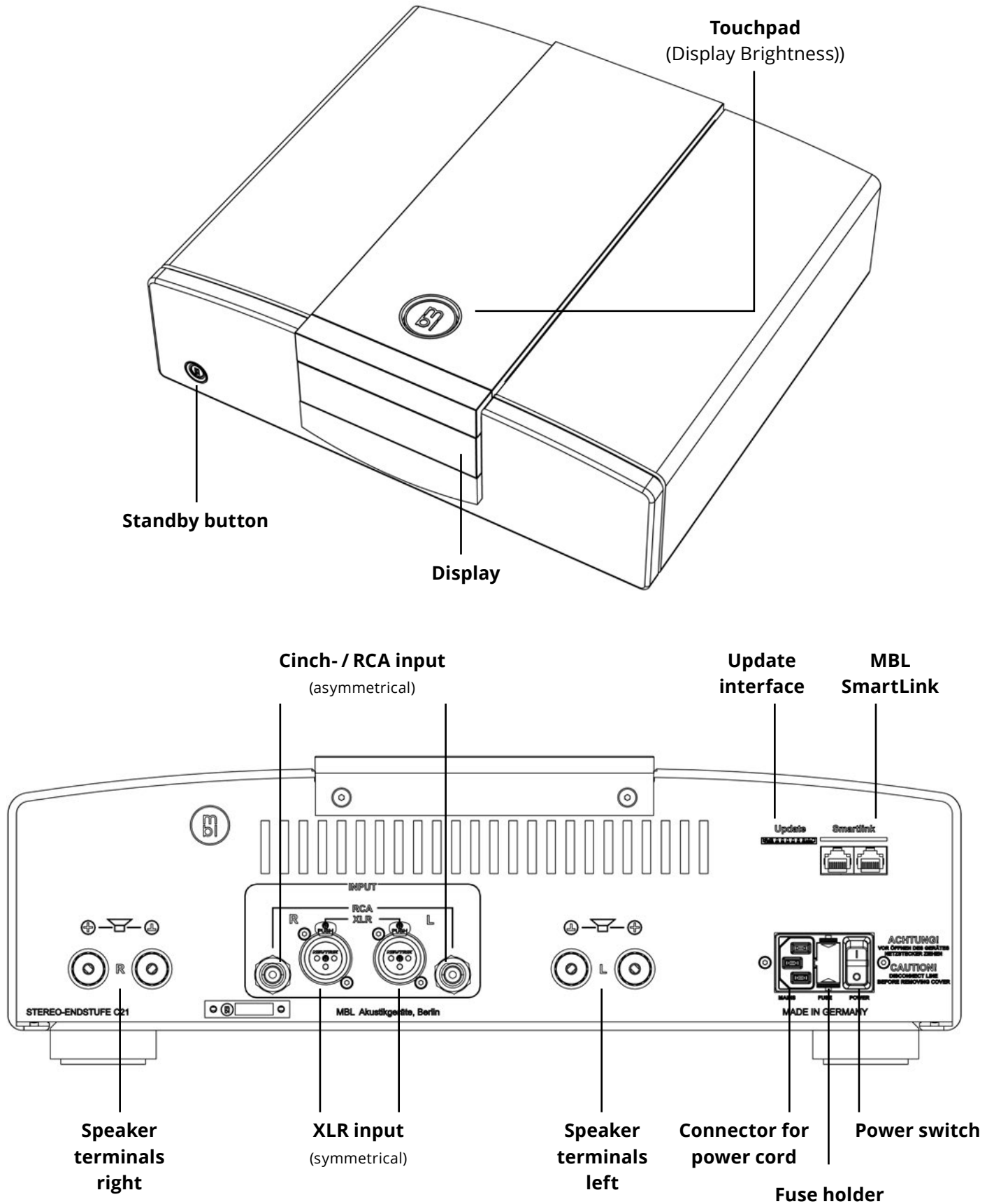
2.2 PREAMPLIFIER C11



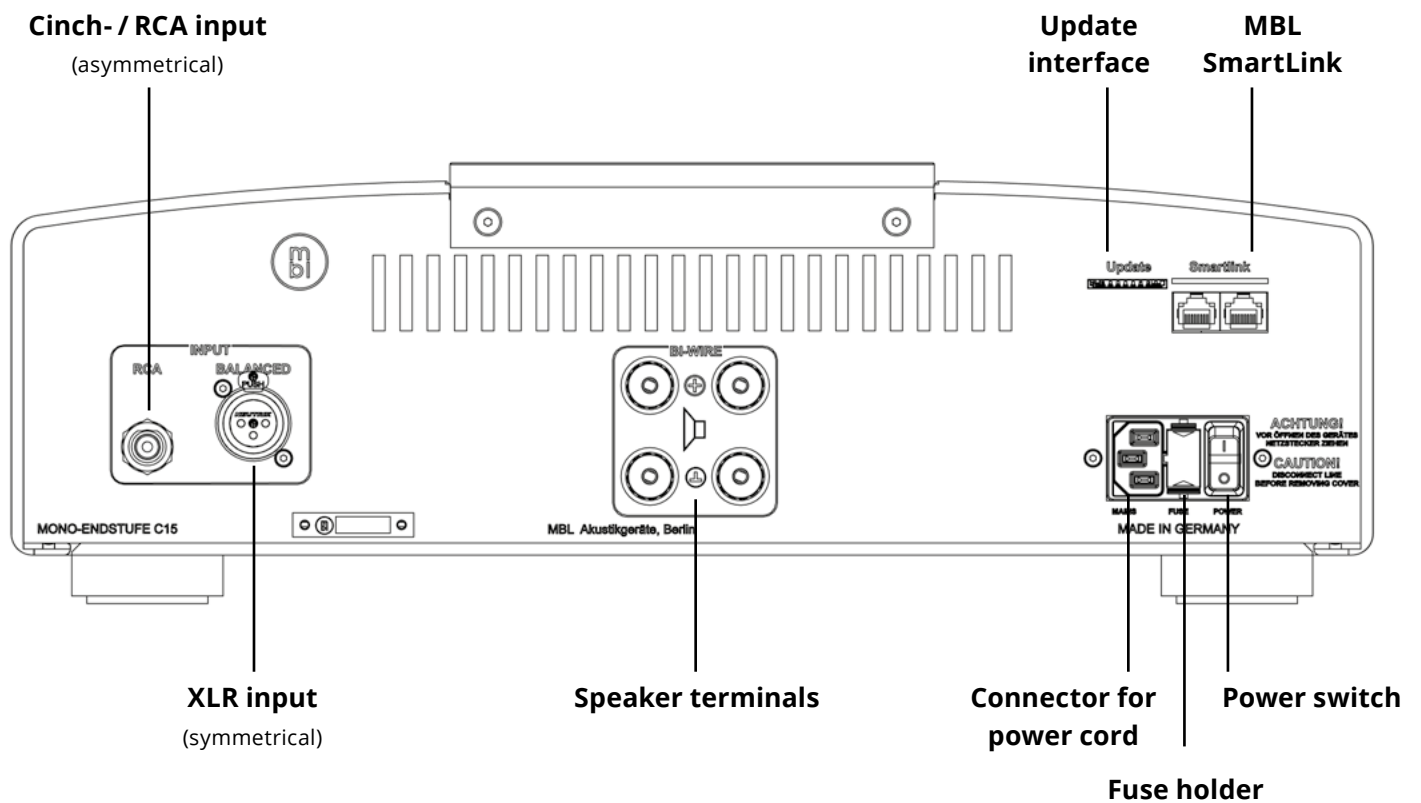
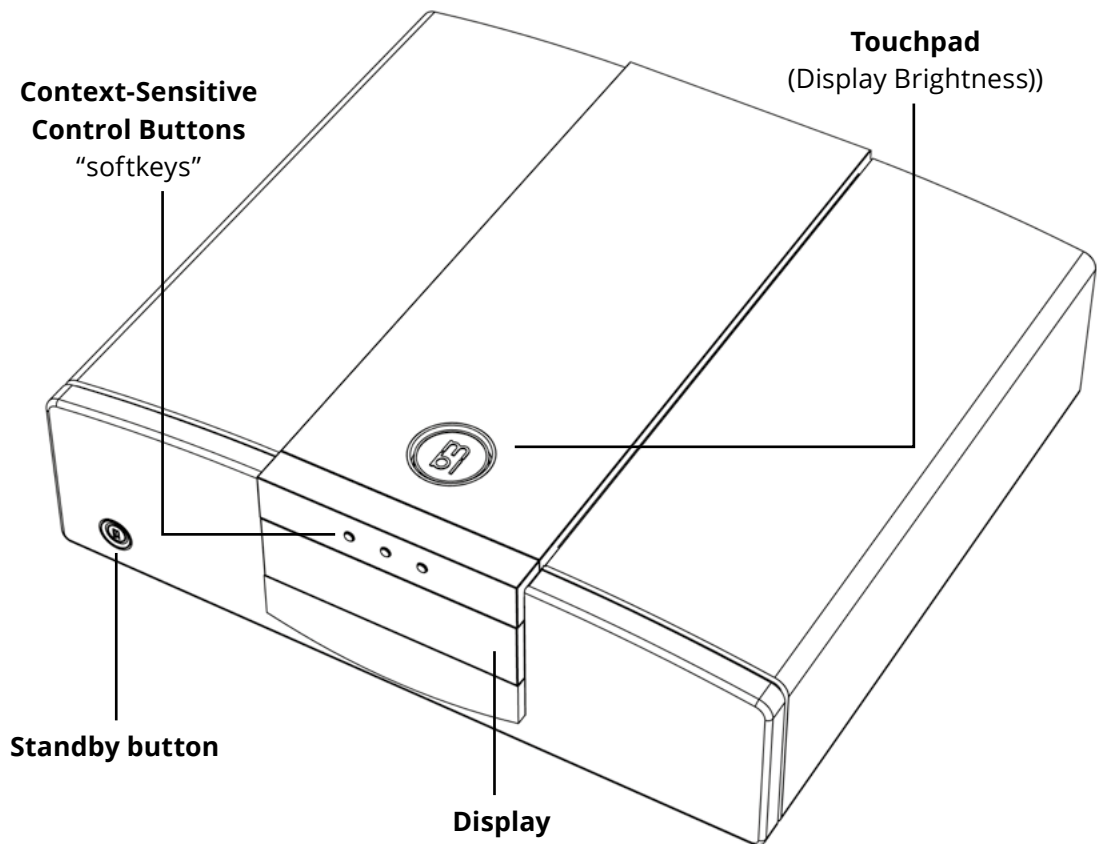
2.3 INTEGRATED AMPLIFIER C51



2.4 STEREO POWER AMPLIFIER C21



2.5 MONO POWER AMPLIFIER C15



3. CONNECTION DIAGRAM

In the following section we take you step by step to ensure correct wiring of the components in your MBL Cadenza Line Stereo System. The Cadenza Line also offers you other wiring set-ups in addition to the recommended installations given here. Your hi-fi dealer will be glad to advise you. **ATTENTION: Unplug the power cord before starting wiring!**

C31
C51

3.1 COMBINATION CD-DAC C31 AND THE INTEGRATED AMPLIFIER C51

As you wish, your CD-DAC may be connected to the integrated amplifier either using cable with Cinch/RCA plugs (asymmetrical or **single-ended** connection) or with XLR plugs (symmetrical or **balanced** connection). For this connection we recommend that you use a single-ended connection through high quality cable terminated with Cinch/RCA plugs.

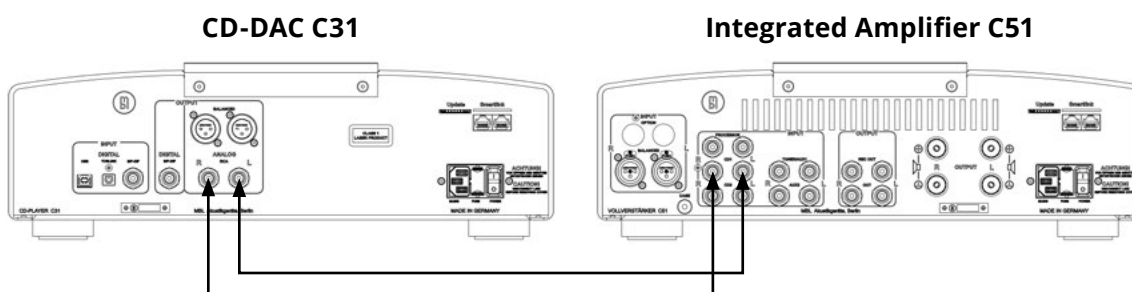
You will need:

- pair of audio interconnect cables, Cinch/RCA terminated
- 1 UTP-CAT 6 cable
- 2 loudspeaker cables!

3.1.1 CONNECTING THE CD-DAC C31 TO THE INTEGRATED AMPLIFIER C51

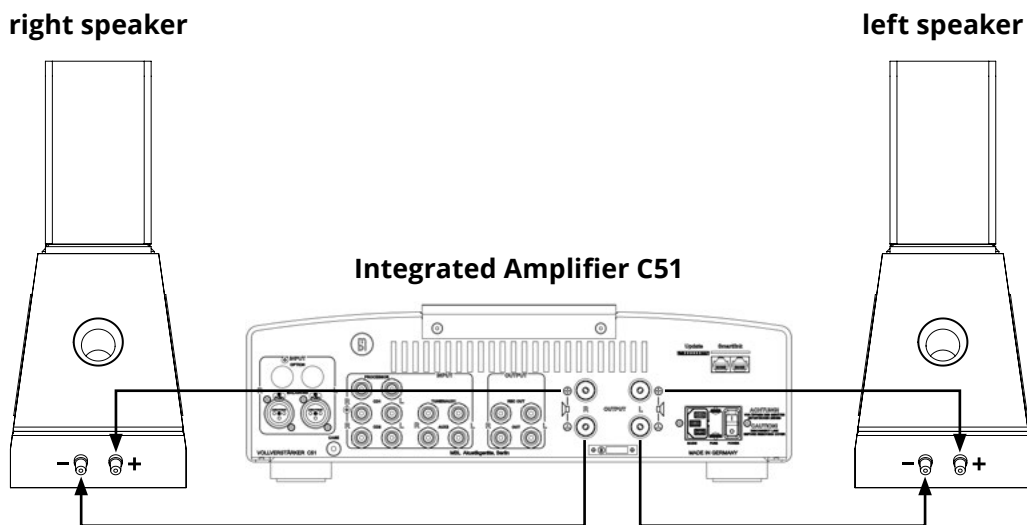
Take the pair of Cinch/RCA cables and connect the **source** end securely to the CD-DAC in the pair of sockets labelled **RCA** in the **Output** group of connections. If the cable features a drawing of a signal direction arrow, secure the cable end in the socket of the CD-DAC whose arrow is pointing away from the CD-DAC.

Secure the other end of the pair of cables in the sockets on the integrated amplifier labelled **CD1** or whichever input you desire. Please ensure that the same channels are connected together in the two devices (right to right; left to left).



3.1.2 WIRING THE LOUDSPEAKERS

Take one of the loudspeaker cables and connect one end to the loudspeaker terminal on the amplifier and the other end with the loudspeaker. If the cable is directional, please follow the direction of the cable so the signal flows away from the amplifier towards the loudspeaker. Please ensure that the red part of the cable is connected to the positive terminal (red) on both the amplifier and the speaker. Please also make sure that the correct loudspeaker (left or right) is connected to the proper terminal (**L** or **R**) on the amplifier. Repeat this procedure with the second loudspeaker cable for the other side connection.



3.2 COMBINATION CD-DAC C31, PREAMPLIFIER C11 AND STEREO POWER AMPLIFIER C21

Your CD-DAC as well as the preamplifier and the stereo power amplifier can be connected either using single-ended cables with Cinch/RCA plugs (asymmetrical or **single-ended** connection), or with cable using XLR plugs (symmetrical or **balanced** connection). Any connection methods may be combined. For both connections we recommend that you use a high quality single-ended cable with Cinch/RCA plugs.

NOTE: The connection between the preamplifier and the stereo power amplifier should consist of either cables with Cinch/RCA plugs or of cables with XLR plugs but NOT of both types together simultaneously. Connections consisting of both types of cable lead to interference and impairment of sound quality.

You will need:

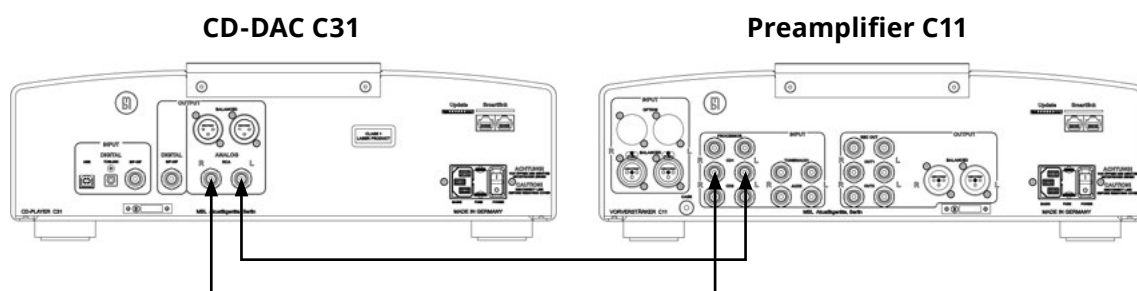
- 2 pairs of audio interconnect cables, Cinch/RCA termination
- 2 UTP-CAT 6 cables
- 2 loudspeaker cables

C31 C11

3.2.1 WIRING THE CD-DAC C31 WITH THE PREAMPLIFIER C11

Take the pair of Cinch/RCA cables and connect the **source** end securely to the CD-DAC in the pair of sockets labelled **RCA** in the **Output** group of connections. If the cable features a drawing of a signal direction arrow, secure the cable end in the socket of the CD-DAC whose arrow is pointing away from the CD-DAC.

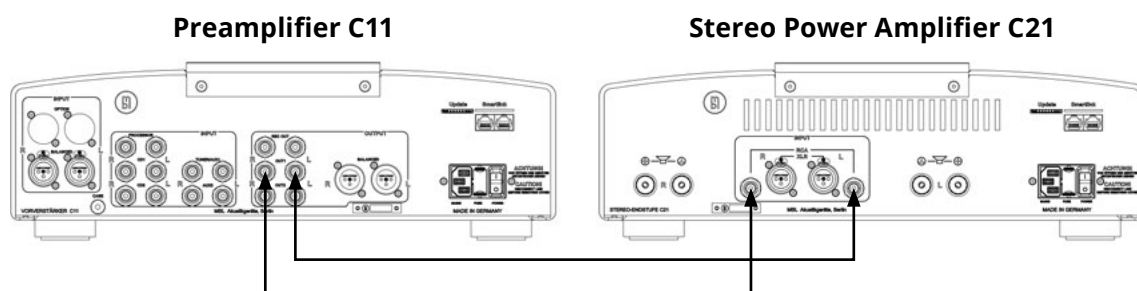
Secure the other end of the pair of cables in the sockets on the preamplifier labelled **CD1** or whichever input you desire. Please ensure that the same channels are connected together in the two devices (right to right; left to left).



C11 C21

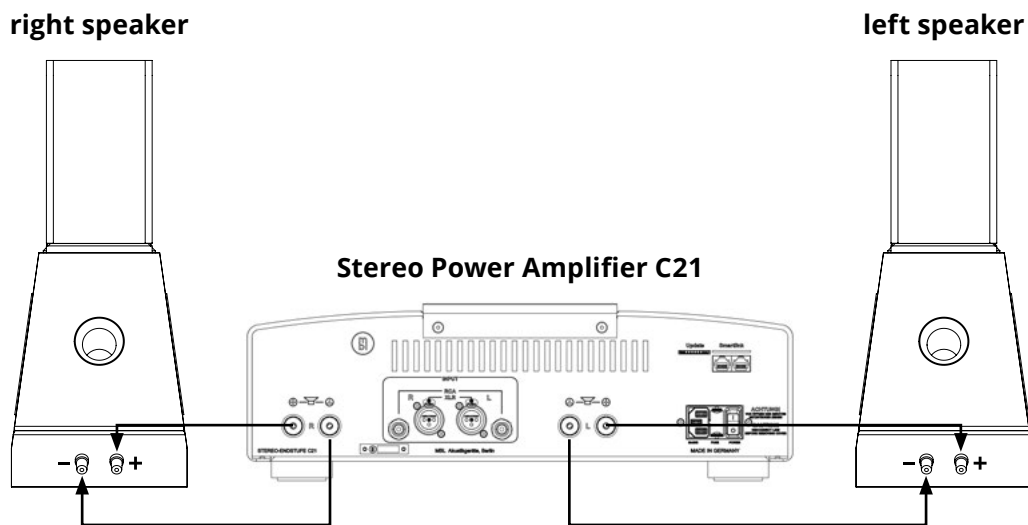
3.2.2 WIRING THE PREAMPLIFIER C11 WITH THE STEREO POWER AMPLIFIER C21

Take the pair of Cinch/RCA cables and connect one end securely to the preamplifier in the pair of sockets labelled **OUT 1**. This time the arrow on the cable (if existing) needs to be pointing away from the preamplifier. Secure the other end of the pair of cables in the input sockets on the stereo power amplifier labelled **RCA**. Please ensure that the same channels are connected together in the two devices (right to right; left to left).



3.2.3 WIRING THE SPEAKERS

Take one of the loudspeaker cables and connect one end to the loudspeaker terminal on the amplifier and the other end with the loudspeaker. If the cable is directional, please follow the direction of the cable so the signal flows away from the amplifier towards the loudspeaker. Please ensure that the red part of the cable is connected to the positive terminal (red) on both the amplifier and the speaker. Please also make sure that the correct loudspeaker (left or right) is connected to the proper terminal (**L** or **R**) on the amplifier. Repeat this procedure with the second loudspeaker cable for the other side connection.



3.3 COMBINATION CD-DAC C31, PREAMPLIFIER C11 AND MONO POWER AMPLIFIER C15

Your CD-DAC as well as the preamplifier and your mono power amplifier can be connected either using single-ended cable with Cinch/RCA plugs (asymmetrical or **single-ended** connection) or with cable with XLR plugs (symmetrical or **balanced** connection). For wiring between the CD-DAC and the preamplifier, we recommend that you use high quality single-ended cable with Cinch/RCA plugs and balanced cable with XLR plugs for wiring the preamplifier and mono power amplifier.

The use of XLR cables is only recommended with cable lengths above 3 meters (10 feet). In this case the amplifiers should be used with the **XLR High** setting as described in chapter 5.3. We recommend RCA cables with short connections. The following example shows the XLR variant.

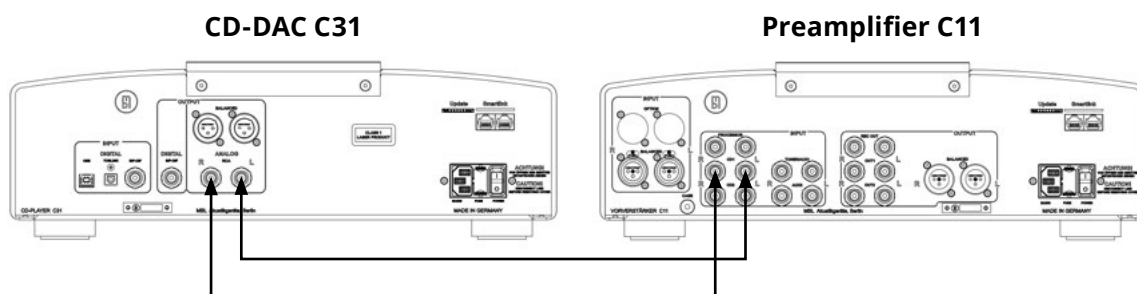
You will need:

- 1 single-ended Cinch/RCA pair of cables
- 1 balanced XLR pair of cables
- 3 UTP-CAT 6 cable
- 2 loudspeaker cables

3.3.1 WIRING THE CD-DAC C31 WITH THE PREAMPLIFIER C11

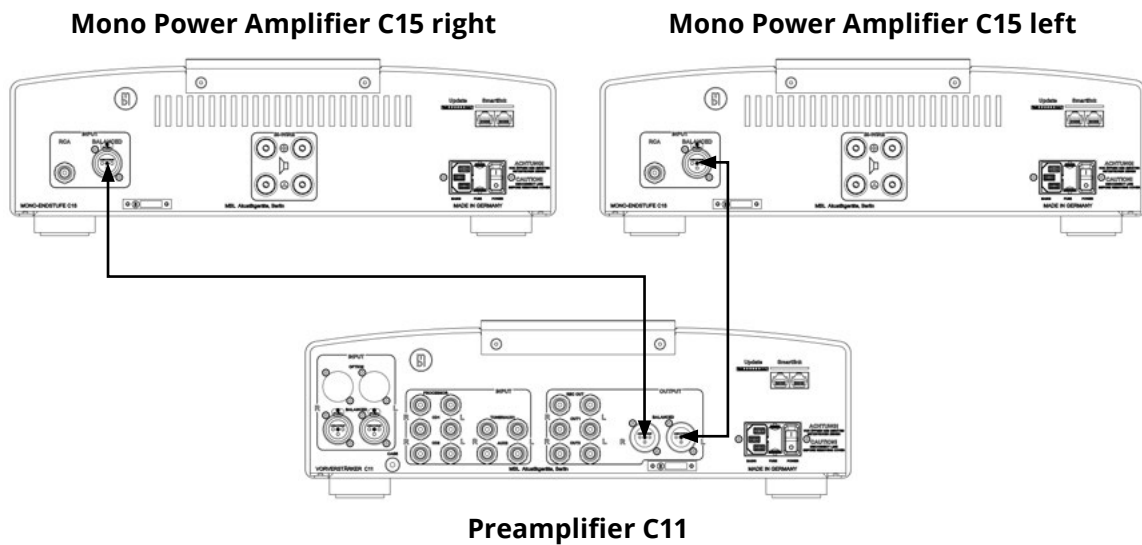
Take the pair of single-ended Cinch/RCA cables and connect one end securely to the CD-DAC in the pair of sockets labelled **RCA**. If the cable is directional and the plug features a drawing of an arrow, secure the cable end in the socket of the CD-DAC whose arrow is pointing away from the CD-DAC.

Secure the other end of the pair of cables in the sockets on the preamplifier labelled **CD1**. Please ensure that the same channels are connected together in the two devices (right to right; left to left).



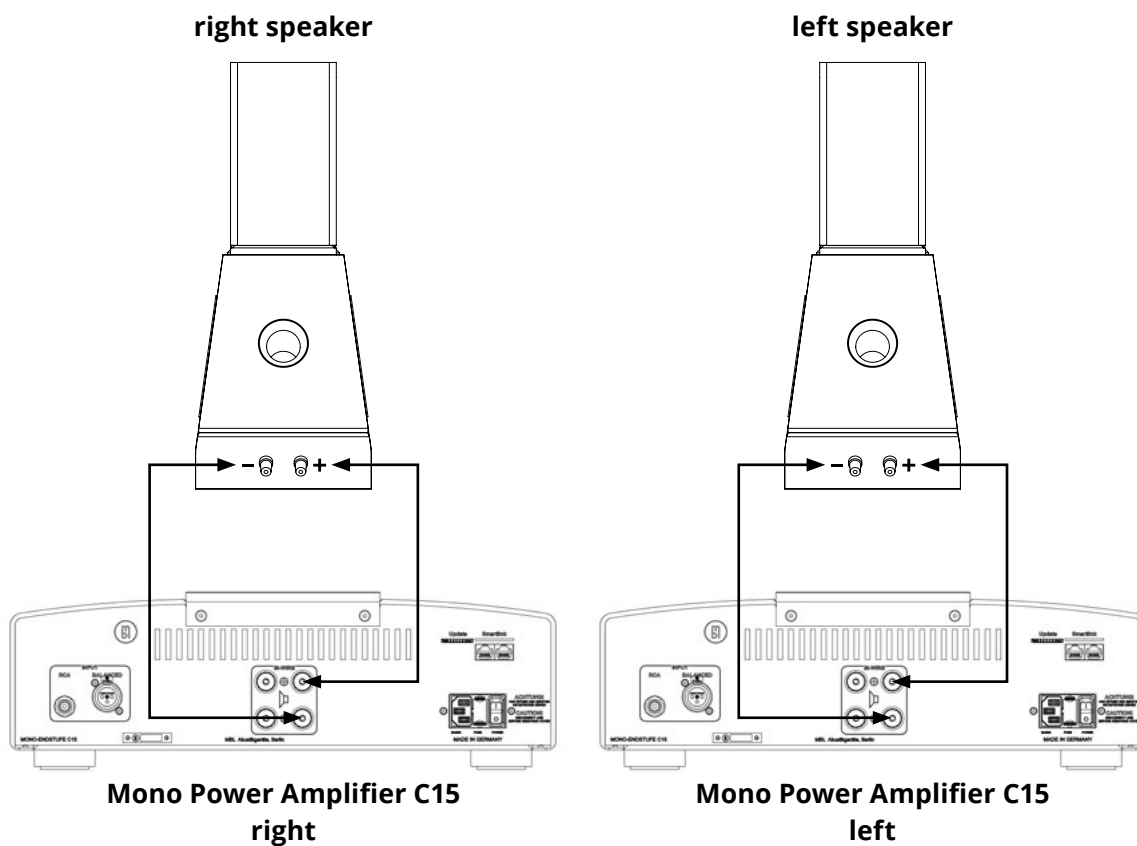
3.3.2 WIRING THE PREAMPLIFIER AND THE MONO POWER AMPLIFIER C15

Take the pair of XLR cables and connect one end securely to the preamplifier in the pair of output sockets labelled **BALANCED** until it clicks into place. The arrow on the cable plug (if featured) must be pointing away from the preamplifier. Secure the other end of the pair of cables in the input sockets on the mono power amplifier labelled **BALANCED**. Please ensure that the same channels are connected together in the two devices (right to right; left to left).



3.3.3 WIRING THE SPEAKERS

Take one of the loudspeaker cables and connect one end to the loudspeaker terminal on the mono power amplifier and the other end with the loudspeaker. If the cable is directional, please follow the direction of the cable so the signal flows away from the amplifier towards the loudspeaker. Please ensure that the red part of the cable is connected to the positive terminal (red) on both the amplifier and the speaker. Please also make sure that the correct loudspeaker (left or right) is connected to the proper (left or right) mono power amplifier. Repeat this procedure with the second loudspeaker cable for the other side.

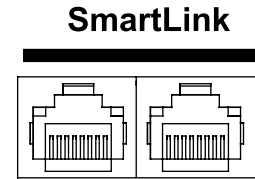


3.4 CONNECTING THE SMARTLINK

All components of the MBL Cadenza Line can be connected to each other via the MBL SmartLink, which allows you to operate the components more easily. This connection allows for example to switch the components on and off at the same time, as well as to adjust the **display brightness** in parallel.

If the CD-DAC C31 is part of an MBL Smart Link chain, the input selection is taken over and controlled by the preamplifier C11 / integrated amplifier C51.

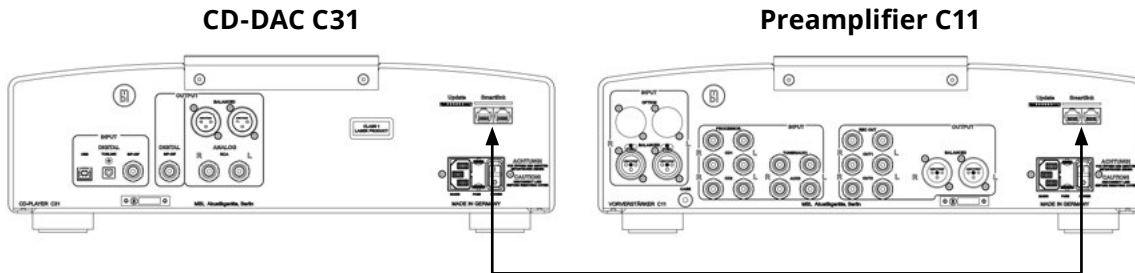
To establish the connection, use the SmartLink connection cable included in the delivery and plug it into the socket labeled SmartLink. The other end of the cable is also plugged into a SmartLink socket on the other component.



Attention: Please make sure that you **do not create a closed circuit** when wiring. **IMPORTANT!**

If you want to switch off a component in the SmartLink network separately (without the other components also switching off), you can do this by pressing and holding the standby button of the respective component.

Despite the SmartLink network, the device displays can also be dimmed separately. To do this, press and hold the touchpad of the respective component for about 2 seconds until it flashes briefly. Now you can dim this component independently of the other components.



3.5 WIRING THE POWER CABLES

Now connect your Cadenza Line devices with the power socket (or multipoint connector) using the power supply cable supplied (or appropriate 3rd party cable), and switch on your devices with the **Power** switch on the rear panel.

When you have completed this stage, your music system is activated and ready for operation. All you have to do now to enjoy music is insert a CD, start the player and select the correct input source on the preamplifier.

We wish you many hours of joy and pleasure with your MBL Cadenza Line music system!

4. GENERAL FUNCTIONS

4.1 TURNING YOUR EQUIPMENT ON AND OFF

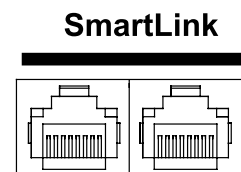
IMPORTANT NOTICE: Before you switch on the device, make sure that it is compliant with the voltage requirements of your country. Voltage requirements are given on the rear panel of the device.

Always make sure that the power switch on the rear panel of the device is fully switched off before adding or removing connections.

Once all the wiring has been properly connected, you can switch on the device by turning on the **Power** switch (on the rear panel).

4.2 MBL SMARTLINK

All the components of the MBL Cadenza Line can be connected to one another using MBL SmartLink cable. This enables interconnected components to exchange various pieces of information. With MBL SmartLink cable, operation of the **Standby** and **Display Brightness** functions applies simultaneously to all devices and there is synchronisation of the selected input source between the CD-DAC and the preamplifier or power amplifier.



4.3 DISPLAY BRIGHTNESS

By activating the touchpad the display may be dimmed in five steps. This setting is transmitted to all MBL devices which are connected via MBL SmartLink (required cable type Cat.5 UTP or Cat.6 UTP).

Hint: When the menu is active, the display cannot be dimmed.

By keeping the touchpad pressed for more than two seconds the device is being removed from the common dim function and the brightness of the display may be adjusted separately. This change of state is indicated by a brief flickering of the touchpad ring. A further longer press of the Touchpad brings the device back to the common dim function. Pressing any standby key of a device within the MBL SmartLink chain switches the complete chain on or off.

4.4 STANDBY

Pressing any standby key of a device within the MBL SmartLink chain switches the complete chain on or off. By pressing the standby button for more than two seconds this device may be switched off or on separately. The next time the MBL SmartLink chain is switched on the device is back in the chain and switched on as well.

4.5 FUNCTION BUTTONS

The control buttons are known as **softkeys**. Their respective functions are shown in a context-sensitive manner in the display beneath the buttons.

5. MENU NAVIGATION

5.1 C31 MENU NAVIGATION

C31

After you switch on the device by pressing the standby button, the standard display is shown.

The upper line of the display shows the currently assigned functions of the soft keys.

Controlling the CD-drive is possible by using the soft keys. The symbol beneath the corresponding softkey shows the available function. You find all of these functions on the supplied remote control as well, see chapter 6. **Remote Control Functions**.

To play a CD, insert it into the slot on the front of the C31 until the CD is transported into the drive. **Important hint:** Just put in regularly shaped CDs, i.e. round ones with 12cm or 8 cm diameter.

To get the CD out of the player, press the **Stop**-button on the remote control when the player is already in stop mode. Should you accidentally have hit the **Stop**-button on the remote control, you can wait another 10 seconds and the CD is drawn into the drive again. Wait for the drive to move out the CD until it stops, then pull out the CD. Should you put in a CD with mp3 content, the player shows one track, but the CD content cannot be played. If the content is of completely incompatible origin (DVD for example), the CD is ejected automatically.

Should you accidentally have put in a CD that is absolutely unreadable or upside down, the display shows **No Disk** and the CD can be ejected by pressing the first soft key for two seconds.

To change the digital input press the middle soft key **In+/Menu**, and the active input is shown in the standard display. In case the C31 is within an MBL SmartLink chain the other inputs are selected via the C11 / C51. To access the menu, press **In+/Menu** for a second or **Menu** briefly, depending on whether the C31 is in the MBL SmartLink chain or not.

5.1.1 MENU

Within the menu two control buttons, ↓ / ↑ on the right side, are used to move the cursor *, **Select** enters the chosen menu point, **Exit** leaves it.

5.1.2 DIM STANDBY

At this point you can adjust the brightness of the ring around the **standby**-button when standby is activated. This setting is sent to all other devices within the MBL SmartLink chain. If the value has been readjusted, and **Exit** has been pressed, further Options appear, **Cancel**, **Discard**, and **Save**. **Save** keeps the change, **Discard** rejects it, and you return to the menu. **Cancel** brings you back to the screen where you can change the value.

5.1.3 INFO

Here you find the firmware version of the device and the serial number.
Exit brings you back to the menu.

5.1.4 FACTORY DEFAULT

Here you can reset the whole device. All changes to the factory default settings will be lost. To start the reset procedure, press the **Execute** button for two seconds.

5.2 C11 / C51 MENU NAVIGATION

After switching on the device by pressing the standby button, the standard display is shown.

By turning the volume control knob the volume can be adjusted. The current value is displayed via bargraph and a number (0...100) next to it.

Below the control buttons (**softkeys**) the currently assigned function of each button is displayed.

Mute switches the speaker outputs off when pressed, and switches them on again when pressed another time.

Amp on/off deactivates the built in amplifier stage so the C51 can be used as preamp only.

Menu shows the menu for further options which can be left by pressing **Exit**.

In- / In+ activates the desired input channel including the inputs of the C31. In case a digital input of the C31 is selected, no functions of the CD-DAC are available.

5.2.1 MENU

Within the menu two control buttons, ↓ and ↑ on the right side, are used to move the cursor *, **Select** enters the chosen menu point, **Exit** leaves it.

5.2.2 INPUT SETUP

Use the control buttons ↓ and ↑ to navigate. The buttons **Enable** and **Disable** activate or deactivate the input channels which shall be shown in the standard display. When the little square next to the input name shows a tick, the input channel is activated. It is not possible to deactivate **CD1**. When the new setting is complete, you leave the screen via **Exit**, then another screen shows up. **Save** saves the new setting, **Discard** rejects it and **Cancel** brings you back to the last shown screen where you can make further alterations.

5.2.3 C31 INPUT MAPPING

Here you can assign the input channel where you want to connect the C31. Default setting is **CD1**, you may choose **CD2** or **SYM**, the symmetrical XLR input, as well. When the new setting is complete, you leave the screen via **Exit**, then another screen shows up. **Save** saves the new input setting, **Discard** rejects it and **Cancel** brings you back to the last shown screen where you can choose another input.

5.2.4 INPUT NAME

At this point you can rename input channels. The character set is capital and small letters, ciphers 0...9, furthermore -/: and a blank. The new name is shown in the standard display, but not within the **Input Setup**, where the factory default name remains. The maximum length of the new name is 8 characters. The new name is generated by tripping one of the two control buttons ↓/↑ until the desired character is shown. After a pause of a second the question mark moves one character to the right, and the procedure starts over. In case of a mistake the last shown character can be erased by pressing the backspace button (arrow to the left). When the new name is complete, you leave the screen via **Exit** and then another screen shows up. **Save** saves the new name, **Discard** rejects it and you get back to the menu. **Cancel** brings you back to the last shown screen where you can continue to change the input name.

5.2.5 VOLUME CUT

You can choose the maximum volume setting when the device is switched on. In case the device has been switched off with the volume adjusted beyond this level, the volume is reset to the chosen volume while the device is being switched on. When the new maximum setting is chosen, you leave the screen via **Exit**, then another screen shows up.

Save saves the new setting, **Discard** rejects it and you return to the menu. **Cancel** brings you back to the last shown screen where you can choose a new maximum value.

5.2.6 DIM STANDBY

At this point you can adjust the brightness of the ring around the **standby**-button when standby is activated. This setting is sent to all other devices within the MBL SmartLink chain. If the value has been readjusted, and **Exit** has been pressed, further Options appear, **Cancel**, **Discard**, and **Save**. **Save** keeps the change, **Discard** rejects it, and you return to the menu. **Cancel** brings you back to the screen where you can change the value.

5.2.7 INFO

Here you find the firmware version of the device as well as the type of an optional input module. **Exit** brings you back to the menu.

5.2.8 FACTORY DEFAULT

Here you can reset the whole device. All changes to the factory default settings will be lost. To start the reset procedure, press the **Execute** button for two seconds.

5.3 C15 MENU NAVIGATION

When you switch on the C15 the first time, the display shows **RCA** beneath the first soft key and **XLR** beneath the third soft key. Please choose the desired input by pressing the corresponding soft key. This input is then activated, this can be changed later if necessary.

In normal operating mode the currently selected input or a deactivation **Amp is off** is shown in the display.

By pressing the first soft key marked **Amp on/off** the supply voltage of the amplifier module is cut off. In this state **Amp is off** is being displayed instead of the input. Pressing the soft key another time brings the amplifier back to normal operating mode.

Important: Please perform changes to the speaker wiring only when the amplifier is in the **Amp is off** mode!

By pressing the soft key **In+** you can toggle between the inputs which are activated in the input setup menu point. Please note that the signal level of **XLR high** is 6 dB higher than the signal level of **XLR**. In the default factory setting **XLR High** is disabled, this can be changed in the input setup menu point.

By pressing the soft key **Menu** you enter the menu display. You return to the normal display by pressing **Exit**.

C11
C51

C15

5.3.1 MENU

You navigate within the menu by pressing the soft key **↑** and pressing **Select** when the cursor ***** is next to the de-sired menu point. To leave the menu point press **Exit**.

5.3.2 INPUT SETUP

Use the right soft key **↑** to navigate. The soft key **Alter** changes the state of the selected input. If there is a tick in the little square, the input is activated.

When the new setting is complete, you leave the screen via **Exit**, then another screen shows up. **Save** saves the new setting, **Discard** rejects it and **Cancel** brings you back to the last shown screen where you can make further alterations.

5.3.3 DIM STANDBY

At this point you can adjust the brightness of the ring around the **standby**-button when standby is activated. This setting is sent to all other devices within the MBL SmartLink chain. If the value has been readjusted, and **Exit** has been pressed, further Options appear, **Cancel**, **Discard** and **Save**. **Save** keeps the change, **Discard** rejects it, and you return to the menu. **Cancel** brings you back to the screen where you can change the value.

5.3.4 INFO

Here you find the firmware version and the serial number of the C15. "Exit" brings you back to the menu.

5.3.5 FACTORY DEFAULT

Here you can reset the C15. All changes to the factory default settings will be lost. To start the reset procedure, press the "Execute" button for two seconds.

6. REMOTE CONTROL

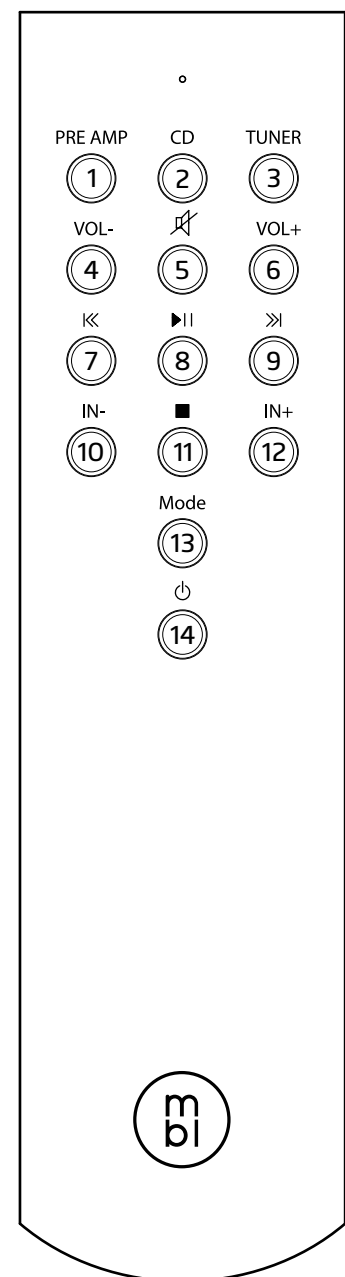
To use the remote control please remove the cover panel by unscrewing it using the supplied screwdriver. Please insert the batteries in the direction shown in the battery case. Then screw the cover panel back in. When changing the batteries, please discard the old batteries in accordance to your country's laws.

All the functions of your MBL Cadenza Line equipment can be activated by the remote control. The table below gives you an overview of the functions assigned to each respective button.

Function	Button
Switch to Amplifier Control Mode	1
Switch to CD-DAC Control Mode	2
Switch to Tuner Control Mode (without function)	3
Decrease Volume	4
Mute	5
Increase Volume	6
Display Brightness	13
Standby / On	14

Amplifier Control Mode	Taste
Input Selection Previous	10
Input Selection Next	12

CD-DAC Control Mode	
Play / Pause	8
Skip to previous title	7 (press briefly)
Fast-backward	7 (press and hold)
Skip to next title	9 (press briefly)
Fast-forward	9 (press and hold)
Shuffle / Repeat / Continuous	10
Stop / Eject Disc	11
Input Selection Only when not connected via MBL SmartLink, otherwise Input Selection via preamp.	12



7. TECHNICAL DATA

7.1 CD-DAC C31

General

Weight	15,5 kg / 34.2 lbs
Dimensions (without cables)	W 45,0 cm / D 42,2 cm / H 14,5 cm W 17.7 in / D 16.6 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 20 VA
Maximum	21 VA (during 'Play')

Digital Inputs

1 x Toslink

Connection	Snap-In-Type
Wavelength	650 nm
Nominal Input Power	10mW
Working input power range	3mW - 30mW
electrically/galvanically Isolated	optically isolated

1 x S/P-DIF

Connection	RCA
Input Impedance	75 Ohm
Nominal Input-Level	0.5 Vpp
Working Input-Voltage Range	0,2 - 5 Vpp
electrically/galvanically Isolated	galvanically isolated

USB Input

Connection	USB Type B
Sampling Frequency	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Mode	MCMI (Master Clock Mode Interface), Asynchronous USB
electrically/galvanically Isolated	galvanically isolated
Operating System Drivers	Natively supported, without any special driver

Digital Outputs

1 x S/P-DIF

Connection	RCA
Output Impedance	75 Ohm
Nominal Output-Level	0.5 Vpp
electrically/galvanically Isolated	galvanically isolated

Analog Outputs

Maximum Output Level	
Unbalanced RCA Out	2 V @ 0 dBFS
Balanced XLR Out	4 V @ 0 dBFS
Output Impedance (RCA / XLR)	100 Ohm / 200 Ohm
Absolute Phase (RCA / XLR)	In-Phase / Pin-2 = In-Phase
Total Harmonic Distortion (THD)	< 0.001% @ 0 dBFS
Signal to Noise Ratio (RCA / XLR)	> 110 dB (A-Weighted) @ 0 dBFS
Channel Separation	> 100 dB @ 1 kHz

CD Section

CD Mechanism	Slot drive, front loader
Media	Standard compact disc (Red Book), 12 cm and 8 cm discs
Formats	CD, CDR, CD-RW (Multi-Read)
Book-Type	CD-DA, CD-Extra, Extended CD, CD-Enhanced
Laser type	780 nm (reads black CDR)
Resolution / Sample Rate	16 Bit / 44.1 kHz (CD-Digital-Audio)
Control Features	Play, Pause, Stop, Skip FW, Skip BW, Repeat One, Repeat All, Shuffle
CD-Text	Album Title, Album Artist, Track Title, Track Artist

DAC Section

Resolution	24 Bit
Sampling Frequencies	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
D/A Converter Type	Multi-Bit Delta Sigma
Jitter Reduction	Digital/Analog Dual Nested PLL for effective jitter reduction
Digital Oversampling Filter	Psychoacoustic optimized filter of 4/5 Minimum Phase and 1/5 Linear Phase
Analog Output Filter	Group Delay Optimized Bessel Filter @ 40 kHz

7.2 PREAMPLIFIER C11

General

Weight	15,5 kg / 34.2 lbs
Dimensions (without cables)	W 45,0 cm / D 44,5 cm / H 14,5 cm W 17.7 in / D 17.5 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 20 VA
Maximum	< 20 VA

Connections

Inputs	
RCA unbalanced	2 x MBL CD1 / CD2 2 x Tuner AUX1 / AUX2 1 x Processor By-Pass
XLR balanced (unity gain)	1 x Symmetrical
Options	1 x optional 2nd Symmetrical In (XLR) or 1 x optional Phono Module (RCA)

Outputs

RCA unbalanced	2 x Variable Out 1 x Fixed Record Out
XLR balanced (double gain)	1 x Variable Out
Other	Ground Terminal
2 x MBL SmartLink	

Specifications

Output Level / Maximum Output

Variable unbalanced RCA Outputs

0 ... 5 V @ 2 V Input, max 8 V
(According to Volume Setting)

Variable balanced XLR Output

0 ... 10 V @ 2 V Input, max 16 V
(According to Volume Setting)

Fixed Record Output

2 V @ 2 V Input, max. 8 V

Nominal / Maximum Input Level

2 V / 8V

(All Inputs except Phono)

Absolute Polarity

In-Phase (RCA / XLR Pin2)

Frequency Range

DC - > 200 kHz

(All Inputs and Outputs except Phono)

Output Impedance

All RCA Outputs

100 Ohm

XLR Output

200 Ohm

Input Impedance

CD and Processor By-Pass Inputs

≥ 5 kOhm

AUX Inputs

50 kOhm

XLR Input

10 kOhm

Signal to Noise Ratio

> 110 dB (A) @ 2 V Input, Volume set to

(All Inputs and Outputs except Phono)

0 dBr / unity gain

Channel Separation

> 100 dB @ 1 kHz

(All Inputs and Outputs except Phono)

Total Harmonic Distortion + Noise

< 0.001 % @ 2V Input / 1kHz, Volume set to

(All Inputs and Outputs except Phono)

0 dBr / unity gain

7.3 INTEGRATED AMPLIFIER C51

General

Weight	23 kg / 50.7 lbs
Dimensions (without cables)	W 45,0 cm / D 45,2 cm / H 14,5 cm W 17.7 in / D 17.5 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 70 VA
Maximum	< 1000 VA (w. 2 x 300 W @ 4 Ohm)

Connections**Inputs**

RCA unbalanced	2 x MBL CD1 / CD2 2 x Tuner AUX1 / AUX2 1 x Processor By-Pass
XLR balanced (unity gain)	1 x Symmetrical
Options	1 x optional Phono Module (RCA)

Outputs

RCA unbalanced	1 x Variable Out 1 x Fixed Record Out
Loudspeaker	1 x pair Loudspeaker Binding Posts
Other	Ground Terminal 2 x MBL SmartLink

Preamplifier Section**Output Level / Maximum Output**

Variable unbalanced RCA Outputs	0 ... 5 V @ 2 V Input, max 1.7 V *1 (According to Volume Setting) *1: Input Voltage for Rated Power
Fixed Record Output	2 V @ 2 V Input, max. 8 V
Nominal / Maximum Input Level (All Inputs except Phono)	2 V / 8V (According to Volume Setting)
Absolute Polarity	In-Phase (RCA / XLR Pin2)
Frequency Range (All Inputs and Outputs except Phono)	DC - > 200 kHz

Output Impedance

All RCA Outputs 100 Ohm

Input Impedance

CD and Processor By-Pass Inputs $\geq 5 \text{ kOhm}$

AUX Inputs 50 kOhm

XLR Input 10 kOhm

Signal to Noise Ratio $> 110 \text{ dB (A) @ 2 V Input, Volume set to}$

(All Inputs and Outputs except Phono) 0 dBr / unity gain

Channel Separation $> 100 \text{ dB @ 1 kHz}$

(All Inputs and Outputs except Phono)

Total Harmonic Distortion + Noise $< 0.001 \% @ 2 \text{ V Input / 1 kHz, Volume set to}$

(All Inputs and Outputs except Phono) 0 dBr / unity gain

Power Amplifier Section

Rated Power

Stereo 4 Ohm 2 x 300 W

Stereo 8 Ohm 2 x 180 W

Stereo 2 Ohm 2 x 400 W

Peak Output Voltage 62 Vp

Peak Output Current 20 Ap

Input Sensitivity (RCA / XLR) 100 mV for 1 W @ 4 Ohm

Rated Input Voltage (RCA / XLR) 1.70 V for 300 W @ 4 Ohm

Voltage Gain 20 (26 dB)

Absolute Polarity In-Phase

Signal / Noise Ratio @ Rated Output 122 dB (A) @ 300 W / 4 Ohm

Signal / Noise Ratio @ 1 Watt 98 dB (A) @ 1 W / 4 Ohm

Equivalent Input Noise 124 dB (A) @ 2 V Input

Frequency Response $< 10 \text{ Hz} - 45 \text{ kHz}$

Distortion THD+N Typ. 0.01 % @ 3 W from 20 Hz ... 20 kHz

Damping Factor $> 100 (40 \text{ dB}) @ 1 \text{ kHz / 4 Ohm}$

Channel Separation $> 90 \text{ dB @ 1 kHz}$

7.4 STEREO POWER AMPLIFIER C21

General

Weight	22 kg / 48.5 lbs
Dimensions (without cables)	W 45,0 cm / D 42,7 cm / H 14,5 cm W 17.7 in / D 16.8 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 70 VA
Maximum	< 1000 VA (w. 2 x 300 W @ 4 Ohm)

Connections

Inputs	1 x RCA In, unbalanced 1 x XLR In, balanced
Outputs	1 pair Loudspeaker Binding Posts
Other	2 x MBL SmartLink

Specifications

Rated Power	
Stereo 4 Ohm	2 x 300 W
Stereo 8 Ohm	2 x 180 W
Stereo 2 Ohm	2 x 400 W
Peak Output Voltage	62 Vp
Peak Output Current	20 Ap
Input Impedance (RCA / XLR)	9 kOhm/ 18 kOhm
Input Sensitivity (RCA / XLR)	100 mV / 200 mV for 1 W @ 4 Ohm
Rated Input Voltage (RCA / XLR)	1.7 V / 3.4 V for 300 W @ 4 Ohm
Voltage gain (RCA / XLR)	20 (26 dB) / 10 (20 dB)
Absolute Polarity	In-Phase (RCA / XLR Pin 2)
Signal / Noise Ratio @ Rated Output	124 dB (A) @ 300 W / 4 Ohm
Signal / Noise Ratio @ 1 Watt	100 dB (A) @ 1 W / 4 Ohm
Equivalent Input Noise - RCA	126 dB (A) @ 2 V Input
Equivalent Input Noise - XLR	126 dB (A) @ 4 V Input
Frequency Response	< 10 Hz – 45 kHz
Distortion THD+N	Typ. 0.01 % @ 3 W from 20 Hz ... 20 kHz
Damping Factor	> 100 (40 dB) @ 1 kHz / 4 Ohm
Channel Separation	> 100 dB @ 1 kHz

7.5 MONO POWER AMPLIFIER C15

C15

General

Weight	22 kg / 48.5 lbs
Dimensions (without cables)	W 45,0 cm / D 42,7 cm / H 14,5 cm W 17.7 in / D 16.8 in / H 5.7 in
Dimensions with packaging	W 59,0 cm / D 54,0 cm / H 35,5 cm W 23.2 in / D 21.3 in / H 21.9 in
Line Voltage	230 Vac / 50 Hz or 115 Vac / 50/60 Hz (single voltage, factory setting depending on country)
Power consumption	
in stand by	< 0.5 VA
in idle	< 50 VA
Maximum	< 900 VA (w. 1 x 500 W @ 4 Ohm)

Connections

Inputs	1 x RCA In, unbalanced 1 x XLR In, balanced (XLR H) / unbalanced (XLR L)
Outputs	2 pairs Loudspeaker Binding Posts
Other	2 x MBL SmartLink

Specifications

Rated Power	
Mono 4 Ohm	500 W
Mono 8 Ohm	280 W
Mono 2 Ohm	> 500 W
Peak Output Voltage	85 Vp
Peak Output Current	36 Ap
Input Impedance (RCA / XLR L / XLR H)	10 kOhm / 20 kOhm / 20 kOhm
Input Sensitivity (RCA / XLR L / XLR H)	100 mV / 200 mV / 100 mV for 1 W @ 4 Ohm
Rated Input Voltage (RCA / XLR L / XLR H)	2.20 V / 4.40 V / 2.20 V for 500 W @ 4 Ohm
Voltage gain (RCA / XLR L / XLR H)	20 (26 dB) / 10 (20 dB) / 20 (26 dB)
Absolute Polarity	In-Phase (RCA / XLR Pin 2)
Signal / Noise Ratio @ Rated Output	127 dB (A) @ 500 W / 4 Ohm
Signal / Noise Ratio @ 1 Watt	100 dB (A) @ 1 W / 4 Ohm
Equivalent Input Noise - RCA	126 dB (A) @ 2 V Input
Equivalent Input Noise - XLR	126 dB (A) @ 2 V Input
Frequency Response	< 10 Hz – 50 kHz
Distortion THD+N	Typ. 0.01 % @ 5 W from 20 Hz ... 20 kHz
Damping Factor	> 100 (40 dB) @ 1 kHz / 4 Ohm

Änderungen an Design und technischen Daten sind ohne Vorankündigung vorbehalten.

8. FIRMWARE UPDATE

Your Cadenza Line device features an interface that enables simple and uncomplicated updating of the device's software (Firmware) using a standard SD card.

If you wish to update your device's software, please contact the dealer from whom you purchased the device.

9. CLEANING YOUR EQUIPMENT

Prior to cleaning, disconnect the unit from the power supply!

Clean the housing of the unit with a dry, soft cloth. To remove fingerprints and other grease spots, use a soft cloth moistened with mild soapy water.

Caution! The cloth used for cleaning must **never be dripping wet!** Water or other liquids that get into the housing may seriously damage the unit.

Never use a scrub sponge, steel wool, scouring agents or aggressive chemical cleansing agents. Avoid contact of the appliance with alcohol, diluting agents, benzine, insecticides or other volatile substances. They will destroy the housing lacquer!