

*Burmester*

## **OWNER'S MANUAL**

PHASE 3 ALL-IN-ONE



LIFESTYLE

Dear Music Enthusiast,

congratulations on your selection and thank you for your trust.

You have chosen a product that combines absolute fidelity and uncompromising quality with technical innovation and maximum flexibility.

Please read through these operating instructions at least once before initially installing the product so you can fully benefit from all the functions of this truly high-fidelity device. Should any of your questions remain unanswered, please contact your specialist dealer or us directly.

Talk to us about any special requests you may have - even if they seem exceptional. We love accepting technically feasible challenges.

We wish you many hours of high-fidelity listening.

The Burmester Team

iPad® is a registered trademark of Apple® Inc., registered in the U.S.A. and other countries.  
HIGHRESAUDIO is a registered trademark.

Using third-party services (Internet radio, music streaming services) with the Phase 3 is subject to any terms of use of those suppliers, as well as technical requirements for the user such as Internet access and service availability over which Burmester Audiosysteme GmbH has no control.

Software version 3.20

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## A BRIEF OVERVIEW OF THE 161?

The 161 All-in-One combines several premium audio components into one unit, providing multiple options for highest-quality reproduction of music.

### **Sophisticated Analog Circuit Engineering**

The 161 has been designed in its entirety using sophisticated analog circuitry. The signal path – front to back DC-coupled without distorting coupling capacitors – guarantees precise bass reproduction because there is no phase shift in the audible range.

### **CD drive**

Play music from a CD or use it to rip CDs to the internal hard disk.

### **Internal hard disk**

Offers a memory capacity of three terabytes and optimizes the sound quality during the ripping process.

If the device is connected to the Internet the CD cover art as well as information on album content and artist are automatically downloaded and saved to the library.

Select music for replay from the library by track, by artist, album or genre or by using the search function.

### **Home network**

Connect the 161 to your home network. Thanks to the DLNA/UPnP standard it has access to the musical content stored on other devices on the same network and can stream content to other devices on the same network. This could be a another Phase 3, Burmester Musiccenter or UPnP/DLNA server on the net

### **Music streaming, Music download and Internet radio<sup>1</sup>**

With an existing Internet connection, you may stream high-resolution music from **TIDAL**, download high-resolution music from **HIGHRESAUDIO** and access a variety of Internet radio stations.

### **Using the iPad® app**

Conveniently control the device with an Apple iPad® using the free BurmesterMC app:

- Select the signal source.
- Start ripping a CD to memory.
- Scroll through the covers of saved albums or display information on album contents and artists.
- Export songs to a USB stick.
- Create and play playlists.

### **Operation using a web browser**

Even without an iPad® you can access the device using any standard web browser. In addition to selecting albums, tracks or playlists for playback the web browser interface offers a variety of other functions:

- Import audio files in the formats flac, m4a, aif, wav, mp3, aac, ogg and dsd.
- Edit album and track information.
- Call up device-specific information
- Change device settings.

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<sup>1</sup> Connecting to the Internet and downloading music may result in usage-dependent cost.

## ABOUT THESE OPERATING INSTRUCTIONS

These operating instructions describe the set-up, connection, and operation of your 161 (Software-Version 3.20).

To use all the functions of the 161 you will need either an Apple iPad® with the free BurmesterMC App installed or any computer (PC, Tablet, Mac) with a Web browser (iPad® or computer are not included). How to use the App or a Web browser to control the device will be explained in separate manuals.

**Please note the following:**

- ▶ Read and follow the information given, in particular the safety information and warnings.
- ▶ Save these operating instructions.

### Used symbols and characters

✓	<b>Requirement</b> Designates a requirement which must be fulfilled before a subsequent action can be taken.
▶	<b>Action step</b> Designates an individual action step.
1. 2. 3.	<b>Sequence of actions</b> Designates a sequence of action steps which have to be performed in the given order.
↪	<b>Result</b> Designates the outcome of an action.

### Meaning of warning symbols and words

This document uses the following warning symbols and words:

	The general danger symbol, in conjunction with the warning words CAUTION, WARNING, and DANGER, serves to warn against the risk of severe injuries. Follow all subsequent instructions to avoid injury or death.
	The lightning symbol, in conjunction with the warning word DANGER, serves to warn against a lethal electrical voltage.
<b>ATTENTION</b>	The warning word ATTENTION indicates a danger that can lead to damage to or destruction of the device.
<b>CAUTION</b>	The warning word CAUTION indicates a danger that poses a low or medium risk of injury.
<b>WARNING</b>	The warning word WARNING indicates a danger that can lead to death or severe injuries.
<b>DANGER</b>	The warning word DANGER indicates a danger which can directly lead to death or severe injury.

# IMPORTANT SAFETY INFORMATION

## Opening the device

Do not open the device. The device does not contain any parts that can be maintained by the user. Fuses inside the device may only be replaced by authorized staff, such as your specialist dealer.

## Power supply

Use the supplied 3-wire power cord for power supply. The protective earth contact must not be rendered ineffective. Furthermore, the device may only be connected to an outlet with a functioning protective conductor connection.

The device has a power supply unit that automatically adjusts to the power supply. As a result, the device can be operated with all common power supplies.

Lay the power cord in a way that prevents it from being damaged. Do not use a damaged power cord. Instead, switch the device off and contact your specialist dealer.

## Disconnecting the device from the power supply

To disconnect the Phase 3 from the power supply completely, use the easy-to access mains switch on the rear panel. After doing so, please disconnect the plug of the power cord from the device.

## Placing the 161

When selecting an installation location, please note the following:

- Avoid direct sunlight, excessive heat, cold, moisture, and dust.
- Do not expose the device to dripping water or spray water and do not place any containers holding liquids on your device.
- Do not place any open ignition sources, such as burning candles, on the device.
- Please make sure that the device has sufficient ventilation. Do not place the device in a closed cabinet.
- Slots and openings on the device serve as a means of ventilation. They must not be covered.

## Operation during thunderstorms

During thunder and lightning storms, disconnect the device from the power supply by unplugging the power cord from the unit or from the power socket. Switching off the mains switch on the rear panel of the device is not sufficient. For good measure, also disconnect all connected components from the power supply.

## UNPACKING THE 161

### CAUTION

#### Heavy device

The device is very heavy and may cause injury if it falls.

- ▶ The device should only be unpacked and set up by individuals who are experienced in handling heavy loads.
- ▶ Allow a second person to help you during unpacking and set-up if need be.
- ▶ Pay attention to any possible sharp edges.

### Unpacking the 161

1. Place the box on the floor and carefully remove the device and its accessories
2. Place the device on a stable, level surface.
3. Protect the device from heat and humidity.
4. Connect the device as described in the following chapters.

### What's in the box?

The following items are supplied:

- 161 All-in-One mounted on stand
- 2 screw-on antennas for Wi-Fi reception
- Power cord
- Remote control
- Special tool
- 2 XLR-RCA adapters
- Operating instructions: Owner's Manual for the 161, Instructions for Operation via the iPad® App, Instructions for Operation via a Web browser

### Set-up

Carefully remove the device from the transportation packaging and place it in a suitable location. When selecting a location for set-up, ensure sufficient ventilation and avoid direct sunlight, dust, and humidity to protect the device from overheating.

Make sure that the set-up location is stable enough to support the weight of the device.

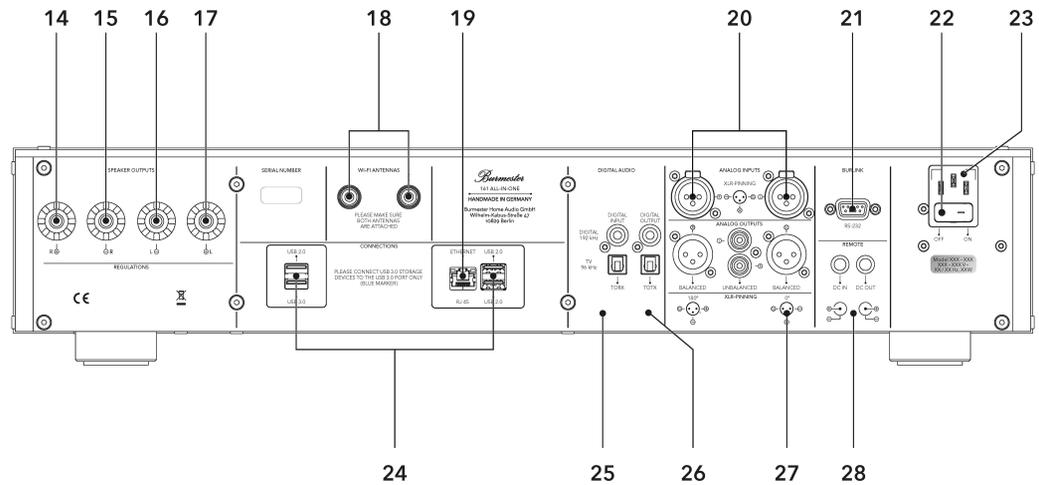
Slots and openings on the device serve as a means of ventilation. They must not be covered by magazines, tablecloths, curtains, etc.

When operating the device in extremely warm environments, additional ventilation must also be ensured. Avoid operating the device in extremely humid environments, for example in a bathroom.

The IR receiver receives the signals from the remote control and should not be covered by objects.

# THE DEVICE AT A GLANCE

## Back side



14	<b>Right speaker output, positive</b> Right channel, positive connection (+)
15	<b>Right speaker output, negative</b> Right channel, negative connection (-)
16	<b>Left speaker output, negative</b> Left channel, negative connection (-)
17	<b>Left speaker output, positive</b> Left channel, positive connection (+)
18	<b>Wi-Fi antenna sockets</b>
19	<b>Ethernet connector</b>
20	<b>Analog input: 1 x balanced</b>
21	<b>BURLINK interface</b>
22	<b>Power switch</b>
23	<b>Mains socket</b>
24	<b>USB ports: 3 x USB 2.0, 1 x USB 3.0 (blue)</b>
25	<b>Digital Inputs: 1 x TOSLINK, 1 x RCA</b>
26	<b>Digital Outputs: 1 x TOSLINK, 1 x RCA</b>
27	<b>Analog Outputs: 1 x balanced, 1 x RCA</b>
28	<b>Remote out- and input</b>

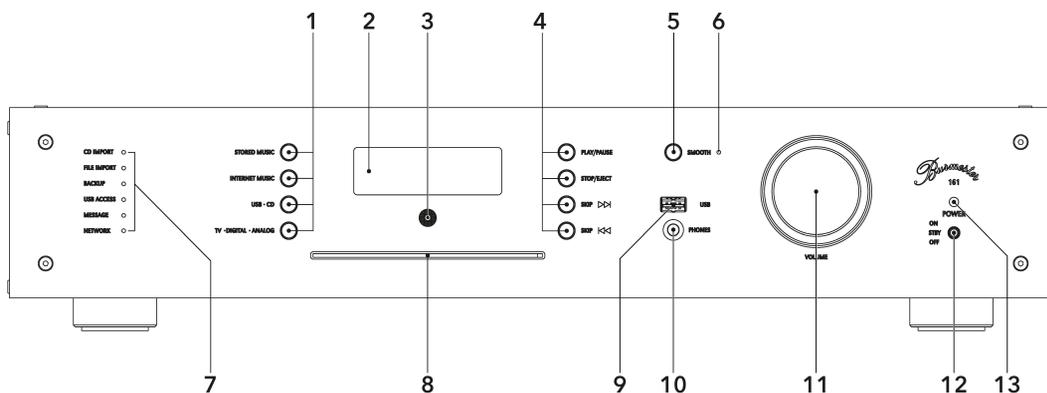


This symbol on your device indicates that you can find important information in the operating instructions.



This symbol combination on your device warns of the danger of an electrical shock when touching the terminals. During operation, they can carry dangerous voltages.

## Front side

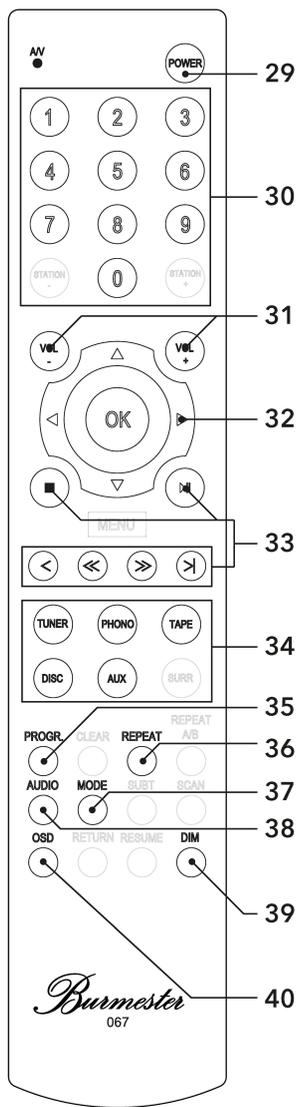


<b>1</b>	<p><b>Left bank of buttons for signal source selection</b> The selected signal source is shown on the display.</p> <ul style="list-style-type: none"> <li>• <b>STORED MUSIC:</b> Playback of internally stored music.</li> <li>• <b>INTERNET MUSIC:</b> Selects Internet radio or, by pressing again, TIDAL as source (if TIDAL has been configured for this device).</li> <li>• <b>USB-CD:</b> Selects sequentially the USB port or the CD as source.</li> <li>• <b>TV-DIGITAL-ANALOG:</b> Selects sequentially the TV input, the digital input or the analog input as source..</li> </ul>
<b>2</b>	<p><b>Display</b></p>
<b>3</b>	<p><b>Infrared receiver</b> The IR receiver receives the remote control signals. Do not place objects in front of the receiver.</p>
<b>4</b>	<p><b>Right bank of buttons to operate all sources</b></p> <ul style="list-style-type: none"> <li>• <b>PLAY/PAUSE:</b> Starts or pauses playback at the current position.</li> <li>• <b>STOP/EJECT:</b> Stops playback.</li> <li>• <b>SKIP &gt;&gt;I:</b> Playback skips to the next title.</li> <li>• <b>SKIP I&lt;&lt;:</b> Playback skips to the previous track or the beginning of the track currently playing. With Internet radio, playback skips to the next or previous station on the list.</li> </ul>
<b>5</b>	<p><b>SMOOTH button</b> Pressing the button turns the Smooth function on or off.</p>
<b>6</b>	<p><b>LED (SMOOTH)</b> Shows if the Smooth function is activated.</p>

<b>7</b>	<p><b>LED display</b></p> <ul style="list-style-type: none"> <li>• <b>CD IMPORT:</b> Indicating transfer of data from CD to hard disk.</li> <li>• <b>FILE IMPORT:</b> Indicating import of file via web interface.</li> <li>• <b>BACKUP:</b> Your music data is being backed up or restored.</li> </ul> <p><b>CAUTION:</b> Do not switch the device off if any of these 3 LEDs is lit.</p> <ul style="list-style-type: none"> <li>• <b>USB ACCESS:</b> A USB device is connected and has been detected.</li> <li>• <b>MESSAGE:</b> A message is present. Messages can be called up via the web interface or an iPad®.</li> <li>• <b>NETWORK:</b> A connection to the network has been established.</li> </ul> <p>The colors indicate:</p> <ul style="list-style-type: none"> <li>- <b>Red</b> = No network available.</li> <li>- <b>Orange</b> = The device has been assigned an IP address or is in stand-alone mode.</li> <li>- <b>Green</b> = A connection to the Internet has been established.</li> </ul>
<b>8</b>	<b>CD drive</b>
<b>9</b>	<b>USB port</b>
<b>10</b>	<b>Headphone output</b>
<b>11</b>	<p><b>Volume control</b></p> <p>Turning the control changes the volume.</p>
<b>12</b>	<p><b>ON/OFF switch (POWER)</b></p> <ul style="list-style-type: none"> <li>• <b>ON:</b> Briefly pushing the switch upward turns the device on. The switch returns to the center position. The LED lights up in red. Pushing the switch upward again returns the device to standby mode.</li> <li>• <b>STBY:</b> The switch is in the center position. The device is in stand-by mode and can be switched on using the remote control. The LED lights up in orange.</li> <li>• <b>OFF:</b> The switch is in the down position. The device is switched off. It cannot be switched on with the remote control. The LED is not lit.</li> </ul>
<b>13</b>	<p><b>LED (operation/standby)</b></p> <ul style="list-style-type: none"> <li>• LED lights up in orange: the device is in standby mode.</li> <li>• LED lights up in red: the device is turned on.</li> </ul>

## The remote control

The supplied remote control allows the control of the devices’s playback functions. Advanced options are available from the optional iPad® app and the web interface and are described in more detail in the separately enclosed instructions.

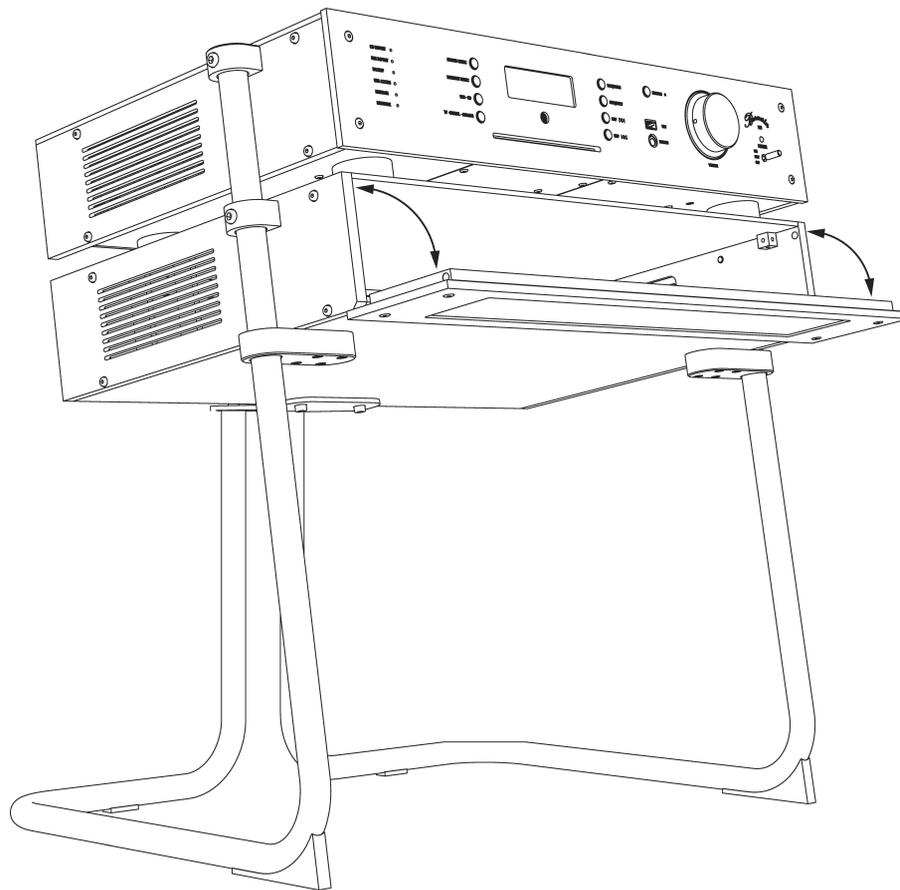


29	<b>Power on/off</b> Power on the Phase 3 or set it to stand-by mode.
30	<b>Number keys</b> Enter numbers to display device settings (see OSD) and to select a track directly.
31	<b>Change the volume</b>
32	<b>Change information on the display</b>
33	<b>Playback control:</b> <ul style="list-style-type: none"> <li>■ Stop playback.</li> <li>▷   Start playback or pause ongoing playback.</li> <li>K CD, Player, TIDAL: Skip to the beginning of the track currently playing. Pressing twice skips to the previous track. Internet radio: Navigate between stations in the station list.</li> <li>◀◀ Move playback back by 10 seconds. Internet radio: Not assigned</li> <li>▶▶ Move playback forward by 10 seconds. Internet radio: Not assigned</li> <li>⏭ CD, Player, TIDAL: Skip to the next track. Internet radio: Navigate between stations in the station list.</li> </ul>
34	<b>Sources:</b> <ul style="list-style-type: none"> <li>TUNER Selects Internet radio or, if pressed again, TIDAL as signal source.</li> <li>PHONO Selects the analog input as source.</li> <li>TAPE Playback of internally stored music.</li> <li>DISC Selects sequentially USB or CD as source.</li> <li>AUX Switches sequentially between TV input and digital inputs.</li> </ul>
35	<b>Shuffle</b>
36	<b>Repeat</b>
37	<b>Smooth</b>
38	<b>AUDIO</b> Switch between 96 kHz and 192 kHz sampling frequency.
39	<b>DIM</b> dims the Display.
40	<b>OSD</b> Display and change device settings. <ul style="list-style-type: none"> <li>▶ To display device settings, first press the <b>OSD</b> button and then enter one of the following codes using the <b>number keys</b> on the remote control: <ul style="list-style-type: none"> <li>- 1 - 1 - 1: IP address and MAC address</li> <li>- 2 - 2 - 2: Serial number and device versions (see page 33)</li> <li>- 2 - 5 - 8: Perform a firmware update (see page 33)</li> <li>- 7 - 8 - 9: Switch between standard, Wi-Fi and stand-alone mode (see page 21)</li> </ul> </li> </ul>

## ADDITIONAL COMPARTMENT

In addition, there is a separate compartment underneath the unit where you can place devices, such as a set-top box or a satellite receiver, without changing the appearance of the system. The front of the compartment is made of a special glass, which does not affect infrared signals. As a result, a device stored here can be controlled through the glass via its remote control without any problems.

### Opening and closing the compartment:



**Note:** The compartment is held shut by magnets.

# INSTALLING THE DEVICE

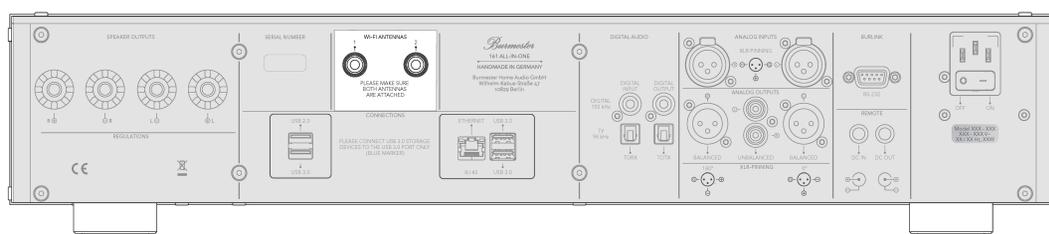
## Connecting the Wi-Fi antennas

The Wi-Fi antennas are required to connect a computer (iPad®, tablet, Mac, PC) to the device via Wi-Fi.

ATTENTION

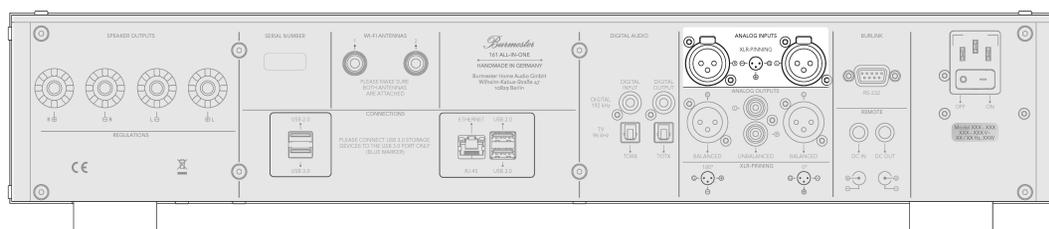
**Damage due to missing or incorrect connection**  
**Not connecting the antennas could damage the Wi-Fi unit. Tightening the antennas too tightly could damage the connections.**

- ▶ Always mount both antennas, even if you don't use Wi-Fi.
- ▶ Only tighten the screw base finger-tight. Do not use a tool.



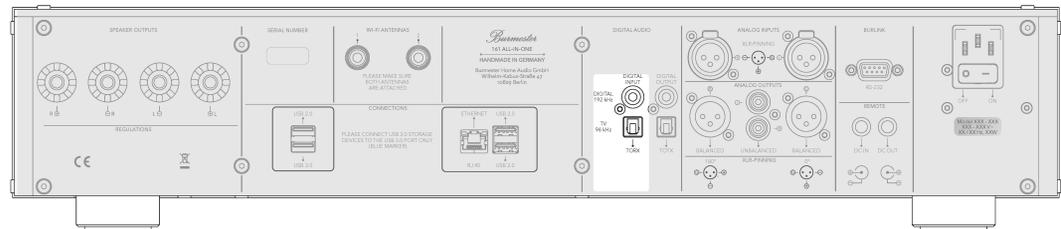
- ▶ Mount the two supplied antennas on the antenna sockets on the rear panel.

## Connecting analog sources



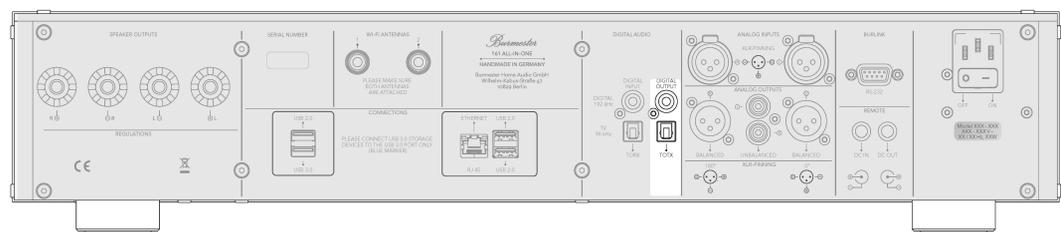
- ▶ Use the terminal to connect an analog signal sources with balanced interconnect cables.
- ▶ Unbalanced cables can be used at the same terminal in connection with the supplied XLR-RCA adapters.

## Connecting digital sources



- ▶ Connect coaxial digital signal sources, for example a CD player, with the RCA terminals **DIGITAL**.
- ▶ Connect optical digital signal sources, for example a digital tuner, with the TOSLINK terminal **TV**.

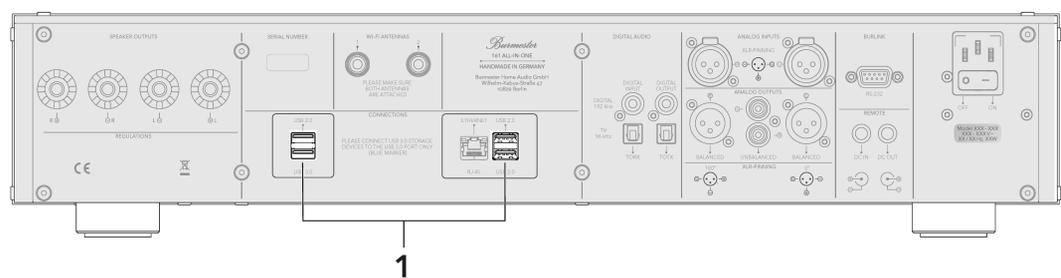
## Connecting the digital output



These terminals supply the output signal in digital form.

- ▶ Use either coaxial or optical cables for connections.

## Connecting USB storage devices



The 161 features five USB slots: four on the back (**1**) and one on the front panel (see *"The Device at a Glance"* on page 9).

All USB slots are identical and can be used to connect USB storage devices or for software updates via a USB stick.

**Note:** USB hard disks with a high power demand should be connected to the USB 3 connector. This connector is marked on the back panel and is easily recognizable by the fact that it is blue instead of black.

## Connecting the power cord

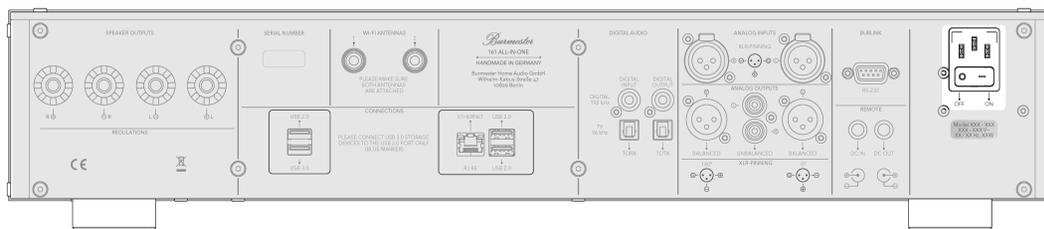


### ⚠ WARNING

#### Missing or defective protective earth contact

A missing or incorrectly connected protective earth contact poses a danger to life.

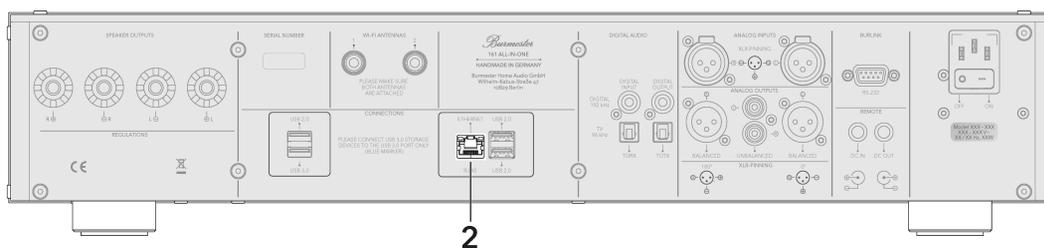
- ▶ Before connecting the device, ensure that the protective earth contact in your outlet is active.
- ▶ Should you have any doubts, contact a qualified professional.



✓ Make sure the **MAINS** switch is set to **OFF**.

1. Connect the supplied power cord to the device and plug it into the AC outlet.
2. Switch the **MAINS** switch to **ON**.

## Connecting a network cable



You can connect the 161 to your home network via the Ethernet connection **(2)** and a network cable.

## Headphone output

### ⚠ CAUTION

#### High-intensity sound

Loud output signals may damage your hearing.

- ▶ Set the volume to a low level using the **volume control** (11) and adjust it slowly to the desired volume.
- ▶ Avoid listening to loud music for prolonged periods of time.

## Connecting the speaker outputs



### **⚠ WARNING**

#### **Dangerous voltage on the connection terminals**

The connection terminals on the integrated amplifier may carry dangerous voltages during operation.

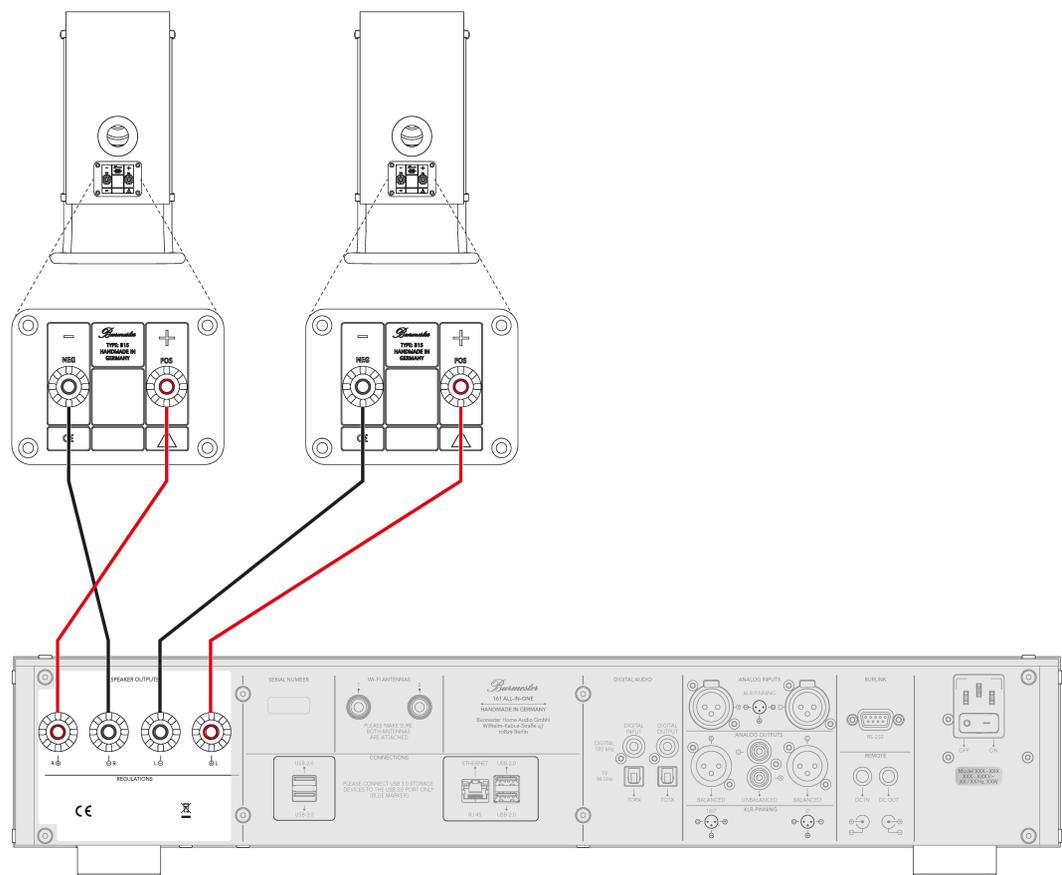
- ▶ Do not touch the connection terminals when the device is in operation.

A connection can be made using either cable lugs or 4 mm banana plugs. For acoustic reasons, Burmester recommends equipping the ends of the speaker cables with cable lugs. Connecting cables to these terminals requires the use of ready-to-fit wires or must be performed by a qualified professional.

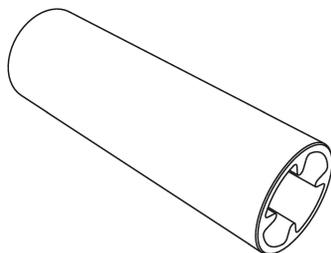
### Correct polarity

- ▶ When connecting the speakers, pay attention to the correct polarity of the connections. It is important to establish all connections in phase:
  - positive output 161 (POS) = speaker positive output
  - negative output 161 (NEG) = speaker negative output

Connecting the channels out of phase causes poor bass and diffuse playback. When in doubt, please ask your specialist dealer.



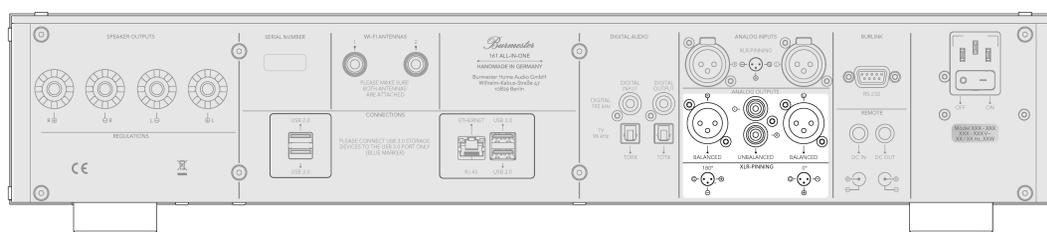
**Note:** The scope of delivery includes a special tool, which allows you to loosen and tighten the loudspeaker clamps on the device.



special tool

- ▶ The device has been switched off.
- ▶ Put the special tool on top of a speaker terminal of the 161. Loosen the binding post by turning the tool counter clockwise.
- ▶ Attach a speaker cable to the right loudspeaker and connect the other end to the terminals **R POS** and **R NEG**. Correct polarity is very important. The positive terminal on the 161 has been color-coded red, the negative terminal black.
- ▶ Attach the other speaker cable to the left speaker and connect it to the terminals marked **L POS** and **L NEG**. Pay close attention to correct polarity. The positive terminal on the 161 has been color-coded red, the negative terminal black.
- ▶ Put the special tool on top of the speaker terminals of the Phase 3. Tighten the connection by turning the tool clock-wise.

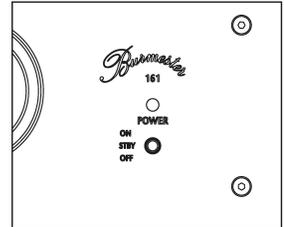
## Connecting a power amplifier



- ▶ For best sound quality connect the **BAL** output terminals with the inputs of your power amp using balanced interconnect cables.
- ▶ Use output terminals **UNBAL** and an unbalanced interconnect if your amp offers unbalanced RCA inputs only.

## SWITCHING THE 161 ON AND OFF

1. The **MAINS** switch on the real panel of the device is set to **I (On)**.
2. Move the **POWER** switch on the front panel to the center position.
  - ↳ After a delay of up to 3 seconds, the LED lights up in orange and the device is in standby mode.
3. Briefly push the **POWER** switch upward or press the **POWER** button on the remote control.
  - ↳ The LED lights up in red and the system initiates. The display first shows "STARTING," then "PREPARE".
  - ↳ Once the device has started successfully, "MC 161" appears in the display. The LED above the **POWER** switch lights up in red. The LEDs on the left side of the front panel indicate the current operating status.



**Note:** The start-up process can take up to 1 minute.

### Switching the device into standby mode:

- ▶ Briefly push the **POWER** switch on the device upward or press the **POWER** button on the remote control.
  - ↳ The display shows "**SHUTDOWN**".
  - ↳ After the system is shut down, the device switches to standby mode.

**Note:** Shutdown can take up to 1 minute.

### Switching off the device completely:

- ▶ Press the **POWER** switch downward into the **OFF** position.
  - ↳ After the system is shut down, the device switches off. It can no longer be switched on with the remote control.

**Note:** Always use the On/Off switch (12) to turn the unit off **before** setting the **Mains switch** (22) to **OFF**.

## ATTENTION

### Overvoltages caused by lightning

**Overvoltages in the power supply - caused by lightning - can damage or destroy the device.**

- ▶ When a thunderstorm is approaching, disconnect the power plug from the outlet. Turning the system off with the power switch is not enough, as overvoltages "jump" across contacts even if they are not closed.

## ADJUSTING THE VOLUME

 **CAUTION**

**High-intensity sound**

**Loud output signals can cause permanent damage to your hearing.**

- ▶ Set the volume to a low level using the **volume control (11)** and adjust it slowly to the desired volume.
- ▶ Avoid listening to loud music for prolonged periods of time.

The volume can be adjusted using the **volume control (11)**, the remote control (VOL+/VOL-), the iPad® app or the Web interface.

- ▶ Turn the volume control clockwise to increase the volume.
- ▶ Turn the volume control counterclockwise to reduce the volume.

## OPTIMIZING THE SOUND AT LOW VOLUME LEVELS

The switchable “Smooth” function ensures a rounded, detailed sound, even at low volumes.

- ▶ Press the **SMOOTH button (6)** to enable the Smooth function.
  - ↳ The Smooth function is activated and the **SMOOTH LED (5)** is lit.
- ▶ Press the **SMOOTH button (6)** again to turn off the Smooth function.
  - ↳ The Smooth function is deactivated and the **SMOOTH LED (5)** turns off.

## HOW TO CONNECT THE 161 TO A NETWORK?

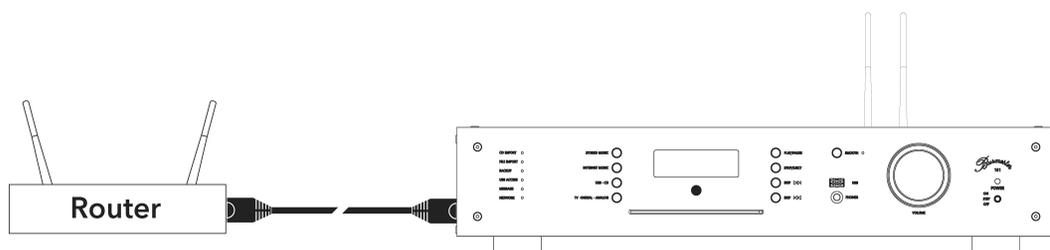
A network connection is required for internet access as well as for networking the 161 with other devices. This offers the following additional functions:

- Calling up album information from the Internet during ripping.
- Choose between a multitude Internet radio stations.
- Stream musical content from providers such as TIDAL (subject to a fee).
- Downloading music from providers such as HIGHRESAUDIO (subject to a fee).
- Receiving messages, for example on software updates.
- Performing a software update via the Internet.

Detailed information on how to perform these functions can be found in the separate manuals „User Guide for Operation via the iPad® App“ and „User Guide for Operation via a Web browser“.

**Note:** On operating the device without a network, please see "How to operate the 161 without a Network?" on page 23.

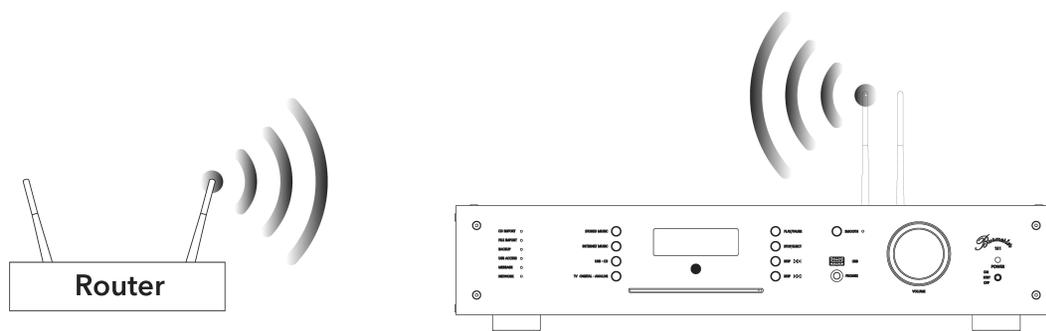
### Establishing a network connection with an Ethernet cable



1. Connect the 161 to your router using an Ethernet cable.
2. On the remote control, press the **OSD** button, then the buttons **7 - 8 - 9**.
  - ↳ All LEDs on the left side of the device light up in **orange**.
3. On the remote control, press number button **0** and then the **OK** key.
  - ↳ During the switching process, the **NETWORK LED** on the device flashes **red**.
  - ↳ After switching the **NETWORK LED** lights up in **orange**, when the device is connected to the network.
  - ↳ The color changes to **green** when the device is connected to the internet.

**Note:** If you have issues with the network connection, you can also contact your Burmester dealer, who would be happy to help you during installation.

## Establishing a network connection using Wi-Fi



### Standard procedure:

1. On the remote control, press the **OSD** key and then the buttons **7 - 8 - 9**.
  - ↪ All LEDs on the left side of the device light up in **orange**.
2. On the remote control, press number button **2** and then the **OK** key.
  - ↪ During the switching process, the **NETWORK LED** on the device flashes **red**.
  - ↪ After finishing the network scan the **NETWORK LED** blinks alternately **green** and **orange**.
3. Connect your computer via Wi-Fi with your 161 (see „Establishing a Wi-Fi connection between 161 and iPad®“ on page 26 or "Establishing a Wi-Fi connection between 161 and Tablet/PC/Mac" on page 26.
4. Open a Web browser on your computer and type in the IP address of the device (**192.168.111.1**) or **http://allinone161.local** into the address bar.
  - ↪ The browser displays a list of all available Wi-Fi networks.
5. Click on the name of the desired Wi-Fi network.
6. Encoded networks will display a lock symbol. Type in the password of your Wi-Fi router and hit **accept**.
  - ↪ Initially, the **network LED** will light **orange**. It will change to **green** when the device is connected to the Internet.
  - ↪ When the 161 is connected to a Wi-Fi network all network settings will be saved.

**Note:** If you are using an iPad® you can also open the App **BurmesterMC** after connecting iPad® and the 161. Select **Configure**, the browser starts automatically and the list of available Wi-Fi networks appears.

**Note:** In case of a hidden Wi-Fi network select **Not in List** (hidden ssid) and type in the Name of the Wi-Fi network in the **SSID** box. After that enter the Wi-Fi password of your router and click **accept**.

**Note:** If a wrong password has been entered the 161 will not connect and the network LED lights up **red** (after no more than one and a half minutes). Return to step 1 of the process to establish a Wi-Fi connection.

**Note:** When the device has been connected to a Wi-Fi network it is no longer possible to establish a direct Wi-Fi connection between computer (iPad®, Tablet, PC, Mac) and the 161. In that case the Wi-Fi connection needs a router.

## HOW TO OPERATE THE 161 WITHOUT A NETWORK?

You may also operate the 161 via a Wi-Fi connection to a computer (tablet, PC, Mac) without network. However, in this case the device acts as a stand-alone server. You cannot connect the 161 to other network devices or take advantage of the benefits of an Internet connection (see *"Establishing a network connection with an Ethernet cable"* on page 21).

To operate the device without a network, it has to be switched from the factory-default standard mode to stand-alone mode.

### Switching the operating mode to stand-alone mode:

1. On the remote control, press the **OSD** button, then the buttons **7 - 8 - 9**.
  - ↳ All LEDs on the left side of the device light up in **orange**.
2. For stand-alone mode, press the **1** button, then the **OK** button on the remote.
  - ↳ During the switching process, the **NETWORK LED** on the device flashes **red**.
  - ↳ After switching, the **NETWORK LED** lights up **orange**.

In stand-alone mode, the 161 functions as an access point. To operate the system via a computer ( tablet, PC , Mac ), you can now establish a direct Wi-Fi connection between the device and the computer (see the following section).

## OPERATING OPTIONS FOR THE 161

The 161 can be operated in various ways, using the supplied remote control, an iPad® or any Tablet, PC or Mac. Depending on the device, the operating software (App or Web browser) and the preferred connection (Wi-Fi or Ethernet cable) you can tailor the operating profile to your liking. The following sections explain in detail the various possibilities.

### Using the control buttons on the device or the remote control

The easiest way to operate the 161 is by using the buttons on the front panel or on the remote control. You do not need a Wi-Fi connection or a connection between the device and your home network. However, this way only offers basic functions. You can only select a music source, control playback, switch the device on and off and adjust the playback volume. Please see sections *"The Device at a Glance"* on page 9 and *"Installing the device"* on page 14.

### Using the BurmesterMC iPad® app

Using an Apple iPad® (not supplied) and the free App BurmesterMC offers a particularly convenient way to operate the 161. You can:

- Select any connected signal source.
- Start ripping a CD to the internal memory.
- Scroll through the covers of saved albums or display information on the albums and artists.
- Create and play playlists.
- Listen to Internet radio, download high-resolution music from HIGHRESAUDIO (may incur use-dependent cost) or stream high-resolution music from TIDAL (may incur use-dependent cost).
- Listen to music from any UPnP/DLNA device connected to the network.

#### The following is required for operation via the iPad® app:

- An Apple iPad® with the BurmesterMC app installed
- A Wi-Fi connection between the iPad® and the 161 or a connection to the network, the 161 is connected to.

#### Please note:

- ▶ To install and operate the iPad® app, see the separate document "Instructions for Operation via the iPad® App".

### Using a Web browser

You can also operate the device without the app by using a standard web browser on any computer (tablet, PC, Mac). The 161 has a graphic web interface compatible with most computers. This interface offers advanced options for managing music and device settings.

#### Operation via a web browser requires the following:

- A computer (tablet, PC, Mac) with a web browser installed
- A LAN or Wi-Fi connection between the computer and the 161.

**Please note:**

- ▶ To operate the device via a web browser, see the separate document "Instructions for Operation via a Web Browser."

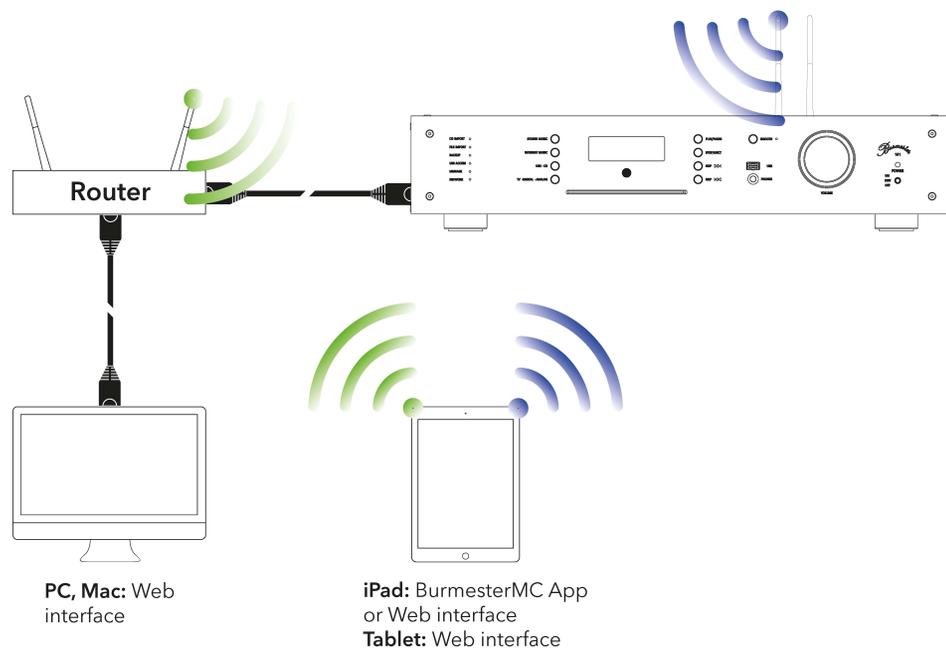
## HOW TO CONNECT COMPUTER AND THE 161?

To operate the device with a computer (iPad®, Tablet, PC, Mac) a connection has to be established between computer and 161. Depending on the computer used and the type of connection between router and device - Wi-Fi or Ethernet cable - there are the following possibilities:

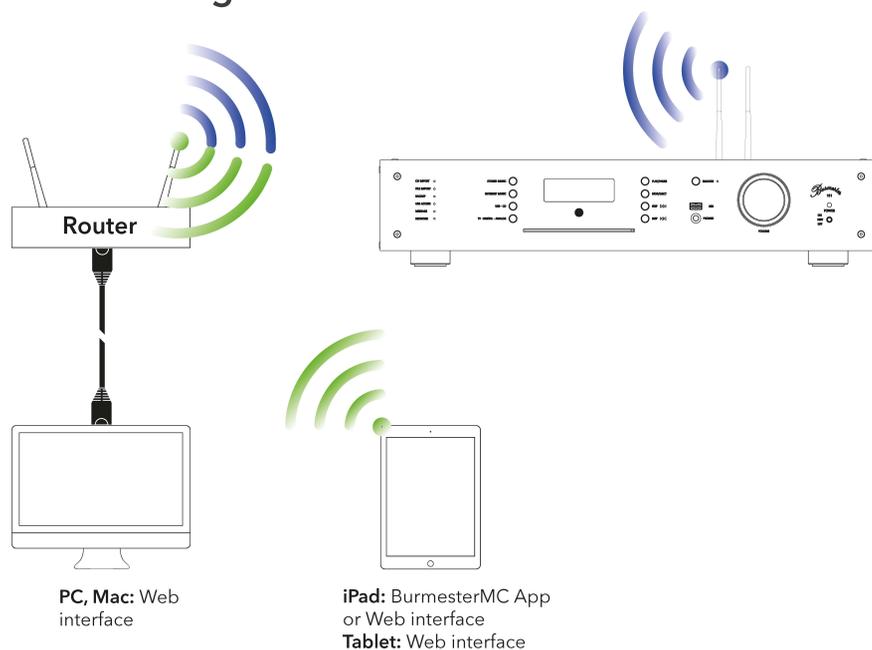
Type of computer	Type of connection		Control software
	Ethernet cable between router and 161	Wi-Fi connection between router and 161	
<b>PC/Mac without Wi-Fi</b>	Ethernet connection to the router	Ethernet connection to the router	Web browse
<b>iPad®</b>	Wi-Fi connection to the router or directly to the 161	Wi-Fi connection to the router	App or Web browser
<b>PC/Mac with Wi-Fi, Tablet</b>	Wi-Fi connection to the router or directly to the 161	Wi-Fi connection to the Router	Web browser

The following charts clarify further the different types of connection and the available control software.

### Connections using a network connection via Ethernet cable



## Connections using a Wi-Fi network connection



## Establishing a LAN connection between Router and computer

- ▶ Use an Ethernet cable to connect your computer to your router.

## Establishing a Wi-Fi connection between 161 and iPad®

- ▶ Please find the description on how to connect the 161 with an iPad® via Wi-Fi in the separate manual „*User Guide for Operation via the iPad®-App*“ under the chapter „*How to connect the iPad® with the Burmester device*“.

## Establishing a Wi-Fi connection between 161 and Tablet/PC/Mac

The procedure when using a different computer depends on the installed operating system. Assistance may be obtained using the Help function of the operating system.

- ▶ In case of a direct Wi-Fi connection with the 161 use the following specifications:
  - Name of the network (SSID): **Allinone161**
  - Password: **Burmester161**
- ▶ In case of a Wi-Fi connection via a router use the following specifications:
  - Name of the network (SSID): **Name of the router**
  - Password: **WLAN-password of the Router**



## HOW TO PLAY A CD?

1. Insert a CD into the CD slot below the display. (You do not have to select the CD Player operating mode before playing a CD.)
  - ↳ Insert the CD until you feel noticeable resistance. It is then automatically pulled in.
  - ↳ The CD is read and then played back immediately.
2. Use the right bank of buttons on the front panel or the corresponding buttons on the remote control to control playback.

On the device	On the remote control	Function
PLAY/PAUSE		Starts or pauses playback at the current position.
STOP/EJECT		Stops playback and ejects the CD if playback is already stopped.
SKIP >>		Playback skips to the next title.
SKIP <<		When pressed during playback, skips to the beginning of the track playing and if pressed twice, to the previous track.

## HOW TO PLAY CONTENT FROM A USB STICK?

When playing back music that has been saved on a USB stick it does not matter how the music has been transferred to the stick (e.g. from a computer or via download from the 161 memory), how the titles are organized (all in one folder or in various subfolders), or in which compatible format they are available (e.g. MP3, AAC, FLAC).

### Playing back contents from a USB stick:

1. Insert the USB stick into the USB slot on the front panel or into one of the USB slots on the back panel of the device.
  - ↳ As soon as the USB stick is detected, the **USB ACCESS LED** lights up.
  - ↳ Playback starts automatically.

**Note:** Press the **USB** button on the device to continue playing music from a USB device that is already plugged in after changing the source.

2. Use the right bank of buttons on the device or the corresponding buttons on the remote control to control playback.

On the device	On the remote control	Function
PLAY/PAUSE		Starts or pauses playback at the current position.
STOP/EJECT		Stops playback.
SKIP >>		Playback skips to the next title.
SKIP <<		When pressed during playback, skips to the beginning of the track playing and if pressed twice, to the previous track.

## HOW TO PLAY CONTENT FROM THE NETWORK?

To use the 161 to stream music for example in a multiroom-application it needs an active UPnP/DLNA server, a Musiccenter or another 161 in the network.

Select the desired audio source via the iPad® App in the menu **Devices > Inputs** or via the Web browser's pop-up menu. Detailed information can be found in the separate manuals „*User Guide for Operation via the iPad® App*“ and „*User Guide for Operation via a Web browser*“.

**Note:** To facilitate seamless communication of network devices regardless of make the device has been certified for the UPnP and DLNA standards. Trouble-free operation can thus only be guaranteed with devices that incorporate one of these standards.

The user interface and therefore the presentation of the available music depends on whether a Burmester Musiccenter or a server of a different make has been selected as source. Please find more information in the separate Manuals „*User Guide for Operation via the iPad® App*“ and „*User Guide for Operation via a Web browser*“.

## HOW TO PLAY CONTENT FROM THE INTERNET?

To play content from the Net the device needs access to the Internet. You'll find a first quick guide on page 21.

You can select radio station or music streaming services using the iPad® or your Web browser.

**Note:** Detailed information about the operation in a network and about playing content from the Internet can be found in the separate Manuals „*User guide for operation via the iPad® App*“ and „*User guide for operation via a Web browser*“.

### Streaming music online using TIDAL

TIDAL is an online streaming service which offers high-resolution music. TIDAL's content can be selected using the iPad® or a Web browser.

- ▶ To connect your TIDAL user account with the 161, type in your access data via the iPad® App under **Settings > Online Services** or via the Web browser under **System > Media > Tidal**.

**Note:** For more information on operating TIDAL, please refer to the separate operating instructions "Instructions for use via the iPad® app" and "Instructions for Operation via a Web browser".

**Note:** Making use of services from outside suppliers such as Internet radio or music streaming services with the device may be subject to separate conditions of use as well as to technical capabilities of the user or the outside supplier (Internet availability; availability of services) that are outside the control of Burmester Audiosysteme GmbH.

## HOW TO PLAY CONTENT STORED ON THE DEVICE?

To be able to play back content stored in the 161, you must first create a playlist from the saved titles. You can create a playlist using the BurmesterApp or via the web based user interface (web GUI).

**Note:** Please consult the separate documents "Instructions for Operation via the iPad App" and "Instructions for Operation via a Web Browser" for further information.

### Starting a playlist:

1. Press the **STORED MUSIC** button on the device.
2. Use the right bank of buttons on the front panel or the corresponding buttons on the remote control to control playback.

On the device	On the remote control	Function
PLAY/PAUSE		Starts or pauses playback at the current position.
STOP/EJECT		Stops playback.
SKIP >>		Playback skips to the next title.
SKIP <<		When pressed during playback, skips to the beginning of the track playing and if pressed twice, to the previous track.

# HOW TO COPY (RIP) A CD TO THE INTERNAL MEMORY?

Copying music or videos from a data source to a computer's hard disk is referred to as ripping. After the CD is analyzed, the data is imported, supplemented with information on the album and artist, and saved in the device's database in the audio format FLAC.

Ripping a CD requires you to operate the 161 via the iPad® app or web interface. The two variants are virtually identical and are therefore described together below.

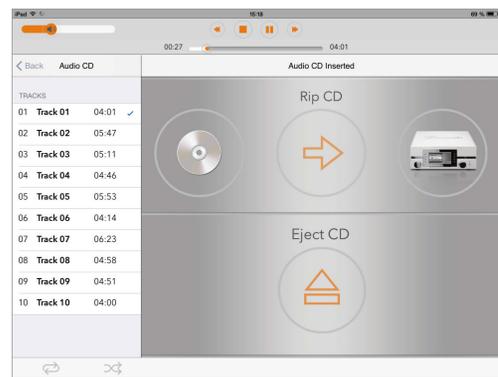
Differences are indicated in the text. The screenshots show the iPad® App

Please see the separate documents "Instructions for Operation via the iPad App" and "Instructions for Operation via a Web Browser" for detailed information on operation using the iPad® app and web browser.

## Ripping a CD:

- ▶ Start the iPad® app or call up the device's web interface.

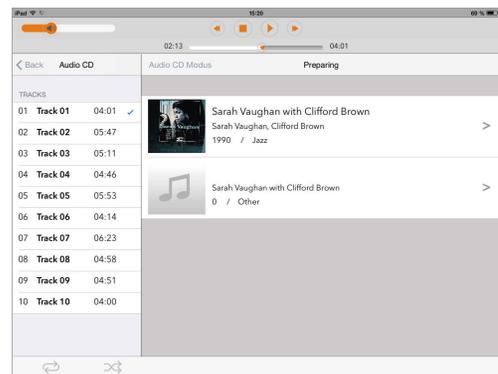
1. Insert a CD into the CD drive.
  - ↳ After you have inserted the CD up to the noticeable resistance, it is automatically pulled in. The CD is read and then played back immediately.
2. iPad® app: In the Inputs menu, select **Audio CD** by tapping on it.  
Web interface: Click the arrow next to the drop-down menu and select **Audio CD**.
  - ↳ The tracks are displayed (but not the album and track names)
3. Select the  icon.
  - ↳ Analysis begins..



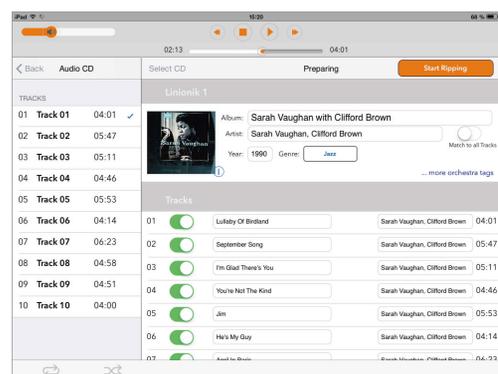
- ↳ If the proper album information is found, a prompt asks you to confirm the associated album. In some circumstances, multiple albums are offered for selection.

## Note:

Album information can only be downloaded if an Internet connection exists. If there is no connection, the album information (without cover) is obtained from the local database



4. After selecting an album, the album and all tracks are displayed. You now have the following editing options:
  - a. **Album cover:** Click the **i** icon to the right below the cover and make a selection in the menu window  
Via **Extended Search**, you can search for additional hits on the Internet, including changed artists or albums.



- b. **Album, Artist, Year:** Click the respective input field and change the information. Activate the function **Match to all Tracks** if you want to allocate the artist's name to all tracks.
- c. **Genre:** Click the field and select a genre from the list.
- d. **Orchestra Information:** Tap **...more orchestra tags** (web interface: **...orchestra tags**) and fill out fields as necessary.
- e. **Tracks:** You can edit the title and artist for each track separately (iPad® app: if you have activated **Match to all Tracks**, you cannot change artist information). Tap one of the fields to change the information manually.
- f. **Excluding tracks from ripping:** To exclude a track from ripping, tap the switch (web interface: click the checkmark).

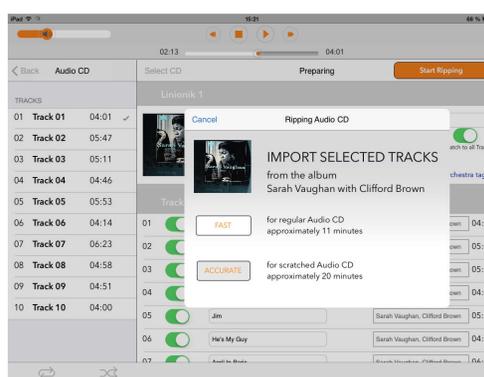
5. Click **Start Ripping**.

↳ A window opens where you can select the rip quality.

**FAST:** Use FAST for CDs that have no or only a few scratches. The CD is imported without any quality improvement.

**ACCURATE:** Use ACCURATE for heavily scratched CDs. The imported data is checked based on defined criteria and any error sources are already eliminated during the ripping process. Ripping with ACCURATE takes nearly twice as long as ripping with FAST.

The approximate times for each type are indicated respectively.



6. Click the desired option.

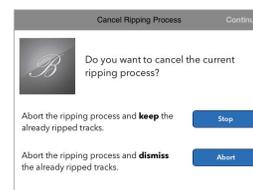
↳ Ripping starts. The progress for each track is displayed via a bar. If ACCURATE was selected rating stars denote the quality of the original data after ripping. 5 stars indicate maximum quality.

**To cancel ripping,**

- ▶ Click **Cancel**.

↳ A menu opens:

- Stop:** Tracks that have already been ripped remain.
- Abort:** Tracks that have already been ripped are deleted.
- Continue:** Ripping continues.



After the process is completed the album is available on the device permanently. You can then play the album via the **player**.

## HOW TO OPERATE THE 161 AS A DATA SERVER?

In server mode, the device functions as a pure data server. Access to the hard disk and streaming of data, for example for multi-room playback, is available while all other functions are de-activated. This operating mode uses much less power than normal operation.

Server mode can be activated via the iPad® app in the **Settings > Power** menu or using the web interface in the setup menu under **System > Settings > General**.

Please see the operating instructions "*Instructions for Operation via the iPad® App*" and "*Instructions for Operation via a Web Browser*" for further information.

## HOW TO QUERY SERIAL NUMBER AND VERSION?

You can query the serial number and software and firmware version of your device by using the remote control:

- ▶ Press the **OSD** button the remote control, then press **2 - 2 - 2**.
  - ↳ The serial number (SNR), software version (VERS), and firmware version (FW) of your device appear in sequence on the display.

## HOW TO PERFORM A SYSTEM UPDATE?

You can update the software on your 161 online or via a USB stick.

### Updating online

The online update is started via the web interface or via the iPad®. Please see the separate documents for more detailed information.

**Note:** For online updates the installation files are downloaded to your device from the Burmester server. You need an Internet connection with sufficient bandwidth.

### Updating via a USB stick

1. Save the current software on a USB stick. You can obtain the current software from your specialist dealer.
2. Plug the stick into the USB slot on the front panel or into one of the slots on the rear panel of the Phase 3.
3. On the remote control, press the **OSD** button, then the buttons **2 - 5 - 8**.
  - ↳ The LEDs on the left side of the device panel light up **red**.
4. Press the **OK** button on the remote control.
  - ↳ The update starts.
  - ↳ The LEDs flash and the display shows "**Firmware Update in progress**".
  - ↳ After the update has been completed the device reboots.

## MAINTENANCE, REPAIR, AND CARE

### Cleaning the device

 <b>CAUTION</b>
<p><b>Damage to the device's electronics or the surface</b> Liquids can destroy the device's electronics. Chemical agents can damage the housing surface.</p> <ul style="list-style-type: none"><li>▶ Never clean the device with a wet cloth.</li><li>▶ Make sure that no liquid can enter the device.</li><li>▶ Do not use chemical agents to clean the device.</li></ul>

## DISPOSAL



Legislation prohibits the disposal of this device by means of normal household waste (residual waste, recycling, organic waste, paper, glass). The device must be handed over to a communal collection point or voluntary take-back system.

## WARRANTY

We provide a warranty of 2 years for this device.

**If you return the warranty certificate papers filled out within 4 weeks after purchase, you will receive a warranty extension to three years.** This requires proper connection without overload and mechanical integrity.

The warranty is void if the device has been tampered with or parts of the housing, connections, or terminals have been disassembled.

# TECHNICAL SPECIFICATIONS

Dimensions (W x H x D)	Loft Style: 575 mm x 635 mm x 410 mm (22.6"x 24.8" x 16.6") Retro Style: 635 mm x 650 mm x 460 mm (24.9"x 25" x 17.7")
Weight	Loft Style: 43 kg (86 lbs) Retro Style: 31,5 kg (66.2 lbs)
Power supply (depending on model)	Model 161-100: 100-120 V~, 50/60 Hz Model 161-220: 220-240 V~, 50/60 Hz
Fuses	F1: T 1 A E, F2: T 1.25A E F1: T 4A E (Power amplifier circuit board) F2: T 5A H (Hypex SMPS)
Power consumption	ON: max. 460 W STBY: <1 W OFF: <1 W
Stereo output per channel into 4 Ω	170 W
Input sensitivity re. 1 V	650 mV
Damping Factor	250
Input Impedance XLR/RCA	16 kΩ / 7.5 kΩ
Output Impedance XLR/RCA	550 Ω / 300 Ω
max. output level Analog Output	12 V
Frequency response -3dB	10 HZ - 90 kHz (Power Amp) 10 Hz - ½ fs (DAC)
Signal-to-noise ratio	> 92 dB , > 98 dB (DAC)
THD+N 1 kHz, Bw 10 Hz -22 kHz	< 0,018 % , < 0,0015 % (DAC)
Gain	variable
<b>Input/Output Connectors</b>	
Analog inputs	1 Balanced XLR
Digital inputs	1 RCA, 1 TOSLINK
Analog outputs	1 x Balanced XLR, 1 x RCA
Digital outputs	1 x RCA, 1 TOSLINK
Headphone output	6.3 mm, jack
BURLINK remote control	1 x RS-232
REMOTE remote control	2 x Hohlstecker 5,5/2,5 mm (DC OUT, DC IN)
Ethernet	1 x RJ-45
The network connection is only suitable for local networks that do not extend beyond the building boundary.	
USB	4 x USB 2.0 type A, 1 x USB 3.0 type A, Load ≤ 900 mA / output
Power supply	IEC socket C14 acc. to IEC 60320-1 with mains switch
Wi-Fi antennas	2x coax connectors
<b>Components</b>	
CD drive	CD-DA
Hard disk	2 x 2 Terabytes (RAID)
Display	Green point matrix, 8 characters, dimmable

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