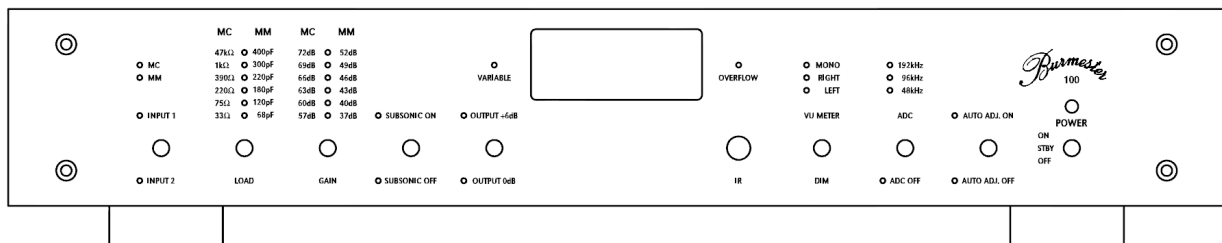


OWNER'S MANUAL

PHONO PREAMP 100



VERSION: BA_100_en_1-5_2606

Dear Audiophile,

Thank you for choosing this Burmester audio component. We sincerely appreciate your trust in our products. You have purchased a unit, which excels in musical fidelity and combines uncompromising manufacturing quality with technical innovation and the highest degree of operating flexibility.

We recommend reading this user manual in its entirety before initial operation. It will enable you to make full use of all capabilities of this outstanding audiophile instrument. Should you have any further questions, please contact your dealer or us directly.

Talk to us about your special requests, even if they seem out of the ordinary. We happily accept technical reasonable challenges.

Enjoy your enhanced listening pleasure.

Your Burmester Team

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LIST OF FUNCTIONS

Through factory settings a lot of functions are disabled to operate the 100 as a simple Phono preamp. The numerous options the 100 offers are easily reached and activated.

PLEASE NOTICE: The owner's manual describes all functions of the complete equipped 100 Phono preamp. Due to the fact that there are different equipment versions, variations concerning your unit are possible.

- 2 balanced Phono inputs, XLR 3pin female
- 1 balanced analog output, XLR 3pin male
- 1 unbalanced analog output, RCA
- 1 digital output from ADC (Analog Digital Converter) including 1 S/P-DIF (RCA) and 1 optical fiber output (TOSLINK)
- 1 USB plug as digital in- or output
- 1 digital output from USB input including 1 S/P-DIF (RCA) and 1 optical fiber output (TOSLINK)
- Input resistance for MC module or input capacitance for MM module selectable
- Selectable subsonic filter
- Automatic channel calibration (AUTO ADJUST) selectable, if the channels of the pickup system have different sound levels - compensation is possible up to 6dB difference between the channels
- Selectable volume control for direct use with power amps or active loudspeakers
- Increasing of output level to +6dB possible for operating the preamp with amplifiers with low input sensitivity
- 180° phase reversal of the balanced output selectable by a DIP-switch on the back panel
- Selectable ADC (Analog Digital Converter)
- Sample rate of the ADC selectable between 48kHz/24bit, 96kHz/24bit, 192kHz/24bit
- Load display of the ADC with analog audio level meter
- Fast responding overflow LED for short peak distortion of the ADC
- DC coupled signal path assures best sound reproduction without any phase shift in the audible frequency range
- Analog output stages with X-AMP 2 stages
- Internal BURMESTER GREEN power supply with automatic mains voltage detection
- Remote power up of other devices possible by means of DC IN/OUT connection
- BURLINK-module for external control via RS232 or USB

UNPACKING AND SETTING UP

CAUTION: The Phono preamp 100 is shipped inside a plastic protective cover. Make sure that children do not play with it to avoid the danger of suffocation.

Unpacking

To avoid damaging the housing, please do not use pointed or sharp tools to open the box. Please make sure that the content of the box is complete. If something is missing or you notice any damage while unpacking, do not hook up the unit. Instead, contact your authorized dealer.

Content of the box

The box should contain the following:

- 1 preamp 100
- 1 power cord
- 2 input adapter plugs XLR – RCA for each equipped module
- 1 tone arm cable 5pin – XLR for each equipped module
- 1 measurement record
- 1 remote control
- 1 owner's manual

Packaging

We recommend keeping the original packing in case the unit needs to be shipped in the future.

Setting up

Too low or too high temperatures may cause damage inside of the preamp. Therefore we recommend you leave the unit to adapt to room temperature, before using it for the first time.

Carefully remove the unit from its packaging and set it up in an appropriate location. To protect the Phono preamp 100 from overheating make sure that the location offers sufficient air circulation around the unit. Also, avoid excessive exposure to sun, dust and humidity.

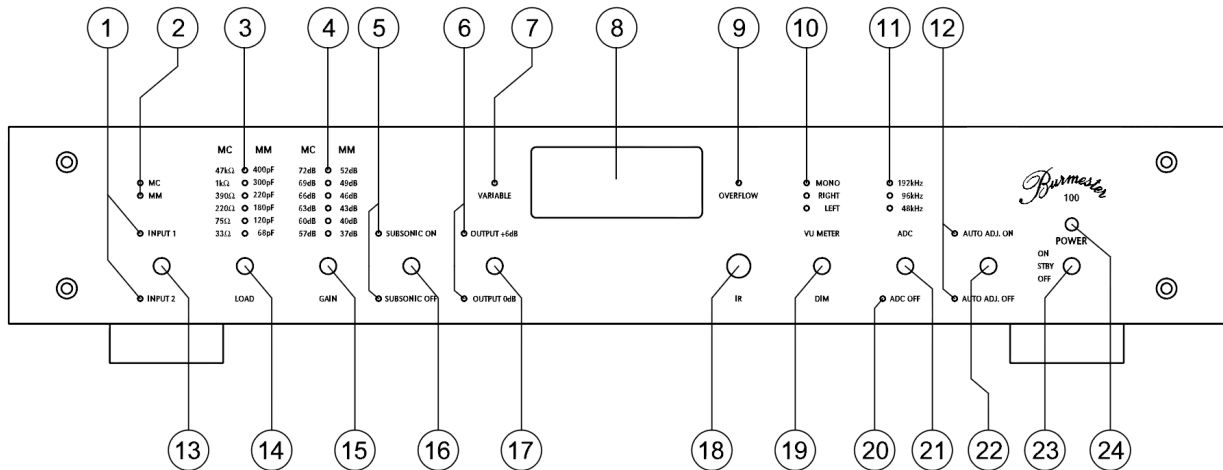
Please make sure that your desired location for the Phono preamp is stable enough to carry its weight.

Ventilation ducts and openings in the housing serve to keep the unit cool. They must not be covered up with magazines, tablecloth, curtains etc.

If the Phono preamp has to be operated in an extremely warm environment it may be necessary to supply additional ventilation. Avoid operating the unit in an excessively humid environment like bathrooms etc.

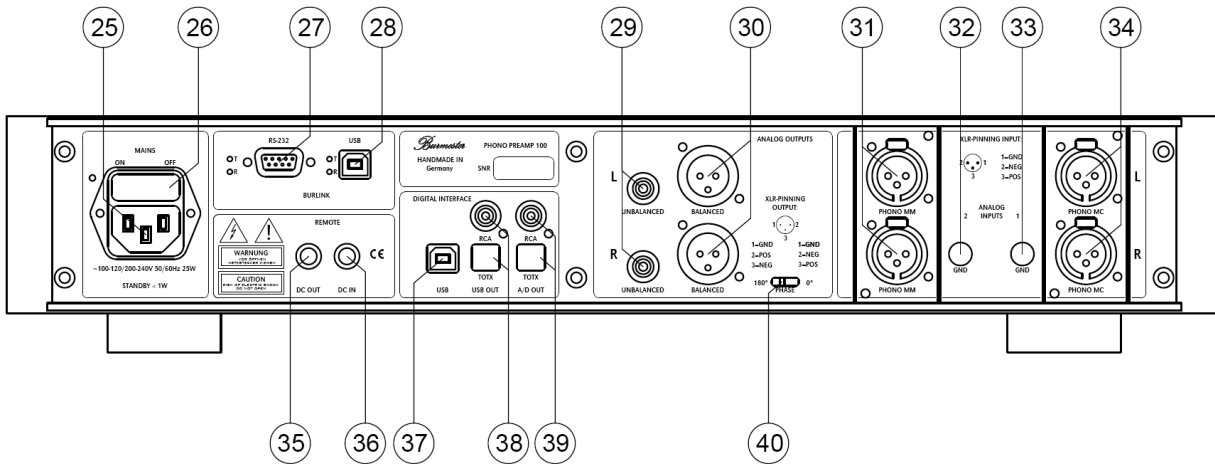
FUNCTIONAL OVERVIEW OF THE PREAMP

FRONT PANEL



- | | |
|--|---|
| <p>(1) INPUT LED for chosen input</p> <p>(2) MC / MM LED indicates the equipped module</p> <p>(3) IMPEDANCE-/ CAPACITY LEDs</p> <p>(4) GAIN LEDs indicate the selected gain level</p> <p>(5) SUBSONIC LEDs indicate status of the filter</p> <p>(6) OUTPUT LEDs indicate selected amplification</p> <p>(7) VOLUME LED lights up for variable volume control</p> <p>(8) VU-METER displays the load of the ADC</p> <p>(9) OVERFLOW LED shows distortion of the ADC</p> <p>(10) VU-METER LEDs display the mode of the VU-Meter</p> <p>(11) ADC LEDs display the sample rate of the ADC</p> <p>(12) AUTO ADJUST LEDs</p> <p>(13) INPUT switch key</p> <p>(14) LOAD switch key changes the capacities or impedances of the selected input</p> | <p>(15) GAIN switch key changes the amplification of the selected input</p> <p>(16) SUBSONIC switch key switches the filter</p> <p>(17) OUTPUT switch key increases the overall amplification</p> <p>(18) IR receiver for commands of remote control</p> <p>(19) DIM / VU-METER switch key to control the dim and VU-Meter functions</p> <p>(20) ADC OFF LED lights when the ADC is off</p> <p>(21) ADC switch key for ADC operation</p> <p>(22) AUTO ADJUST switch key for auto adjust function</p> <p>(23) POWER switch to switch the unit on & off</p> <p>(24) POWER LED shows operating condition of the unit</p> |
|--|---|

REAR PANEL



- (25) AC mains terminal
- (26) AC mains switch
- (27) BURLINK interface RS-232 with check LEDs
- (28) BURLINK interface USB with check LEDs
- (29) OUTPUT unbalanced
- (30) OUTPUT balanced
- (31) INPUT 2 as equipped MC or MM
- (32) GND-SCREW for ground connection of input 2
- (33) GND-SCREW for ground connection of input 1
- (34) INPUT 1 as equipped MC or MM
- (35) REMOTE OUTPUT
- (36) REMOTE INPUT
- (37) USB OUT-/INPUT
- (38) DIGITAL OUTPUT USB OUT
- (39) DIGITAL OUTPUT A/D OUT for signals of the ADC
- (40) PHASE REVERSAL switch to change the polarity of the XLR output pins by 180°

FIRST STARTUP

The Phono preamp is equipped with the BURMESTER GREEN power supply. It automatically detects the mains voltage of your household and will adjust accordingly. This gives you the option to operate this unit safely in the specified voltage range.

- Connect your preferred in- and outputs of the preamp with your Hifi system. Please refer to the chapter CONNECTIONS (page 6).
- Make sure, that the **AC mains switch (26)** on the rear panel of the unit is set to OFF position.
- Connect the AC power cord into the **AC mains terminal (25)** and plug it into the wall outlet.
- Make sure that the **POWER switch (23)** is set to the off position
- Switch the **AC mains switch (26)** to ON position. The **POWER LED (24)** will instantly light green. During these seconds in which the **POWER LED (24)** lights green, the power supply will measure your mains voltage, and take the necessary steps to work properly. After successfully adjusting to your mains voltage the **POWER LED (24)** will extinguish.
- With the **POWER switch (23)** on the front panel the unit can now be switched on.
- Detailed information about the manifold functions of the Phono preamp 100, are available in the following chapters of this owner's manual.

CONNECTIONS

All connection terminals are located on the rear panel. While connecting the preamp, all components of the music system must be turned off.

Through factory settings a lot of functions are disabled to operate the 100 as a simple Phono preamp.

Analog Inputs

The balanced inputs **INPUT 1 (34)** and **INPUT 2 (31)** of the 100 are to be connected to pickups of either Moving Magnet (MM) or Moving Coil (MC) systems. Which input supports MM or MC can be seen on the rear panel of the 100.

PLEASE NOTICE: Do not connect a regular high level output (e.g. CD-Player) to these inputs. Severe damage to your equipment or to your ears may be the result.

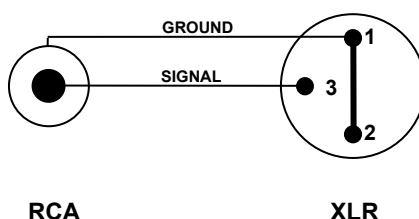
The pinning of the balanced inputs is: **PIN1=GND, PIN2=NEG, PIN3=POS.**

Adapter Plugs

If your pickup components should only offer unbalanced outputs, you are able to use our balanced inputs with the adapter plugs as unbalanced inputs. In these adapter plugs the pin 2 (negative input) and pin 1 (ground pin) are connected (see graphic below). For each equipped input 2 XLR-RCA adapters plugs are delivered with the unit, allowing you to use both inputs as unbalanced inputs. If you need further plugs for other units you may get them at your authorized dealer.

NOTICE: Please use **BURMESTER XLR-RCA adapters only.**

Wiring of the XLR-RCA adapter plugs



GROUNDING Screw

The **GND screws (32)** and **(33)** serve for the unbalanced connection between your record player and the preamp. To link the ground cable loose the GND screw, clamp the GND wire of your record player between the two washers and tighten the GND screw until the GND wire can not slip out.

Don't use any other tools but your hand to tighten the GND screw! This way you avoid over winding the screw.

Analog Output

The 100 offers two analog outputs. The **BALANCED OUTPUT (30)** and the **UNBALANCED OUTPUT (29)** are designed to be connected to a preamp or integrated amplifier. These outputs supply the analog signal of the selected input.

PLEASE NOTICE: Do not connect the Phono preamp 100 directly to a power amp or active loudspeakers when the preamp is in factory settings. Severe damage to your equipment or to your ears may be the result. To operate the 100 directly with a power amp or active loudspeakers you have to activate the variable volume control. You'll find instructions on how to activate that option in chapter OPERATING CONTROLS (page 8).

The pinning of the balanced analog output is: **PIN1=GND, PIN2=NEG, PIN3=POS.** (when the **PHASE REVERSAL switch (40)** is set to 0°)

The pinning of the balanced analog output is: **PIN1=GND, PIN2=POS, PIN3=NEG.** (when the **PHASE REVERSAL switch (40)** is set to 180°)

Digital Input

The Phono preamp is equipped with an USB plug, which can either be used as an input or as an output. In input mode the USB plug may only connected to a PC. It will not support USB-Hard disc or USB-sticks. When a PC is connected to the Phono preamp, it will recognize the preamp, and install it as a soundcard to your PC. You have to select the 100 preamp as active sound card in the system adjustment of the connected PC. You are now able to bring music from your PC into your stereo system. Through the USB plug the signals from the PC are directly passed through to the digital **USB OUT (37)**.

PLEASE NOTICE: The audio signals will not be available on the analog outputs **(29)** or **(30)**. The settings of the sample rate for the ADC will not effect the signals of the **USB IN (37)**. Furthermore the volume control will not effect the digital signal at the **USB IN (37)**.

Digital Output

The Phono preamp is equipped with an ADC which allows you to digitalize your vinyl record collection. The preamp offers three digital outputs.

The outputs **A/D OUT (39)** are intended to be connected to a digital recording unit.

To connect a PC to the Phono preamp the **USB (37)** output is available.

The two A/D Out outputs **TOTX (39)** and **RCA (39)** supply the digital signal of the ADC, if the ADC is activated. The output **TOTX (39)** supplies optical signals according to S/P DIF standards, which are transmitted via optical fiber cable according to TOSHIBA standards. The output **RCA (39)** requires, according to S/P DIF standards, a 75 Ω coaxial cable with RCA connectors.

NOTICE: Do not connect the **RCA (39)** output to an analog input of an amplifier, severe damage to your equipment or your ears may be the result.

Since the USB plug is also operable as an input, the Phono preamp offers two digital outputs **USB OUT (38)** to connect a digital recording unit or a Digital Analog Converter. These two outputs supply the digital signal from the USB input offering a connection to the digital input, e.g. the CD Player 069.

Tone arm cable

Pickup systems are balanced sources. Unfortunately some manufacturers provide unbalanced connections only. If your record player is equipped with a five pin tone arm plug, you can connect the provided tone arm cable to your record player. This will guarantee a perfect connection between your record player and the Phono preamp.

REMOTE

Connecting **DC OUT (35)** to the corresponding DC IN-jack of another BURMESTER-unit offers the function to switch on or off this other unit simultaneous by the 100. In this case, the 100 has the master function.

Connecting **DC IN (36)** to the corresponding DC OUT-jack of another BURMESTER-unit offers the function to switch on or off the 100 simultaneous by the other unit. In this case, the 100 has the slave function.

BURLINK

To the **BURLINK** interface plugs **(27)**, **(28)** a computer system e.g. PC, CRESTRON™, AMX™ can be connected to the preamp 100. The computer system allows a comfortable control of your High End system using for example an individual programmable touch panel. With the LEDs beside the plugs named **T** and **R** (Transmit and Receive) you are able to monitor whether data exchange is working.

You will find the commands to control the 100 in the chapter BURLINK.

OPERATING CONTROLS

With the exception of the **AC mains switch (26)** and the **PHASE REVERSAL switch (40)**, which are located on the rear panel of the unit, all operating controls are located on the front panel of the preamp.

AC mains switch The **AC mains switch (26)** which completely disconnects the AC power to the unit is located on the rear panel of the 100 above the AC mains terminal. By switching it to the ON position the standby transformer is powered up. This triggers the measurement of your mains voltage which takes approximately 2 seconds.

Switching ON and OFF The **POWER switch (23)** switches the preamp on and off, presuming the AC mains switch is in the ON position.

With the **POWER switch (23)** set to "OFF" all functions of the preamp are powered down.

By flipping the **POWER switch (23)** from "OFF" to "STBY", the **POWER LED (24)** lights up orange. This indicates that the unit is in standby mode.

When the POWER switch is in "STBY" position, the unit can be switched on and off by pulling up the POWER switch, pushing the POWER button on the BURMESTER remote control, the BURLINK interface or by the DC IN jack.

In operating mode (ON) the **POWER LED (24)** lights up red and all functions of the preamp are activated.

PLEASE NOTICE: Always switch off the preamp with the POWER switch first before bringing the AC mains switch into OFF position.

Input selection With the **INPUT switch key (13)** you select the input you want to listen to. You can also use the keys **STATION+** and **STATION-** on the BURMESTER remote control. This requires, that the preamp was selected by pushing the **PHONO** button on the remote control before. If you, for example, press the DISC button and then use the STATION buttons, they will not have any affect on the 100 Phono preamp.

The chosen input will be displayed via the **INPUT LEDS (1)** on the left side of the front panel. In addition to the input the **MC / MM LED** will show what kind of module is equipped on that input.

The settings for each input are stored separately. Thus if you switch between inputs you will always have the last setting of that input available.

Input resistance With this option you are able to adjust the input resistance of the PHONO MC module to the pickup of your record player. Usually the manufacturers of pickup systems have recommended settings for this option. Of course you can try different settings, whatever sounds best to your ears.

The 100 offers the option to choose between 33Ω, 75Ω, 220Ω, 390Ω, 1kΩ and 47kΩ. This allows you to find the optimal match to your pickup system.

By pressing the **LOAD switch key (14)** up or down or with the navigation buttons ▲ ▼ on your remote control you will change this setting.

The chosen input resistance will be displayed by the **IMPEDANCE-/CAPACITY LEDs (3)**.

Input capacitance With this option you are able to adjust the input capacitance of the PHONO MM module to the pickup of your record player. Usually the manufacturers of pickup systems have recommended settings for this option. Of course you can try different settings, whatever sounds best to your ears.

The 100 offers the option to choose between 68pF, 120pF, 180pF, 220pF, 300pF and 400pF. This allows you to find the optimal match to your pickup system.

By pressing the **LOAD switch key (14)** up or down or with the navigation buttons ▲ ▼ on your remote control you will change this setting.

The chosen input resistance will be displayed by the **IMPEDANCE-/CAPACITY LEDs (3)**.

- Input amplification** With this option you are able to adjust the playback volume of the MC or MM module to the pickup system of your record player.
By pressing the **GAIN switch key (15)** up or down or with the navigation buttons ► ◀ on your remote control you will change this setting for each input. Choose the option which sounds best to you. Therefore you have six different steps.
The input amplification differs depending on which module is installed. The scale for MC modules is 57dB, 60dB, 63dB, 66dB, 69dB and 72dB. For MM modules the scale is 37dB, 40dB, 43dB, 46dB, 49dB and 52dB.
The chosen amplification will be displayed by the **GAIN LEDs (4)**.
- Subsonic filter** The 100 offers the option to activate a subsonic filter. The subsonic filter eliminates low frequency signals, which might come from the record player or wavy records. Switch on the subsonic filter, if the bass membranes of your loudspeakers are moving very slowly with a large swing.
The subsonic filter is activated or deactivated with the **SUBSONIC switch key (16)**, or by shortly pressing the **SUBT** button on your remote control. If the subsonic filter is activated, the **SUBSONIC ON LED (5)** illuminates.
- Output amplification** If you are operating the preamp 100 with amplifiers with low input sensitivity, it is possible to enhance the maximum amplification by +6dB.
To change the amplification the **OUTPUT switch key (17)** needs to be pulled up or the **SUBT** button on your remote control needs to be pressed longer (app. 2 seconds). At high amplification the **OUTPUT +6dB LED (6)** will illuminate.
Pressing the **OUTPUT switch key (17)** down or again longer pressing the **SUBT** button on your remote control deactivates this function.
- VU-Meter** The 100 is equipped with an analog VU-Meter to display the modulation amplitude of the ADC (Analog Digital Converter). If the VU-Meter displays 0dB_{FS}, the maximum level of 2 Volts is present at the ADC input. This level must never be exceeded. Otherwise digital distortion will occur. Adjust the input amplification of the 100 to a level that -3dB_{FS} (beginning of the red area) is not reached.
The **OVERFLOW LED (9)** is an additional display for the distortion without any inertia.
The meter displays either the left channel, the right channel or a mono equivalent of both channels. By pressing the **DIM / VU-Meter switch key (19)** up or by pressing the **MODE** button on your remote control you can toggle between the different operation modes. If none of the **VU-METER LEDs (10)** is lit, the function is disabled.
- Display brightness** By pushing the switch key **DIM / VU-METER (19)** down, or by shortly pressing the **DIM** button on your remote control you can adjust the brightness of your display in four steps from "maximum brightness" to "off".
If mode "off" is chosen, the display illuminates when the device is operated to indicate that a function is controlled, and dims out after approximately six seconds.
- ADC activation** The 100 is equipped with an Analog Digital Converter (ADC) which allows you to digitalize your record collection. You require a digital recording unit or a PC connected to the 100 to be able to record music. By pressing the **ADC switch key (21)** up or by pressing the **AUDIO** button on the BURMESTER remote control shortly the ADC function is activated. One of the **ADC-LEDs (11)** illuminates indicating the active sample frequency. If the ADC is activated the digital signals will be supplied at the outputs **A/D OUT (39)** and **USB (37)**.

By pressing the **ADC switch key (21)** down or by pressing the **AUDIO** button on the BURMESTER remote control longer (app. 2 seconds) the ADC is deactivated and completely cut off from the signal path. This will be displayed by the **ADC OFF LED (20)**.

ADC sample frequency The sample frequency of the ADC (Analog Digital Converter) is selectable. The choices are 48kHz, 96kHz and 192kHz. To change the sample frequency you need to press the **ADC switch key (21)** up on the front panel or press the **AUDIO** button on your remote control shortly. The selected frequency is indicated by the illuminated **ADC LED(11)**. By pressing the **ADC switch key** down or by pressing the **AUDIO button** on your remote control longer (app. 2 seconds) the ADC is deactivated and indicated by the **ADC OFF LED (20)**. The sample frequency only affects the **A/D OUT (39)** output. The TOSLINK OUTPUT (TOTX on the back panel) transmits sample frequencies up to 96 kHz only concerning its technical properties.

PLEASE NOTICE: In case the sample frequency 192kHz is selected, the preamp applies the signal only at the RCA output. The TOSLINK output does not have any signal. The **USB (37)** output always has the same sample frequency of 48kHz.

Phase reversal In factory settings the preamp 100 passes incoming signals without phase reversal to the balanced output. If the pin polarity of a connected amplifier differs from the pin polarity of the 100 Phono preamp there is the possibility to reverse the phase of the output by 180°. The phase reversal is activated or deactivated by pushing the DIL switch key on the rear panel of the 100 into the desired position.

Volume Control The 100 Phono preamp has the unique option to be operated with a volume control. This options allows the direct use of the preamp with power amps or active loudspeakers. When the unit operates in variable volume mode the **VOLUME LED (7)** lights up.

WARNING: When the **VOLUME LED (7)** is not lit you must not connect the 100 Phono preamp to a power amp or active loudspeakers. The maximum volume level is active at the outputs and may destroy your power amp or active loudspeakers.

To avoid accidental switching on or even worse switching off of this function, we configured a combination of keys to its activation:

1. Use the **POWER switch (23)** to switch the 100 into standby mode.
2. Now, simultaneously, you have to pull up the **DIM / VU-Meter switch key (19)** and the **AUTO ADJUST switch key (22)**. Also the **ADC switch key (21)** needs to be pushed down. Hold these three keys simultaneously while you now switch on the 100 preamp with the **POWER switch (23)**.

Now the **VOLUME LED (7)** indicates that the variable volume mode is active. You are now able to change the volume by pressing the **VOLUME +** and **VOLUME -** buttons on your remote control. When the 100 receives a volume command via remote control the **VOLUME LED (7)** will flash. When the **VOLUME LED (7)** flashes slowly you have reached the maximum volume level.

To deactivate the function again, you have to repeat the steps **1** and **2**.

ATTENTION: If you change from variable volume to fixed volume make sure to disconnect your power amp or active loudspeakers from the 100 preamp!!!

Auto Adjust

Some pickups show a pretty high level tolerance between the left and right channel. In this case the 100 is equipped with an automatic level adjust function. This function measures the channel difference and automatically adjusts it. This requires that your record player is configured correctly.

PLEASE NOTICE: During the Auto Adjust measurement the unit will set up the technically optimal input amplification. You can change this setting, if another input amplification sounds better to you.

How to approach:

Select a moderate volume, household noise level at maximum.

Put the test record on your record player. Now lower the pickup on the record. The preamp requires a 1kHz sine wave stereo signal. As soon as you hear the measurement signal, activate the measurement by pushing the **AUTO ADJUST switch key (22)** up for approximately 2 seconds.

During the measurement process the **AUTO ADJ ON LED (12)** will flash.

After incorrectly finishing the adjust process the **AUTO ADJ ON LED (12)** will stop flashing and the **AUTO ADJ OFF LED (12)** will illuminate.

After correctly finishing the adjust process the **AUTO ADJ ON LED (12)** will stop flashing and will illuminate constantly.

In case of incorrectly finishing you should check your record player if the right track was selected, the connectors for any errors and the properties of the 100 preamp.

After correctly finishing the adjust process you will be able to deactivate it by pushing the **AUTO ADJUST switch key (22)** down. Pushing up the **AUTO ADJUST switch key (22)** will activate the function any time.

Defaults

To recover factory settings the 100 preamp offers the option to load the default parameters. All adjustments will be deleted, including the Auto Adjust.

With a combination of keys on the front panel similar to the activation of the volume control the default parameters can be loaded:

1. Use the **POWER switch (23)** to switch the 100 into standby mode.
2. Now, simultaneously, you have to pull down the **DIM / VU-Meter switch key (19)**, **AUTO ADJUST switch key (22)** and the **ADC switch key (21)**. Hold these three keys simultaneously while you now switch on the 100 preamp with the **POWER switch (23)**.

After correctly loaded default parameters, the settings are as followed:

- **Load:** 75Ω / 120pF
- **Gain:** 66dB / 46dB
- **Output:** 0dB
- **Subsonic:** ON
- **Variable:** OFF
- **VU-Meter:** Mono
- **DIM:** maximum brightness
- **ADC:** OFF
- **Auto Adjust:** OFF

Previous Auto Adjust parameters will be deleted by loading the default parameters and need to be calibrated again.

ERRORDISPLAY

Since the 100 Phono preamp is not equipped with a classic display, the **POWER LED (24)** will indicate any errors by flashing. Should an error occur, the 100 preamp will switch itself into standby mode.

In case of a flashing **POWER LED (24)** in any color we ask you to switch of the unit and disconnect it from the power grid. After approximately 10 seconds try again to switch on the 100 preamp. If there is still any error, please contact your authorized dealer.

REMOTE CONTROL

The 100 Phono preamp is equipped as standard with a remote control.

Switching on/off	The POWER button switches the preamp on or off, provided the mains switch on the rear panel of the preamp is set to ON and the power switch on the front panel of the preamp is set to STBY.
Input selection	The buttons STATION + and STATION - toggle the inputs. These buttons will only react toward the 100 Phono preamp, if the PHONO button on the remote control was activated as last direct input selection. If you, for example, press the DISC button and then use the STATION buttons, they will not have any affect on the 100 Phono preamp.
Input resistance	The navigation keys ▲ ▼ change the input resistance of the currently selected MC input.
Input capacity	The navigation keys ▲ ▼ change the input capacity of the currently selected MM input.
Input amplification	The navigations keys ► ◄ change the input amplification of the currently selected input.
Playback volume	With the buttons VOLUME + and VOLUME - you are able to adjust the playback volume. By shortly pressing the VOLUME buttons you are able to change the volume in small steps. The 100 needs to be in variable volume mode for these buttons to work.
Display brightness	With the DIM button you are able to adjust the brightness of the display in 4 steps. These steps vary between "max. brightness" and "off". If you choose the option "off" the display will only light up when you change anything. This gives you a feedback about the changes you are applying. When you are done with your changes, the display will go blank again after a couple of seconds.
Output amplification	Longer pressing the button SUBT changes the overall amplification of the preamp. At high amplification the OUTPUT +6dB LED (6) will illuminate. Again longer pressing the SUBT button will switch back to normal amplification. This will be indicated by the OUTPUT 0dB LED (6) .
ADC on/off	Pressing the AUDIO button will activate the ADC (Analog Digital Converter). One of the ADC LEDs (11) will illuminate, indicating the last selected sampling frequency. Longer pressing the AUDIO button (approximately 2 seconds) will deactivate the ADC.
Sampling frequency	If the ADC (Analog Digital Converter) is activated, pressing the AUDIO button on your remote control will toggle the sampling frequency between 48kHz, 96kHz and 192kHz. The selected sampling frequency will be indicated by the illuminated ADC LED (11) .
VU-Meter	Every function of the VU-Meter can be controlled by the remote control. Pressing the MODE button on your remote control toggles between the different functions and off (left -> right -> mono -> off -> left etc.)
Subsonic filter	Shortly pressing the SUBT button will activate or deactivate the subsonic filter.

BURLINK

CONNECTIONS

Connections to the BURLINK interface can either be done by the 9-pin D-SUB connector (RS-232) or by the USB connector.

RS-232 configuration: 9600Baud, 8bit, parity: none, 1 stop bit, no hardware handshake

A USB device driver needs to be installed when using the USB connector. System requirements for using the USB software are either **WINDOWS 2000** or **WINDOWS XP** operating system.

COMMANDS

Listed below are the possible commands to control the preamp 100. All commands needs to be sent in capital letters finished with a "carriage return" \r .

POWON\r	switches the unit on
POWOFF\r	switches the unit to standby mode
INP+\r	toggles the inputs of the preamp
INP-\r	toggles the inputs of the preamp
INP1\r	switches to input 1
INP2\r	switches to input 2
VOLUP\r	increases the volume by one step
VOLDN\r	decreases the volume by one step
ADC\r	switches the ADC on and toggles the sampling frequency between 48kHz, 96kHz and 192kHz
ADC_OFF\r	switches the ADC off
SUBS\r	toggles the subsonic filter (on – off – on – off ...)
SUBSONIC_ON\r	switches the subsonic filter on
SUBSONIC_OFF\r	switches the subsonic filter off
DIM\r	toggles the brightness of the display (0,1,2,3,0,1,2....)
DIM0\r	switches brightness to maximum
DIM1\r	switches brightness to middle
DIM2\r	switches brightness to low
DIM3\r	switches the display off

LOAD_UP\r	switches the input capacity or resistor (according to the equipped module) up
LOAD_DN\r	switches the input capacity or resistor (according to the equipped module) down
GAIN_UP\r	switches the input amplification up
GAIN_DN\r	switches the input amplification down
OUT\r	toggles the overall amplification between 0dB and +6dB
OUT_0DB\r	switches the overall amplification to 0dB
OUT_6DB\r	switches the overall amplification to +6dB
AUDOADJ_CAL\r	starts the Auto Adjust calibration
AUDOADJ_ON\r	switches the Auto Adjust on
AUDOADJ_OFF\r	switches the Auto Adjust off
VUM\r	toggles the VU-Meter settings between off – left – right - mono
TYPE\r	shows the type of the unit
SNR\r	show the serial number of the unit
VERSION\r	shows the software version of the unit

GENERAL INSTRUCTIONS

Please read the owner's manual carefully and keep it safely. If you have any questions, we ask you to contact your local authorized dealer.

Operating temperature	An operating temperature that is too high or too low may cause malfunctioning. We therefore recommend letting the unit settle for a while after unpacking before connecting and operating it.
Setting up	When choosing a place for your equipment please observe the following: - Avoid direct sunlight. - Do not expose the equipment to excessive heat, cold, humidity or dust. - Provide adequate air circulation; avoid placing the equipment in enclosures. - Slots and other openings in the housing are for ventilation. They must not be covered up. - Please make sure that the component is not exposed to dripping water or splash water, also don't place boxes with liquid onto your component. - Open flames like candles must not be placed on top of any electronic unit.
Mains voltage	For AC connection please use only the three-pronged power cable provided. The grounding pin must not be bypassed under any circumstances. Connect the component only to a wall outlet with fully functional grounding pin. Since the power supply automatically adjusts to your ac mains voltage it is safe to use the 100 with every established mains voltage.
Comm. Operation	Before installation switch off all other components of your hifi system. Switch them back on only after making sure that all connections have been made correctly and completely. Never try to operate the equipment when it has obviously been damaged or if liquid has gotten into it.
Terminals	The pins of the connecting terminals on the back panel must not be touched under any circumstances. Static discharges may damage the electronic circuitry inside the unit.
Interconnects	We supply custom-made balanced as well as unbalanced interconnect cables and speaker cables to ensure highest-quality signal paths for our components. The impedance of our cables is ideally matched to all BURMESTER components.
IR receiver	The IR receiver receives signals from the BURMESTER remote control and must not be covered up by any objects.
Heat development	Be careful when touching the housing – it may get quite warm during operation.
Reset	If the unit does not react when pressing the control keys on the front panel it may be reset to normal operation by switching it off and back on using the AC mains switch in the back.
Battery hazard	The remote control contains batteries. Do not expose them to excessive heat. Improper use may result in overheating, fire, explosion, smoke and gas. Have the batteries replaced by your dealer. Swallowing the batteries can be fatal! Always keep children away from small parts that can be swallowed!

- Lightening strikes** During the summer months, malfunctions often occur due to voltage spikes in the power lines after lightning strikes. Completely unplugging the power cord offers the only effective protection. Merely switching the unit off does not suffice since voltage spikes are able to arc over separated contacts.
- Fuses** The fuses are located inside the unit and should only be changed by a qualified technician.
- Warranty** We provide a three-year warranty on your Burmester device. In order for the warranty to be valid, the device must have been connected and operated properly without overloading, the mechanical integrity of the device must not have been compromised, and the device must have been registered. The warranty expires if the device has been tampered with in any way or if parts of the housing, connections or terminals have been dismantled. Please register your product with the serial number in the warranty certificate at: www.burmester.services/warranty and activate your warranty extension.
- Care** Never clean the housing with a wet cloth or chemical cleaning agent. Always make sure that no liquid gets into the housing.
- Battery hazard** The remote control contains batteries. Do not expose them to excessive heat. Improper use may result in overheating, fire, explosion, smoke and gas. Have the batteries replaced by your dealer. Swallowing the batteries can be fatal! Always keep children away from small parts that can be swallowed!



This symbol on the equipment points to important notes, which can be found in the owner's manual.



This symbol on or inside the equipment warns of dangerously high voltage.



If the unit and its accessories are to be put out of operation definitively, take it to a local recycling plant for a disposal, which is not harmful to the environment.



CAUTION:

The unit must only be opened by qualified experts. Opening the unit provides the chance of encountering dangerously high voltage. Therefore the power cord must always be unplugged before opening the equipment.

TECHNICAL SPECIFICATIONS

Dimensions	(W x H x D)	482 x 96 x 344 mm (19.0 x 3.8 x 13.5 inches)
Weight		9 kg (19.9 lbs)
Mains voltage		100V - 120V 50Hz / 60Hz 200V - 240V 50Hz / 60Hz
Fuses	F1, F2 F3, F4 F5	500mA E slow 1A E slow 50mA E slow
Power consumption	ON STBY OFF	25 W <1 W <1 W

PLEASE NOTE: The dimensions do not include the length of binding posts and the space needed for plugs of interconnect cables.

The technical data and design of this product are subject to change without notice.

