# REFERENCE LINE



# Preamplifier Vorverstärker



mbl 6010 D





OWNER'S MANUAL BEDIENUNGSANLEITUNG



## Important Information!

**Attention!** Keep the preamplifier away from high humidity, vibration, excessive dust and direct sunlight. Excessive heat or cold will affect the preamplifier's functionality. The permitted operating temperature is 10°C up to 40 °C (50°F up to 104°F). Avoid extreme variations in temperature. Do not operate the preamplifier near other electric appliances (for instance neon light and motors). The preamplifier should not be opened without the assistance of a qualified technician!

**WARNING**: Do not connect any musical instruments (e.g. electric guitar etc.) to the pre-amplifier. This use for a purpose for which it is not designed – i.e. for a purpose other than playback - can result in irreparable damage to the equipment.

Do not operate the device under condensation! Allow the preamplifier to warm up at least three hours to room temperature after it has been exposed to low temperatures.

Make sure that no fluid-filled vessels (glasses,vases...) are put on the device to prevent water from ingressing the device, and the device is never exposed to splash water.

Please discard used batteries in accordance to your country's laws.

## KETI, CE-Marking

This product conforms to the requirements of the EMC directive and low-voltage directive. Your MBL component complies with the household power and safety requirements in your area.



## Warranty

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





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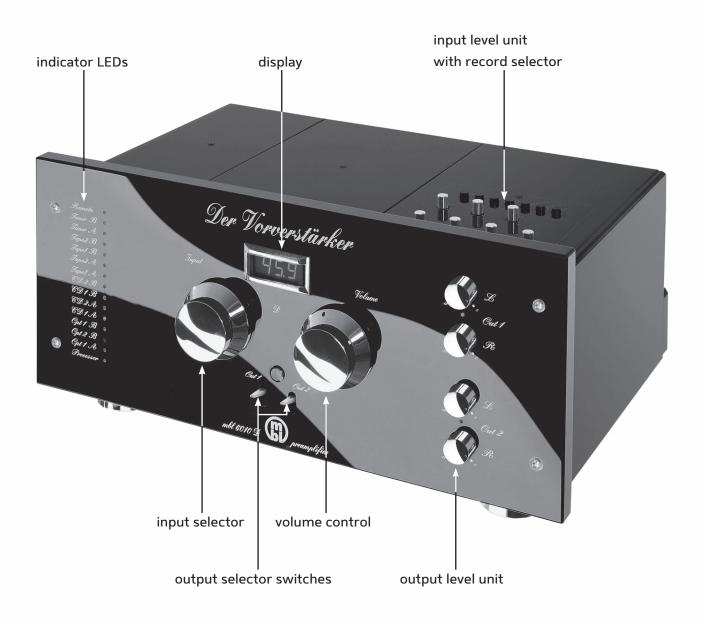
## Scope of Delivery

mbl 6010 D Preamplifier
A/C Power Cord
mbl System Remote Control SFBG3
(batteries included)

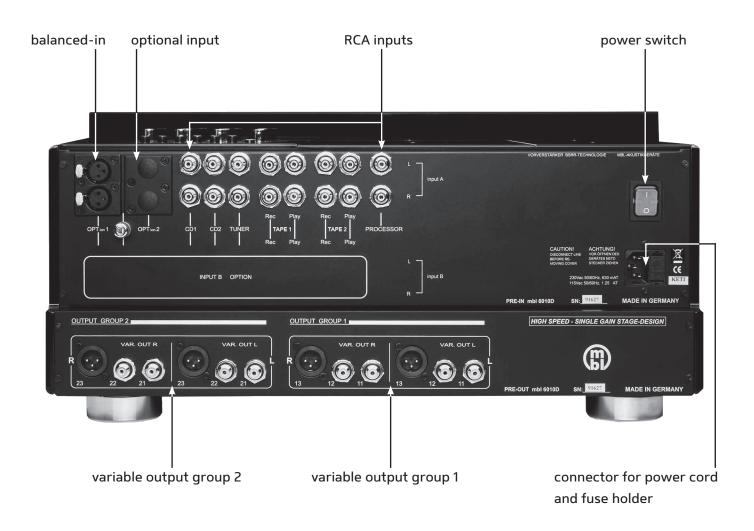


mbl System Remote Control SFBG3











#### 1. Installation

#### 1.1 General Precautions

Keep your preamplifier away from humid places. For example, do not operate the device near air dampeners or in bathrooms. The relative humidity may be between 10% up to 90% in operation, as long as condensation does not occur. As with any other electrical device, direct contact with water will not only damage the preamplifier but will lead to a hazardous situation that will result in death or serious injury!

Excessive heat or cold will affect the unit's functionality. Therefore, do not operate the unit near a heat source such as a radiator and do not expose it to direct sunlight. The permitted operating temperature is 10°C up to 40 °C (50°F up to 104°F), the storage temperature is between -10°C and 50°C (14°F and 122°F).

Condensation may emerge inside the device, if temperature changes excessively within a short time. In this case, do not connect the device to the mains as this may result in a short-circuit, leading to malfunctions or damage. If you, for example, transfer the unit from outside into a heated room in winter, wait at least three hours before connecting and operating it. Store the device only in a place where the temperature and humidity are constant as frequent condensation will harm the device. The environment should be free from dust or sources of electric interference such as fluorescent tubes or engines.

Do not expose the device to heavy vibrations as this may lead to malfunctions or damages. Install the device in a level and stable place. Please consider the heavy weight of MBL products!

#### 1.2 Connection to the Outlet

Your preamplifier features two high-quality toroidal transformers for power supply. Depending on the setting, it is proposed for the connection to the outlet providing either 230 V/50 Hz or 115 V/50/60 Hz. The device is shipped with the voltage setting appropriate for the country where it is sold.

If you want to operate the device in a country with a different mains voltage, please contact a qualified technician to have the operating voltage altered accordingly. For safety reasons, this can be achieved only after opening the enclosure of the device. Further, the fuse must be replaced: A 0.63 amps sb fuse is required for an operating voltage of 230 V, a 1.25 amps sb fuse for 115 V.

**Note**: If you connect your preamplifier to the outlet with an inadequate voltage setting, it will result in heavy damage. MBL assumes no responsibility for accidents and damages caused by improper settings. Further, changes made to the voltage setting by a technician will not be covered by the warranty either.

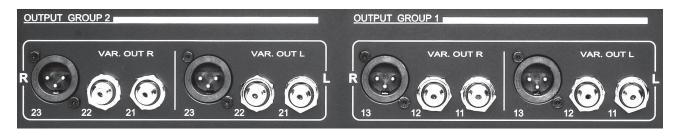
Caution! Whoever opens an electric device without previously disconnecting it from the outlet puts his life at risk carelessly and irresponsibly. Unplug the unit before opening!



## 2. Connecting Other Components

## 2.1 Outputs

The mbl 6010 D is designed for connecting one or more power amplifiers. It provides the following analog outputs for power amplifier connection:



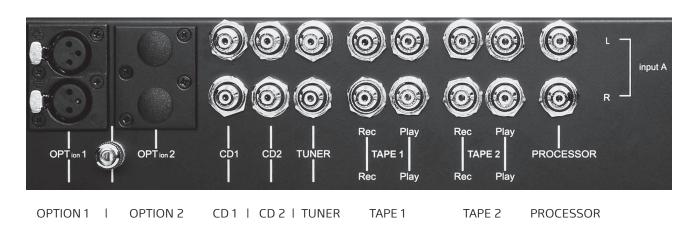
**OUTPUT GROUP 2** 

2 x RCA outputs (21 and 22) per channel 1 x balanced XLR output (23) per channel OUTPUT GROUP 1

2 x RCA outputs (11 and 12) per channel 1 x balanced XLR output (13) per channel

## 2.2 Inputs

Up to 7 source devices can be connected to your mbl 6010 D. For this purpose, it provides the following analog inputs:



The inputs OPT 1 and OPT 2 are optional inputs reserved for additional modules such as Phono MC or balanced input. OPT 1 is already equipped with a balanced input.



## 3. Front Panel Controls

## 3.1 Input Selector

With the input selector switch you can select one of the various sources connected to the preamplifier. The processor enables the connection of an extern surround-decoder. Choosing this input will engage a signal to the connected amplifier (Bypass). This gives the possibility to switch between audio (music replay) and video (DVD). Use buttons Opt 1A / Opt 1B / Opt 2 and to select plugged in Phono MC or Balanced-In modules.

## Input selector settings:

Input	Input selector	Input section*	Function
TUNER	Tuner	A	tuner input
TAPE 1	Tape 1	A	tape machine at TAPE 1 input
TAPE 2	Tape 2	$\mathcal{A}$	tape machine at TAPE 2 input
CD 1	CD1	A	CD player at CD 1 input
CD 2	CD2	A	CD player at CD 2 input
OPT 1	Opt 1	A	Phono MC or Balanced-In module at OPT 1 input
OPT 2	Opt 2	A	Phono MC or Balanced-In module at OPT 1 input
PROCESSOR	Processor	A	bypassing the signal of an external surround processor

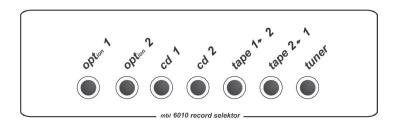
<sup>\*</sup> Input section B was an optional expansion. No longer available.



## 3.2 Input Section

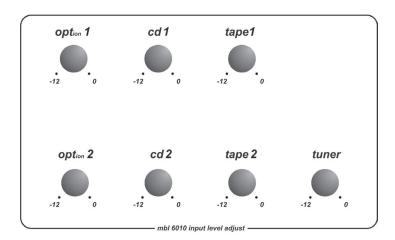
The input section is composed of level encoders and record buttons.

#### Record selector



With the record select buttons the signal source for a connected tape machine can be controlled. The recording procedure can be performed independently of playback; for example, the tuner can be routed to the output using the input control while a tape recording is being performed from CD. The recording quality can be checked immediately during the recording process; for this purpose, set the Input control to Tape 1 or Tape 2. (Tape 1 refers to the machine connected to the TAPE 1 connector and Tape 2 to the device connected to the TAPE 2 connector).

## Input level unit



The precision potentiometers are associated with the respective inputs and provide input-signal attenuation by up to 12 dB in order to prevent volume peaks when changing between sources.



#### 3.3. Volume Control

The volume control is a "MSP" special metal potentiometer with a channel alignment of better than 0.8 dB. This MSP is shielded against magnetic and electrostatic fields. Rotating the Volume control clockwise will increase the volume, rotating it counter clockwise will lower the volume.

## 3.4 Digital Volume Display



The digital display indicates the total-volume rotary angle as a percentage. The rotary angle is set by a separate potentiometer and is then displayed. The displayed values provide a volume reproduction of: 00.0...100.0%.

**Note**: It is possible that the last digit jumps between two numbers. This is not a malfunction, it proves that here is a high grade analog potentiometer build in and not a digital component.

## 4. Processor / Bypass

To the processor / bypass input you can connect an external surround decoder to the power amplifier. When you select this input, any signal presented here will be switched to the output directly (bypass function). This allows an easy switching between audio (music replay) and video (DVD, etc.).

Note: Volume can not be controlled by the preamplifier.

**Attention!** BYPASS/Processor: never use this input for unregulated high level signals (e.g. CD player). High levels may cause defects on connected amplifiers and speakers.

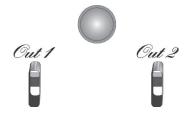
## 5. Output Groups

The output stage is subdivided into two groups for connecting multiple power amplifiers. Each group features two balanced XLR connectors and four RCA connectors.



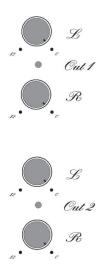
## 5.1 Output on/off Switches

Out 1 and Out 2 are used for switching on and off GROUP 1 and/or GROUP 2 output sections. Sliding a switch upward the respective outputs are on, sliding it downward they are off. The LED between output level potentiometer indicates the selected status. If the LED light is lit, the outputs are on, otherwise they are off. With the Remote control you can also switch the outputs on / off.



## 5.2 Output Level Unit

The output level unit allows precise adaptation of the stereo-signal balance to the environmental acoustics. Discrete attenuation by up to 12 dB is provided for each channel of the output modules.



## 6. Remote Control

Using the remote control will overwrite the unit's adjustment. The LED "Remote" indicates that the settings of the switches (Input selector and Out1 and Out2) do not correspond to the current status of the amplifier.

However the LEDs indicate the correct status of the unit.

Controlling the unit without remote control will reset the device to the adjustment former made directly on the unit.

If the position of the switches conforms to the unit's current status, the "Remote" LED does not light. Adjustment referring to the volume control is not affected.

**Note**: The amplifier saves the adjustment, even if you turn it off. For saving adjustment the amplifier needs at least 2 seconds before you turn it off.



## 7. Options (modules)

All installations must be performed exclusively by your MBL dealer.

#### 7.1 Balanced-In

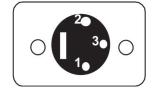
The Balanced-In module contains an active balancing stage for connecting a balanced signal to the preamplifier inputs.

#### Balanced:

2 = + In Phase

3 = - Out of Phase

 $1 = \bot$  Ground, 0 V



#### 7.2 Phono

An absolute must for the analog record enthusiast - the Phono-MC-Module. The Phono-MC-Module features a separate RIAA equalizer for optimum adjustment and the RIAA poles are distributed to multiple amplifiers, thus increasing the amplification headroom of each amplifier and reducing distortion to almost zero. At a gain reserve of 12 dB it still results in an incredible overload resistance of 24 dB! The deviation from the RIAA curve is less than 0.2 dB.

The Phono-MC-Module can optionally be installed at one of the provided spaces of the Input group A.



## 8. Cleaning

#### Unplug the unit before cleaning!

To clean the exterior surfaces of your mbl 6010 D use a dry, soft cloth. To wipe off fingerprints and other grease spots, use a soft, damp cloth moistened with a mild detergent dissolved in water.

**Caution**: The cloth must **never be dripping wet!** If water or other fluids enter the cabinet, you risk damaging the unit.

**Never use** scouring pads, steel wool, scouring powders or harsh chemical agents, alcohol, thinners, benzine, insecticide or other volatile substances, as these will destroy the finish of the cabinet.





## 9. Features of the mbl 6010 D

#### 9.1 mbl 6010 D - Base Unit

The base unit includes all features of a high-quality preamplifier:

- 2 optional input slots for special functions (1 already equipped with a Balanced-In)
- processor-bypass input
- input stage featuring 6 input connectors
- pre-amp stage
- 2 output stages featuring 3 outputs / stage
- power supply (based on low-drop technology) with protection transformer
- main volume control
- digital volume meter
- output-level potentiometer
- output selector switch
- can be operated by using a remote control

## 9.2 mbl 6010 D - Options

The following options are available:

- balanced inputs
- Phono MC



## 10. Troubleshooting

Please consider the following notes for installing your preamplifier. Proper functionality can be affected by:

- excessively high temperatures (>40°C (104°F); e.g. near a radiator),
- excessively low temperatures (<10°C (50°F)),</li>
- excessively high humidity (>95%; e.g. near an air dampener),
- excessively low humidity (<10%),</li>
- extreme temperature changes (may lead to condensation),
- electric sources (such as fluorescent tubes or engines),
- · vibrations and shocks.

If any trouble occurs, first make sure that the conditions listed above are not present.

The device does not run. The indicator remains dark.

- Is the power plug properly connected?
- · Are the cables firmly inserted into the appropriate jack?
- · Is voltage present at the main socket? Check by connecting and switching on a different device.

If the preamplifier does not work though it is properly connected to the power, check the mains fuse.

#### Caution!: checking fuses: always disconnect the unit from the power supply!

Pull the element right of the power connector of the device. The fuse holder accommodates two fuses (0.63 amps sb for 230 V mains voltage, 1.25 amps sb for 115 V mains voltage). The main fuse is located at the rear of the unit, the one at the front is a spare part; interchange the two fuses, then push the element back to its original position. Connect the power plug to the power source and check, whether the preamplifier starts working now. If the device still does not work, disconnect it from the power source and wait a minimum of three hours for possibly emerged condensation to dry, or other impacts to cease. Then, reconnect the device to the power outlet

and check whether the preamplifier starts working now. If the device does not work properly, contact a qualified

technician for assistance.

The device is on. But I cannot hear music.

- Check cable connection from the preamplifier to the power amplifier and from the input devices to the preamplifier.
- Are the speakers properly connected?
- Are the audio sources and the power amplifiers properly connected to the power outlet? Are these devices turned on?



If so, check whether the volume control of the preamplifier is appropriately set and whether the source units and power amplifiers are not muted. Check whether the output indicators on the preamplifier are lit.

• Is the preamplifier indicator associated with the desired audio source lit?

If none of these actions are successful, disconnect the device from the power outlet and wait a minimum of three hours for possibly emerged condensation to dry. Then, reconnect the device to the power outlet and check whether the preamplifier starts working. If the device still does not work properly, contact a qualified technician for assistance.

#### The remote control does not work.

- Are the batteries supplied with the remote control functioning? If not, replace them with a pair of fresh ones. Always replace all batteries at a time!
- Are the batteries put in the right way? Please make sure that the polarity (+/-) is correct.
- Make sure to operate the key 1 (Pre) first to initialize the remote control for preamplifier operation.
- Are the infrared transmitter on top of the remote control and the infrared receiver on the preamplifier dirty? If so, clean the respective part with a soft damp cloth.



Frequency Range	
High level	DC - 600 kHz
Phono MC	20Hz - 200 kHz
Output level	1Veff - 11Veff max.
Output Impedance	100 Ω
Noise Distortion (1 kHz, 2V)	
High level	<0,0006%
Phono MC	<0,0015%
Input Sensitivity	
High level	315 mV
Phono MC	0.315 - 1.26 mV
Signal to Noise	
High level	102 / 108 dB, 1V/25 Ω
Phono MC	74 / 78 dB, 0.5mV/10 $\Omega$
Maximum Input Level	
High level	11 Veff
Phono MC	12 - 45mVeff
Input Impedance	
CD	5 kΩ
High level	50 kΩ
Phono MC	100 Ω, var.
Processor	10 kΩ
Channel Separation	
High level	90 dB
Phono MC	70 dB
Subsonicfilter Phono	20Hz (IEC new), 6dB/Oktave
Power Consumption	25 VA max.
Line Voltage	230/115Vac, 50/60Hz
Weight	22 kg, 48.4 lbs
Dimensions (WxHxD)	530 x 240 x 355 mm
	21 x 9 x 14 inch



## MBL Reference Line High End Audio Components



mbl 1621 A CD Transport



mbl 1611 F D/A Converter



mbl 6010 D Preamplifier



mbl 9011 Mono/Stereo Power Amplifier



mbl 101 E MKII Radialstrahler



mbl 9008 A Mono/Stereo Power Amplifier



mbl 9007 Mono/Stereo Power Amplifier

For best performance we recommend the High End Audio components of the MBL Reference Line.

Your MBL dealer will help you to choose the optimal components for your perfect High End Audio system.



mbl 101 X-treme Radialstrahler System