



BOSCH
Invented for life

LBB 1920/00 Plena Universal Pre-Amplifier



- ▶ Four universal low-noise input channels for microphone or line
- ▶ Separate tone control, speech filter and direct output per channel
- ▶ Selectable blocking, serial and mixing priorities
- ▶ Multifunctional inter-connection point
- ▶ Priority and emergency relay outputs
- ▶ Master volume control

The Plena Pre-Amplifier is a high-performance, versatile four-input channel mono mixer pre-amplifier, capable of fulfilling a wide variety of public address requirements.

Functions

All input channels provide a choice of a balanced 3-pin XLR-connector for microphone or line level (selectable), a balanced 5-pin DIN-connector for microphone or line level with priority contact, or a line level stereo cinch-connector, converted to mono. Microphone inputs have a phantom power supply. Each input channel has its own volume and tone control, a selectable speech filter to reduce the bass content of the speech signal for improved intelligibility, and a balanced direct output on XLR after the channel controls.

Three priority modes are available for the input channels. In the blocking mode the input channel that is activated first gets priority over all other input channels. In the serial mode input channel 1 has priority over channels 2, 3 and 4, channel 2 has priority over channels 3 and 4, and channel 3 has priority over channel 4. Each of the input channels can be mixed to the master output, irrespective of priority, by separately setting that channel to the mixing mode.

Balanced XLR interconnection input and output are provided in combination with an insertion/cascade

selector. In insertion mode an external sound processing device, e.g. an equalizer, can be connected between these connections. In the cascade mode, multiple LBB1920/00 pre-amplifiers can be cascaded to increase the number of input channels to 8, 12, or even more. Internally the interconnection input can be switched as an emergency input with a signal level detector (VOX). If an emergency audio signal is detected, this input overrules all other inputs and even bypasses the master volume control. The emergency input has its own internal volume preset.

In order to get a message through (although the local volume may be set to a low volume level for e.g. background music), override relay contacts are provided for overriding local loudspeaker volume controls. Upon closing one of the input channel priority contacts, this relay will be activated. For the emergency input another VOX activated relay is provided to trigger external equipment or for local volume control override. An overload protected 24 VDC output is available to supply power to external relays, so no additional external power supply is required.

In parallel to the balanced XLR master output an additional microphone level output is available on DIN. This provides a signal to e.g. a mixing desk or microphone mixer amplifier.

A tape output is also available.

A monitor selector with headphone connector and LED VU-meter allows for monitoring of the master output or one of the input channels.

Certifications and Approvals

EMC emission	acc. To EN 55103-1
EMC immunity	acc. To EN 55103-2

Parts Included

Quantity	Component
1	LBB 1920/00 Plena Universal Pre-amplifier
1	Power cord
1	Plena CD
1	19" mounting brackets

Technical Specifications

Electrical

Mains Voltage	230 VAC / 115 VAC, ±15%, 50 / 60 Hz
Max Mains Power Consumption	• 25 VA
Battery Voltage	24 VDC, +20% / -10%
Max Battery Current	1A
Max Mains Inrush Current	1.5 A @ 230 VAC / 3 A @ 115 VAC

Performance

Frequency Response	50 Hz – 20 kHz (+1 / -3 dB)
Distortion	<0.5 %
Bass Control	±10 dB @ 100 Hz
Treble Control	±10 dB @ 10 kHz
Channel Separation	>70 dB @ 1 kHz
Priority Mute	>40 dB

Inputs

Mic/Line inputs 1-4 (3-pin XLR/5-pin DIN, balanced)	
Sensitivity	1 mV (microphone), 200 mV (line)
Impedance	>1 kOhm (microphone), >5 kOhm (line)
S/N (flat at max volume)	>63 dB (microphone), >70 dB (line)
S/N (flat at min volume/muted)	>75 dB
CMRR	>40 dB (50 Hz – 20 kHz)
Headroom	>25 dB
Speech Filter	-3 dB @ 315 Hz, high-pass, 6 dB / oct

Phantom Power Supply	
	16 V via 1.2 kOhm, in mic mode only
Line Inputs 1-4 (Cinch, unbalanced, stereo converted to mono)	
Sensitivity	200 mV
Impedance	22 kOhm
Dynamic Range	100 dB
S/N (flat at max volume)	>70 dB
S/N (flat at min volume/muted)	>75 dB
Headroom	>25 dB

Outputs

Direct outputs 1-4 (3-pin XLR, balanced)	
Nominal Level	1 V
Impedance	<100 ohm
Master Output (3-pin XLR, balanced)	
Nominal Level	1 V
Impedance	<100 ohm
Master Output (5-pin DIN, balanced)	
Nominal Level	4 mV (microphone level)
Impedance	<100 ohm
Tape Output (Cinch, 2 x mono)	
Nominal Level	350 mV
Impedance	<1 kOhm
Headphone Output (6.3mm jack stereo, signal mono)	

Nominal Level	3 V
Impedance	<100 ohm

Interconnection

Interconnection/emergency input (3-pin XLR, balanced)	
Sensitivity	200 mV (interconnection), 100 mV – 1V adjustable (emergency)
Impedance	>10 kOhm
VOX Threshold	45 mV (emergency)
Interconnection Output (3-pin XLR, balanced)	
Nominal Level	200 mV
Impedance	<100 ohm

Relays

Priority Relay Contacts	30 V, 1 A
Emergency Relay Contacts	30 V, 1 A
DC Supply Output Voltage	24 V, 250 mA max

Environmental

Operating Temperature	-10°C to +55°C
Storage Temperature	-40°C to +70°C
Relative Humidity	<95%
Dimensions	100 x 430 x 270 mm (19" wide, 2U high)
Weight	approx. 5 kg
19" mounting brackets	included

Ordering Information

Model | Description

LBB 1920/00 Plena Universal Pre-Amplifier

Hardware Accessories

LBC 1901/00 Rack Mount Kit
For Plena amplifier, 19-inch

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