

LBB 1920/00

Plena Universal Pre-amplifier



Security Systems



- 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

LBB 1920/00 Plena Pre-amplifier

The Plena pre-amplifier is a high performance, versatile four input channels mono mixer pre-amplifier, capable of fulfilling the wide variety of public address requirements. 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 channel 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 equaliser or the Plena feedback suppressor, can be connected between these connections. In the cascade mode multiple LBB 1920/00 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 has been 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 24Vdc output is available to supply power to external relays, so no additional external power supply is required for that purpose.

In parallel to the balanced XLR master output an additional microphone level output is available on DIN, to provide a signal to e.g. a mixing desk or microphone mixer amplifier. Furthermore a tape output is provided.

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

SPECIFICATIONS (IEC60268-3)

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	1 A
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 microphone mode only

Line inputs 1-4 (Cinch, unbalanced, stereo converted to mono)

Sensitivity	200 mV
Impedance	22 kOhm
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 – 1 V 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 CONDITIONS

Operating temperature range	-10 to +55°C
Storage temperature range	-40 to +70°C
Relative humidity	<95%

GENERAL

EMC emission	acc. to EN 55103-1
EMC immunity	acc. to EN 55103-2
Dimensions	100 x 430 x 270 mm (19" wide, 2U high)
Weight	approx. 5 kg
19" mounting brackets	included