

# LBB 1903/10, LBB 1906/10 LBB 1912/10, LBB 1914/10 Plena Mixer Amplifier



Security Systems



- Range of single and dual zone mixer amplifiers from 30 W to 120 W
- Four low noise balanced inputs for microphone or line
- Selectable priority and vox switching on microphone input 1
- Optional 2-tone chime to precede announcements
- Separate overruling emergency input with vox
- Loudspeaker connections for normal, call-only and mix-only zones
- Choice of cd, tuner or auxiliary music inputs

## LBB 1903/10, LBB 1906/10, LBB 1912/10 and LBB 1914/10 Plena Mixer Amplifier

The Plena mixer amplifier is a high performance, versatile four microphone inputs mono mixer amplifier, capable of fulfilling a wide variety of public address requirements for surprisingly low cost. All microphone inputs have phantom power supply to provide power to condenser microphones and selectable speech filters for improved intelligibility. Microphone inputs 3 and 4 can also be switched to line sensitivity. Furthermore separate music inputs with their own input selector and volume control are available.

Microphone input 1 can be given priority over all other microphone and music inputs. Priority is given upon contact closure on the 5-pin DIN connector or if the signal level on input 1 exceeds a predefined value (VOX). A 2-tone chime can be selected to precede a priority announcement. A telephone or emergency input with VOX activation is provided that takes overall priority, and has its own preset volume control.

An interconnection input and output facilitates the connection of external sound processing equipment, such as an equaliser or the Plena feedback suppressor between the pre-amplifier section and the power amplifier. A tape output

is provided and a LED VU-meter allows for monitoring of the master output.

The Plena mixer amplifiers come in a range of output powers, 30 W (LBB 1903/10), 60 W (LBB 1906/10) or 120 W (LBB 1912/10). This power is directly available on 70 V and 100 V constant voltage outputs and on a low impedance output for 8 Ohm load. Moreover, the amplifiers have a separate 70 V/100 V Call Only output for addressing areas where only priority announcements are required and a 70 V/100 V Mix Only output for areas where no priority announcements should be heard.

The Call Only output can also be used for 3-wire remote volume control override. The LBB 1914/10 offers the same functionality as the LBB 1912/10 but also has two front panel switches to direct the amplifier output to two separate zones, a useful feature if some announcements or background music should only be heard in part of a building. Priority calls, however, are always routed to both zones, even if unselected for e.g. music. Additional Plena power amplifiers can be connected in a loop-through arrangement to the balanced line output if more output power is needed than the built-in power stage can deliver.

## SPECIFICATIONS (IEC60268-3)

## ELECTRICAL

<b>Mains voltage</b>	115 Vac/230 Vac, $\pm 10\%$ , 50/60 Hz
<b>Max mains power consumption</b>	
LBB 1903/10	100 VA
LBB 1906/10	200 VA
LBB 1912/10, LBB 1914/10	400 VA
<b>Max mains inrush current</b>	
LBB 1903/10	4.5 A/9 A (230 Vac/115 Vac)
LBB 1906/10	5 A/10 A (230 Vac/115 Vac)
LBB 1912/10, LBB 1914/10	8 A/16 A (230 Vac/115 Vac)
<b>Battery voltage</b>	24 Vdc, +20%/-10%
<b>Max battery current</b>	
LBB 1903/10	1.6 A
LBB 1906/10	3 A
LBB 1912/10, LBB 1914/10	6 A

## PERFORMANCE

<b>Frequency response</b>	50 Hz – 20 kHz (+1/-3 dB, @ -10 dB ref. rated output)
<b>Distortion</b>	<1% @ rated output power, 1 kHz
<b>Bass control</b>	-8/+8 dB @ 100 Hz
<b>Treble control</b>	-8/+8 dB @ 10 kHz

## INPUTS

<b>Input 1 (5-pin DIN, balanced with phantom power, 6.3mm phone jack)</b>	
<b>Input 2 (3-pin XLR, balanced with phantom power, 6.3mm phone jack)</b>	
<b>Sensitivity</b>	1 mV
<b>Impedance</b>	>1 kOhm
<b>S/N (flat at max volume)</b>	63 dB
<b>S/N (flat at min volume/muted)</b>	> 75 dB
<b>CMRR</b>	> 40 dB (50Hz-20kHz)
<b>Headroom</b>	> 25 dB
<b>Speech filter</b>	-3 dB @ 315 Hz, high-pass, 6 dB/oct
<b>Phantom power supply</b>	16 V via 1.2 kOhm
<b>VOX (input 1 only)</b>	attack time 150 ms release time 2 s
<b>Input 3,4 (3-pin XLR, balanced with phantom power, 6.3 mm phone jack)</b>	
<b>Sensitivity</b>	1 mV (microphone), 200 mV (line)
<b>Impedance</b>	>1 kOhm (microphone), >5 kOhm (line)
<b>S/N (flat at max volume)</b>	>63 dB (microphone), >70 dB (line)
<b>S/N (flat at min volume/muted)</b>	>75 dB
<b>CMRR</b>	>40 dB (50 Hz-20 kHz)
<b>Headroom</b>	>25 dB
<b>Speech filter</b>	-3 dB @ 315 Hz, high-pass, 6dB/oct
<b>Phantom power supply</b>	16 V via 1.2 kOhm (microphone)
<b>Music input (Cinch, stereo converted to mono)</b>	
<b>Sensitivity</b>	200 mV
<b>Impedance</b>	22 kOhm

<b>S/N (flat at max volume)</b>	>70 dB
<b>S/N (flat at min volume/muted)</b>	>75 dB
<b>Headroom</b>	>25 dB
<b>Emergency/telephone (Screw, balanced)</b>	
<b>Sensitivity</b>	100 mV – 1 V adjustable
<b>Impedance</b>	>10 kOhm
<b>VOX</b>	threshold 50 mV attack time 150 ms release time 2 s
<b>S/N (flat at max volume)</b>	>65 dB
<b>Interconnection (Cinch)</b>	
<b>Nominal level</b>	1 V
<b>Impedance</b>	>10 kOhm

## OUTPUTS

<b>Master output (3-pin XLR, balanced)</b>	
<b>Nominal level</b>	1 V
<b>Impedance</b>	<100 Ohm
<b>Tape output (Cinch, 2 x mono)</b>	
<b>Nominal level</b>	350 mV
<b>Impedance</b>	1.5 kOhm
<b>Interconnection (Cinch)</b>	
<b>Nominal level</b>	1 V
<b>Impedance</b>	<100 Ohm
<b>Loudspeaker outputs (Screw, floating)</b>	
<b>Max/rated output power 70/100 V</b>	
LBB 1903/10	45 W/30 W
LBB 1906/10	90 W/60 W
LBB 1912/10, LBB 1914/10	180 W/120 W
<b>8 Ohm output</b>	
LBB 1903/10	16 V (30 W)
LBB 1906/10	22 V (60 W)
LBB 1912/10, LBB 1914/10	31 V (120 W)
<b>Output power @ 24 V battery</b>	-1 dB ref. rated power

## ENVIRONMENTAL CONDITIONS

<b>Operating temperature range</b>	-10 to +45°C
<b>Storage temperature range</b>	-40 to +70°C
<b>Relative humidity</b>	<95%

## GENERAL

<b>EMC emission</b>	acc. to EN 55103-1
<b>EMC immunity</b>	acc. to EN 55103-2
<b>Acoustic noise level of fan</b>	<40 dB SPL @ 1m (LBB 1912/10 and LBB 1914/10 only)
<b>Dimensions</b>	100 x 430 x 270 mm (19" wide, 2U high)
<b>Weight</b>	
LBB 1903/10	approx. 5 kg
LBB 1906/10	approx. 8.5 kg
LBB 1912/10, LBB 1914/10	approx. 10.5 kg
<b>19" mounting brackets</b>	LBC 1901/00, to be ordered separately