

Plena PA Amplifier



For every application

Let's make things better.



PHILIPS

The name 'Plena' is derived from the Latin word Plenus, meaning 'complete'. That's because the versatile Plena is the most complete mixer amplifier in its class, with such all-round functionality that you can use it in virtually any application.

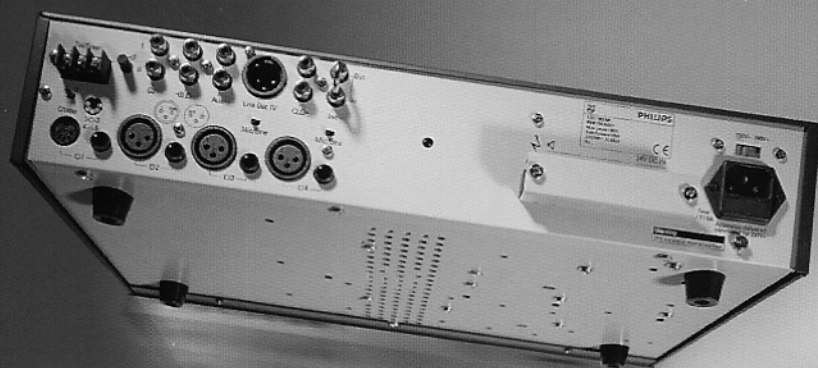
Plena manages to offer reliability and high performance at an affordable price. For instance, combining with Philips loudspeakers allows you to put together a flexible public address system for surprisingly low cost.

True versatility in pub

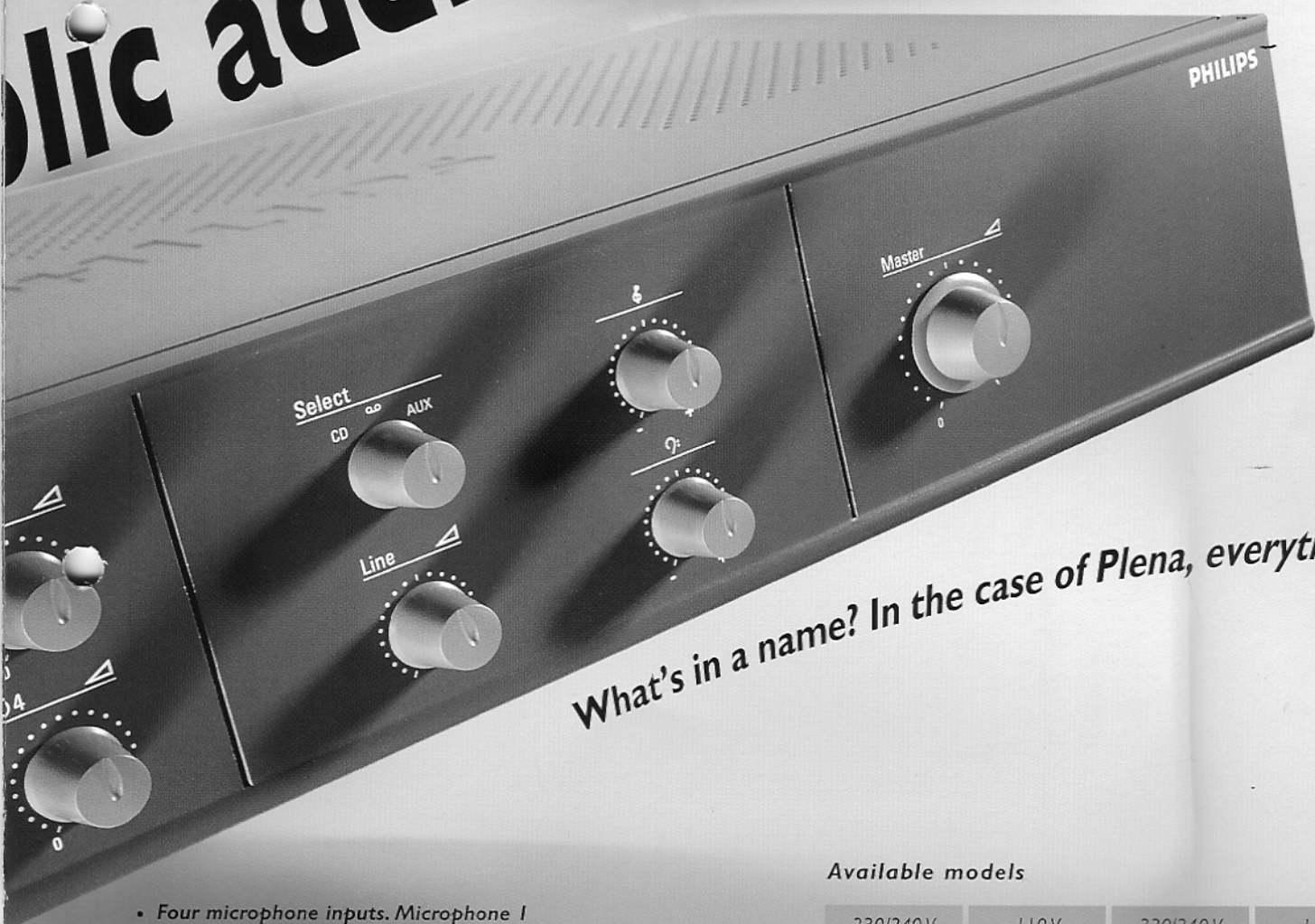
- Environmental design. Reduced weight and size. Less packaging. Minimized harmonic current emission
- Meets all CE and safety requirements
- Improved speech intelligibility through selectable speech filters
- Optional 19" mounting brackets



Public address



- Compatibility in connection: choice of XLR, Balanced Phone Jack (BPF) or DIN connection
- Easy installation: most settings can be configured on the rear panel
- Line socket for recording amplifier output
- 24V DC emergency power back-up option ensures continuity of operation, even without mains power
- Optional 2-tone chime to precede and draw attention to announcements
- Signal separation for connecting external equipment such as an equalizer (or Profecta Acoustic Feedback Suppressor)
- Optional Voice operated microphone
- Power expansion (booster connection)



What's in a name? In the case of Plena, everything!

- Four microphone inputs. Microphone 1 can be given priority
- Separate overruling emergency input
- Individual volume control for each microphone input
- Choice of CD, tuner or auxiliary music inputs
- Simple, single-knob control of all outputs

Available models

	230/240 V charcoal	110 V charcoal	230/240 V mushroom	110 V mushroom
Mixer Amplifier 30 W	LBB 1903/00	LBB 1903/50		
Mixer Amplifier 60 W	LBB 1906/00	LBB 1906/50		
Mixer Amplifier 120 W	LBB 1912/00	LBB 1912/50		
Two-Zone Mixer Amplifier 120 W	LBB 1914/00	LBB 1914/50		
Booster Amplifier 120 W	LBB 1930/00	LBB 1930/50	LBB 1930/01	LBB 1930/51
Booster Amplifier 240 W	LBB 1935/00	LBB 1935/50	LBB 1935/01	LBB 1935/51
19" Mounting Brackets	LBC 1901/00		LBC 1901/01	

Similar Applications

Builder's yards

Small boat yards

Small car ferries



Garage/showroom

Recommended products listing

Mixing amplifier	LBB 1914/x0 (2-zone, 120 W)
Microphones	LBB 9094/10 (Priority) LBC 2900/15 (Hand-held)
Loudspeakers	Showroom
	LBC 3950/01 (Ceiling)
	LBC 3951/01 (Ceiling)
	LBC 3089/01 (Ceiling)
	LBC 3090/01 (Ceiling)
	Garage
	LBC 3941/0x (Sound projector)
	LBC 3931/00 (Cabinet)
	LBC 3041/x2 (Cabinet)
	LBC 3410/0x (Cabinet)
	LBC 3411/0x (Cabinet)

Special considerations

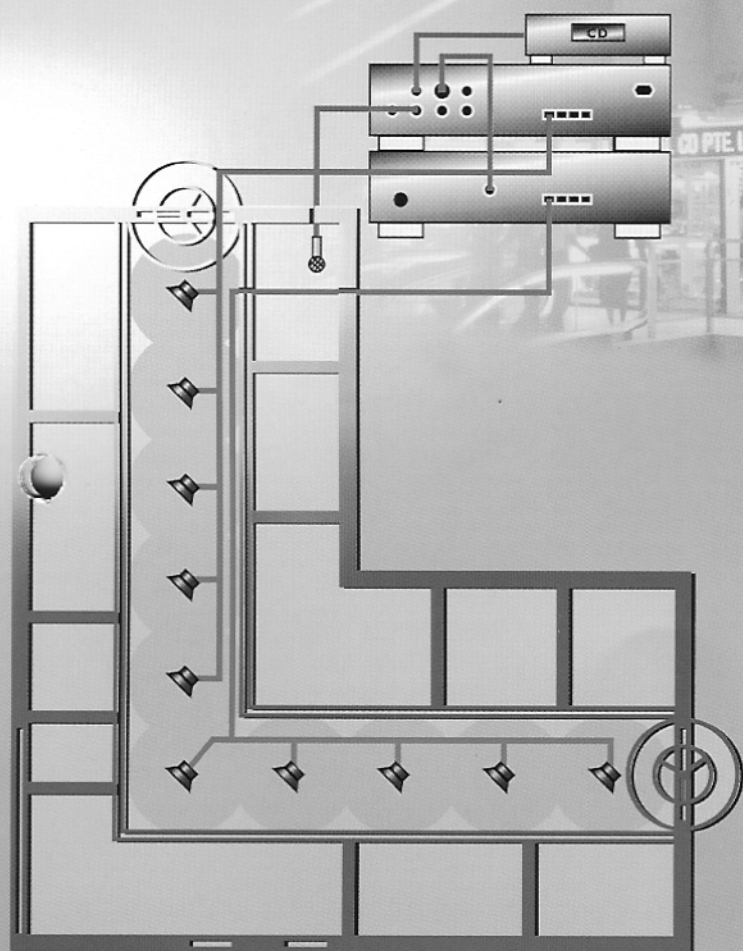
Requirement for both background music and speech. Announcements must be clearly audible and have priority over music. The workshop is usually noisier than the showroom,

so will require louder music and announcements. Certain announcements will only be intended for a limited area of the premises (i.e. for a mechanic in the workshop).

Similar Applications

Indoor entertainment complexes

shopping malls and stores



Recommended products listing

Mixing amplifier	LBB 1912/x0 (120 W)
Booster	LBB 1930/xx (120 W)
Microphone	LBB 9094/10 (Table-top)
Loudspeakers	LBC 3950/01 (Ceiling) LBC 3951/01 (Ceiling)

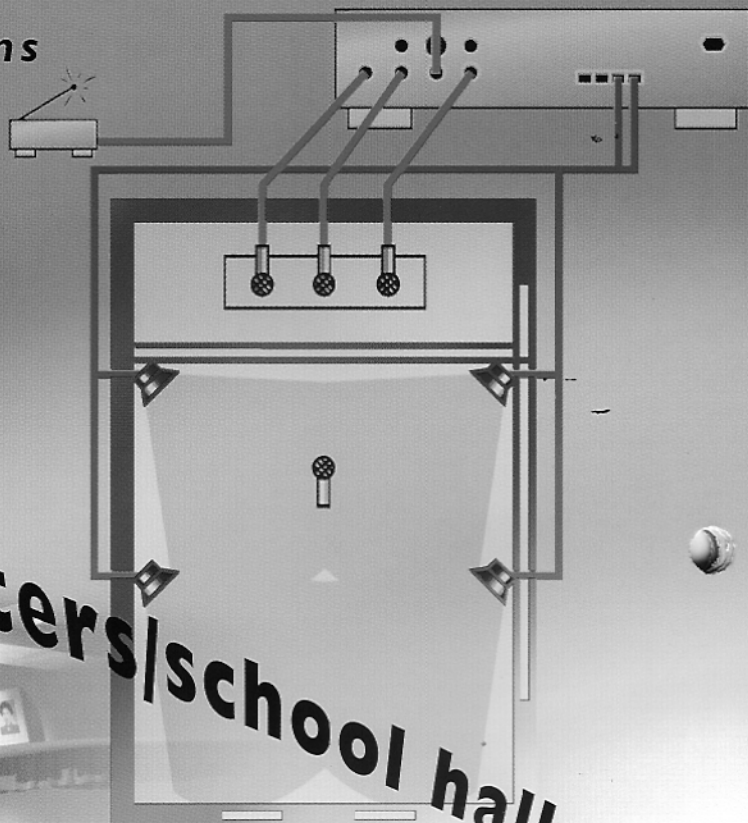
Special considerations

Requirement for both background music and speech. Announcements must be clearly audible and have priority over music. Sound must be distributed over a large area.

Similar Applications

Clubhouses

Community centers/school halls



Recommended products listing

Mixing amplifier	LBB 1912/x0 (120 W)
Microphones	LBC 2701/0x (Wireless)
	LBC 2702/0x (Wireless)
	LBC 2703/0x (Wireless)
	LBC 2900/15 (Hand-held)
	LBC 1221/01 (Stand)
Loudspeakers	LBC 3043/x2 (Column)
	LBC 3044/x2 (Column)
	LBC 3931/00 (Cabinet)
	LBC 3041/x2 (Cabinet)
	LBC 3410/0x (Cabinet)
	LBC 3411/0x (Cabinet)

Special considerations

These are multi-purpose venues where the PA system must be able to handle all types of occasions, from meetings to shows. Different people will be speaking or performing, so multiple microphones are often required.

Microphones and loudspeakers are in the same room. The audience is spread over a wide area. A wireless microphone will give greater freedom of movement.

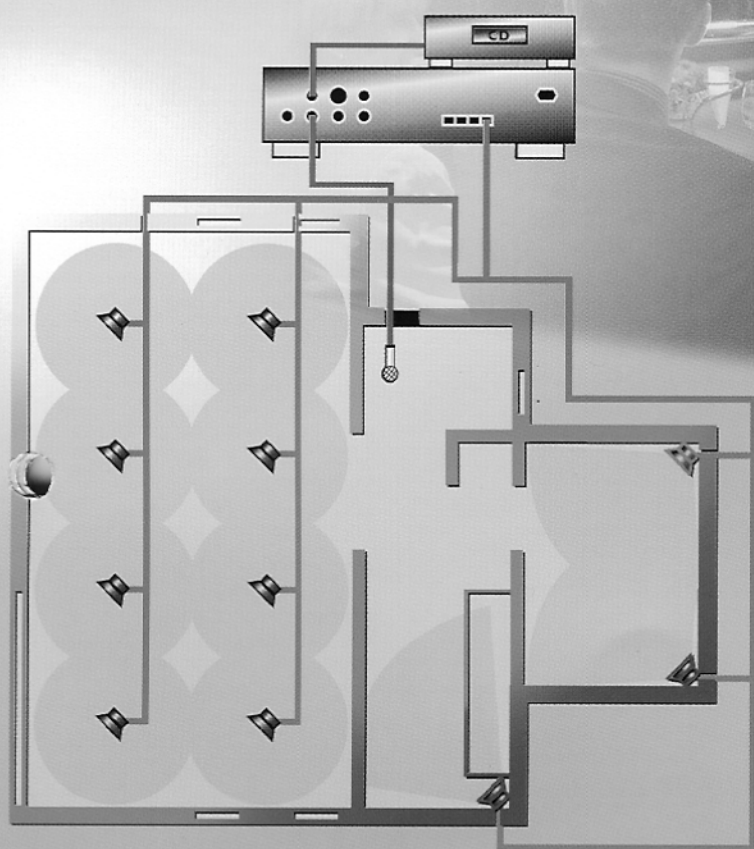
Similar Applications

Community centers

Canteens

Clubhouses

Restaurants



Special considerations

Requirement for both music and speech. Music is generally for background purposes and must be of

good quality. Announcements must be clearly audible and have priority over music.

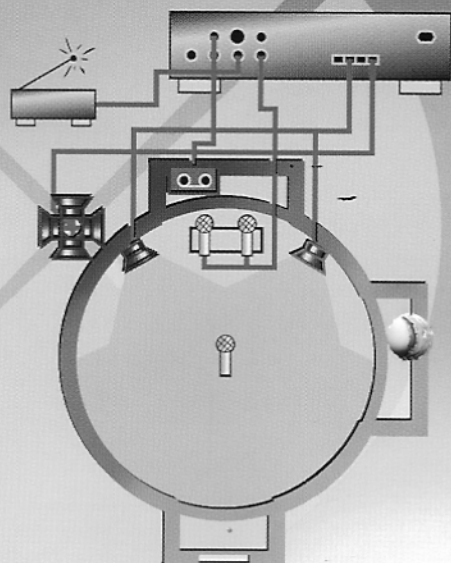
Recommended products listing.

Mixing amplifier	LBB 1912/x0 (120 W)
Boosters	LBB 1930/xx (120 W)
	LBB 1935/xx (240 W)
Microphone	LBB 9094/10 (Table-top)
Loudspeakers	LBC 3950/01 (Ceiling)
	LBC 3951/01 (Ceiling)
	LBC 3941/0x (Sound projector)
	LBC 3931/00 (Cabinet)
	LBC 3041/x2 (Cabinet)
	LBC 3410/0x (Cabinet)
	LBC 3411/0x (Cabinet)

Similar Applications

Sports facilities

Places of worship



Recommended products listing

Mixing amplifier	LBB 1914/x0 (2-zone, 120 W)
Booster	LBB 1930/xx (120 W)
Microphones	LBC 2701/0x (Wireless) LBC 2702/0x (Wireless) LBC 2703/0x (Wireless) LBC 2900/15 (Hand-held) LBC 1221/01 (Stand)
Loudspeakers	Minaret LBC 3493/10 (Horn) Inside LBC 3042/x2 (Column) LBC 3043/x2 (Column) LBC 3051/03 (Cardioid) LBC 3052/03 (Column)

Special considerations

Two-zone area. Speech has to be broadcast inside and outside, at different sound levels. Multiple microphones required. A wireless version would give greater freedom of movement.

Similar Applications

Tennis courts

Boating lakes

School playing fields

Prison exercise yards

Small campsites

Outdoor recreation areas

Outdoor sports facilities
(swimming pools/athletics tracks/football pitches)

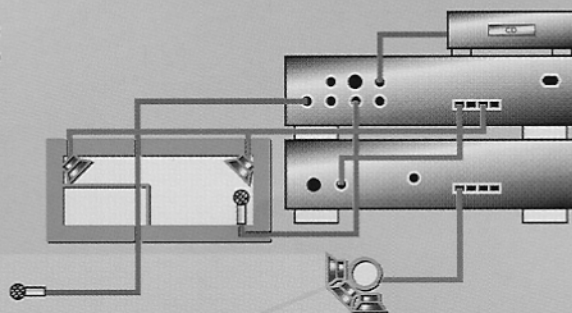
Recommended products listing

Mixing amplifiers LBB 1912/x0 (120 W)
LBB 1914/x0 (2-zone, 120 W)

Boosters LBB 1930/xx (120 W)
LBB 1935/xx (240 W)

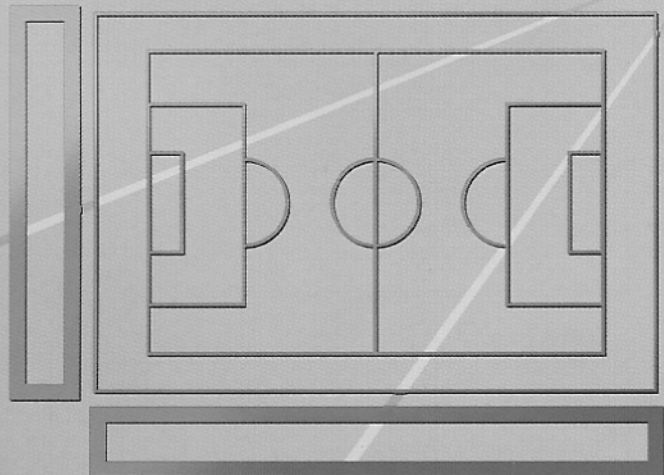
Microphone LBB 9094/10 (Table-top)

Loudspeakers LBC 3492/10 (Horn)
LBC 3493/10 (Horn)



Special considerations

Announcements must be clearly audible over the general background noise. At the same time, sound must be restricted to the sports facility area only. Loudspeakers should therefore be directional, and will be mounted outdoors so must also be weatherproof.



Similar Applications

Small department stores

Work canteens

Garages

Supermarkets



Recommended products listing

Mixing amplifier	LBB 1914/x0 (2-zone, 120 W)
Boosters	LBB 1930/xx (120 W)
	LBB 1935/xx (240 W)
Microphones	LBB 9094/10 (Priority)
	LBC 2900/15 (Hand-held)
Loudspeakers	Supermarket
	LBC 3950/01 (Ceiling)
	LBC 3951/01 (Ceiling)
	LBC 3089/01 (Ceiling)
	LBC 3090/01 (Ceiling)
	Warehouse
	LBC 3941/0x (Sound projector)
	LBC 3931/00 (Cabinet)
	LBC 3041/x2 (Cabinet)
	LBC 3410/0x (Cabinet)
	LBC 3411/0x (Cabinet)

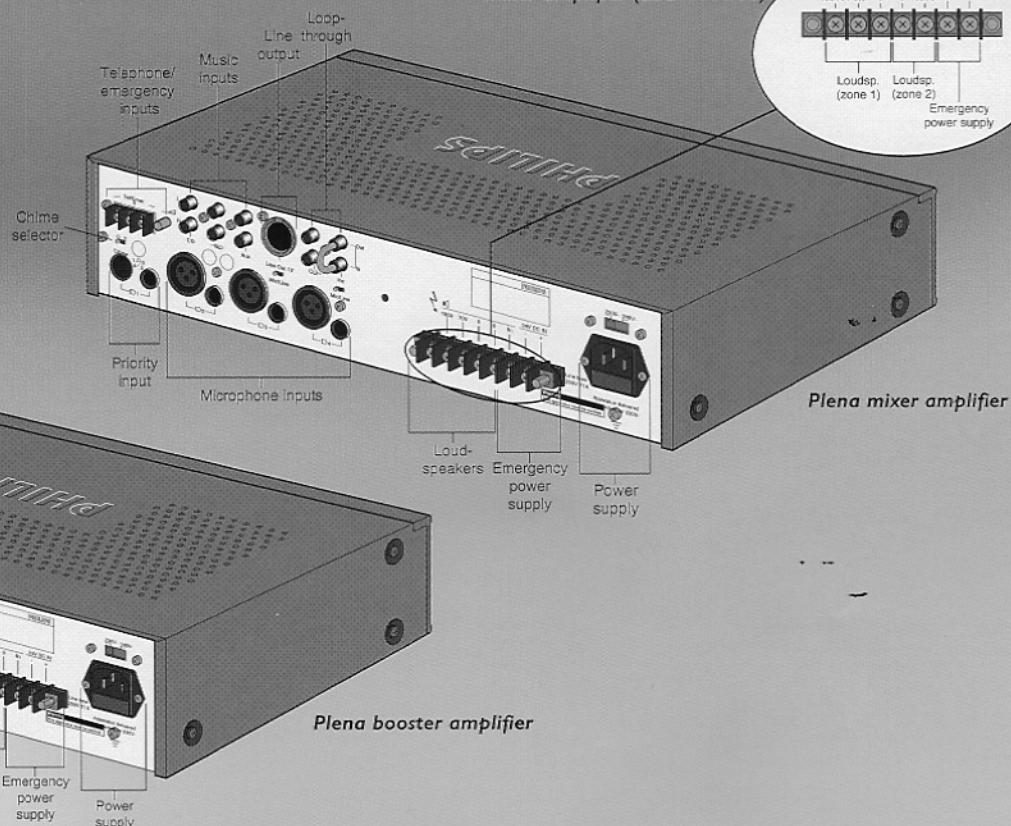
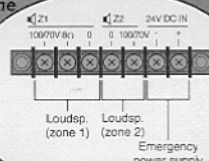
Special considerations

Two-zone area with varying sound level requirements. Requirement for both background music and speech.

There should be a microphone at each checkout, plus a priority microphone

in the back office. Announcements must be clearly audible and have priority over music. Loudspeakers should be ceiling mounted.

Only for two-zone
mixer amplifier (LBB 1914/00)



Technical data - Plena booster

Electrical

	LBB 1930/00	LBB 1930/50
Mains voltage	230/240 Vac, $\pm 10\%$, 50/60 Hz	110 Vac
Battery voltage	24 Vdc (max. 10% deviation)	
Max. output power	180 W	360 W
Rated output power	120 W	240 W

Performance

Distortion	< 1% (at rated output power at 1 kHz)	
Master volume control range	0... -70 dB	
Frequency response of booster	50 Hz...18.5 kHz, $\pm 1/3$ dB	
S/N	LBB 1930/xx >80 dB	LBB 1935/xx >85 dB

Inputs

Input impedance	20 k Ω
Sensitivity	1 V balanced

Environmental conditions

Operating temperature range	0 to +55°C
Storage temperature range	-40 to +70°C
Relative humidity	< 95%

General

EMC emission	acc. to EN 55013-1	
EMC immunity	acc. to EN 55013-2	
Mains harmonic current emission	acc. to EN 61000-3-2	
Acoustic noise level of fan	< 40 dBA SPL at 1m distance from source	
Dimensions (H x W x D)	100 x 330 x 270mm	
Weight	LBB 1930/xx Approx. 10.5 kg	LBB 1935/xx Approx. 12.5 kg
19" mounting brackets included		

Technical data - Plena mixer amplifiers

Electrical

	LBB 19xx/00	LBB 19xx/50		
Mains voltage	230/240 Vac, $\pm 10\%$, 50/60 Hz	110 Vac		
Battery voltage	24 Vdc (max. 10% deviation)	24 Vdc (max. 10% deviation)		
	LBB 1903/x0	LBB 1906/x0	LBB 1912/x0	LBB 1914/x0
Max. output power	45 W	90 W	180 W	180 W
Rated output power	30 W	60 W	120 W	120 W

Performance

Frequency response measured at 10 dB below rated output power	50 Hz... 18 kHz (+1 / -3 dB)
Bass control	± 8 dB (at 100 Hz)
Treble control	± 8 dB (at 10 kHz)
Distortion	< 1% (at rated output power at 1 kHz)

Inputs

	Input 1 (5-pole DIN with phantom power / 6.3 mm phone jack)	Inputs 2-4 (XLR with phantom power / 6.3 mm phone jack)	Music stereo inputs	Emergency input
Impedance	1 k Ω balanced	1 k Ω balanced	22 k Ω unbalanced	20 k Ω balanced
Sensitivity	1.0 mV	1.0 mV	200 mV	100 mV - 1 V
S/N	75 dB (volume ccw)	75 dB (volume ccw)	75 dB (volume ccw)	75 dB (volume ccw)
Chime	0/2 (OFF/ON) selectable (2-tone attention signal, DIN input only)	-	-	-
Speech filter response	-3 dB at 315 Hz	-3 dB at 315 Hz	-	-
Sensitivity for Line balanced input	-	200 mV (Inputs 3 & 4 only)	-	-
AUX Headroom	-	-	25 dB	-
Attack time	150 msec. (VOX)	-	-	150 msec. (VOX)
Release time	2 sec. (VOX)	-	-	2 sec. (VOX)

Line/tape outputs

	Tape Out	Line out	Insertion Out
Impedance	1.5 k Ω	600 Ω	600 Ω
Level	350 mV	1.0 V	1.0 V

Environmental conditions

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

General

EMC emission	acc. to EN 55013-1			
EMC immunity	acc. to EN 55013-2			
Mains harmonic current emission	acc. to EN 61000-3-2			
Dimensions (H x W x D)	100 x 330 x 270 mm			
	LBB 1903/x0	LBB 1906/x0	LBB 1912/x0	LBB 1914/x0
Weight	Approx. 7 kg	Approx. 8.5 kg	Approx. 10.5 kg	Approx. 10.5 kg
Optional 19" mounting brackets LBC 1901/0x				

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