

# LBB 1970/10 Plena BGM/Paging System

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Invented for life



- ▶ All-in-one solution for background music and paging
- ▶ DVD/CD-player for audio and MP3 DVD/CD/CD-R
- ▶ FM/AM tuner with 15 presets and digital control
- ▶ Dual-zone 120 W mixer amplifier with volume control per zone
- ▶ Remote control

The Plena BGM/paging system is the versatile all-in-one solution to cover all needs for background music (BGM), making announcements and paging people. This high-performance yet affordable unit is very easy to install and operate.

It is typically used in shops, supermarkets, restaurants, bars, schools, canteens, gymnasiums, garages and other places where BGM creates the right atmosphere and also where amplified speech needs to be clearly heard.

## Functions

### DVD/CD Player

This unit has a DVD/CD-player that plays audio and video DVD/CDs and CD-Rs with MP3-encoded files. It has stereo operation in accordance with public address needs and allows for a whole day of high-quality uninterrupted music playback from a single MP3-disc. Music may be organized on a disc in multiple folders for music selections for different occasions.

### FM/AM Tuner

The digitally controlled FM/AM tuner uses a frequency synthesizer for accurate capture of radio stations and has 10 presets for each waveband to store favorite programs. An auxiliary (music) input and tape output are provided for connecting external equipment like a DVD-player or cassette deck.

### Microphone Inputs

The announcement part of the unit has 3 balanced microphone inputs. Microphone input 1 has a DIN socket on the rear for a priority microphone (e.g. the LBB 1950/00) with selectable priority, 2-tone chime to precede a priority announcement, speech filter and phantom power, and a phone jack input on the front for a dynamic microphone (e.g. the LBC 2900/15) with selectable VOX activation. Presets are provided for adjusting the music ducking level and the volume of the chime. Microphone inputs 2 and 3 have XLR sockets with selectable phantom power, and are mixed with the BGM. All microphone inputs and the music source have their own volume control, with a shared bass and treble tone control and a shared master volume control.

### Outputs

The powerful 120 W output section has two transformer-isolated 100 V constant voltage outputs for driving 100 V-loudspeakers in two separate zones. The 100 V-technique reduces line losses on longer distances and allows for easy parallel connection of multiple loudspeakers. Both zones may be individually selected from the front panel, and the output level in each zone can be individually set. Each zone also has a low-voltage output for connection to 8 Ohm transformerless loudspeakers (e.g. consumer-type loudspeakers). A separate 100 V Call Only output is

provided for addressing an area where BGM is not required but where priority announcements are. A voltage-free Call Active contact is available for overriding local volume controls during priority calls or other purposes. A LED VU-meter monitors the output.

### Certifications and approvals

EMC emission	acc. to EN 55103-1
EMC immunity	acc. to EN 55103-2
Safety	acc. to EN 60065

### Parts included

Quantity	Component
1	LBB 1970/10 PLENA BMG/Paging System

### Technical specifications

#### Electrical

Mains Voltage	230/115 VAC, $\pm 10\%$ , 50/60 Hz
Max Power Consumption	400 VA
Max/Rated Output Power	180 W / 120 W
Max Mains Inrush Current	8A @ 230 VAC / 16A @ 115 VAC

#### Performance

Frequency Response	60 Hz – 18 kHz (+1/-3 dB, @ -10 dB ref. rated output)
Distortion	<1% @ rated output, 1 kHz
Bass Control	-8/+8 dB @ 100 Hz
Treble Control	-8/+8 dB @ 10 kHz

#### Inputs

Input 1 (5-pin DIN, balanced with phantom power, 6.3 mm phone jack)	
Sensitivity	1 mV
Impedance	>1 kOhm
S/N (flat at max volume)	63 dB
S/N (flat at min volume/muted)	75 dB
Headroom	25 dB
Speech Filter	-3 dB @ 315 Hz, high-pass, 6 dB / oct
Phantom Power Supply	12 V (5-pin DIN)
VOX (on 6.3mm phone jack)	trigger level 0.4 mV
	attack time 200 ms
	release time 2 s

ducking level adjustable

Input 2,3 (3-pin XLR, balanced with phantom power)	
Sensitivity	1m V
Impedance	>1 kOhm
S/N (flat at max volume)	63 dB
S/N (flat at min volume/muted)	75 Db
Headroom	25 dB
Phantom Power Supply	12 V

Auxiliary input (Cinch, 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

#### Tuner

Tuning Range	FM	87.5 - 108 MHz(EUROPE, 50 kHz)
		87.5 - 108 MHz(ASIA / USA, 100 kHz)
	AM	531 - 1602 kHz(EUROPE, 9 kHz)
		530 - 1610 kHz(ASIA / USA, 10 kHz)

#### Sensitivity

FM	2 $\mu$ V (26 dB S/N)
AM	30 $\mu$ V (20 dB S/N)

#### Performance

Frequency Response	30 Hz - 15 kHz (+1/-3 dB, FM)
Distortion	<1%
S/N	>63 dB (1 mV, FM)

#### DVD/CD-Player

Audio DVD/CD	
Frequency Response	20 Hz - 20 kHz (+1/-3 dB)
Distortion	<0.1%
S/N	>80 dB

#### MP3 CD/CD-R

Supported Bit Rates	CBR 32 kbps - 320 kbps and VBR, mono and stereo
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#### General

Data Buffer	8 MB (shock protection)
Lifetime	>10.000 CD play cycles

Memory for Track Selection	999 (MP3), 99 (audio CD)
<b>Outputs</b>	
Tape output (Cinch, 2x mono)	
Nominal Level	350 mV
Impedance	1 kOhm
Loudspeaker Outputs (Screw, floating)	
100 V Outputs	120 W rated (all zones together)
Zone Output Attenuation Taps	100/70/50/35/25/18 V for 0/-3/-6/-9/-12/-15 dB (120/60/30/15/8/4 W)
8 Ohm Outputs	18 V (40 W rated per zone)
Call Active Relay (Screw)	
Contacts	voltage free, max 100 V, 2 A
Video out	

**Environmental**

Operating Temperature	+5°C to +45°C
Storage Temperature	-25°C to +55°C
Relative Humidity	<95%
Acoustic Noise Level Of Fan	<35 dB SPL @ 1m, temperature controlled
Dimensions	144 x 430 x 320 mm (19" wide, 3U high)
Weight	approx. 11.6 kg
Rack building	not recommended

**Ordering information**

**LBB 1970/10 Plena BGM/Paging System**  
 All-in-one solution for background music (BGM),  
 announcements, and paging.  
 Order number **LBB1970/10**

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