



LBB 1965/00 Plena Message Manager



- ▶ Highly flexible stand-alone digital message player
- ▶ Up to 12 messages and 12 trigger inputs
- ▶ Uploads messages from a PC in WAV-format
- ▶ Compliant with standards for emergency sound systems
- ▶ Zone control for Plena system pre-amplifier LBB 1925/10
- ▶ Front panel control and remote control

The Plena message manager is a high performance, highly versatile stand-alone digital message player. Applications range from spot announcements in supermarkets and theme parks to warning and evacuation messages in emergency situations.

Functions

Messages

Up to 12 messages can be stored in the internal 64Mbit EEPROM, without the need for data retention battery backup. Each message can have any length within the total available capacity. Messages and configurations are uploaded from a PC via RS-232 into the memory, after which the unit operates without PC connection. The standard WAV-format is used for the messages, and sample rates of 8 kHz up to 24 kHz with 16-bit word length (linear PCM) are supported. This gives up to 500 s of recording time with CD-quality signal-to-noise ratio. The use of linear PCM instead of some sort of compressed audio format (like MP3, ADPCM and u-law/A-law) ensures high-quality playback of all types of audio signals, including sound effects and special tones, e.g. attention chimes.

The unit has 12 contact closure trigger inputs for announcements. Each can be configured for a sequence of up to 4 messages out of the available ones. In this way

some messages may be used in different combinations with other messages, optimizing flexibility and used storage space. Together with this sequence, for each trigger input, a zone selection can be configured for the LBB 1925/10, the Plena 6-zone system pre-amplifier. The LBB 1965/00 communicates this selection to the LBB 1925/10 via an RS-232 link. Continuous activation of a trigger input repeats the corresponding message sequence.

Trigger Inputs

The trigger inputs have a serial priority, i.e. input 1 has priority over input 2, input 2 over input 3, et cetera. The high priority trigger inputs 1-6 are only accessible as contacts on the rear panel to avoid accidental use. The lower priority trigger inputs 7-12 are also available as trigger switches on the front panel.

Emergency and Evacuation Messages

The LBB 1965/00 can also be used for playing emergency/evacuation messages; it fulfills the IEC60849 standard. The content of all messages is constantly being supervised. The microcontroller uses a watchdog circuit. The D/A-converter is supervised by a low-frequency pilot tone. The high-priority trigger inputs 1-6 can be set to be supervised for cable shorts and breaks. The mains input availability is supervised. A 24 V battery back-up connection with automatic switch-over is

provided. Plus, a 20 kHz pilot tone can be mixed with the output signal for supervision of the link to the next amplifier and even for loudspeaker supervision in combination with 20 kHz detectors. Any failure results in a red LED fault indication and activation of a fault output contact.

Loop Trough Facility

The LBB 1965/00 provides a loop-through facility with balanced XLR and unbalanced Cinch inputs and outputs. This allows for insertion of the unit into an existing audio link. As long as no announcements are playing the signal input is routed to the output. If an announcement is started, the input signal is interrupted and the announcement is routed to the output.

Updating

Messages and configuration settings are uploaded from a PC. After uploading, the configuration for trigger inputs/switches 7-12 can be updated by using just the front-panel switches, without the need for a new upload or even a PC.

A headphone connection is provided for monitoring the message content.

Certifications and Approvals

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

Parts Included

Quantity	Component
1	LBB 1965 Plena Message Manager
1	19" mounting brackets
1	Power cord

Technical Specifications

Electrical

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

Messages

Data Format	WAV-file, 16-bit PCM, mono
Supported Sample Rates (fs)	24 kHz, 22.05 kHz, 16 kHz 12 kHz, 11.025 kHz, 8 kHz

Frequency Response

@ fs=24kHz	100 Hz – 11 kHz (+1/-3 dB)
@ fs=22.05kHz	100 Hz – 10 kHz (+1/-3 dB)
@ fs=16kHz	100 Hz – 7.3 kHz (+1/-3 dB)
@ fs=12kHz	100 Hz – 5.5 kHz (+1/-3 dB)
@ fs=11.025kHz	100 Hz – 5 kHz (+1/-3 dB)
@ fs=8kHz	100 Hz – 3.6 kHz (+1/-3 dB)

Distortion	<0.1% @ 1 kHz
S/N (flat at max volume)	>80 dB
Memory Capacity	64 Mbit EEPROM
Recording/Playback Time	500 s @ fs=8 kHz ... 167 s @ fs=24 kHz
Number of Messages	max. 12
Supervision EEPROM	Continuous checksum control
Supervision DAC	1 Hz pilot tone
Data Retention Time	>10 years

Inputs

Loop-through audio input 1 (3-pin XLR, balanced)	
Sensitivity	1 V
Impedance	20 kOhm
CMRR	>25 dB (50Hz-20kHz)

Loop-through audio input 2 (Cinch, unbalanced)	
Sensitivity	1 V
Impedance	20 kOhm

Outputs

Supervision Pilot Tone	20 kHz, $\pm 10\%$, level adjustable
Line Output 1 (3-pin XLR, balanced)	
Nominal Level	1 V, adjustable
Impedance	<100 ohm
Line Output 2 (Cinch, unbalanced)	
Nominal Level	1 V, adjustable
Impedance	<100 Ohm

Controls

Trigger inputs (Screw)	
Activation	Contact closure
Supervision	On trigger inputs 1-6, selectable

Supervision Method	Cable loop resistance check
Control Outputs (Screw)	
Message Active Relay	100 V, 2 A (voltage free, SPDT)
Fault Relay	100 V, 2 A (voltage free, SPDT)
RS232 (9-pin D-sub)	
PC to LBB1965/00	115 kb/s, N, 8, 1, 0 (upload)
LBB 1965/00 - LBB 1925/10	19.2 kb/s, N, 8, 1, 0 (zone control)

Environmental

Operating Temperature	-10°C to +55°C
Storage Temperature	-40°C to +70°C
Relative Humidity	<95%
Dimensions	56 x 430 x 270 mm (19" wide, 1U high, with feet)
Weight	approx. 3 kg

Ordering Information

Model | Description

LBB 1965/00 Plena Message Manager

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