


BOSCH

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LBB 1965/00 Plena Message Manager



- ▶ **Highly flexible stand-alone digital message player**
- ▶ **Up to 12 messages and 12 trigger inputs**
- ▶ **Downloads messages from a PC in WAV format**
- ▶ **Compliant with standards for emergency sound systems**
- ▶ **Zone control for Plena system preamplifier 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. A PC uploads messages and configurations via RS-232 to the unit, which can then operate without a PC. The standard WAV format is used for messages with sample rates of 8 kHz to 24 kHz with 16-bit word length (linear PCM). This gives up to 500 seconds of recording time with a CD-quality signal-to-noise ratio. The use of linear PCM instead of a compressed audio format, such as MP3, ADPCM and u-law/A-law, ensures high-quality playback of all types of audio signals, including sound effects and special tones, such as attention chimes.

The unit has 12 contact closure trigger inputs for announcements. Each can be configured for a sequence of up to four messages from those available. In this way messages can be used in combination with other messages, optimizing flexibility and storage space usage. When used together with the six-zone LBB 1925/10 Plena System Pre-Amplifier, a zone selection can be configured for each trigger input. The message manager communicates this selection to the LBB 1925/10 via an RS-232 connection. Continuous activation of a trigger input causes the corresponding message sequence to repeat.

Trigger Inputs

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

Integrity and Dependability

The LBB 1965/00 can also play emergency/evacuation messages, as it fulfills the IEC 60849 standard. The microcontroller continually checks the data integrity of the system, and a watchdog circuit, in turn, checks the microcontroller. The unit monitors the D/A converter with a pilot tone, and the high priority trigger inputs (one to six) for cable short circuits and breaks. A 24 V battery

backup connection with automatic fail-safe provides continued operation if the mains power should fail. A 20 kHz pilot tone can be mixed with the output signal to supervise the link to the next amplifier. This also works for loudspeaker supervision in combination with 20 kHz detectors. Any failure causes a red LED fault indication, and activates a fault output contact.

Loop-through Facility

The LBB 1965/00 provides a loop-through facility with balanced XLR and unbalanced cinch inputs and outputs. This allows the unit to be inserted into an existing audio link. As long as no announcements are playing, the signal input is routed to the output. If an announcement begins, 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 trigger inputs 7-12 can be configured by using the front panel switches, without the need for a new upload or even a PC. Message content can be monitored using the available headphone jack.

Certifications and Approvals

| Region | Certification |
|----------|------------------------------|
| Europe | CE Declaration of Conformity |
| Safety | according to EN 60065 |
| Immunity | according to EN 55103-2 |
| Emission | according to EN 55103-1 |

Installation/Configuration Notes



LBB 1965/00 back view

Parts Included

| Quantity | Component |
|----------|------------------------------------|
| 1 | LBB 1965 Plena Message Manager |
| 1 | Power cord |
| 1 | Set of 19" mounting brackets |
| 1 | Plena CD |
| 1 | Installation and User Instructions |

Technical Specifications

Electrical

Mains power supply

| | |
|-----------------------|-----------------------------------|
| Voltage | 230/115 VAC, ±10%, 50/60 Hz |
| Inrush current | 1.5 A at 230 VAC / 3 A at 115 VAC |
| Max power consumption | 50 VA |

Battery power supply

| | |
|-------------|-------------------|
| Voltage | 24 VDC, +15%/-15% |
| Current max | 1 A |

Performance

| | |
|-----------------------------|---------------------------------------|
| Supported sample rates (fs) | 24 / 22.05 / 16 / 12 / 11.025 / 8 kHz |
| Frequency response | |
| @ fs=24kHz | 100 Hz to 11 kHz (+1 / -3 dB) |
| @ fs=22.05kHz | 100 Hz to 10 kHz (+1 / -3 dB) |
| @ fs=16kHz | 100 Hz to 7.3 kHz (+1 / -3 dB) |
| @ fs=12kHz | 100 Hz to 5.5 kHz (+1 / -3 dB) |
| @ fs=11.025kHz | 100 Hz to 5 kHz (+1 / -3 dB) |
| @ fs=8kHz | 100 Hz to 3.6 kHz (+1 / -3 dB) |
| Distortion | <0.1% at 1 kHz |
| S/N (flat at max volume) | >80 dB |
| Supervision DAC | 1 Hz pilot tone |

Line input

| | |
|-------------|--------------------------|
| Connector | 3-pin XLR, balanced |
| Sensitivity | 1 V |
| Impedance | 20 kohm |
| CMRR | >25 dB (50 Hz-to 20 kHz) |

Line input

| | |
|-------------|-------------------|
| Connector | Cinch, unbalanced |
| Sensitivity | 1 V |
| Impedance | 20 kohm |

Trigger input

| | |
|--------------------|-----------------------------|
| Connector | Screw |
| Activation | Contact closure |
| Supervision method | Cable loop resistance check |

Line output

| | |
|---------------|---------------------|
| Connector | 3-pin XLR, balanced |
| Nominal level | 1 V, adjustable |

Mains power supply

| | |
|-----------|----------|
| Impedance | <100 ohm |
|-----------|----------|

| | |
|--------------------|-----|
| Line output | 1 x |
|--------------------|-----|

| | |
|-----------|-------------------|
| Connector | Cinch, unbalanced |
|-----------|-------------------|

| | |
|---------------|-----------------|
| Nominal level | 1 V, adjustable |
|---------------|-----------------|

| | |
|-----------|----------|
| Impedance | <100 ohm |
|-----------|----------|

| | |
|------------------------------|-----|
| Message active output | 1 x |
|------------------------------|-----|

| | |
|-----------|-------|
| Connector | Screw |
|-----------|-------|

| | |
|-------|---------------------------------|
| Relay | 100 V, 2 A (voltage free, SPDT) |
|-------|---------------------------------|

| | |
|---------------------|-----|
| Fault output | 1 x |
|---------------------|-----|

| | |
|-----------|-------|
| Connector | Screw |
|-----------|-------|

| | |
|-------|---------------------------------|
| Relay | 100 V, 2 A (voltage free, SPDT) |
|-------|---------------------------------|

| | |
|------------------------|-----|
| Interconnection | 1 x |
|------------------------|-----|

| | |
|-----------|----------------------|
| Connector | 9-pin D-sub (RS-232) |
|-----------|----------------------|

| | |
|-------------|-------------------------------|
| PC protocol | 115 kb/s, N, 8, 1, 0 (upload) |
|-------------|-------------------------------|

| | |
|----------------------|--------------------------------------|
| LBB 1925/10 protocol | 19.2 kb/s, N, 8, 1, 0 (zone control) |
|----------------------|--------------------------------------|

Messages

| | |
|-------------|----------------------------|
| Data format | WAV-file, 16-bit PCM, mono |
|-------------|----------------------------|

| | |
|-----------------|--------------|
| Memory capacity | 64 Mb EEPROM |
|-----------------|--------------|

| | |
|-------------------------|---------------------------------------|
| Recording/playback time | 500 s @ fs=8 kHz 167 s @ fs=24 kHz |
|-------------------------|---------------------------------------|

| | |
|--------------------|--------------|
| Number of messages | 12 (maximum) |
|--------------------|--------------|

| | |
|---------------------|-----------|
| Data retention time | >10 years |
|---------------------|-----------|

Mechanical

| | |
|------------------------|--|
| Dimensions (H x W x D) | 56 x 430 x 270 mm 2.20 x 16.92 x 10.62 inch (19" wide, 1U high, with feet) |
|------------------------|--|

| | |
|--------|--------------|
| Weight | Approx. 3 kg |
|--------|--------------|

| | |
|----------|-----------------------|
| Mounting | Stand-alone, 19" rack |
|----------|-----------------------|

| | |
|-------|----------|
| Color | Charcoal |
|-------|----------|

Environmental

| | |
|-----------------------|-------------------------------------|
| Operating temperature | -10 °C to +55 °C (14 °F to +131 °F) |
|-----------------------|-------------------------------------|

| | |
|---------------------|--------------------------------------|
| Storage temperature | -40 °C to +70 °C (-40 °F to +158 °F) |
|---------------------|--------------------------------------|

| | |
|-------------------|------|
| Relative humidity | <95% |
|-------------------|------|

Ordering Information**LBB 1965/00 Plena Message Manager****LBB1965/00**

high performance, highly versatile stand-alone digital message player

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