

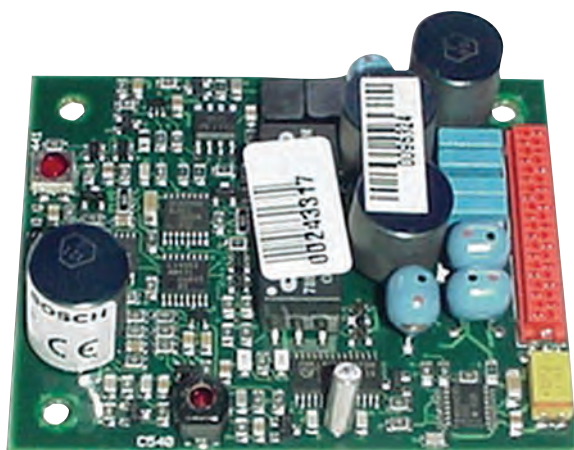
LBB 4440/00 Supervision Control Board

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BOSCH

Invented for life



- ▶ Multiple speaker and line monitoring without additional cabling
- ▶ Mounted inside the power amplifier
- ▶ Controls up to 80 speaker and line supervision boards
- ▶ Open-circuit fault detection
- ▶ Compatible with 100 V and 70 V loudspeaker lines

The board controls the communication between the Praesideo system and the loudspeaker or loudspeaker line supervision boards.

The LBB 4440/00 is the supervision control board, monitoring multiple supervision-slave boards (LBB 4441/00 and LBB 4443/00), which are mounted inside the loudspeakers on the line. With these boards working together, it is possible to supervise 16, 64, or up to 80 loudspeakers or loudspeaker lines on a 500-watt amplifier.

Functions

Each amplifier channel in an LBB 442x/10 Power Amplifier unit has an internal mechanical and electrical provision for an LBB 4440/00 control board. Communication between the supervision boards takes place inaudibly over the loudspeaker line, requiring no additional wiring. The audio signals on the lines do not affect communication.

Monitoring can be switched on and off from the configuration software. The monitoring of the presence of supervisor boards is continuous.

Loudspeaker faults are detected and reported within 300 s, and line faults are detected and reported within 100 s.

Interconnections

20-pin connector and flat cable

Certifications and approvals

| | |
|-----------|--|
| Safety | acc. to IEC 60065 / EN 60065 |
| Immunity | acc. to EN 55103-2 / EN 50130-4 / EN 50121-4 |
| Emissions | acc. to EN 55103-1 / FCC-47 part 15B |
| Emergency | acc. to EN 60849 / EN 54-16 / ISO 7240-16 |
| Maritime | acc. to IEC 60945 |

| Region | Certification | |
|--------|---------------|---------------------------|
| Europe | CPR | EU_CPR |
| | CE | Declaration of Conformity |
| | CE | |
| | CE | COC |
| | CE | CertAlarm |

| Region | Certification |
|--------|---------------|
| | CE DOP |
| | GL |
| Poland | CNBOP |

Installation/configuration notes

The following power amplifiers have a provision for installing a supervision control board:

- LBB 4421/10
- LBB 4422/10
- LBB 4424/10
- PRS-1P500
- PRS-2P250
- PRS-4P125

Required loudspeaker line characteristics:

| | |
|--|---|
| Preferred cable | Single twisted pair, 0.75 mm ² to 1.5 mm ² |
| Maximum length | 1 km (including branches, max. 300 m adjacent to other supervised loudspeaker cables) |
| Maximum loop resistance | 38 ohm |
| Maximum inductance | 750 µH |
| Minimum total loudspeaker impedance | 50 ohm @ 70 kHz (independent of amplifier power) |
| Maximum capacity | 300 nF |
| Maximum number of supervision boards per amplifier channel | 80 @ 500 W 40 @ 250 W 20 @ 125 W |
| Loudspeaker voltage | 70 V, 100 V |



Notice

The use of multi-wire cables is not recommended in combination with line supervision, because crosstalk between audio channels may influence the line supervision.



Notice

If the maximum load capacity for the power amplifier output is less than 300 nF, the maximum load capacity of the power amplifier is leading.

Technical specifications

Mechanical

| | |
|------------------------|---|
| Dimensions (H x W x D) | 60 x 50 x 17 mm without bracket (2.4 x 2.0 x 0.7 inch) |
| Weight | 30 g (1 ounce) |
| Mounting | Internally in the power amplifier Plastic brackets for horizontal and vertical installation included |

Environmental

| | |
|-----------------------|---------------------------------|
| Operating temperature | -5 °C to +55 °C (23 to 131 °F) |
| Storage temperature | -20 °C to +70 °C (-4 to 158 °F) |
| Humidity | 15% to 90% |
| Air pressure | 600 to 1100 hPa |

Ordering information

LBB 4440/00 Supervision Control Board

Line and loudspeaker supervision master PCB for mounting in a Praesideo network connected power amplifier, one board is needed per channel.

Order number **LBB4440/00**

Accessories

LBB 4440/00-CN Supervision Control Board

Line and loudspeaker supervision master PCB for mounting in a Praesideo network connected power amplifier, one board is needed per channel, Chinese version.

Order number **LBB4440/00-CN**

LBB 4441/00 Loudspeaker Supervision Board

Loudspeaker supervision slave PCB for mounting on a loudspeaker, operates with LBB4440/00 for monitoring the integrity of the loudspeaker.

Order number **LBB4441/00**

LBB 4441/00-CN Loudspeaker Supervision Board

Loudspeaker supervision slave PCB for mounting on a loudspeaker, operates with LBB4440/00 for monitoring the integrity of the loudspeaker, Chinese version.

Order number **LBB4441/00-CN**

LBB 4443/00 End of Line (EOL) Supervision Board

Line supervision slave PCB for connecting to the end of a loudspeaker line or the end of a spur, operates with LBB4440/00 to monitor the integrity of the line.

Order number **LBB4443/00**

LBB 4443/00-CN End of Line (EOL) Supervision Board

Line supervision slave PCB for connecting to the end of a loudspeaker line or the end of a spur, operates with LBB4440/00 to monitor the integrity of the line, Chinese version.

Order number **LBB4443/00-CN**

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