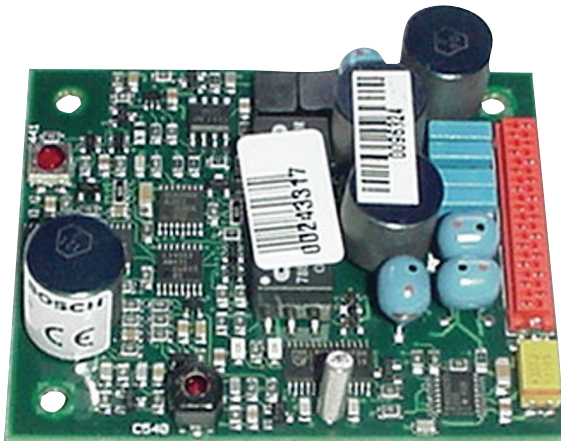




LBB 4440/00 Supervision Control Board



- ▶ **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

Region	Certification
Europe	CE Declaration of Conformity Traction
	TUEV-SUED TUV Certificate IEC60849
	GL GL-SOLAS
Poland	CNBOP
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

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

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

Note 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 for use in the power amplifier on each amplifier channel	LBB4440/00
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Accessories

LBB 4440/00-CN Supervision Control Board China version, for use in the power amplifier on each amplifier channel	LBB4440/00-CN
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LBB 4441/00 Loudspeaker Supervision Board monitors the integrity of a loudspeaker	LBB4441/00
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LBB 4441/00-CN Loudspeaker Supervision Board China version, monitors the integrity of a loudspeaker	LBB4441/00-CN
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LBB 4443/00 End of Line (EOL) Supervision Board monitors the integrity of a loudspeaker line	LBB4443/00
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LBB 4443/00-CN End of Line (EOL) Supervision Board China version, monitors the integrity of a loudspeaker line	LBB4443/00-CN
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