LBB 4404/00 CobraNet Interface

www.boschsecurity.com





- ► Four CobraNetTM audio inputs
- ► Four CobraNet[™] audio outputs
- ► Eight supervised control inputs and five control outputs
- ▶ Redundant Praesideo network connection
- ▶ Redundant CobraNet[™] network connection

CobraNet[™], developed by Peak Audio, is a network protocol for real-time uncompressed digital audio distribution over industry standard 100Base-T Ethernet networks. Typical applications are room coupling and audio distribution over long distances.

CobraNet[™] audio channels can be configured as inputs to a Praesideo system, where they can be routed permanently or conditionally to any of the zones or audio outputs. The routing conditions are configured using the configuration software. Calls and background music (BGM) sources can be routed to CobraNet[™] channels. Digital audio data is directly converted between an audio system and CobraNet[™], with no other audio processing than sample rate conversion. Control inputs and outputs are provided for external interfacing. The equipment can be used free-standing (tabletop) or in a 19" rack.

CobraNet $^{\text{TM}}$ is a registered trademark of Peak Audio, a Division of Cirrus Logic, Inc.

Functions

The Praesideo CobraNet[™] Interface can simultaneously interface up to four digital audio channels from CobraNet[™] into an audio system and up to four audio channels from an audio system into a

CobraNet[™] network. This includes converting between the 44.1 kHz sample rate used by Praesideo, and the 48 kHz sample rate that CobraNet[™] uses, as well as conserving volume levels. It can also route audio channels between itself and other CobraNet[™] Interfaces, in the same or in other audio system networks, or to third party CobraNet[™] units. Only audio channels are routed via the interface, not control data. This means that if units are used to link multiple systems, a PC master must always access the network controllers through their open interfaces for control purposes.

The eight control inputs are freely programmable for system actions, and priorities can be assigned to these inputs. Five control outputs are freely programmable for faults and call-related actions. Control inputs can also be programmed for momentary or toggle operation using the configuration software. Each control input has the ability to monitor the attached line for open and short-circuits.

The 2 x 16-character display and the rotary control enable local status enquiries. The display shows the VU-meter reading when the audio monitoring mode is active. Audio can be monitored by headphone.

The interface supports redundant network cabling of both an audio system and CobraNet™ networks. It gets its power from the network controller via the network cable. The unit is self-monitoring and continually reports its status to the network controller.

Controls and indicators

- 2 x 16 character LCD status display
- Rotary/push control for menu control and headphone volume

Interconnections

- · Two optical network connections
- Two RJ45 Ethernet connectors for the CobraNet™
- Eight control inputs to enable audio inputs and audio outputs
- Five control outputs to indicate channel engaged state
- One headphone output 3.5 mm (0.14 in) stereo



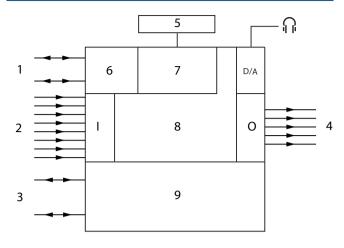
Rear view

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
Maritime	acc. to IEC 60945

Region	Certification	
Europe	CPR	EU_CPR
	CE	
	CE	COC
	CE	CertAlarm
	CE	DOP
	GL	

Installation/configuration notes



- 1 Ethernet network
- 2 Control inputs
- 3 Plastic optical fiber network
- 4 Control outputs
- 5 Display and control
- 6 CobraNetTM interface
- 7 Sample rate conversion
- 8 Network processor and DSP
- 9 Network redundancy switching

Parts included

Quantity	Component
1	LBB 4404/00 CobraNet Interface
1	Set of mounting brackets for 19" rack
1	Set of feet
1	Set of connectors

Technical specifications

Electrical

Supply voltage 24 to 48 VDC Power consumption 11 W (DC) Audio Transport Ethernet Channels 4 in / 4 out per interface Max 64 on CobraNet™ Compliance IEEE 802.3 Audio Transport 16 / 20 / 24-bit Sample Rate 48 kHz Latency 5.33 ms Integrity assurance Watchdog		
Audio Transport Ethernet Channels 4 in / 4 out per interface Max 64 on CobraNet™ Compliance IEEE 802.3 Audio Transport 16 / 20 / 24-bit Sample Rate 48 kHz Latency 5.33 ms	Supply voltage	24 to 48 VDC
Channels 4 in / 4 out per interface Max 64 on CobraNet™ Compliance IEEE 802.3 Audio Transport 16 / 20 / 24-bit Sample Rate 48 kHz Latency 5.33 ms	Power consumption	11 W (DC)
Max 64 on CobraNet™ Compliance IEEE 802.3 Audio Transport 16 / 20 / 24-bit Sample Rate 48 kHz Latency 5.33 ms	Audio Transport	Ethernet
Audio Transport 16 / 20 / 24-bit Sample Rate 48 kHz Latency 5.33 ms	Channels	
Sample Rate 48 kHz Latency 5.33 ms	Compliance	IEEE 802.3
Latency 5.33 ms	Audio Transport	16 / 20 / 24-bit
	Sample Rate	48 kHz
Integrity assurance Watchdog	Latency	5.33 ms
	Integrity assurance	Watchdog

Control inputs	8 x
Connectors	Removable screw terminals
Operation	Closing contact (with supervision)
Control outputs	5 x
Connectors	Removable screw terminals

Mechanical

Dimensions (H x W x D)	
for tabletop, with feet	92 x 440 x 400 mm (3.6 x 17.3 x 15.7 in)
for 19" rack, with brackets	88 x 483 x 400 mm (3.5 x 19 x 15.7 in)
in front of brackets	40 mm (1.6 in)
behind brackets	360 mm (14.2 in)
Weight	6 kg (13.2 lbs)
Mounting	Tabletop, 19"-rack
Color	Charcoal (PH 10736) with silver

Environmental

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

Ordering information

LBB 4404/00 CobraNet Interface

CobraNet interface, converts 4 audio channels from Praesideo to CobraNet on standard 100Base-T Ethernet and 4 audio channels back, powered from Praesideo network, rack unit 2 RU. Order number LBB4404/00

Represented by:

Americas:

Bosch Security Systems, Inc. 12000 Portland Avenue South Burnsville MN 55337, USA Phone: +1-800-392-3497 Fax: +1-800-955-6831 audiosupport@us.bosch.com www.boschsecurity.com

Europe, Middle East, Africa:

Bosch Security Systems B.V. P.O. Box 80002 5617 BA Eindhoven, The Netherlands Phone: + 31 40 2577 284 Fax: +31 40 2577 330 emea.securitysystems@bosch.com www.boschsecurity.com

Asia-Pacific:

Robert Bosch (SEA) Pte Ltd, Security Systems 11 Bishan Street 21 Singapore 573943 Phone: +65 6571 2808 Fax: +65 6571 2699 apr.securitysystems@bosch.com www.boschsecurity.asia

Bosch (Shanghai) Security Systems Ltd. 201 Building, No. 333 Fuquan Road North IBP Changning District, Shanghai 200335 China Phone +86 21 22181111 Fax: +86 21 22182398 www.boschsecurity.com.cn

America Latina:

Robert Bosch Ltda Security Systems Division Via Anhanguera, Km 98 CEP 13065-900 Campinas, Sao Paulo, Brazil Phone: +55 19 2103 2860 Fax: +55 19 2103 2862 latam.boschsecurity@bosch.com www.boschsecurity.com