



BOSCH
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LBB 1930/20 Plena Power Amplifier



- ▶ 120 W power amplifier in a compact housing
- ▶ 70 V / 100 V and 8 ohm outputs
- ▶ Dual inputs with priority switching
- ▶ 100 V input for slave operation on 100 V speaker line
- ▶ Temperature controlled forced front to back ventilation, directly stackable.
- ▶ Mains, battery back-up and pilot tone supervision

The LBB 1930/20 is a very powerful 120 W power amplifier with supervision on the functioning of amplifier, on power supply of both mains and battery-back up and on overheating. These supervised functions are indicated on the front panel by 4 LED's. This high-performance mono amplifier is capable of fulfilling a wide variety of public address requirements. The LBB 1930/20 comes in a 19", 2U high housing for table-top use and rack mounting.

Functions

The amplifier is protected against overload and short circuits. A temperature-controlled fan ensures high reliability at high output power and low acoustic noise at lower power output. Additionally, the power amplifier has an overheat protection circuit that switches off the power stage if the internal temperature reaches a critical limit due to poor ventilation or overload. On the LBB 1930/20 this is shown by the front panel overheat indicator.

The LBB 1930/20 has two balanced inputs with priority control, each with a loop-through facility. This allows for easy and automatic switching between e.g. a local music source and a priority announcement from a remote system. An additional 100 V line input is provided to

connect the power amplifier to a 100 V loudspeaker line, for additional output power e.g. on remote locations. Supervision is implemented for functioning of the amplifier. Three relays are provided on the rear panel for each supervised function. The relays are normally energized (fail safe) and have three contacts each (normally open, common, normally closed).

If supervision is not necessary, it is possible to switch off the indicators on the front panel by switches next to the relay outputs (to prevent the fault indicators from lighting up continuously). The relays are always functioning regardless of the settings of these switches. The pilot tone supervision monitors the presence of a 20kHz pilot tone. The pilot tone level input is 100mV -20dBV for input, and thus -20dB ref max power. Pilot tone supervision is done after the power stage at the loudspeaker line connections, thus monitoring the correct functioning of the amplifier.

Sensitivity or level control is located on the rear of the unit to avoid accidental setting change. A VU-meter with LED-bar shows the output level.

The amplifier has 70 V and 100 V outputs for constant voltage loudspeaker systems and a low impedance output for 8 Ohm loudspeaker loads.

The LBB 1930/20 has two separate priority controlled 100 V outputs for zones that only need announcements

made via the priority input, and for zones that will not get any announcements made via the priority input. The power amplifier operates both on mains power and on a 24 V battery power supply for emergency back-up, with automatic switchover.

The LBB 1930/20 has a front panel LED that indicates when the unit is battery operated.

Certifications and Approvals

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

Parts Included

Quantity	Component
1	LBB 1930/20 Plena Power Amplifier
1	19" mounting brackets
1	Power cord

Technical Specifications

Electrical

Mains Voltage

230 VAC, $\pm 10\%$, 50 / 60 Hz

Max Mains Power Consumption

400 VA

Max Mains Inrush Current

8 A

Battery voltage

24 VDC, $+20\%$ / -10%

Max Battery Current

6 A

Battery Operation

-1 dB ref. rated power

Performance

Frequency Response

50 Hz – 20 kHz ($+1/-3$ dB,
@ -10 dB ref. rated output)

Distortion

<1%@rated output power, 1 kHz

S/N (flat at max volume)

>80 dB

Inputs

Line input (3-pin XLR, 6.3mm phone jack, balanced)

Line Input 1, 2 (3-pin XLR, balanced)

Sensitivity

1 V

Impedance

20 kOhm

CMRR

>25 dB (50 Hz - 20 kHz)

Gain

40 dB

100 V Input (Screw, unbalanced)

Sensitivity

100 V

Impedance

330 kOhm

Outputs

Line Loop-through Output (3-pin XLR, 6.3mm phone jack, balanced)

Line Loop-through Output 1,2 (3-pin XLR, balanced)

Nominal Level

1 V

Impedance

Direct connection to line input

Loudspeaker Outputs (Screw, floating)

Max/rated Output Power

70 / 100 V Output

180 W / 120 W

8 ohm Output

31 V (120 W)

Output Power @ 24 V

Power consumption

230/115 power W

Max power

273.7W

-3dB

193.2

-6dB

142.6

Pilot tone

41.4

Idle

18.4

Power red. On 24V

-2 dB

-x dB

230/115 power W**24V current A**

Max power	7.01A
-3 dB	6.04
-6 dB	4.29
Pilot tone	0.97
Idle	0.1

24VDC power consumption W

Max power	168.2W
-3 dB	144.96
-6 dB	102.96
Pilot tone	23.28
Idle	2.4

Output contacts

All contacts	Normally energized (failsafe)
Connector type	MC 1,5/6-ST-3,5
Rating	250 V 7A voltage free
Pilot tone (general fault)	NO / COM/ NC
Mains	NO / COM/ NC
24V	NO / COM/ NC

Environmental

Operating Temperature	-10 to +55°C
Storage Temperature	-40 to +70°C
Relative Humidity	<95%

Acoustic Noise Level of Fan

	<45 dB SPL @ 1 m
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Dimensions

	100 x 430 x 270 mm (19" wide, 3U high, with feet)
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Weight

	approx. 10.5 kg
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Ordering Information**Model | Description**

LBB 1930/20 Plena Power Amplifier
720 W / 120 W, 400 VA, 19 A; 62 V (120 W), 2 balanced inputs, front panel
LED, 2 separate controlled 100 V outputs

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