

Bass Extension **GL 16 Sub /dp+**



Compact subwoofer for GL-Systems and all applications where an inconspicuous appearance is required along with high performance. Due to its integrated flying hardware, the GL 16 Sub can be mechanically connected to any GL-systems in a flying or standing arrangement. The selfpowered GL 16 Sub dp+ version is equipped with 2-channel amplifier electronics with DSP. The integrated amplifier electronics are based on Class D power amplifiers, which are controlled via particularly low-noise FPGA DSP processing. Various factory-configured presets and volume settings can be called up. Remote monitoring and control is carried out via the Ethernet interface using SEEBURG Network Manager. Signal transmission (AoE) in accordance with the AES 67 standard is also possible.

PRODUCT SPECIFICATIONS

	GL 16 Sub	GL 16 Sub dp+
Speaker Components	3 x 6,5" Nd, VC = 64 mm	3 x 6,5" Nd, VC = 64 mm
Description	Passive Bass Extension	Digitally Powered Bass Extension
Power AES / Peak	900 W / 1800 W	---
Amp Power AES	---	Ch. 1 (internal): 800 W AES Ch. 2 (external): 800 W AES
Impedance nominal	5,3 Ω	---
Rated Current	---	2,0 A @ 230 V
SPL 1 W / Peak @ 1 m	92 dB / 125 dB	--- / 125 dB
Max. Input Signal	---	25 dBu
DSP	---	DPLMx FPGA Processing 32 bit floating point
AD / DA	---	24 bit / 96 kHz
Latency	---	0,8 ms (analog in to analog out)
Usable Range	42 Hz - 300 Hz (-6 dB)	42 Hz - 300 Hz (-6 dB)
Tuning Frequency excursion minimum	53 Hz	53 Hz
Connectors	2 x Speakon NL4MP in/out Coding: 1+/- loop thru, 2+/- Sub	XLR in/thru, Ethercon, Powercon in/thru 2 x Speakon NL4MP out
Rigging / Fittings	10 x M10, Integrated flying hardware	10 x M10, Integrated flying hardware
Weight	14,5 kg	15,5 kg
Size height x width x depth	70,8 x 18,9 x 24,5 cm	70,8 x 18,9 x 24,5 cm
Order No.	00540	00540/dp+



GL 16 Sub dp+ Connection Panel



2 x GL 16 Sub / GL 16 i



2 x GL 16 Sub / GL 16 c



2 x GL 16 Sub / 2 x GL 16 c



2 x GL 16 Sub / GL 16 i / GL 16 c



Flying Bracket



GL 16 c systems in combination with Connection Adapter (01276)



GL 16 Sub in combination with Connection Adapter (01276/GL16)



Integrated fittings for easy connection.



GL 24 / 2 x GL 16 Sub



GL 16 c / 2 x GL 16 Sub

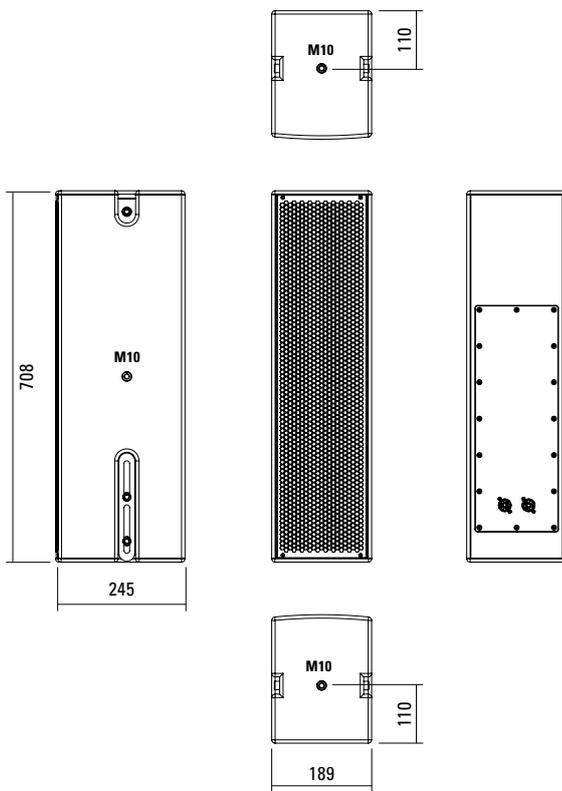


GL 16 i / 2 x GL 16 Sub



2 x GL 16 Sub / 2 x GL 16 i

DIMENSIONS

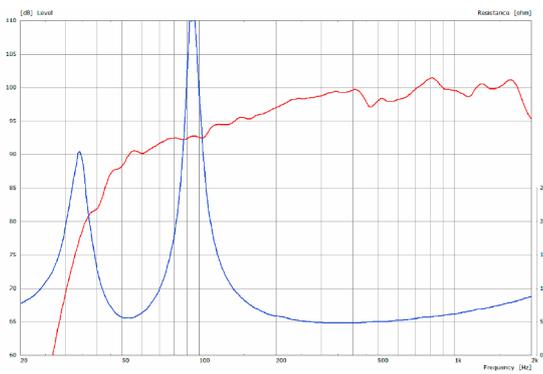


Controller Setups:

<https://www.seeburg.com/en/downloads>

MEASUREMENT

Sensitivity 1 W @ 1 m + Impedance



GL 16 Sub Connection panel

The GL 16 Sub dp+ is equipped with 2-channel amplifier electronics with DSP. Various factory-configured presets and volume settings can be called up directly at the speaker. Three preset banks are available. Extensive functions can be managed via the SEEBURG Network Manager and audio signals can also be transmitted via „audio over ethernet“.

High-grade electronic components from the industrial sector and a first-class circuit design ensure excellent audio quality with low distortion and a minimal noise floor. Highly efficient and “intelligent” limiter systems ensure optimum protection against overload, without restricting the possibilities offered by this high-performance sound system.

 Presets > Quick Start Manual

Level

Adjustment in 3 dB steps (-12 dB to +6 dB).

Status

Mute LED

Red light when the system is muted or under technically critical conditions.

Limit LED

Yellow light when the limiter is restricting the level.

Signal LED

Green light when the input signal exceeds -20 dBu

Power LED

Green light when the system is switched on.

Speakon NL4MP

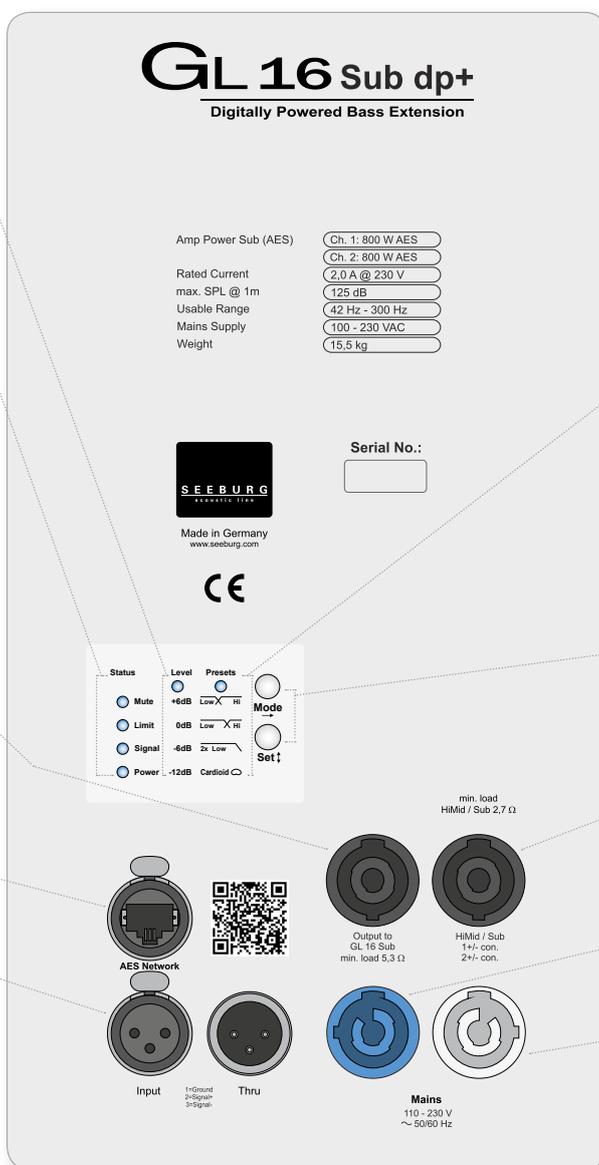
Parallel output connector for a passive GL 16 Sub with an 8 Ω impedance (2+/-). The mid-high signal from the separate output is also present here on pins 1 +/- (system cabling).

Ethercon

Interface for remote control and audio transfer via ethernet (AES 67).

XLR

- Symmetrical analog input.
- Effective filter protection against HF interference and DC Voltages.
- Electronically balanced to prevent noise.



Presets (Factory default)

Low/Hi

2-way active preset with Lowpass 100 Hz und GL-series xov Flat.

Low/Hi

2-way active preset with Lowpass 120 Hz und GL-series xov Flat.

2 x Low

Pure subwoofer operation with 120 Hz crossover frequency. A total of three GL 16 Sub can be operated.

Cardioid mode

Backward sound is reduced by partial cancellation in the range around 80 Hz. For this purpose a GL 16 Sub is connected to the second amplifier output (right socket) and positioned at a distance of 0.5 m from the main system. This effect is independent of structural conditions.

Mode - key

Switches between control modes Status, Level and Presets.

Set - key

Setting of various values and Mute on / off.

Speakon NL4MP

Connector for passive tops or subs or both on the second amplifier channel. (pins 1 +/- top and 2 +/- sub).

Powercon (blue)

Power supply ~ 110-230 V / 16 A max.

Powercon (grey)

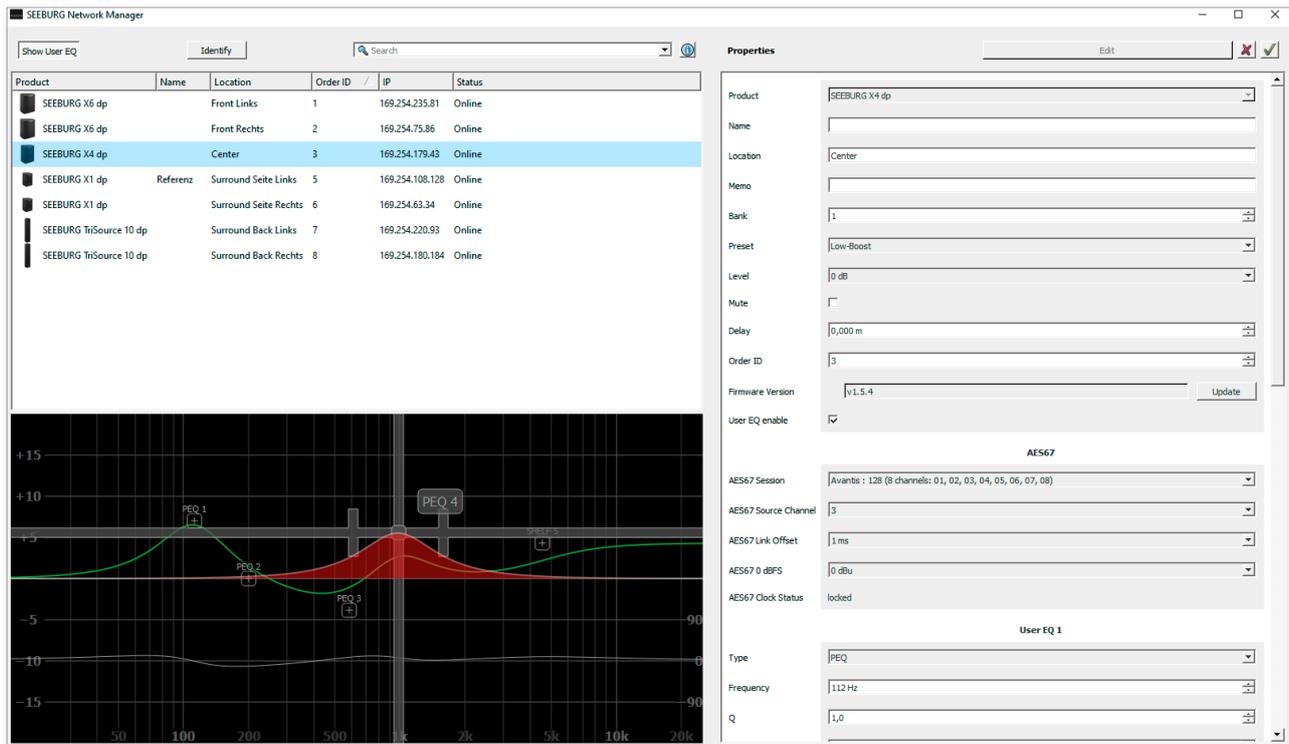
~ 110-230 V / 16 A max. loop through connector

Controller Setups:

 <https://www.seeburg.com/en/downloads>

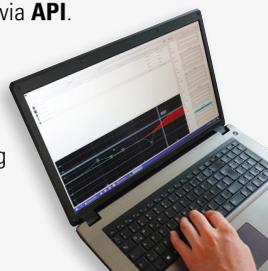
SEEBURG NETWORK Manager

With the Software SEEBURG Network Manager all selfpowered systems can be controlled via network.



Features:

- > **Remote control** of functions such as recalling presets and banks, level control and mute, and locking the controls on the loudspeakers.
- > **Visual display** of all systems connected to the control network.
- > Storable names and location labels with a **global search function**.
- > **Selection of loudspeakers** in the list for simultaneous set-up and control changes.
- > **Fully parametric user EQs and delay settings** for time alignment, with a graphical user interface
- > **Time Delay** with up to **2.8 seconds runtime**.
- > **Audio-over-Ethernet (AoE) via AES 67.**
- > Connection with **media control systems** via **API**.
- > Basic **network settings**.
- > **Documentation** is available **online**.
- > **Identification function** by way of flashing LEDs on the dp loudspeaker systems.
- > **Firmware updates** can be applied.



 [SEEBURG Network Manager > Quick Start Manual \(pdf\)](#)

AES NETWORK interface

All selfpowered systems are equipped as standard with an **AES Network interface**.

This is used for **remote control** via the **SEEBURG Network Manager** and for **Audio-over-Ethernet (AoE) audio transmission** via **AES 67**.



AES Network

ACCESSORIES GL 16 Sub

Flying Bracket



for GL System,
incl. (black version:
2 x M10 x 30 handle screws
white version:
2 x M10 x 30 socket head screws)
Order No. **01352/GL16/set/w** (RAL 9010)
Order No. **01352/GL16/set**

Connection Adapter



for GL 16 i / GL 16 Sub
-> M20 base plates,
incl. 1 x M20 x 80 flat head screw,
2 x M10 x 20 flat head screws
Order No. **01276/GL16i**

Connection Adapter



for GL 16 c -> GL 16 Sub,
incl. 1 x M10 x 30, 1 x flat washer,
2 x M10 x 20 flat head screws
Order No. **01276/GL16c**

Connection Adapter



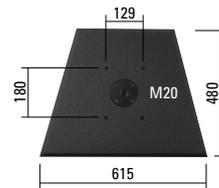
for GL 24 -> GL 16 Sub
Order No. **01276/GL24**

Height Extender



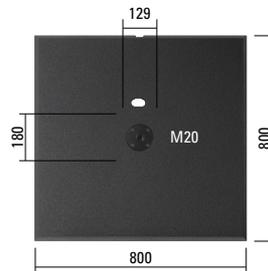
for stacking
GL 8 i, GL 16 i, GL 16 Sub
height 35,4 cm
Order No. **01277/35**
height 110 cm
Order No. **01277/110**

Base Plate, Small



for GL 16 / GL 16 Sub / L-Series,
with M20 flange, 61,5 x 48,0 cm
Order No. **01278**
Order No. **01278/w** (RAL 9010)

Base Plate, XL



for stacked mounting
of multiple GL 16 units / GL 16 Sub,
with M20 flange, cable channel,
80,0 x 80,0 cm
Order No. **01279**
Order No. **01279/w** (RAL 9010)



GL 16i / GL 16 Sub / Height Extender