

B2HP / B2HPA

2 x 15"- Subwoofer, Bi-amplified / self-powered

Presentation: PROPHON B2HP

The PROPHON B2HP subwoofer was designed for use with recorded music and for live applications, such as nightclubs, live stages, concert halls, auditorium etc. The B2HP Subwoofer is a compact 2x15"- woofer with separately vented, tuned chambers.

The B2HP as a prophon subwoofer model has been around for over three decades, where there is next to no similarity in the B2HP of today compared to the first version, except the size. The first B2HP subwoofer had two 15" woofers with the, in those days, "staggering" effect of 2 x 300W, which was more than enough in those days...

Today, with the ever growing demand in high SPL, compact size and almost laughable effect from power amplifiers (see Prophon P10000 with 2x5000W / 2 ohm load), the B2HP subwoofer houses two specially designed 2kW 15" High Power woofers with impressive data that allows the B2HP subwoofer to endure long hours of high performance low frequency transmission.

With reinforced ribbed cone, double silicone spider, 4" voice coil with two separately wound copper-coils, ventilated voice coil gap for reduced power compression and diverting the heat away from the magnet, thus prolonging the lifetime of the woofer.

The design was developed and engineered with advanced computer simulation software in close collaboration with some of our customers, to satisfy the need in a high power subwoofer dedicated to reproducing controlled sub frequencies with minimum distortion and material vibration. Using separately vented chambers minimizes distortion and influence between the two 15"- woofers.

The woofers are protected by a fully covering 1,5 mm perfored steel grille and a speaker foam, both with minimum air flow resistance, so as not to influence the sound in a negative way.

The paint is a hardened two-component lacque, both of the above mentioned components combined with state of the art computerized CNC machines, ensures a long lifetime of the cabinet, with minimum service.

All woodwork and assembly are made in Sweden with a result that can clearly be seen when comparing quality and reliability with other brands,

In short: the B2HP is the perfect subwoofer where a tight and powerful sub with high SPL and low distortion is preferred. With a long life span, low service and high quality sound.

B2HP comes in two versions

- Standard passive (bi-amplified) version where an external amplifier are used to power the speaker (*PROPHON P4200, P10000, see the electronics section in this brochure*)
- Active (self-powered) version with built in class-D amplifier (*see extended information below*)

The active version (B2HPA)

Fully DSP processed built-in amplifier, with on-board, high definition signal processors,

The B2HPA houses two separately controlled 1050W @ 8 ohm amplifiers, (total output power 2100W@8ohm).

Each 15" woofer has a 1050W@8 ohm dedicated, DSP-controlled amplifier.

There are 4 presets setups in the active version:

- 1) HP-filter@90Hz
- 2) HP-filter@110Hz
- 3) Cardioid setup to be used with another B2HPA using preset 1 (*see separate data sheet for proper system setup*)
- 4) Cardioid setup to be used with another B2HPA using preset 2 (*see separate data sheet for proper system setup*)

Features B2HP:

- Compact size - massive sound.
- Two handles.
- M20 / 35mm. top hat
- Stacking rails.
- High power 15"- woofer. (2000W cont..)
- Prepared for four castors (not included).
- Fully covering protective perfored steel grille with speaker foam.
- 18 mm. high quality birch plywood
- Special two-component hardened paint.
- Two versions, Active and passive
- High quality components made in Europe.
- High SPL / low distortion
- Designed and manufactured in Sweden



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Picture showing the active 2100W module with Neutrik powercon in/out, Neutrik XLR in / through, volume control and preset selector.



Separately vented chambers so as the cone-speakers do not interfere with each other



The woofers are specially designed to produce High Power with low distortion

Technical data B2HP:

Model	B2HP
Low frequency driver	2 x 15" woofer, 4"- voice coil
Construction	Tuned bass reflex, frontloaded
Sensitivity (open space)	103 dB@1W/1m.
Nominal impedance	4 ohm
Power handling R.M.S. / cont..	2400W / 4800W
Max SPL, half space (calc.)	139dB @ 4800W
frequency response +/- 6dB	30Hz - 500Hz
Measurements H x W x D mm.	1000 x 500 x 550
Weight	52 kg.
Recommended crossover for passive version	LP@80-120Hz, 24-48dB/oct HP@35Hz, 24-48dB/oct
Recommended Amplifier for passive version	PROPHON P10000, P4200
Recommended pre-programmed DSP processors	PROPHON DSP260, DSP480
Recommended Powerage	1500W - 4800W @ 4 ohm
Connections passive version	2 x Neutrik Speakon 1+ /1- Input / through 2+ / 2- Link
Applications	- Fixed Installation - Live performances - Stacked in an cardioid array, or single ended use.
Accessories	- Castors, front-cover, - Speaker Stand Kit - Flight ware, wheelplate

Extended technical specifications B2HPA, with 2x1050W built-in amplifier

Connectors	Input: Neutrik XLR female Link out: Neutrik XLR male Power in: Neutrik powercon blue Power out: Neutrik powercon grey
Input sensitivity	10 kOhm balanced to ground
Mains voltage acceptance	AC 95V - 250V, 50/60 Hz automatic selections of mains voltage range
Input current (195-250V _{ac} 1/8 max output power)	2,9 Arms
Input current (95-125V _{ac} 1/8 max output power)	5,5 Arms
Consumption (1/8 max output power)	410VA
Max output current draw	35 A
Cooling	Temperature controlled continues variable speed fan
Max operating ambient temperature	40° C
Thermal emission (1/8 power @ 4 ohm)	281,7 BTU/h
Thermal emission (1/4 power @ 4 ohm)	464,3 BTU/h
Gain	38 dB (voltage gain: x 80)
Frequency response	10 Hz - 30 kHz (+/-3dB, 1w @ 8 ohm)
S/N ratio	> 112 dB(A) (20 Hz - 20 kHz)
Damping factor	> 500 @ 100 Hz
THD+N	< 0,05% from 0,1W to full power