

Hartke

XL Series Bass Cabinets



Owner's Manual



If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private household in the 28 member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For Countries not mentioned above, please contact your local authorities for a correct method of disposal. By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

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Introduction

Congratulations on purchasing your Hartke XL V2 bass enclosure! The XL V2 Series enclosures have been designed to provide excellent tone with a fast attack, deep low-end and punchy output. The 410XL V2 is a 4 x 10" 400 watt, 8 ohm, tuned dual-chamber, dual-ported speaker cabinet. The 210XL V2 is a 2 x 10" 200 watt, 8 ohm, single-chamber, sealed cabinet.

Both cabinets feature Hartke 10" proprietary low frequency drivers with specially designed aluminum cones, large voice coils on Kapton® formers, impregnated fabric surrounds, and matched convex dust covers all mounted in a heavy-duty steel frames. Using solid 3/4" plywood enclosures with textured vinyl covering, black perforated steel grilles, reinforced corners and inset carry handles your XL cabinet will provide reliable performance from gig to gig and venue to venue.

In these pages, you'll find descriptions of the many features of your XL V2 cabinet as well as instructions for its setup and use, and full specifications. You'll also find a registration card enclosed—please don't forget to follow the instructions so that you can receive online technical support and so we can send you updated information about these and other Hartke products in the future. Also, be sure to check out our website, hartke.com, for complete information about our full product line.

With proper care and operation, your XL cabinet will operate trouble free for many years. We recommend you record your serial number in the space provided below for future reference.

Serial number: _____

Date of purchase: _____

If you have any questions or comments regarding your XL V2 bass cabinet or any other products from Hartke, do not hesitate to contact us at **support@samsontech.com**.

With proper care and maintenance, your Hartke bass cabinet will operate trouble-free for many years. Should your XL V2 bass enclosure ever require servicing, a Return Authorization (RA) number must be obtained before shipping your unit to Hartke. Without this number, the unit will not be accepted. Please visit **www.samsontech.com/ra** for an RA number prior to shipping your unit. Please retain the original packing materials and, if possible, return the unit in its original carton. If your Hartke XL V2 bass enclosure was purchased outside of the United States, contact your local distributor.

Features

210XL V2

- 200 watt RMS, 8Ω
- 2 x 10" heavy-duty, proprietary aluminum cones with 1.5" Kapton® formers
- 50Hz–5kHz frequency response
- 3/4" Plywood construction
- Single-chamber, sealed
- Perforated steel speaker grille
- One recessed handle and eight protective corners
- Dual, 1/4" jacks wired in parallel
- Vinyl covering

410XL V2

- 400 watt RMS, 8Ω
- 4 x 10" heavy-duty, proprietary aluminum cones with 1.5" Kapton® formers
- 30Hz–5kHz frequency response
- 3/4" Plywood construction
- Tuned dual-chamber, dual-ported
- Perforated steel speaker grille
- Two recessed handles and eight protective corners
- Dual, 1/4" jacks wired in parallel
- Vinyl covering

Connecting the XL Cabinet

Hartke XL V2 cabinets feature two 1/4" connectors wired in parallel. Each connector can be used as an input from an amplifier or as a pass through to an additional speaker cabinet.

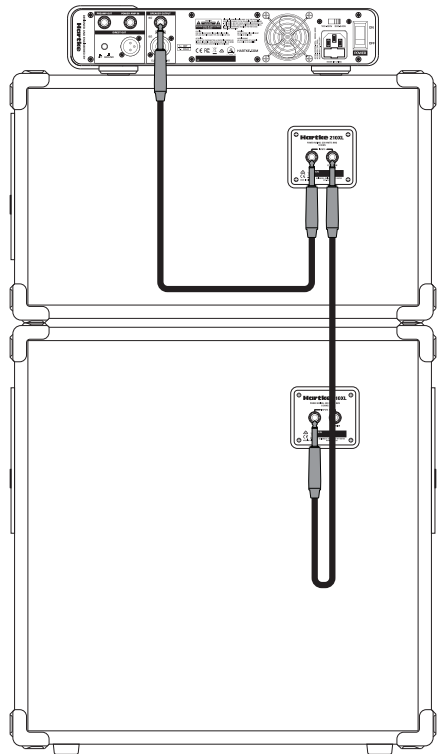
Connect the amplifier output to the speaker input on the XL rear jack plate.

XL V2 cabinet impedance is 8 Ohms. So, when two XL cabinets are connected together in parallel, the total impedance is 4 Ohms. The impedance of your speaker also has an effect on your amplifier. In general, the lower the impedance, the more power your amplifier will put out.

IMPORTANT: When connecting an XL V2 cabinet to another extension cabinet be sure to check the manufacturer's recommended impedance for the amplifier to avoid any damage. Read the section "About Impedance" for more information on connecting multiple speakers together.

NOTE: *Never connect more than one amplifier to a XL V2 Series enclosure. This will damage the speaker cabinet and void the warranty.*

NOTE: *Use only unshielded speaker wire with a gauge of 12 – 18 AWG. Do not use shielded instrument cables when connecting an amplifier to a speaker cabinet or when connecting an extension cabinet.*



About Impedance

Basically, impedance is the amount of current that will flow through a speaker at a certain voltage. It is measured in Ohms (Ω). The actual impedance of a speaker is not constant across all frequencies. So, for convenience we use the term “nominal impedance”, which refers to the impedance that a speaker presents to an amplifier at a reference frequency.

A speaker typically has an impedance rating of 4Ω , 8Ω , or 16Ω . Generally, the lower the impedance of a speaker, the more power will be developed by the connected amplifier. For example, a 4Ω speaker will extract more power from your amplifier than an 8Ω speaker. If you connect a speaker with an impedance lower than the amplifier’s output rating, the amplifier can overheat and damage the power output section. It is important to learn how to connect multiple speaker cabinets safely without damaging the speakers or the amplifier in this way.

Here is a simple rule of impedance: When two speakers with the same impedance are wired in **parallel**, the total system impedance is **cut in half**, and when two speakers with the same impedance are wired in **series**, the total impedance is the **sum of the speakers individual impedance**.

Hartke XL speaker cabinet input jacks are parallel connections. The formula to calculate the total impedance of a parallel speaker system is:

$$\frac{1}{R_t} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} + \dots \frac{1}{R_n}$$

(R is the rated impedance of a speaker cabinet)

If all speakers have the same impedance, the total impedance will be equal to the impedance of a single speaker divided by the total number of speakers. For example, if you have two 4Ω speakers connected in parallel, the total impedance is 4 divided by 2, or 2Ω . You should be careful when connecting speakers in parallel to an amplifier. The impedance can quickly fall below safe levels. This is especially true when connecting speakers in parallel to a bridged amplifier.

Typical Parallel Speaker Impedance Calculations:

$$\begin{aligned} 16\Omega + 16\Omega &= 8\Omega \\ 8\Omega + 8\Omega &= 4\Omega \\ 4\Omega + 4\Omega &= 2\Omega \\ 4\Omega + 8\Omega &= 2.7\Omega \\ 8\Omega + 16\Omega + 16\Omega &= 4\Omega \end{aligned}$$

Specifications

210XL V2

Description	2 x 10" Bass Cabinet
Cabinet Type	Single-Chamber, Sealed
Power Handling	200W RMS
Impedance	8Ω
Drivers	100 watt, 10" proprietary aluminum cones
Voice Coils	1.5" on Kapton® formers
SPL	96dB @ 1W/1M
Frequency Response	50Hz–5kHz
Inputs	2 x 1/4" (wired in parallel)
Cabinet Construction	Solid 3/4" plywood, textured vinyl covering
Grille	Black perforated steel
Additional	1 x inset handle, 8 x protective corners
Weight	44lb / 20kg
Dimensions	14.5" x 24.5" x 15" 369mm x 623mm x 389mm

410XL V2

Description	4 x 10" Bass Speaker Cabinet
Cabinet Type	Tuned, Vented Enclosure
Power Handling	400W RMS
Impedance	8Ω
Drivers	100 watt, 10" proprietary aluminum cones
Voice Coils	1.5" on Kapton® formers
SPL	98dB @ 1W/1M
Frequency Response	30Hz–5kHz
Inputs	2 x 1/4" (wired in parallel)
Cabinet Construction	Solid 3/4" plywood, textured vinyl covering
Grille	Black perforated steel
Additional	2 x inset handles, 8 x protective corners
Weight	79lb / 36kg
Dimensions	25" x 24.5" x 15" 635mm x 623mm x 389mm

At Hartke, we are continually improving our products, therefore specifications and images are subject to change without notice.

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