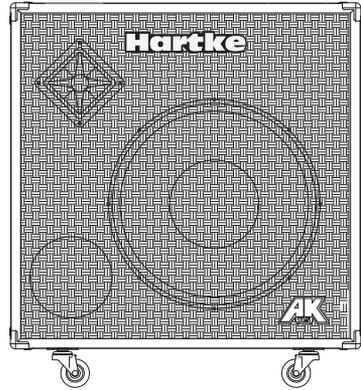
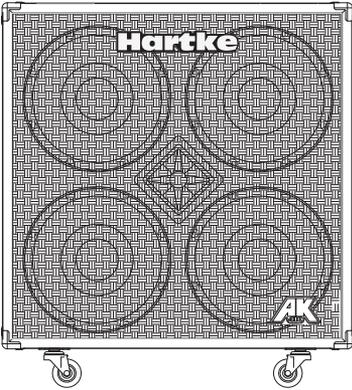




AK410
AK115



Owner's Manual

Hartke

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Introduction

Thank you for purchasing the AK Series Bass Enclosure from Hartke! We know you don't like reading owners manuals, but you've just purchased one of the finest bass speaker systems around, and we want to tell you about it. So, before you plug in and start popping and slapping, we'd like to suggest you take just a few moments to scan these pages. We'll make it as painless as possible, we promise—and, who knows, you might just pick up a tip or two. The AK Series is new line up of bass speaker enclosures featuring Hartke's new AK paper cone bass transducers. This manual covers two models, the AK410 and AK115. The AK410 is configured with four 10-inch, 125-watt bass drivers, with a 1-inch titanium compression driver in a dual chambered, sealed enclosure, with 500 watts of power handling. The AK115 provides 400 watts of power handling from the single 15-inch bass driver, with a 1-inch titanium compression driver in a precision tuned, vented enclosure. AK Series transducers use advance bass speaker technologies producing a classic tone that's historically correct, and at the same time, well suited for today's modern bassist. To complete the speakers systems, there's a 1-inch titanium compression driver with level control, producing the high frequency response that allows you to get a sweet tone that cuts through the back-line. The AK Series cabinets are constructed using high quality birch plywood with extensive bracing and dado joinery, which makes them rigid and at the same time lightweight. The vinyl covering, classic cloth grill, and metal corners and handles provide added protection while moving the enclosure from gig to gig. The road tough, black look says you're ready to rock! AK series cabinets are super-clean and loud with enough power handling to produce a radical range of sounds. That versatility, together with Hartke's famous reliability, makes the AK bass enclosures the ideal cabinet for bassists playing jazz, funk, country, roots rock, death metal or for whatever style you create.

In these pages, you'll find a detailed description of the many features of your AK Series bass enclosure, as well as step-by-step instructions for setting up and using your bass cabinet. You'll also find a warranty card enclosed—please don't forget to fill it out and mail it so that you can receive online technical support and so we can send you updated information about this and other Hartke and Samson products in the future. Also, be sure to check out our website (www.hartke.com) for complete information about our full product line.

With proper care and operation, your AK Series 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: _____

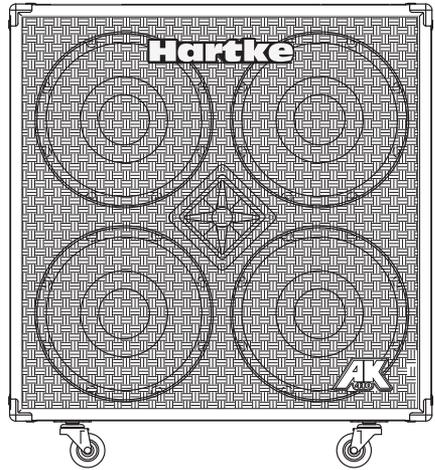
Date of purchase: _____

SPECIAL NOTE: Should your Hartke AK Series enclosure ever require servicing, a Return Authorization (RA) number is necessary. Without this number, the unit will not be accepted. If purchased in the United States, please call Samson at 1-800-372-6766 for a Return Authorization number prior to shipping. Please retain the original packing materials and, if possible, return the unit in its original carton and packing materials. If purchased outside the United States, please contact your local distributor for warranty information.

AK Series Features

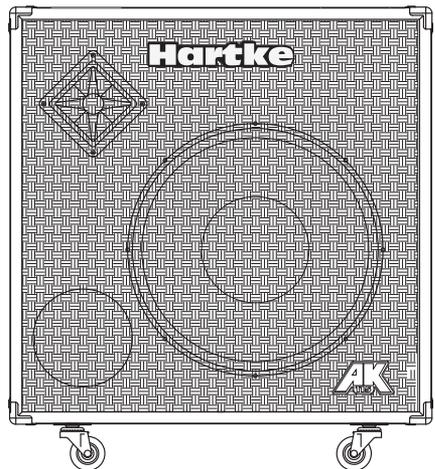
AK410 Features

- 4 x 125 watt 10-inch, heavy-duty, paper cone low frequency drivers with ceramic motor
- 1-inch, titanium, high frequency compression driver with level control
- Sealed, two chamber enclosure
- 500 Watt Power Handling
- 8-ohm impedance
- 3/4" birch plywood construction
- Classic cloth grill
- Recessed metal handles
- Metal corners
- Dual Speakon and 1/4" Input jacks
- Removable casters
- Durable black vinyl covering



AK115 Features

- 1 x 400 watt, 15-inch, heavy-duty, paper cone low frequency driver with ceramic motor
- 1-inch, titanium, high frequency compression driver with level control
- Precision tuned, vented enclosure
- 400 Watt Power Handling
- 8-ohm impedance
- 3/4" birch plywood construction
- Classic cloth grill
- Recessed metal handles
- Metal corners
- Dual Speakon and 1/4" Input jacks
- Removable casters
- Durable black vinyl covering



About Impedance and Power Handling

About Impedance

Before you hook up your speaker cabinet, be sure that you understand a little about impedance. Impedance is the electronic load that the speaker puts on the power amplifier and is measured in Ohms. Too much of a load (indicated by lower impedance number) can damage your amplifier, while too small a load (indicated by higher impedance number) will not draw enough power from your amplifier.

Here is the tricky, yet simple rule of impedance: When two speakers are wired in "Parallel", the total system impedance number is cut in half and when two speakers are wired in "Series", the total impedance number is the sum of the speakers individual impedance.

The AK410 and AK115 impedance (many audio guys use the made up word "ohmage", however the correct term is impedance) is 8 Ohms. So, when two AK410's or AK115's are connected together in parallel, the total impedance is 4 Ohms. The impedance of your speaker has an effect on your amplifier. In general, the lower the impedance, the more power your amplifier will put out.

About Power Handling

There is a heated discussion around power handling. Is it better to over power a cabinet, or is dangerous to under power a speaker? While it is certain that the debate will continue far into the future, the fact is that both are true. If you are using an amplifier with a lot of power, you can damage your speaker by running the amp to the maximum and pushing the speaker beyond it's physical limits. When using too little power, there a tendency to push the amplifier into overload, which will generate enough distortion to burn the voice coil. The most important point to consider is how the power is used in order to ensure the speaker is presented with a clean signal. Be sure that you amplifier is producing a good clean signal. If your amp has an on-board compressor or limiter, we recommend you use it to protect the speaker. If the sound is getting distorted you're probably starting to damage the speaker.

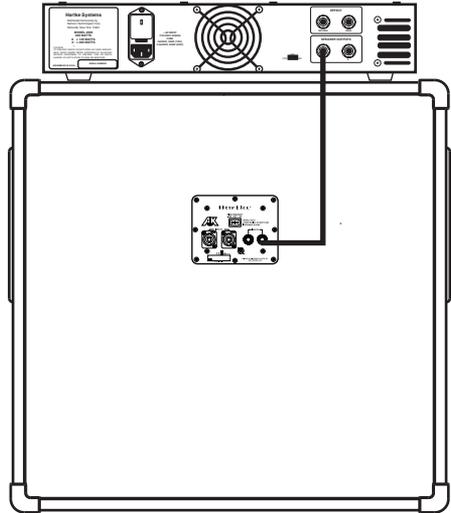
The good news is that Hartke AK Series cabinets are really efficient and they run well with amplifiers that have lower power. Plus, each model carries a high power handling rating, making them ideal with more powerful heads. The AK Series cabinets will work well with the Hartke HA3500, HA5500, LH500 and LH1000, and of course the Hartke Kilo. Again, remember, be nice to your speaker and it will be nice to you. Keep the signal clean!

Connecting the AK410 and AK115

IMPORTANT: There is a minimum safe impedance so be sure to check the manufacturer's recommended impedance for your amplifier to avoid any damage to your amplifier or voiding your warranty.

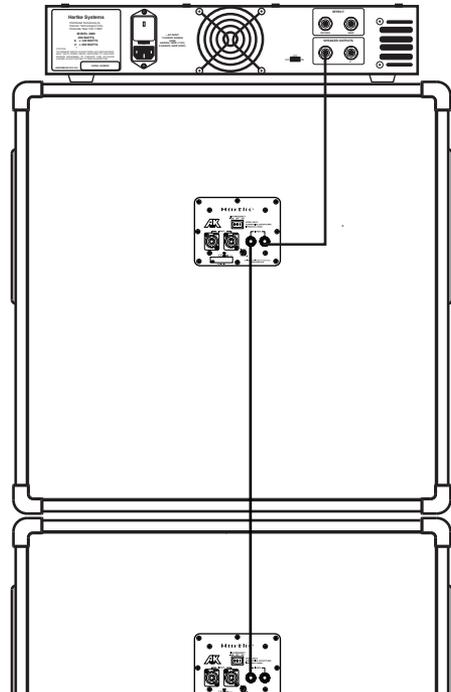
Connecting the AK410 and AK115 to Your Amplifier

The AK410 and AK115 connections are made via either the 1/4" phone jacks or Speakon connectors located on the rear panel jack-plate. Be sure to make your connection with unshielded speaker cable. Connect the Amplifier Output to the speaker Input on the AK410's or AK115's rear jack-plate.



Using the EXTENSION Output

The AK410 and AK115 provides a convenient Extension Output for connecting additional speaker cabinets in parallel. Be sure to read the section above on impedance to insure a proper hook-up with your amplifier. Follow the steps below to connect two AK410 or AK115's using the Extension Output. Connect the Amplifier Output to the Input of the first AK410 or AK115. Now, connect the Extension Output to the Input of the second cabinet.



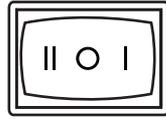
Using The High Frequency Level Control

Using The High Frequency Level Control

Your AK Series cabinet has a control used to adjust the level of high frequency compression driver. The switch has three positions, ON, -6dB and OFF. When the switch is set to OFF, the compression driver is completely out of the circuit and off. This position will give you a darker frequency response, which a lot of bassists like for roots rock and metal. If you set the switch to -6dB, you get half the level of the horn. The frequency response becomes a little brighter, which is nice for cutting through the back-line in just about any type of band. When set to ON, you get the full level of the compression driver and the response is full range with nice treble response. This voicing is great for bass soloists, for funk, R&B or for whatever style requires some serious, sweet top end.

At Hartke, we don't put any player in a category or box, we realize that your sound is personal regardless of the style of music you play. Heck, we know a lot of bass players that play a lot of different styles! The AK Series cabinets are designed to offer a natural response to faithfully reproduce the sound of your bass and amp. The High Frequency Level control gives you another dimension of control to get the sound you're looking for. Like always, with a little bit of experimentation, you'll easily dial up the sound that fits your style and musical personality.

HIGH FREQUENCY
-6dB OFF ON



Specifications

AK410 Specifications

Type	2 chamber, sealed enclosure
System Impedance (Ohms)	8 Ohms Impedance
Low Frequency Drivers	4 x 125 watt, 10-inch, heavy-duty, paper cone low frequency drivers.
High Frequency Driver	1" Throat Compression Driver with Level Control
Power Handling	500 Watts RMS Power Handling
Frequency Response	42 Hz - 18 kHz
Dimensions	
Height:	25" (618 mm)
Width:	25" (618 mm)
Depth:	15" (381 mm)
Weight	64 lbs. (29 kg)

AK115 Specifications

Type	Vented Bass Enclosure
System Impedance (Ohms)	8 Ohms Impedance
Low Frequency Driver	1 x 400 watt, 15-inch, heavy-duty, paper cone low frequency driver.
High Frequency Driver	1" Throat Compression Driver with Level Control
Power Handling	500 Watts RMS Power Handling
Frequency Response	43 Hz - 18 kHz
Dimensions	
Height:	25" (618 mm)
Width:	25" (618 mm)
Depth:	15" (381 mm)
Weight	54 lbs. (24.5 kg)

Specifications subject to change without notice.

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