



Owner's Manual

Sage Series ICS7a
Planar Magnetic Hybrid Loudspeaker

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DOCUMENT CONVENTIONS

This document contains general safety, installation, and operation instructions for the Wisdom Audio Sage Series ICS7a Loudspeaker. It is important to read this document before attempting to use this product. Pay particular attention to:

WARNING: Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in injury or death.

CAUTION: Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in damage to or destruction of part of or the entire product.

Note: Calls attention to information that aids in the installation or operation of the product.

Introduction

Congratulations on purchasing your Wisdom Audio loudspeakers. They incorporate many design features designed to give you decades of pleasure and performance. Many of these design choices are uncommon among loudspeaker manufacturers and bear some explanation. See the following section entitled “Description” for more information.

While we expect your local Wisdom Audio dealer to take care of the setup and calibration of the system, we still recommend that you at least briefly review this and your other manuals to better understand your system’s full capabilities.

You do not have to do anything to register your warranty for your Wisdom Audio products. (Isn’t that a pleasant surprise?)

In the unlikely event that your loudspeakers ever require service, please contact the dealer from whom you purchased them. Between their records and ours, you should be all set.

However, please keep your sales receipt in a safe and easily found place. Should you move or lose touch with your original dealer, it will serve as your proof of purchase for warranty purposes.

Overview

Your **Sage Series ICS7a** loudspeakers take advantage of several critical technologies to deliver a level of performance that has never been available in a loudspeaker that intruded so modestly on your living space. In fact, this level of performance has rarely been attained, regardless of the space and budget at one’s disposal.

Since several of these technologies cannot readily be found elsewhere, we will take the time to describe them in more detail than would be necessary for more conventional designs.

Our planar magnetic drivers use an advanced, thin film membrane to move the air. This film can respond instantly to the smallest detail in the signal. It has vastly less inertia than traditional “cone & dome” drivers, so the signal is never blurred in any way.

One of the most remarkable things about the sound of well-designed planar magnetic speakers is their lack of thermal or dynamic compression. There are several reasons for this:

- The lightweight diaphragm responds quickly to even the smallest signals yet is robust enough to handle a great deal of power.
- The voice coil is laid out flat and is exposed to the air on both sides; the large resulting surface area dissipates heat extremely quickly and efficiently.
- Since heat does not build up in the voice coil (as it does in conventional dynamic drivers), the load seen by the amplifier does not change at high power levels.

When you become accustomed to the sound of your new **Sage Series ICS7a** loudspeakers, conventional speakers sound a bit bland and lifeless. You may also discover yourself hearing details at even modest levels on the ICS7a that were previously inaudible even at loud volumes on more conventional speakers.

The “voice coil” in the planar magnetic driver is spread out over a large, flat area that is exposed to the open air. As such, when a huge transient comes along, any heat that is generated is immediately dissipated. This compares quite favorably to other designs in which the voice coil is buried inside a massive piece of metal, where the heat has effectively no place to go.

The excellent heat dissipation of these drivers makes them remarkably reliable. Planar magnetic speakers can handle a great deal of power without undue stress or audible strain. In fact, for a given size, they can handle many times the power of a traditional dynamic driver.

Because the conductor of a planar magnetic driver is essentially a long, thin wire, it presents a purely resistive load to the amplifier. This is comparable to the simple test loads that amplifier companies use when measuring their amplifiers to show how terrific they are. As such, you can be assured that your amplifiers will sound and work their best.

Authoritative, deep bass requires that you move a lot of air. We have chosen to use dynamic woofers for the bass because they can provide excellent performance at lower frequencies.

To get comparable bass performance from a planar magnetic design, you would need to have a huge speaker that would be impractical in most domestic living spaces. It simply makes more sense to use the best transducer technology in each

area of the reproduced spectrum. One of Wisdom Audio's strengths is in seamlessly blending these technologies – particularly important given the high standards set by our planar magnetic drivers.

Of course, the dynamic woofers themselves must be rather extraordinary to “keep up” with the planar magnetic drivers right up to the crossover frequency.

Many speakers include a mid-bass “bump” in their response to give the illusion of going deeper in the bass than they actually do. Unfortunately, this “bump” makes blending them seamlessly with a high-quality subwoofer almost impossible.

All Sage Series speakers have been designed for optimally at response to 80 Hz, which is the most-common crossover frequency used with subwoofers.

Unpacking and Installing the ICS7a

Please exercise caution when unpacking your ICS7a to ensure that you do not strain yourself from its (perhaps unexpected) weight.

1. Using the installation template included in the box, tack or tape the template to the ceiling where the speaker module is to be installed.
2. Using a pencil or pen trace the outline of the cutout for the speaker.
3. Cut out the outline traced on the ceiling.
4. Carefully remove the magnetic grille, gripping the edge of the grille and lifting it off the speaker from one side to the other to avoid damaging the grille. Lay the grille on a flat surface.
5. Reach into the opening you cut into the ceiling and push any insulation out of the space where the speaker module will be mounted. Make sure insulation is not blocking the area in the ceiling where the dog toggles will rest. If there is not any insulation in the ceiling, loosely fill the space with insulation to reduce cavity resonances and improve the overall performance.
6. Hold the speaker module near the cutout in the ceiling and connect the cable to the + and - connectors on the rear of the speaker module, paying attention to the polarity.
7. If the IC-LAT Laser accessory was purchased to make the installation more precise, attach it to the speaker module now as shown in Fig.1. The guide tabs on the IC-LAT must be aligned with the guide holes on the top of the

Planar Magnetic Transducer housing. A. If the IC-LAT is used, proceed with step 8. If the IC-LAT is NOT used, skip to step 9.

Fig. 1 IC-LAT attached to the ICS7a Planar Magnetic Hybrid Loudspeaker



8. If the IC-LAT Laser is used: Turn the laser on the IC-LAT on by rotating the thumbscrew slowly in a counter-clockwise direction until the laser is activated. Rotate the speaker module until the IC-LAT laser is pointing to the desired listening position. Tighten the four screws that control the dog-ears until the speaker module is fixed tightly to the ceiling.

9. If the IC-LAT Laser is NOT used: Locate the directivity indicators on the rim of the speaker module, Fig. 2 Rotate the speaker module until the directivity indicators are centered on the desired listening position. Tighten the four screws that control the dog-ears until the speaker module is fixed tightly to the ceiling.

Fig. 2 Directivity indicators



10. Place the grille onto the speaker module so the scrim is facing the speaker module and the edge of the grille slightly wraps the edge of the speaker module. The grille is secured to the speaker module with magnets and will gently snap into place.

11. IMPORTANT: Maximum ceiling thickness of the dog-ears on the ICS7a have

a maximum opening of 2" (5.8 cm)

Extended Coverage Waveguide (ECW)

The purpose of the ECW is to allow the ICS7a to be used for more than one purpose. Depending on your intended purpose the included ECW may or may not be used.

Surround Sound

- Main Left, Center, and Right channels = **No**
- Side and or Rear channels = **Yes**
- Immersion audio overhead channels = **Yes**

Distributed Audio

- Hi-fidelity critical listening 2-CH = **No**
- Background music listening non-discriminating = **Yes**

With ECW Installed



Without ECW Installed



Ceiling Placement Guidelines - General

The ICS7a was designed to provide high quality audio for theaters, in-ceiling 2-CH, and distributed audio. Special attention must be taken to ensure the loudspeaker's performance is not diminished by boundary effects. Installing the loudspeaker too close to the adjacent walls may cause bass and lower midrange frequencies to be amplified beyond factory recommendations.

A good rule to follow when installing the ICS7a is to keep the speaker no closer than 12" from an adjacent wall, this will help to eliminate unwanted boundary issues.

Ceiling Placement Angle

It is important to remember that the ICS7a is a high-performance in-ceiling speaker like a high-quality floor or bookshelf speaker. This is important to remember when placing the ICS7a in a room for either surround sound, distributed audio, or for a hi-fidelity 2-CH listening experience.

For the optimal placement we recommend contacting us for custom assistance: information@wisdomaudio.com

Your ICS7a and Subwoofers

All Sage Series loudspeakers are optimized for use with subwoofers, with a crossover of 80 Hz. (This is the most common frequency below which subwoofers are used.)

When properly installed in the wall, your ICS7a has inherently at response to 80 Hz, without the common “bass bump” that characterizes most in-wall speakers and is placed there to yield the impression of “more bass” than there really is. This makes it easy to blend seamlessly with a high-quality subwoofer such as one of Wisdom Audio’s Regenerative Transmission Line™ (RTL™) subwoofers.

In some installations, the ICS7a may be used full range rather than with a subwoofer. If so, we recommend using a high-performance Wisdom Audio SA amplifier or something comparable with between 200-500 watts per channel.

For the best listening experience possible for either surround sound, distributed audio, or 2-CH we recommend using a **Wisdom Approved DSP/Calibration System** for the ultimate in equalization, delay, and room calibration.

Care and Maintenance

To remove dust from the front of your ICS7a, use a feather duster or a lint-free soft cloth.

To remove stubborn dirt and fingerprints from the grille, we recommend isopropyl alcohol and a soft cloth. Lightly dampen the cloth with alcohol first and then clean the grille of the ICS7a with the cloth. Do not use excessive amounts of alcohol – there is no need for the cloth to be wet; merely damp is better.

Never attempt to clean the drivers themselves.

CAUTION!

Do not touch the surface of the planar magnetic drivers, under any circumstances. The thin film has been carefully pre-tensioned at the factory; any subsequent contact can only damage it.

North American Warranty

Standard Warranty

When purchased from and installed by an authorized Wisdom Audio dealer, Wisdom Audio loudspeakers are warranted to be free from defects in material and workmanship under normal use for a period of 10 years from the original date of purchase.

Furthermore, the transducers (“drivers”) in your Wisdom Audio speakers are warranted to be free from defects in material and workmanship under normal use for a period of 10 years from the original date of purchase.

Harsh Conditions Use

Wisdom Audio loudspeakers are designed for installation and operation in environmentally controlled conditions, such as are found in normal residential environments. When used in harsh conditions such as outdoors or in marine applications, the warranty is three years from the original date of purchase.

During the warranty period, any Wisdom Audio products exhibiting defects in materials and/or workmanship will be repaired or replaced, at our option, without charge for either parts or labor, at our factory. The warranty will not apply to any Wisdom Audio products that has been misused, abused, altered, or installed and calibrated by anyone other than an authorized Wisdom Audio dealer.

Any Wisdom Audio product not performing satisfactorily may be returned to the factory for evaluation. Return authorization must first be obtained by either calling or writing the factory prior to shipping the component. The factory will pay for return shipping charges only if the component is found to be defective as mentioned above. There are other stipulations that may apply to shipping charges.

There is no other express warranty on Wisdom Audio products. Neither this warranty nor any other warranty, express or implied, including any implied warranties of merchantability or fitness, shall extend beyond the warranty period. No responsibility is assumed for any incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and other states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty is applicable in the United States and Canada only. Outside of the U.S. and Canada, please contact your local, authorized Wisdom Audio distributor for warranty and service information.

Obtaining Service

We take great pride in our dealers. Experience, dedication, and integrity make these professionals ideally suited to assist with our customers' service needs.

If your Wisdom Audio loudspeaker must be serviced, please contact your dealer. Your dealer will then decide whether the problem can be remedied locally, or whether to contact Wisdom Audio for further service information or parts, or to obtain a Return Authorization. The Wisdom Audio Service Department works closely with your dealer to solve your service needs expediently.

IMPORTANT: Return authorization must be obtained from Wisdom Audio's Service Department BEFORE a unit is shipped for service.

It is extremely important that information about a problem be explicit and complete. A specific, comprehensive description of the problem helps your dealer and the Wisdom Audio Service Department locate and repair the difficulty as quickly as possible.

A copy of the original bill of sale will serve to verify warranty status. Please include it with the unit when it is brought in for warranty service.

WARNING: All returned units must be packaged in their original packaging, and the proper return authorization numbers must be marked on the outer carton for identification. Shipping the unit in improper packaging may void the warranty, as Wisdom Audio cannot be responsible for the resulting shipping damage.

Your dealer can order a new set of shipping materials for you if you need to ship your loudspeaker and no longer have the original materials. There will be a charge for this service. We strongly recommend saving all packing materials in case you need to ship your unit someday.

If the packaging to protect the unit is, in our opinion or that of our dealer, inadequate to protect the unit, we reserve the right to repackage it for return shipment at the owner's expense. Neither Wisdom Audio nor your dealer can be responsible for shipping damage due to improper (that is, non-original) packaging.

Specifications

All specifications are subject to change at any time to improve the product.

- **Frequency response:** 57Hz – 20 kHz +/- 3dB
- **Crossover frequency:** 650 Hz
- **Nominal Impedance:** 4.5Ω
- **Minimum Impedance:** 3.0Ω
- **Sensitivity:** 87 dB/2.83V/1m
- **Minimum recommended power:** 50w
- **Power handling, continuous:** 300w
- **Peak handling, peak:** 600w
- **Maximum SPL:** 105 dB @ 2.5m
- **Round and optional square grille dimensions:** 11.57" (29.4 cm)
- **Cutout dimensions:** 10-1/8" (25.9 cm)
- **Dimensions:** 11.57" x 11.57" x 6.57" (29cm x 29cm x 16.4cm)
- **Shipping weight, each:** 16 lbs. (7.3 kg)

For more information, see your Wisdom Audio dealer or contact:

Wisdom Audio

1572 College Parkway, Suite 164

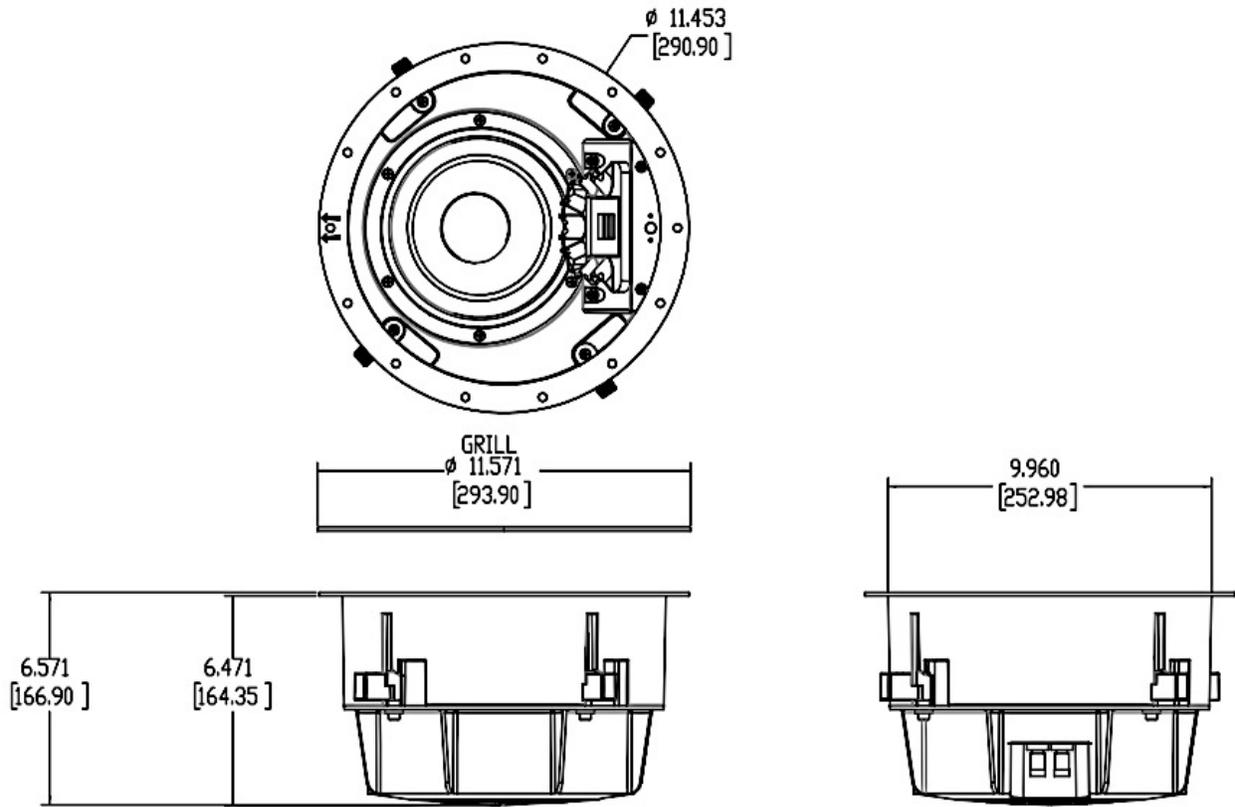
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ICS7a Dimensions





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