



# **Owner's Manual**

Sage Series ICS3  
Minimal Appearance Point Source Loudspeaker

ICS3-SPMD Installation with Gypsum or Solid  
Surface

# Table of Contents

Introduction | 3

Overview | 3

System Overview | 3

*Connections* | 6

Installing into the Mounting Platform | 6

ICS3-SPMD (Spiral Magnetic Planar Driver) into ICS3-Backbox | 6

*Grille Depth Adjustment* | 8

*Grille Painting (Optional)* | 9

ICS3 with Subwoofers | 10

ICS3 without Subwoofers | 10

Care & Maintenance | 11

North American Warranty | 11

Obtaining Service | 12

Specifications | 13

## DOCUMENT CONVENTIONS

This document contains general safety, installation, and operation instructions for the Wisdom Audio Sage Series ICS3 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 system. It incorporates many design features engineered 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 “Overview” for more information.

Our unique driver designs and our emphasis on achieving real-world performance account for the “system” approach taken. These are not speakers that are simply connected to speaker wires and promptly forgotten. We recognize that setting up a Wisdom Audio system can be a bit more involved than connecting a common set of loudspeakers, which is why we recommend that our systems be engineered and calibrated by Factory Personnel.

## Overview

Your **Sage Series ICS3** loudspeaker takes 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 ICS3** speaker, conventional speakers sound a bit bland and lifeless. You may also discover yourself hearing details at even modest levels on the **ICS3** 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.

**Sage ICS3 speakers** have been designed for optimally flat response to 120 Hz.

## Sage Series Minimal Appearance System Ordering and Planning

1. Planning Stage	2. Pre-construction / Pre-wire Stage		3. Finishing Stage	
Surface	Platform (Size & Shape)	Speaker	Final Assembly	Grille
Gypsum, 1/2" (13mm)	1/2" round 3" 1/2" square 3" 1/2" round 4" 1/2" square 4"	ICS3-BackBox SUB1	ICS3-SPMD	3" round 3" square 4" round 4" square
Gypsum, 5/8" (16mm)	5/8" round 3" 5/8" square 3" 5/8" round 4" 5/8" square 4"			
Solid Surface  Depth from 3/8" to 1-1/4" (9.5mm – 31.75mm)	Solid Surface Mounting Kit Router Template Tool Kit			

## System Overview

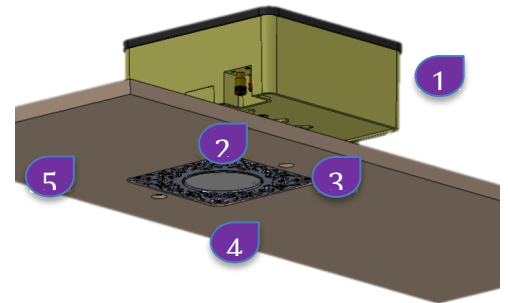
The **ICS3 Minimal Appearance Point Source Loudspeaker** has several components that make up a complete system. A complete installation considers the type of ceiling surface and the size and shape of the grille opening. The finished installation matches flush mount lighting with both a completely flush grille and a seamless aesthetic with the lighting design. The components are:

- ICS3-Backbox
  - ICS3-Backbox is used as part of the rough-in and preconstruction stage. It includes the mid-bass driver and crossover.
- ICS3-SPMD (Spiral Planar Magnetic Driver)

- The ICS3-SPMD includes a built grille depth adjustment to allow for precise and perfectly flush appearance of the grille. This is done through adjustment of the Magnetic Recoil Fastener (Pat. Pend) which also serves as the magnets that hold the grille in place.
- Mounting Platform (Gypsum or Solid Surface)
  - Surface Mount Kit is available for gypsum ceilings using 1/2" or 5/8" (13mm or 16mm) drywall thickness and for solid surface installation for all materials such as stone, wood or tile, from 3/8" to 1-1/4" (9.5mm to 32mm) thickness. A routing tool is also available to help cut solid surface installations.
- Grille
  - Grilles are available in 3" or 4" (76mm or 102mm) width and in both square and round to match lighting fixtures.

## Connections

1. ICS3-Backbox (installed onto Mounting Platform)
2. ICS3-SPMD (Spiral Planar Magnetic Driver) with Magnetic Recoil Fastener (Pat. Pend)
3. Speaker Termination Binding Posts
4. Clamping Plate, Sanding Guide, Mud Ring (Mounting Platform)
5. Gypsum or Solid Surface Mounting Platform



## Installing into the Mounting Platform

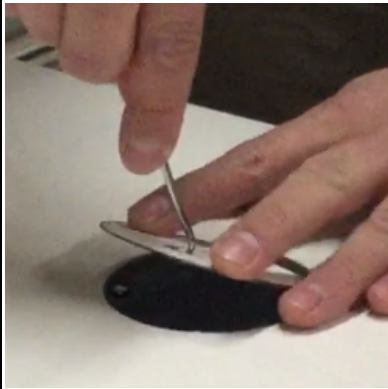
### ICS3-SPMD (Spiral Magnetic Planar Driver) Installation into ICS3-Backbox

These instructions are for ceilings that have been finished and painted and are using the Gypsum Mounting Platform or the Solid Surface Mounting Kit. The Mounting Platform must be installed during pre-construction and the prewire must be completed and connected to the ICS3-Backbox containing the mid-bass driver. Installing the ICS3-SPMD is the final step before being able to install the grille and use the system. For detailed instructions on the different mounting options, go to [wisdomaudio.com](http://wisdomaudio.com).

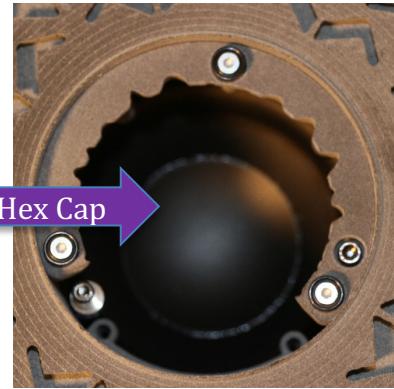
**NOTE:** You should have already installed the ICS3-Backbox with either the Gypsum Mounting Platform or Solid Surface Mounting Platform to use these instructions and have completed sanding and painting of the ceiling.

**Step 1:** Remove the Paint Shield by inserting a pick tool into the cut out of the steel Paint Shield and gently pulling the Paint Shield away from the assembly, it is held on magnetically.

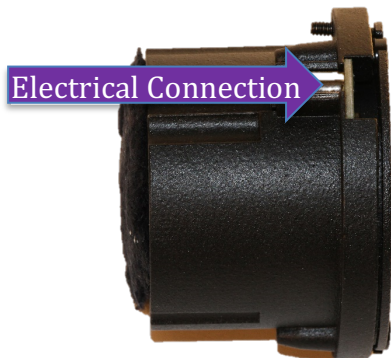
**NOTE:** Keep the paint shield to use during the grille depth adjustment at the end.



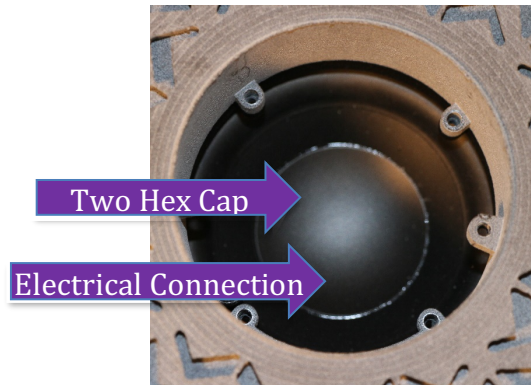
**Step 2:** This will expose the Subwoofer Grille. Remove the Subwoofer Grille Catch by removing the (2) #6-32 cap screws using a 7/64" hex head screwdriver bit. The Subwoofer Grille Catch should be free to remove from the Mud Plate.



**Step 3:** Install the Spiral Planar Magnetic Driver (ICS-SPMD). The ICS3-SPMD can only be inserted in one way to make the electrical connection.

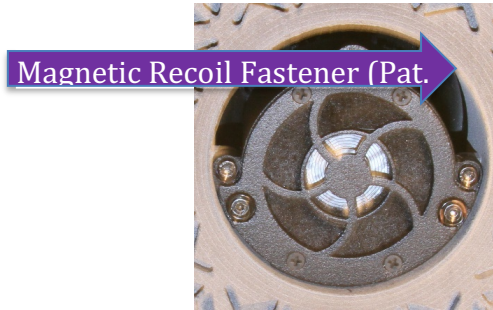


**Step 4:** The electrical connection to the ICS3-SPMD is mated by securing the ICS3-SPMD to the ICS3-Backbox. Insert the (2) #6-32 hex drive cap screws through the ICS3-SPMD and into the mounting bosses of the Mounting Platform.

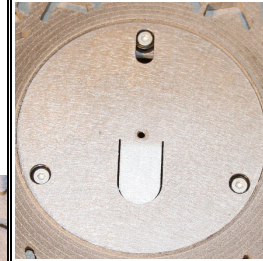


**Step 5:** Check for tight fit (hand tighten only!)

**NOTE:** There is a protective plastic film on the ICS3-SPMD. Do not remove it until after you have completed installation.



**Step 6:** Replace Paint Shield for setting the grille depth (next section)

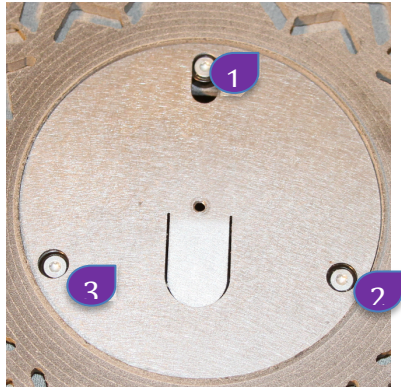


## Grille Depth Adjustment

These instructions are for ceilings that have been finished and painted. The system is now ready to have the grille plane set, and the grille secured through the Magnetic Recoil Fastener (Pat. Pend). Use the Paint Shield to set the plane of the grille, it has holes to access the plane adjustment screws so the plane can be adjusted with ease. Adjust the plane as necessary by backing the screws out of the frame of the ICS3-SPMD.

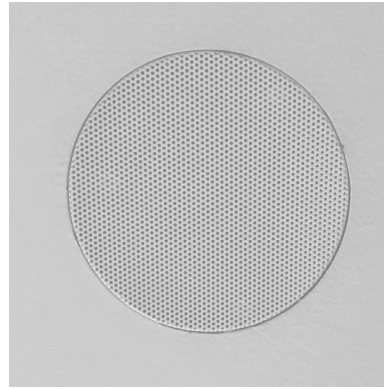


**Step 2:** The Paint Shield has three access cutouts for the three adjustment screws underneath. The Paint Shield is the same depth as the Grille. Adjust the screws for a flush fit.



**Step 4:** Remove the protective plastic film on the ICS3-SPMD. Place the grille on the magnetic Grille Catch.

Done!



**NOTE:** There is a protective plastic film on the ICS3-SPMD.

You must remove after completing installation.

**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.

## Grille Painting (Optional)

1. Prime the grille with a metal primer/bonder in a spray can. Carefully follow the manufacturer's directions on the can.
2. We recommend using water-based latex paint on the grilles. Thin the paint with a proper thinning agent to a ratio of 1:1 paint-to-thinner, and strain it through a standard mesh strainer to remove any lumps. **IMPORTANT:** Due to its increased durability, oil-based paint should be considered for any installation where the grilles may be exposed to moisture.
3. Use a small touch-up gun or cap-spray gun with a #3 tip for painting.
  - a) Set the nozzle with a medium to wide fan
  - b) Set the pressure regulator to 60psi
  - c) Lightly spray the front of the grille in 3 quick strokes from approximately 10 inches away
  - d) Let the paint set for a minute, then turn the grille 90° and lightly spray the grille again in 3 quick strokes. Repeat this step until all four sides of the grille have been evenly painted evenly.
4. While the paint is still wet, inspect the grille and make sure that excess paint has not collected underneath the grille frame, and that none of the grille perforations are filled with paint. If any are, use compressed air to blow the paint out of the perforations.

**NOTE:** If you find any grille perforations that are plugged with paint after the paint has dried, use a straight pin or sewing needle to carefully remove the paint. 5. Once the paint has thoroughly dried, mount the grille on the speaker.

## ICS3 with Subwoofers

ICS3 loudspeakers are optimized for use with subwoofers, with a bass-management crossover of 120Hz 24dB Linkwitz–Riley. The SUB1 in-ceiling Minimal Appearance subwoofer is designed to work seamlessly with the ICS3 when used with a Wisdom Audio SC-2 or SC-3 system controller, or another processor capable of implementing the correct crossover between for the ICS3.

## ICS3 without Subwoofers

In some installations, the ICS3 may be used full range rather than with a subwoofer. If so, we recommend using a high-performance Wisdom Audio SA amplifier or

comparable with between 100-300 watts per channel and a high pass filter to keep excess bass from the speakers of no lower than 100hz.

## **Care & Maintenance**

To remove dust from the front of your ICS3, 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 ICS3 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.

## **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 ten 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 ten 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

**Note:** All specifications are subject to change at any time, in order to improve the product.

- **Frequency response:** 85Hz - 30kHz +/- 3dB
- **Impedance:** 8 Ohms
- **Sensitivity:** 85dB / 2.83V / 1m
- **Minimum recommended power:** 100 Watts
- **Maximum recommended power:** 300 Watts
- **Standard 3" Round & Square:** 3" (7.62cm)
- **Optional 4" Round & Square Grille O.D.:** 4" (10.16cm)
- **Dimensions HxWxD:** 7" x 7" x 5.75" (17.78cm x 17.78cm x 14.605cm)
- **Recommended Low Pass Crossover:** 120Hz 24dB Linkwitz–Riley
- Designed to fit within minimum 2" x 8" (50mm x 200mm) ceiling/floor joist between 12" – 24" ( 305mm – 610mm) OC.

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

**Wisdom Audio**

1572 College Parkway, Suite 164

Carson City, NV 89706

wisdomaudio.com

information@wisdomaudio.com

(775) 887-8850



*WISDOM and the stylized W are registered trademarks of Wisdom Audio.*

Wisdom Audio 1572 College Parkway, Suite 164  
Carson City, Nevada 89706 USA  
TEL (775) 887-8850  
FAX (775) 887-8820  
[wisdomaudio.com](http://wisdomaudio.com)