



*Alta Audio*

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*Owner's Manual*

# Congratulations

Congratulations on your purchase of the **Alta Audio IO** speakers. Your purchase indicates you are a listener at the highest levels in the audio world. The IOs will enhance your appreciation for all of the music you listen to. They are designed to most closely match the sound of live music.

The IO is unimposing in physical size, but presents a large and wide image with extraordinary bass. Created using the same XTL transmission line bass and DampHard cabinet construction on the faceplate as our highly reviewed Celesta FRM-2 speakers, it does so in a beautiful Rosewood standard cabinet. The black seven inch midrange/woofer blends smoothly and seamlessly into the two inch pure ribbon tweeter, creating a sweet sound that can move you physically, while presenting intimate details of three dimensional images from the front to the deepest parts of the concert hall.

## Before Beginning

Please make sure to inspect the speaker carefully. If you notice any damage please inform the dealer immediately. If the loudspeaker was shipped to you, you must notify the carrier. Please save all packing materials. Should it become necessary to transport this loudspeaker, proper packing will help to prevent damage.

## Warranty

The speaker comes with a 90 day limited warranty extendible to a 5 year warranty when registered within 14 days of purchase. The warranty is limited to defects in manufacturing and workmanship. Please be sure to operate the speaker within its power handling parameters. Damage can result from overdriving the speaker, or the amplifier powering it, and is not covered.

**Full warranty information is located on the last page of this manual**

## Speaker Spikes

The speaker comes with ½ inch spikes which are cone shaped. They screw into the bottom just inside of the four corners. Four small metal pucks are also included for the spikes to sit on. Be careful, the spikes are sharp! You may want to experiment with speaker placement before putting the spikes on the speakers. When the spikes are installed you should hear increased resolution, detail and control.

## Connection

The IO uses two standard + and – cable connections to your amplifier with high amperage shielded 5 way binding posts allowing for several connections including spade lugs and banana plugs. Jumpers are included, but can be removed for bi-wiring, or bi-amping. The upper connector drives the tweeter, while the lower connector drives the midrange/XTL bass unit. It is recommended that you wait until the speakers are broken in before experimenting with choice of speaker cables. Use of cable incorporating filter networks is not recommended. The cleanest conducting cable will sound best.

The speakers will clearly show you how open and musical a particular cable is.

## Breaking in the speakers

Although we start the break in process on all speakers, it takes about 100 hours of play before the speakers start to display their full resolution with intimate detail and extended bass. The IOs will continue to break in until about 300 hours of play. If they are left off for a significant period of time, they will need a few hours of break in again.

## Room Acoustics

The acoustics of the room can be as important as any other component of your system. A good room is neither too live (reflective) nor too dead (absorptive). Imaging is usually best achieved in a symmetrical setting with the walls behind and to the sides of the speakers absorptive while the walls behind and to the sides of the listeners are relatively reflective. This is called the live end dead end room (LEDE).

## Positioning

We recommend that you experiment with loudspeaker placement in order to obtain the best spectral balance, openness, and perception of depth. For good results the speakers should be no closer than 18 inches from the rear wall with at least 2 feet to the side walls. The space between the loudspeakers should be free. Moving the system toward a wall will increase bass level but may reduce imaging clarity and openness. Moving speakers too far into a room can result in a thin overall presentation with loss of bass foundation. The speakers will normally work well slightly angled toward the listener for accurate sound staging. While the openness of the IOs allows for excellent listening from most positions in a room, the sweetest spot is between and in front of the speakers from a distance equal to 1 1/2 times the distance between the speakers with the tweeters aligned to ear-level.

## Specifications

**Height** 14.5 inches

**Width:** 8 1/2 inches

**Depth:** 13 inches

**Weight:** 27 pounds.

**Driver complement:**

- One 2 inch ribbon tweeter.
- One 7 inch paper/Kevlar midrange/woofer

**Sensitivity:** 87.5 dB / 2.83 Volts @ 1 Meter.

**Frequency Response:** 42Hz to 47kHz.

**Impedance:** 4.Ohms.

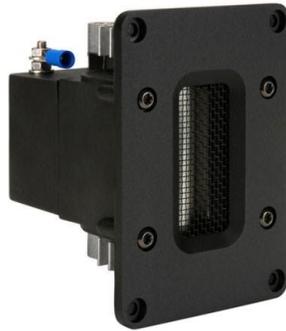
**Requirements:** 50 to 150 Watts per channel.

**Alta Audio Technology:**

- XTL Bass.
- DampHard faceplate.

## Design Features

### 1. Ribbon Tweeter:



**Elegant Ribbon Tweeter**

A 3rd generation ribbon tweeter with excellent clarity and dynamics powers the exceptional upper register of the Io.

- 3-rd generation ribbon driver technology
- 12mm width reinforced sandwich ribbon diaphragm
- High power handling, low distortion, very fast transient response
- Strong Neodymium magnet
- Extremely clear, fast, flat high-end response
- Extends over an octave above the scope of human hearing

## 2. Wide-band Midrange/Woofer

The lo's state of the art midrange/woofer driver is designed for enhanced clarity and dimensionality.



- Heavy-duty 6-hole cast frame
- Three-part paper composite diaphragm: paper, Kevlar®, and glass fibers
- Solid aluminum phase plug
- Low-loss rubber surround
- Accurate, smooth frequency response

## 3. DampHard construction:

### What is DampHard?

As a designer, you try to design a cabinet that doesn't resonate. Resonances cloud and distort the music, and locate your speaker in space, causing you to hear the speaker and its location in the room rather than the music itself. Standard design strategies involve putting heavy padding material inside the cabinet to dampen unwanted resonances. Excessive internal dampening causes the lower frequencies to become muddy and distorted, giving a booming, humming quality to the sound that removes the clarity of the bass. When you have excessive dampening material, you're hearing the padding instead of the music.



Alta's solution to this is our proprietary material DampHard: a multi-layered, multi-density material that makes up the faceplate of the IOs cabinets. Where standard MDF or other materials would allow certain frequencies to resonate the cabinet, DampHard remains dead to virtually all vibration. This allows us to heavily cut down on a cabinet's internal padding, while maintaining the clarity of the bass. Coupled with our Alta XTL technology, DampHard allows us to create a truly superior cabinet that acts like a musical instrument, extending the range and clarity of the bass, while keeping the cabinet resonance-free. This combination in all our high-end speaker models creates an unparalleled bass response complete with all the clarity and dimensionality of the music.

#### 4. XTL Bass:

## What is Alta XTL?

XTL stands for Extended Transmission Line, an Alta Audio proprietary technology used in all our speakers. We developed XTL using specialized sonic geometry to tune our cabinets like musical instruments, allowing all our speakers to deliver unprecedented clear, fast, and powerful bass.



Standard transmission lines can make the bass slow and distorted. The difference between Alta XTL and a standard transmission line is that we tune the cabinet at multiple frequencies, not just one. Think of it like a cello amplifying and extending the notes played off the strings. Our cabinets are tuned to extend the bass of a driver, giving a clean fast bass response that is in a different class than standard transmission line designs. Coupled with our DampHard technology, Alta XTL shines to create a clear and musical extended resonance free cabinet.

## 90 Day Warranty\*

1. Alta Audio LLC. (hereafter referred to as Alta Audio) warrants to the original purchaser that this loudspeaker is free from defects in material and workmanship under normal use and authorizes free service and/or parts replacement at an States of Alta Audio authorized service facility for a period of 90 days from date of purchase (by the original purchaser only) in the United America.
2. All Parts except the cosmetics are warranted for 90 days from date of purchase and will be replaced if in the sole judgement of Alta Audio they shall be deemed defective over and above that considered to be normal wear. This warranty does not apply to equipment showing abuse or damage or to parts that in our judgement are not defective; nor does it extend to any equipment that may have been tampered with, altered, or repaired outside an Alta Audio authorized service facility.
3. Proof of purchase (sales receipt) must be presented to the Alta Audio authorized service facility whenever any warranty service is required.
4. Loudspeakers sent to Alta Audio for service must be sent in original packaging with freight and insurance charges prepaid by the owner.  
Loudspeakers will be returned freight prepaid.
5. In all cases of in-transit damage a claim must be filed against the carrier by the purchaser.
6. This warranty is in lieu of all other warranties expressed or implied and there are no other warranties valid. No one is authorized to assume any liability on behalf of Alta Audio or impose any obligation on it in connection with the sale of any equipment other than as stated in this warranty. Alta Audio shall not be responsible in any way for consequential or indirect damages or liabilities resulting from the use and operation of the product covered herein or resulting from any breach of this warranty or any implied warranty relating to the said product.

\*This warranty represents a limited warranty as per definition of the Federal Trade Commission (Magnuson - Moss Warranty Act).

## Extended 5 Year Warranty

To extend your warranty for a full five years you must register your warranty on the Alta Audio site within 14 days of the date of purchase. Your warranty does not cover abuse - such as burned voice coils or ruptured cones - due to excessive power or malfunctioning amplification equipment. This extended warranty contains identical provisions as the 90 day warranty - but for a period of five years after the date of purchase to the original owner. This warranty must be registered to be valid.

**For full 5 year warranty coverage please register your warranty within 14 days of purchase at:  
[alta-audio.com/support/warranty-information](http://alta-audio.com/support/warranty-information)**

Mailing address:  
Alta Audio  
139 Southdown Road  
Huntington, NY 11743  
Tel: 631 424-5958

Shipping Address  
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540 Barnum Avenue  
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