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Same Day Shipping - Order by 4PM ET**AURA**  
SOUND**SALE**Rollover image to zoom | [Click for larger image](#)**AuraSound NS3-193-8A 3" Extended Range Driver 8 Ohm**Brand: [AuraSound](#) | Model: **NS3-193-8A** | Part # **296-258**★★★★★ [Read 11 Reviews](#) or [Write a Review](#)**Need advice? More information?**

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AuraSound's 3" NS3-193-8A full range driver is widely regarded as one of the finest, small-format speaker drivers made today. A patented NRT motor submerses the voice coil in a dense magnetic field for the ultimate in fidelity.

**In Stock**List Price ..... ~~\$29.99~~Regular Price ..... ~~\$22.88~~You Save ..... **21%**[Lifetime Tech Support](#) ..... **FREE****Sale Price** ..... **\$18.00**Part # **296-258**[REQUEST LARGE QTY QUOTE](#)Qty:  EA**ADD TO CART**[ADD TO WISHLIST](#)**Customer Photo Gallery** ➔**Manuals & Resources**[AuraSound NS3-193-8A Specifications](#)[Aura Sound Manufacturer Warranty](#)[AuraSound NRT White Paper](#)**Highlights**

- NRT motor for reduced intermodulation and non-linear distortion
- Kapton former and CCAW voice coil for high power handling
- Durable aluminum cone, steel frame, and rubber surround
- Over 9 mm of usable peak-to-peak excursion
- Wide 80 to 15,000 Hz frequency response

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“ It had the frequency range I sought.  
—JAMES D, purchased Aug 11, 2017

“ Recommended by tech forum members  
—Dwight S, purchased Feb 15, 2017

“ This thing be banging away in a Pico Neo build for my son's dorm room. It's surprising how one tiny driver can cover this much frequency range.  
—KENNY M, purchased Apr 30, 2017

“ By reviews.  
—Martin P, purchased Jan 12, 2017

“ The right price and sound I'm looking for, light weight small enclosures, perfect for this application.  
—Jeff A, purchased Apr 22, 2017

“ building with woden redeye speaker  
—JEFF F, purchased Jan 6, 2017

## Product Details

### AuraSound NS3-193-8A 3" Extended Range Driver 8 Ohm

Creating modern high fidelity, low distortion speakers is easy with AuraSound's revolutionary NS3-193-8A 3" full range woofer. The self-shielded, radially polarized **Neo-Radial Technology (NRT)** motor focuses over 95% of the magnet's energy onto the underhung voice coil, forcing the cone to follow the input signal, reducing distortion.

For longevity, the NS3 is built using an aluminum cone that's mated to the stamped steel frame with a rubber surround. The Kapton® former and copper-clad aluminum wire (CCAW) voice coil help to increase peak power capacity. 9.5 mm of peak-to-peak excursion allows you to use this driver at, and below, the 80 Hz resonant frequency with authority without affecting its top-end response.

### Product Specifications

Nominal Diameter	3"
Power Handling (RMS)	20 Watts
Power Handling (max)	80 Watts
Impedance	8 ohms
Frequency Response	80 to 15,000 Hz
Sensitivity	80 dB 1W/1m
Voice Coil Diameter	0.76"

### Thiele-Small Parameters

Resonant Frequency (Fs)	80 Hz
DC Resistance (Re)	7.6 ohms
Voice Coil Inductance (Le)	1.1 mH
Mechanical Q (Qms)	8.0
Electromagnetic Q (Qes)	0.73
Total Q (Qts)	0.67
Compliance Equivalent Volume (Vas)	0.0441 ft. <sup>3</sup>

BL Product (BL)	4.7 Tm
Diaphragm Mass Inc. Airload (Mms)	4.3g
Maximum Linear Excursion (Xmax)	4.25 mm
Surface Area of Cone (Sd)	31 cm²

Materials of Construction

Cone Material	Aluminum
Surround Material	Rubber
Voice Coil Wire Material	CCA
Voice Coil Former	Kapton® / Polyimide
Basket / Frame Material	Steel
Magnet Material	Neodymium

Mounting Information

Overall Outside Diameter	4.07" diagonally, 3.48"
Baffle Cutout Diameter	2.97"
Depth	2.16"
Bolt Circle Diameter	3.66"
# Mounting Holes	4

Optimum Cabinet Size (determined using BassBox 6 Pro High Fidelity suggestion)


Sealed Volume	0.10 ft. <sup>3</sup>
Sealed F3	95 Hz
Vented Volume	0.12 ft. <sup>3</sup>
Vented F3	50 Hz

AuraSound NS3-193-8A 3" Extended Range Driver 8 Ohm

Brand	AuraSound
Model	NS3-193-8A
Part Number	296-258
UPC	848864016252
Product Category	Woofers
Unit of Measure	EA
Product Rating	★★★★★ (11 Reviews)
Weight	0.5500 lbs.
California Prop 65	Warning: California residents only. Please note per Proposition 65 that this product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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8/26/2017

AuraSound NS3-193-8A 3" Extended Range Driver 8 Ohm

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DETAILS

★★★★★

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DETAILS

★★★★★

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4.8 / 5

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Good sound with some design flaws

October 6, 2016  
Infrasonik

*Purchased  
10 months ago*

Performance 4 / 5

Features 4 / 5

Value 4 / 5

This driver is certainly very capable and musical, even in free air. However, my unit has very short lead wires. I don't know if every unit has this fault. It was something I noticed during break in where at a certain displacement, the leads become taugt and start to pull the cone off-axis, making an audible buzz. At low level, this isn't an issue but I would like to make use of the full excursion of this driver. I would appreciate any other users of the driver to give feedback on this.

Was this review helpful? **Yes (18) No (1)** · [Flag as Inappropriate](#)

Solid driver with

January 4, 2015  
CaptRagnar

Picked this up @ ~ 20 bucks, considering it for a larger column array project. This is the precursor to the ND-90 that is now very popular in several DIY projects. The ND-90 calls itself a 3.5", this driver is considered a 3". They're virtually the same driver with the NS3 claiming better power handling. I haven't measured them yet but 80 watts is not realistic and is more similar the 40w peak listed for the ND-90. I have these in a .15 cu.ft. enclosure port tuned to 47hz with a L - shaped slot port 5/8" x 4.125" x 18.37". No x/o (i'll get to this later)...Initial listening was just ok. I was going for a near field set up as pc monitors as a

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Was this review helpful? **Yes (11) No (3)** · [Flag as Inappropriate](#)

Amazing Speaker

January 4, 2015  
Abaris

I bought these for an educational project involving transmission line applications. These were mounted into pvc tubing configured from 4" poly fiber filled down to 3" and then a longer series of 2" bends to create a small yet awesome sounding pair of speakers. They do fall off around 10Khz... so I added soft dome tweeters I had harvested from an old pair of minimus 7s. I brought the tweets on around 5000Hz and ran another capacitor to limit anything below 80Hz to the woofer. In short... they blow my Paradigm Atoms right out of the water. I would love to see what these would do in a line array dumping into a transmission line. Would that be a transmission line array?

https://www.parts-express.com/aurasound-ns3-193-8a-3-extended-range-driver-8-ohm--296-258#1blProductDetails

4/9

Was this review helpful? **Yes (7) No (0)** · **Flag as Inappropriate**

**Performance**

5 / 5

**Features**

5 / 5

**Value**

5 / 5

**Full range 3" speaker**

Excellent wide frequency range performance. Low distortion at low frequencies is particularly impressive.

Was this review helpful? **Yes (4) No (0)** · **Flag as Inappropriate**

June 4, 2016  
Kazumasa D

*Purchased  
1 year ago*

**Performance**

5 / 5

**Features**

5 / 5

**Value**

5 / 5

**High peak linear displacement.**

I purchased this driver recently. It has not been evaluated by listening test, but measured for its peak linear displacement. The test set-up is based on that described in ARTA App Note No. 7. Photo shows the mic, laser sensor and the driver.

Measured  $X_{lin}@F_s, 10\% = 3.4 \text{ mm}$ .



Test set-up for  
peak linear  
displacement  
measurement

Was this review helpful? **Yes (3) No (0)** · **Flag as Inappropriate**

March 28, 2017  
suktan

*Purchased  
5 months ago*

**Small speaker with a big sound**

I bought these speakers for replacement of drivers in my Visonic 302 speakers. They have a brighter sound and really are strong in the midrange. They improve with break in.

Was this review helpful? **Yes (3) No (1)** · **Flag as Inappropriate**

May 30, 2015  
Roger H

**Performance**

5 / 5

**Features**

5 / 5

**Value**

5 / 5

**Wire leads not a problem :)**

To date I've purchased 5 of these. 4 had normal looking leads and 1 looked a little tight like what another reviewer pointed out. Gently pushing the cone to Xlimit was enough to stretch the contact tabs where the leads were soldered. After this the leads looked perfect and I could not detect any issues. I suspect normal excursion would have provided enough force to make this happen, and manually exercising the cone is not necessary for all but the rare unit. I have not experienced any buzzing. Cheers!

Was this review helpful? **Yes (2) No (0)** · **Flag as Inappropriate**

April 4, 2017  
David S

*Purchased  
5 months ago*

**Performance**

5 / 5

**Features**

5 / 5

**Value**

5 / 5

**minor issues, but the best full range driver**

best in class low distortion, high power handling capability, good bass, for coincident driver speakers, I think this is the best choice.

Together with a subwoofer that can go up to 80Hz, a hard to beat setup.

Was this review helpful? **Yes (1) No (0)** · **Flag as Inappropriate**

April 29, 2017  
Junyang G

*Purchased  
4 months ago*

**Performance**

5 / 5

**Features**

5 / 5

**Excellent Driver**

This driver is fantastic. Sounds great at all volume. Has decent base for it's size. I'm using it in a 4" Cube speaker.

Was this review helpful? **Yes (1) No (0)** · **Flag as Inappropriate**

April 10, 2017  
Lloyd E

*Purchased  
4 months ago*

Value  
5 / 5



Performance  
5 / 5

Features  
4 / 5

Value  
5 / 5

### Fantastic little driver

I purchased a set of these with black cones a few years ago testing full range drivers for a FR + Midbass setup in my 2001 Jimmy and loved the sound but ended up going with another driver that had a little better reach on the top end. I recently bought my 16yo son a 1992 Chevy 1500 project truck for us to fix up and him to drive. I absolutely loath 4x6 speakers as there's never a good high fidelity solution for the size so instead of buying a simple fitting solution I decided to build a custom

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Was this review helpful? [Yes \(1\)](#) [No \(1\)](#) · [Flag as Inappropriate](#)

July 17, 2017  
Shannon A

*Purchased  
1 year ago*

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### AuraSound NS3-193-8A 3" Extended Range Driver 8 Ohm

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It had the frequency range I sought.

JAMES D on Aug 11, 2017

The right price and sound I'm looking for, light weight small enclosures, perfect for this application.

Jeff A on Apr 22, 2017

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KENNY M on Apr 30, 2017

Recommened by tech forum members

Dwight S on Feb 15, 2017

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Installed in vented horizontal enclosures 2.5" deep, max. 7.5 inches tall and max. 20 inches long, can these reach 50 Hz? Will the shallow depth (2.5") hamper the bass? If depth is fixed, what is the optimal length and height and port size/length?

Sky Horn on Jul 30, 2015

**BEST ANSWER:** Please contact our tech support for more help with this question. [tech@parts-express.com](mailto:tech@parts-express.com) or 800-338-0531 v1  
<https://www.parts-express.com/aurasound-ns3-193-8a-3-extended-range-driver-8-ohm--296-258#1blProductDetails>

**BEST ANSWER:** Please contact our tech support for more help with this question; tech@parts-express.com or 800-800-8001 x1.

[Reply](#) · [Inaccurate](#) · [MattP on Jul 31, 2015](#)

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Why do the Parts Express reprinted (from manufacturer) specifications for the AuraSound NS3-193-8A 3" Extended Range Driver 8 Ohm differ so GREATLY from what I measure with Dayton Audio's DATS V2??

COMcG on Jun 30, 2016

**BEST ANSWER:** ZaphAudio has some good info on older vs. newer Auras, their resonant frequency seems to have risen somewhat. I've made four different size speakers from the new gen and they're good drivers; they sound very smooth and clear.

[Reply](#) · [Inaccurate](#) · [STEVE E on Jun 19, 2017](#) · [Purchased on Dec 10, 2016](#)

[Read All 2 Answers](#) · [Add Answer](#) · [I Have This Question Too \(1\)](#)

Does this come with a gasket for rear mounting?

Jeffery F on Sep 13, 2016

**BEST ANSWER:** There is rubber like material that can serve as a gasket for rear mounting. There are advantages to rear mounting this driver.

[Reply](#) · [Inaccurate](#) · [FrontRanger on Sep 14, 2016](#) · [Purchased on Dec 18, 2015](#)

[Read All 4 Answers](#) · [Add Answer](#) · [I Have This Question Too \(0\)](#)

I'm interested in making a small portable 2-way setup with this as the woofer. What Tweeter would best match this? I was thinking of using the ND20FA-6. If this works, which crossover would be best? XO2W-3K ?

Gojucaps on Sep 25, 2014

**BEST ANSWER:** These will play nice and cleanly down to the 50's. Any of the small face Dayton tweeters can be used with these, but the ND-16FA and ND-20FA-6 are most often used. I think a basic second order works best

[Reply](#) · [Inaccurate](#) · [Ricky-Pooh on Feb 13, 2015](#)

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What size cutout should be used for rear mounting this speaker?

Tom\_S on Oct 31, 2014

**BEST ANSWER:** 2 7/8 is a little tight. A 3" hole saw works perfect with slightly over 1/16" gap for movement. Chamfer the opening if using anything thicker than 1/4" stock.

[Reply](#) · [Inaccurate](#) · [daveauk on Jan 4, 2015](#)

[Read All 2 Answers](#) · [Add Answer](#) · [I Have This Question Too \(0\)](#)

What enclosure size is recommended to use one AuraSound NS3-193-8A with two 3.5" peerless passive radiators (264-1060)?

Erica B on Feb 9, 2017



AuraSound NS3-193-8A 3"



Peerless by Tymphany

**BEST ANSWER:** Typically when dealing with passive radiators the enclosure volume by design follows the same as a regular ported enclosure since the passive radiator is really just replacing the port. As one of the benefits of a passive radiator design is the enclosure being smaller than the ported enclosure because the volume consumed by the port tube doesn't have to be accounted for. So if you were planning to build a ported enclosure and use a .12cuft NET volume enclosure for it you would do the same for the passive radiators, basically.

[Reply\(1\)](#) · [Inaccurate](#) · [Shannon A on Feb 9, 2017](#) · [Purchased on Apr 25, 2016](#)

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I'm going to experiment with different boxes to see what sounds best in my space. For a vented box, BassBox Pro suggested 0.12ft and you suggested a 1" x 4" port to someone else. I'll be using two drivers per side. If I double the size of the box to .24ft, what size port should I then use? Or would you suggest a different size box/port for some reason??



rubr on Dec 15, 2016

**BEST ANSWER:** I bought three for a small near field system and did a SPL test with one in a 70cuin closed stuffed box. From 1K to 125 smooth +-2 db and down 5 db at 100 and 11 db at 80. Compared the ranged from 1K to 8K to two other smaller speakers and noticed a little more subtle detail but a little more inefficient so use a 10 watt or above amp.

[Reply](#) · [Inaccurate](#) · [scott s on Dec 20, 2016](#) · [Purchased on Nov 24, 2016](#)[Add Answer](#) · [I Have This Question Too \(0\)](#)

I'm considering these to replace the mid-range drivers in my B & O Pentas. Each speaker uses four, 3 inch drivers in a line array. Imaging is very good, accuracy is fair, foam surrounds are stupid. Would the Aura 3's solve both problems?

carde on Feb 27, 2016

**BEST ANSWER:** For assistance on specific speaker replacements please contact our technical department directly at 800-338-0531 or by email at [tech@parts-express.com](mailto:tech@parts-express.com). Some additional measurements are generally necessary to ensure a proper fit.

[Reply](#) · [Inaccurate](#) · [Christf on Apr 15, 2016](#)[Add Answer](#) · [I Have This Question Too \(0\)](#)

Would this work for a PA array speaker system? I was considering the 9x of the FitalPro 3FE22 speakers but these look better, though only goes to 15k versus 20k for the FitalPro. Suggestions?

Neil H on Jun 22, 2015

**BEST ANSWER:** The 3FE22 will have more sensitivity which is generally something you want for a line array or any PA type application. The Auras will play marginally lower, but you will want them high passed with a subwoofer regardless. The 3FE22's are going to be the best bet.

[Reply](#) · [Inaccurate](#) · [MattP on Jun 22, 2015](#)[Add Answer](#) · [I Have This Question Too \(0\)](#)[+](#) Show 6 More Questions For This Product[Top of Page ▲](#)

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