



DOMINANCE SPECIFICATIONS

ZU AUDIO DOMINANCE Mk.I [REV-A] LOUDSPEAKER SYSTEM SPECIFICATIONS + INFORMATION

Description	High-efficiency, very high-output, floor standing loudspeaker. Features Zu's new nano sanctified full-range high output driver, Zu-Griewe driver/box/room acoustic loading technology, no crossover or filters on full-range driver, complimented by Radian 850 based tweeter, all aligned on the Dominance array machined from billet baffle.		
Production	March 2011—		
Dimensions H x W x D	62 x 16 x 21" [158 x 40.7 x 53.4 cm]		
Weight	350 pounds [159kg]		
Packaged	crated		
Bandwidth	14—20kHz		
Group Delay	< 5ms		
Dynamic Range	130dB		
Acoustic Center	39" [1m]		
Horizontal Listening Window	45°		
Vertical Listening Window	15°		
Recommended Listening Distance	8 feet [2.5m] or more		
Driver Complement	3x Zu103/ND/G1-16 full-range nanotech driver covering 30—12kHz 2x Radian 850 based dynamic tweeter covering 12kHz and up 1x 15" Eminance LAB-15 sub-subwoofer covering 14—30Hz		
Component Tolerance	driver >1% pair matching, 0.1% on all other electrical components		
Recommended Connector	1/4" fork spade (6.3 mm)		
Accepted Connectors	Also accepts oversized forked spades, 1/4" and oversized 5/16" (8 mm) ring lugs, bare wire, pins, & banana plugs in a pinch. Banana plugs are clamped between block and lugs and are not socketed		
Efficiency	101 dB SPL @ 1 watt, 1 meter		
Impedance	6 ohm, nominal full bandwidth		
Tweeter Array Detail	bandwidth: 1k—20 kHz	efficiency: 119 dB 1W / 1m	impedance: 8 ohm
Full-range Driver Array Detail	bandwidth: 30—12 kHz	efficiency: 101 dB 1W / 1m	impedance: 6 ohm
Sub-subwoofer System Detail	bandwidth: 14—50 Hz	efficiency: 90 dB 1W / 1m	impedance: 8 ohm
Average Room / Moderate Volume	1—4 watt		
Large Room / Loud	4—16 watt		
Large Room / Concert Level	16—64 watt		
Max Music Input Power	900 watt		
Full-range Driver Network	none		
Standard Tweeter Network	high-pass first order bessel based @ 18kHz mathematical and 20kHz electrical, 12kHz acoustical		
Internal Cabling	Zu Event pure meta-crystal silver		
Cabinet	MDF composites core + damping compounds + machined from billet 6061 baffle		
Spike / Feet Insert Thread	3/8-16 TPI (9/16" hex nut, 14 mm wrench can be used		
Included With Loudspeaker	hard surface stainless ball-end footers installed with stainless 9/16" jam nuts also included are carpet spikes		
Manufacturers Country Of Origin	U.S.A. all parts and labor excluding just a few small bits		
Life Expectancy	100 years; cabinet, and drivers, including the Zu 10" drivers; even in direct sunlight		
Warranty & Service	5 years limited, does not cover misuse or abuse		

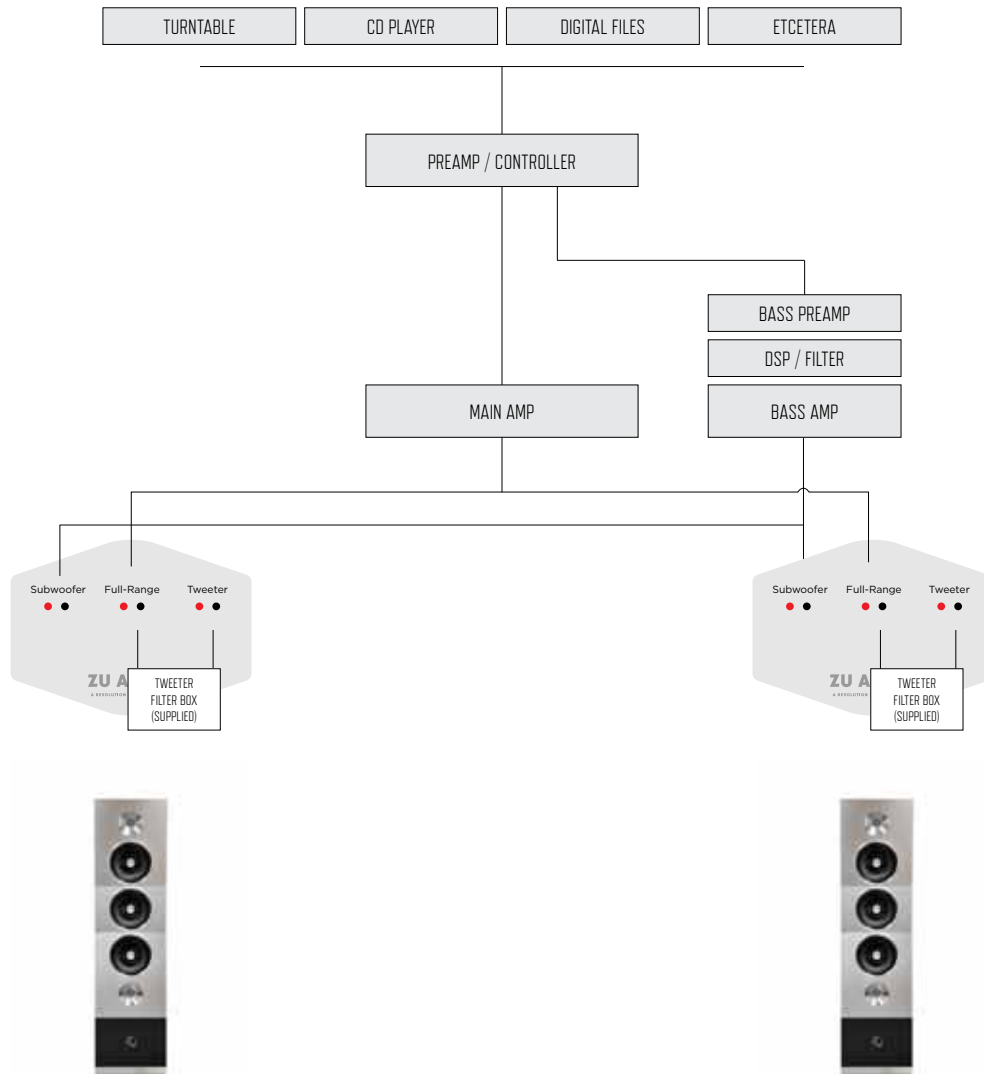


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BLOCK DIAGRAM

ZU DOMINANCE | STANDARD CONFIGURATION



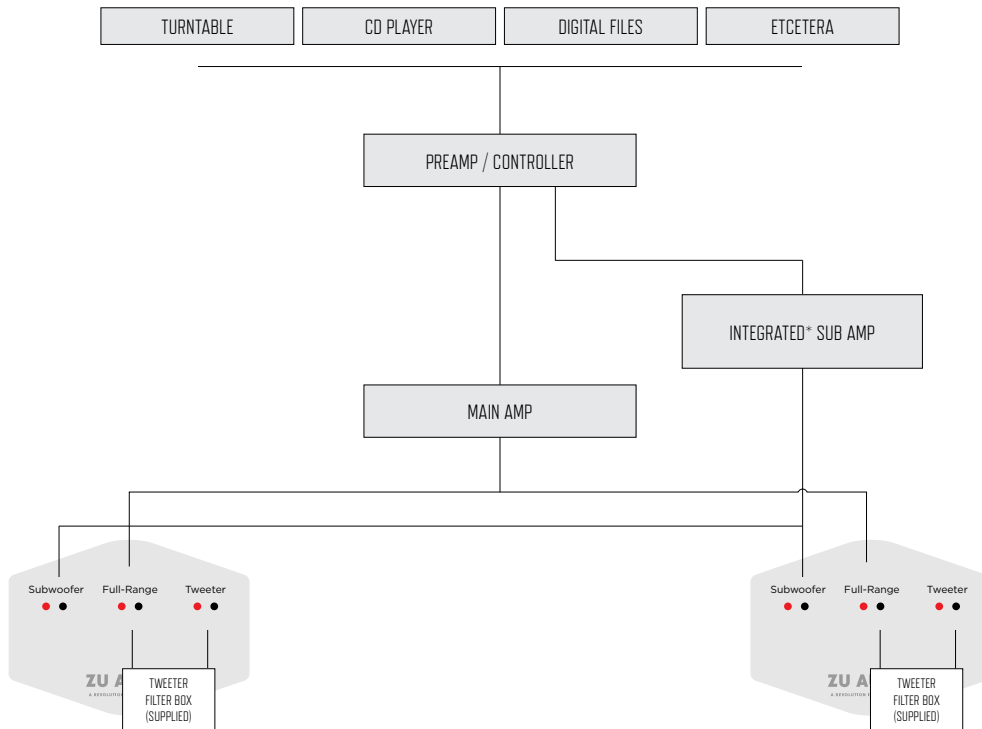


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BLOCK DIAGRAM

ZU DOMINANCE | MINIMALIST CONFIGURATION



* The simplest is a processor/amplifier combination that also has volume control.

Another option is to have Zu build an in-line low-pass filter and use an integrated amp for the deep bass section.



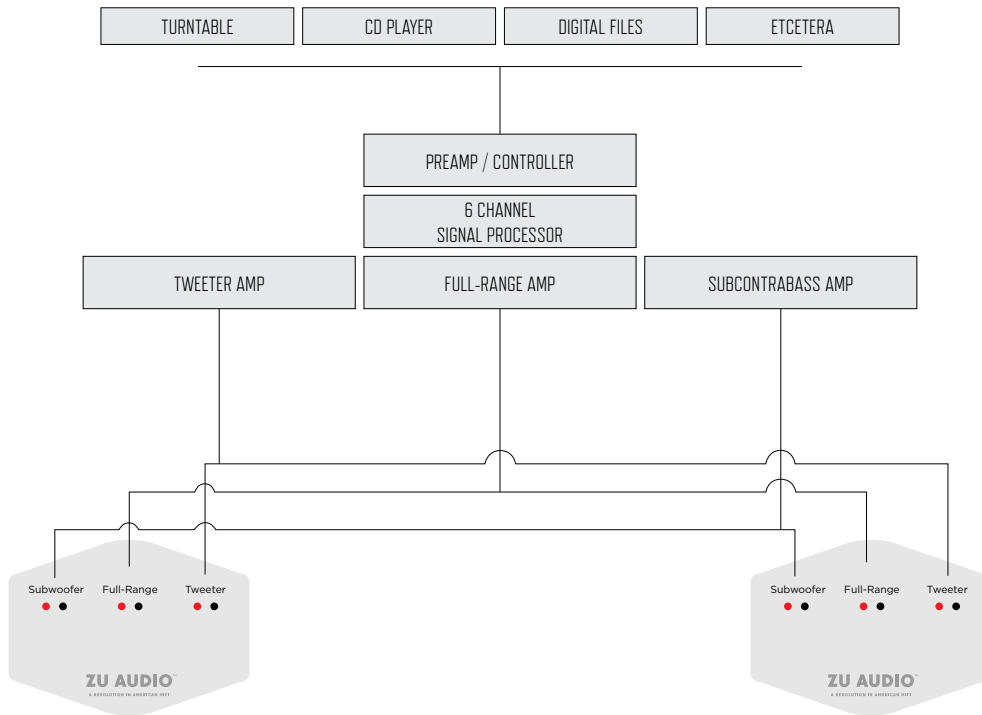


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BLOCK DIAGRAM

ZU DOMINANCE | FULL-BLOWN PROFESSIONAL SETUP RECOMMENDED



The following are recommended bandwidth windows and component-system specs.

TWEETER ARRAY DETAIL

Bandwidth: 1k–20kHz
Efficiency: 119dB 1w/1m
Impedance: 8 ohm

FULL-RANGE DRIVER ARRAY DETAIL

Bandwidth: 30–12kHz
Efficiency: 101dB 1w/1m
Impedance: 8 ohm

SUB-SUBWOOFER SYSTEM DETAIL

Bandwidth: 14–50Hz
Efficiency: 90dB
Impedance: 8 ohm

(those old school traces are pretty)





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OVERVIEW OF INSTALLATION

Dominance is a statement in fidelity and does require a little extra gear. In addition to the typical stereo kit (player, preamp, amplifier) a Dominance based system also need to integrate a second amplifier dedicated for the subcontrabass section (really deep subwoofer), a way to adjust volume, and a way to process signal. It's as simple as it sounds. If you are worried, don't be, we are here to help with options, recommendations, setup and how-tos.

(Please see block diagrams.)

So, Dominance is in your living room, your digital music files and turntable are connected to your preamp and your amp is connected to your Dominance loudspeakers. Everything is sounding good; treble, mids, and even bass—but you don't have the subcontrabass section connected yet. To get that up and running you need to consider:

MINIMALIST PATH

One box, simple and easy to use, with very good performance—an amplifier with built-in signal processing and volume control. This option runs \$800—\$6,000. Crown, Crest, QSC, and other pro audio companies offer the widest selection. Zu can also design a line-level filter which would allow the use of a standard integrated amp.

BEST FIDELITY PATH WITHOUT COMPLEXITY

Two, maybe three box solution, still easy to integrate and operate. A secondary preamp for deep bass volume control. This allows for quick subcontrabass adjustability cut to cut, album to album.

A custom in-line low-pass filter (27Hz / 3rd order), or adjustable low-pass filter, ideally with fully adjustable parametric EQ. (The two above process are available as a one box solution.)

Stereo amp for driving the Dominance sub-subwoofer. You will also need cables to patch it together. A pair or two of line-level cables, and a second pair of loudspeaker cables.

For best and deepest bass we recommend a power amplifier with effective bandwidth down to 10Hz, with power output rating of grater than 50 watts (massive power really not necessary). A couple of good choices for reference include a Pass Labs X150.5 and Bryston 2BSST2.



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WHAT MAIN AMPS DO YOU GUYS LIKE AND HOW MUCH POWER DO I NEED

For our tastes, with the efficiency and grace the Dominance affords Zu loves the Yamamoto A-08 with Emission Labs output tubes. World class amp for not a lot of cash, and it really matches up with the Dominance. Yes, 2 watts are plenty with Dominance, even for rockers. Ten watts for block parties, and 100 watts for mansions playing venue to full-tilt Hollywood style parties. 1000 watts if you are looking to get insurance money back from the “accidental” destruction of your home. Another favorite is the Audion amps, they are a fantastic match for Dominance.

UNCRATING AND SETUP, DO I NEED HELP?

Yes, you will want to call your local professional piano movers to do this. As for setup, if you know where you want them then just have the piano movers place them. If you want us to deliver them and set them up for best possible sound that service is available—price dependent on where you live in the world, where the speakers are to be installed within the home, and your desired install schedule.

LOUDSPEAKER SYSTEM OVERVIEW FEATURES & BENEFITS

Full-range time-aligned phase-accurate vertical array (ZuFTP-VA)—a design specific to how the drivers are aligned, their bandwidth, orientation, aspect, and the space in which they will be used. The design is a Zu archetype which realizes comprehensive integration of mirrored, vocal-centric, vertical sources for the seated focal point wherein timing and phase are accurately positioned throughout the musical scale. The design fulfills many of the benefits of point source models with characteristics of line source models—integrating the best of both with the additional benefits and perceived improvements of timing, resolution of detail, texture and color, and stereophony. Added benefits of the multi-element full-range driver array, but are not specific to the ZuFTP-VA tech include reduced dynamic harmonic distortion, expanded dynamic range and impact, lower net contact resistance, and reduced room integration issues.

ZU FULL-RANGE NANOTECH PAPER CONE DRIVERS (ZU103ND/G1-16)

Delivering stunning attack, shove, resolution and bandwidth. Features include maximal motor for awesome dynamic contrast and reduced harmonic distortion, lightweight neutral-hung voice coil assembly featuring paper/Kapton former and linear in-line layout of inner cone for best resolution of detail, diamagnetic shorting assembly for dynamic damping of moving assembly



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when playing at concert levels, nanotech impregnated paper cones to support resolution of tone and unity in bandwidth, billet phase cone with concentric maximal length sequence diffusion for smooth high frequency response—all of which is anchored to a heavy cast and machined aluminum frame with overbuilt bonded and riveted yoke/magnet/top-plate assembly.

NANOTECH—WHAT AND HOW IT'S USED

Dominance features Zu's new nano-sanctified full-range drivers, the nano-materials and application process reduce weight, increase strength and propagation velocity—all while improving damping quality.

Nanotech, nanotubes, buckypaper, liquid solid ceramics, nanoscale wetting... here's the background. In 2004 Zu began experimenting with cutting edge DuPont nanotech engineered coatings and solids. The initial reasons were to realize the best possible gloss finish which was also much tougher. These nanotech engineered liquid solid ceramics, fibers and synthetic resins did as promised. Zu quickly recognized the benefits and made the switch. It was during this process that Sean and Adam caught a glimpse of what was possible with some of these new nano-materials and got busy experimenting with applications for loudspeaker cones and diaphragms.

While Sean had extensively tested coatings, microspheres, and binders on driver cones over the years, this new nano stuff presented a whole new set of attributes and possibilities for their full-range driver platform. Nanotech for cone materials, layups, binder additives and formulas, tubes, spheres, coatings, infusions..., an exciting time to be a paper driver. Unfortunately we got sidetracked from the liquid solids and were again investing time in a whole new range of satellite grade graphite matrixes. After a few years of on and off experimentation and fuss with these exotic layups, Zu looked back at nano-materials and liquid solids and started treating the paper with various teeny-tinys to imbue the paper they already loved with a more vibrant and detailed tone. The Zu team already had a good idea of what they were looking to do with nano application—having kept current with the technologies and application in coatings—and so found solutions relatively quickly. Long story short, we now impregnate the paper pulp post pressing with a liquid solid matrix utilizing several nano-processed materials, some key components and compounds include: nanosphere ceramic balloons, melamine, synthetic epoxy, cristobalite, amorphous fumed silica, and aircraft dope. (Sorry DIYers, we can't sell the material due to the isocyanates; the material can only be used in industry and requires powered air purifying respirators.)

We continue to watch and occasionally play with the new fibers and mats. They are still very



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promising, especially with what is being done with buckypaper. But for us, a tone promising pulp-free combination of these new materials has not been found. Nothing yet has proven to be as well behaved as natural fibers, there's just something about paper; its balance of strength, propagation velocity and damping that give it that tone and fidelity. But add the right combination of old coating technologies, the right nano-materials and adhesives and presto! And paper is still as good as it gets for realistic fidelity from your loudspeaker system.

Currently Dominance is the only loudspeaker to feature Zu's new nano-endowed loudspeaker driver. There is however Experience and Definition Mk3 nearing release and these two models will get the nanofied full-range drivers....

THIRD GENERATION ZU-GRIEWE ELECTROACOUSTICS LOADING

Zu's original acoustic loading technology has progressed significantly in the development of Dominance. All three of the full-range drivers are discretely tuned, housed, and utilize Zu-Griewe cartridge assemblies, thereby increasing resolution throughout the bandwidth and yielding a full-range driver systems that extends much lower than previous Zu designs—and without sacrifice. This greatly improves the sub-subwoofer's integration, and realizes a very low subcontrabass low-pass filter point (27Hz / 3rd order). Other nuance of the Dominance loudspeaker's implementation of this technology includes split tuning of the thee full-range driver array—the center full-range driver is tuned and weighted for deeper bass, while the top and bottom full-range drivers are tuned for increased pop and shove.

Zu-Griewe technology was developed by Ron Griewe and Sean Casey, with its beginnings in competition two and four-cycle motorcycle engine exhaust systems for improving power output, with increased bandwidth, while reducing noise and sound pressure levels over convention. More on the Zu-Griewe tech can be found in the FAQ section.

MIRRORED, MASSIVELY MOTORED, RADIAN 850 BASED TWEETERS

By far the sweetest, most resolving, most dynamically expressive tweeters out. And when matched and used in the Zu Dominance time-aligned phase-accurate vertical array (ZuFTP-VA) you get perfectly integrating treble overtones and structure.

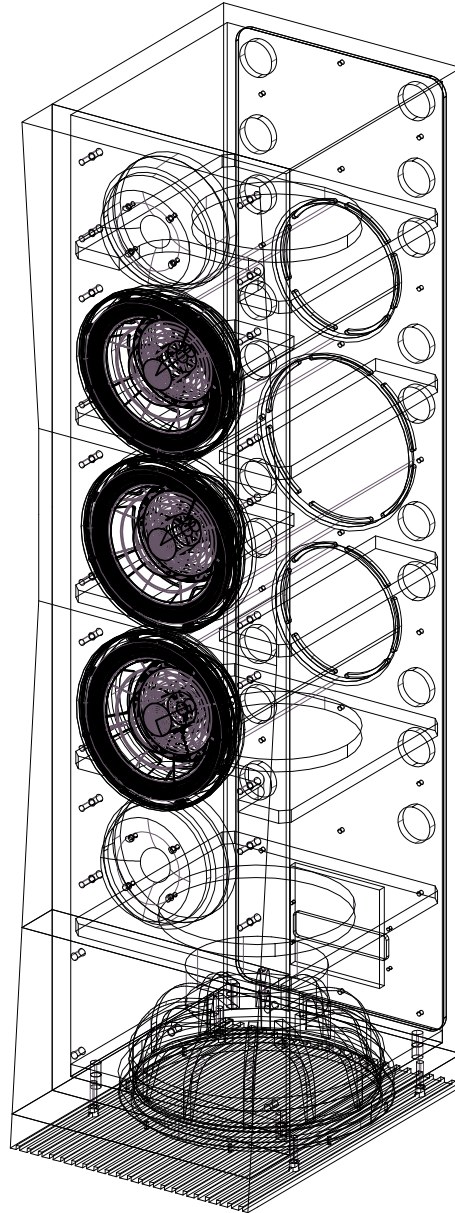
ZU PERFECTLY DISCRETE FILTERLESS INTERFACE:

Three input binding posts; one SUBWOOFER, the other FULL-RANGE, the third TWEETER. Each is discretely wired to each driver element using pure silver Zu Event cabling and completely free of any filters, networks, and even solder. This allows users easy future upgrades or changes, and affords experimentation for those inclined (filter points, change or remove speaker-level filters, run line-level filters and discrete amplification, upgrade as technology advances...). If this is all to much, don't worry, you can make this as easy or as optimized as you like and we're here to help you through it.



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