DRUID Mk.V

[Rev-A]





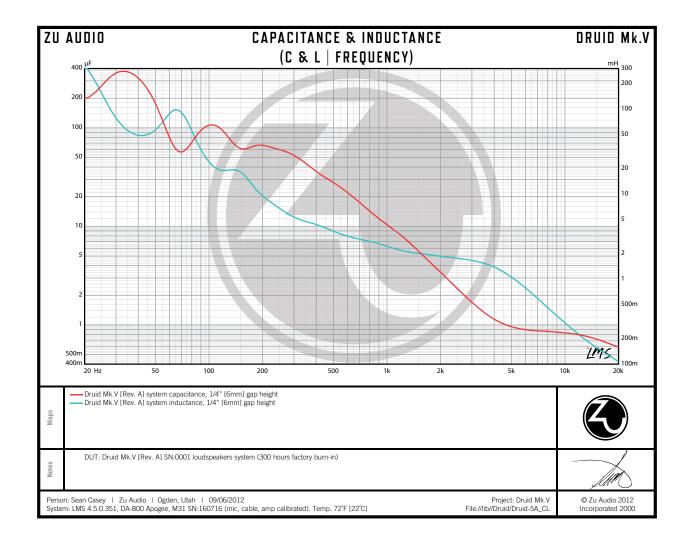
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DRUID Mk.V WARRANTY

ZU AUDIO DRUID Mk.V [REV-A] LOUDSPEAKER SYSTEM

Zu products are designed and manufactured to the highest quality. However, if something does go wrong Zu will fix or replace the product free of charge. Zu Druid Mk.V loudspeakers have a five year limited warranty from date of purchase to original owner. If under normal home use you have any problems with drivers, cable, parts, cabinet, we will fix or replace the product. Loudspeaker warranty and service can usually be performed by the user, also known as DIY service, in such cases Zu will provide full technical support. This provides faster repair of product (reducing down time is always good), minimizes handling hassle and damage potential to both Zu and you, and reduces shipping costs.

Zu loudspeaker finish warranty covers color changes in paint, finish checking, and oxidizing. While we use the highest quality UV protecting topcoat finishes, we cannot guaranteed against fading and you should keep them out of direct sunlight, just like a piano. While every effort is made to ensure a perfect finish that will last a lifetime, this warranty does not cover damage from impact and abrasion, or seam / core construction visibilities in extreme high temperature / high humidity environments. Zu products are designed to be used in temperature and humidity controlled environments, namely your home or office unless otherwise stated. Warranty does not cover loudspeaker finish damage caused by the extremes of an uncontrolled environment.

If in the highly unlikely event that a Zu product arrives to you dead on arrival (D.O.A.), and after discussing it with a Zu tech, we will ship another of the same product at our expense and arrange for the D.O.A. product to be collected. If after inspection we find that you have misrepresented a returned product's condition, and that it was improperly handled or used, Zu will charge you for all damaged parts, labor, shipping and handling of the product.

Warranty does not apply to damage caused by operating the product outside the intended use, accident, another product, misuse, abuse, flood, fire, earthquake or any other external causes. Warranty does not cover damage caused by modification or service performed by anyone other than a Zu representative. Cosmetic damage is also excluded from warranty, as is all product that has any part of the Zu serial number removed.

When a product or part is exchanged the replacement becomes your property and the suspect or damaged part becomes Zu's property. Parts provided by Zu must be used in products for which the warranty service is claimed.

WHAT YOU CAN EXPECT IF WARRANTY SERVICE IS NEEDED

If warranty becomes necessary, you must call or email for a return of material authorization (R.M.A.) number, or to arrange for user serviceable parts. This provides opportunity to assist in diagnosing the problem and helps us to schedule for rapid turnaround in the event that parts, service or repair is needed. Upon factory inspection of parts or product, warranty eligibility will be determined. While service options, parts availability and response times will vary, we do our best to keep you happy. International customers should know that Zu will comply with all applicable export / import laws and regulations, you may be responsible for custom duties, taxes, broker fees, freight, and other charges. When shipping of product or part is required, repackage the complete product, or part, in its original packaging. If you have any questions about packaging please call or email. Product damage caused from incorrect repackaging is not eligible for refund or warranty and the freight company may also reject your insurance claim. Until we have the product back in the shop and sign-off that it is eligible, the product is still your property, we recommend you insure or declare the full value when shipping. We also recommend that you only ship with a freight company that has a good reputation and offers tracking and insurance for the full amount.





ZU AUDIO Ogden Commercial Industrial Park 3350 S. 1500 W. OGDEN, UTAH — U.S.A.

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DRUID Mk.V (A LOOK BACK)

(Zu's early writing set down at the dawn of the millennium and used to introduce Zu and our first loudspeaker, Druid.)

ZU VISION FUTURE & PAST

Impressions of new realities struggle and flow—eventual transition.... Awareness of surroundings, songs of tranquility and warning—history and intuition instruct that patterns of sound have been a fundamental constant. Observance of nature, both physical and spiritual, teach us of the endless interplay of vibrational forces.

While traveling the line of time we observe many periods of increased awakening and technological advancement but none so powerful and rapid as that of the Scientific Revolution, Enlightenment and the birth of modern physics. The dramatic increase of understanding regarding possibility, vibration and energy coincide with our collective ability to listen and express patterns of life. David Toop in his book Ocean Of Sound paints a powerful image of our modern musical creativity: "... Starting with Debussy in 1889, is an erosion of categories, a peeling open of systems to make space for stimuli, new ideas, new now, this environment included sounds of the world—previously unheard musics and ambient sounds of all kinds, urban noise and bioacoustics... unfamiliar tuning system and structuring principles, improvisation and chance."

Welcome to Zu



DRUID MK.V OVERVIEW

DRUID LOUDSPEAKER SYSTEM OVERVIEW

Druid Mk.V may prove to be the most rewarding loudspeaker you will ever own, but she does require some work. Druid is sensitive to room characteristics, tuning, electronics and cable matching.

Druid Mk.V is a fifty inch [126cm] tall, seven inch [18cm] deep, floor standing loudspeaker system with a footprint of 12–3/4 inches [32.4cm] square. Its a high efficiency and high power handling design and features our ten inch [26cm] full-range nanotech driver augmented by a Radian 850 driven tweeter assembly to color in the harmonic structure and detail of the upper most treble. Druid Mk.V is capable of extraordinary power and coherent full-spectrum resolution, bass through treble, despite its relatively small size. We have realized such performance and form through a handful of key points:

- 1. Understanding and making good use of Harry Olson's work on full-range direct radiating drivers designed for and weighted on the human voice. Circa 1930s. All our ten-inch full-range drivers are built on his proven seventy-plus year old platform.
- 2. New acoustic loading technology (Zu-Griewe) which affords improved acoustic impedance manipulation between source and terminus (driver and room).
- 3. Combining full-range crossoverless driver development with Zu-Griewe acoustic loading technology and development ensures both are optimized.
- 4. Use of Zu Event internal cabling and harness designed specifically for Druid Mk.V—and just like the original Druid launched over a decade ago, Druid Mk.V brings back our ZuB3 connection interface complete with parallel 5-way binding posts to make it easy for those that are happy with their existing cables.
- 5. A clear set of tone/sound values, with enough experience (music, sound, science, engineering + gut, emotion, drive and practice) and technical know-how to bring it all together.
- 6. Modern materials and processes.

Druid Mk.V gives its best performance in good sounding rooms, within systems clearly build around "tone" and natural playback. And as mentioned, Druid does require careful system building and power amplifier matching is vital. With Druid's high efficiency 16 ohm load, high electrical and mechanical damping, powerful resolution of frequency, time domain, and dynamics, amp matching with Druid can be highly rewarding—and sometimes frustrating.

Druid Mk.V draws not only from Dominance's parts bins (Zu103ND full-range driver, Radian 850 based tweeter, Event internal cable) but also from its research and development and materials pallet. Cabinet engineering on Druid mark-five addresses noise and framework function across all fronts: materials, structural, bonding and building technique. The resulting combinations of engineered plate, Nida-Core core, vinyl-ester/phenolic adhesives, heavyweight stitched triaxial e-glass fibers, foams, damping compounds and aluminum alloys create a carefully tuned high performance structure that is still light enough for one person to manage.



ZU AUDIO DRUID Mk.V [REV-A] LOUDSPEAKER SYSTEM

POINTS OF ENGINEERING & PERFORMANCE

- Zu nanotech (ZU103ND/G1-16) full-range 16 ohm driver.
- Radian 850-based tweeter assembly (if there's better we haven't found it).
- Zu-Griewe acoustic loading technology.
- Completely new cabinet design using expanded materials pallet to include coreing.
- Event based cable harness designed around our ZuB3 cable architecture.
- ZuB3 interface via speakON 8-pole, in combination with standard 5-way CE compliant
- binding posts.
- Machined from billet aluminum base.
- Engineered for in-field serviceability.

Druid Mk.V is real high-fidelity and a sincere expression of our musical values—of what we create and build at Zu. You can see the strategic use of the mixed materials pallet, judicious use of silver in the cabling and high-pass network, and the uncompromising and intense focus given to all the drive units and the way in which they work together as a whole and interface with the cabinet and how the whole loudspeaker system works within the room.

Like all Zu products, Druid Mk.V is centered and weighted around the critical human voice (A1, 55Hz, through A6 and all the possible harmonics, to approximately 10kHz). Serving this critical region of tone is our nanotech 10" paper-cored full-range driver—the same developed and used in the Dominance. So with tone, texture and definition realized in the meat of the range, we've set about redefining the treble harmonic structure with a cost-no-object tweeter solution—in very real terms as evidenced in the driver selection, and demonstrably evident to your ears, chest, and soul.

THIRD GENERATION ZU-GRIEWE ELECTROACOUSTICS LOADING

Zu-Griewe driver / cabinet / room loading technology is fully realized in Druid Mk.V, and maximizes the high-efficiency full-range drivers' bass performance within this modestly sized loudspeaker. No soft pooffy, woolly bass here, only clean, tight integrated attack and real sustain and decay.

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 technology can be found in the FAQ section at www.ZuAudio.com.



ZU AUDIO DRUID Mk.V [REV-A] LOUDSPEAKER SYSTEM

NEW NANOTECH (ZU103ND/G1-16) FULL-RANGE 10" DRIVER

This new Zu driver delivers stunning attack, shove, resolution and bandwidth—as they should, being lifted straight from our flagship loudspeaker, Dominance. Features include a maximal motor for expanded dynamic contrast and reduced harmonic distortion; a lightweight neutrally hung voice-coil assembly featuring a paper+Kapton former; a linear in-line layup of the inner cone for best resolution of detail; a diamagnetic shorting assembly for dynamic damping of the moving mass when playing at concert levels; nanotech paper cones designed to support wide bandwidth; and a machined from billet phase plug with concentric maximal length sequence diffusion for smooth high frequencies. All this is anchored to a heavy cast aluminum alloy frame with overbuilt bonded and riveted yoke/magnet/top-plate assembly.

In 2004 we began to experiment with cutting-edge nano engineered coatings and solids, to realize the best possible gloss finish, one that would also be far tougher. These nanotechnology engineered liquid solid ceramics, fibers and synthetic resins performed as promised, so naturally we got busy experimenting on driver applications. Here's what we've achieved: the driver's cone is a paper pulp substrate or core, processed with a liquid solid matrix utilizing several nano engineered materials. Some key components and compounds include: nanosphere ceramics, synthetic epoxy, cristobalite, plus the use of amorphous fumed silica and aircraft dope. The nano materials and application process reduce weight and increase strength and propagation velocity without incurring any sacrifices in damping. The end results are stunning—our new nano-sanctified full-range drivers sound dramatically better than any previous generation Zu FRD.

We continue to watch and experiment with new fibers, cores and mats as they are very promising. For us however a tone-promising pulp-free combination of these new materials has not yet been identified. Nothing has proven to be as well behaved as natural fibers, there's just something about wood and paper. Its balance of strength, propagation velocity and damping all contribute to that tone, texture and fidelity we pursue. But add the right combination of old coating technologies plus nano engineered materials and adhesives... paper maintains its advantages well into the 21st century.





ZU AUDIO DRUID Mk.V [REV-A] LOUDSPEAKER SYSTEM

Zub3 CONNECTOR INFORMATION

Druid Mk.V features ZuB3 termination interface, and 5-way binding posts. You can use standard or oversized spades, banana plugs, bare wire, or ZuB3. We make it easy for you. For best results we do recommend ZuB3 terminated Zu cable.

ZuB3 is a cable archetype that measures and performs differently than other cable formats (twisted pairs, coax, braids, or ribbons)—a difference we believe significantly improves performance. Zu Druid-5 loudspeakers feature this cable geometry inside, and connecting Zu cable from the amplifier to the loudspeaker via ZuB3 ensures best fidelity. Reasons include:

- maintaining the cable's electric and magnetic features through the wall of the speaker
- lower contact resistance (better than half the resistance of pure copper lugs and spades)
- ensured correct channel phase (SP+ to SP+, SP- to SP-) as the connectors are indexed
- no possible short-circuiting of amplifier

ZuB3 interface connection via speakON[™] 8-pole connectors maintains the electric and magnetic properties of the ZuB3 cable and lowers contact resistance over other bulkhead/cabinet wall pass-throughs. For those that wish to use other cables, Druid Mk.V also features paralleled CE compliant 5-way binding posts. Users that own Zu loudspeaker cables can have them reterminated, free of charge, so performance can be maximized.

NOTE: We highly recommend factory termination. However, ZuB3 via Neutrik speakON termination convention is outlined here for reference.

ZUB3™ VIA NEUTRIK[®] SPEAKON™ 8-POLE TERMINATION CONVENTION

| Pin-outs for ZuB3 | via Neutrik speakON 8-pole / single channel |
|---|---|
| SPEAKER + | SPEAKER – |
| speakon 1+ speakon 2– speakon 3– | speakon 1– speakon 3+ speakon 4– |
| unused: 2+, 4+ | |
| SP+ 1+ SP+ 2- SP+ 3- SP- 1- SP- 3+ SP- 4- | |
| NEUTRIK 8- POLE SPEAKC | on cable-end connectors feature pozidriv #1 setscrews |



| Design | Our first loudspeaker model. Druid is a high-efficiency, high-output, 16 ohm floor-standing loudspeaker. It features our top-shelf full-range driver (Zu103ND/G1-16) designed to perform without having to use tone-robbing crossover or filter elements; is complete with full implementation of Zu-Griewe driver/box/room acoustic loading technology; and shares the same tweeter driver as our Dominance and Definition Mk.IV speakers, the sensational Radian 850—which not only provides the treble resolution and sparkle from 8kHz and up, but takes advantage of its ten pounds of mass and eight inches of diameter to operate as a stressed member of the cabinet, significantly improving baffle damping, strength and system performance. |
|---|--|
| Production | October 2012— |
| H W D Footprint Weight | 50 x 11.5 x 7" [125 x 29 x 18cm] 80 pounds [36kg] each FlexPak foam encapsulated, 90 pounds [xxkg] each |
| Driver Complement | Zu130ND/G1-16, 10-1/3" full-range nanotech driver covering 35 – 8kHz with Radian based tweeter assembly taking care of the high treble overtones. |
| Component Tolerance | better than 0.5% driver pair matching, 0.1% on all other electrical components |
| Input terminals | ZuB3 as well as: 1/4" spade [6.3mm fork], 5/16" spade [8mm fork], bare wire ≤ #4 AWG, banana plugs |
| Efficiency Impedance | 101 dB-SPL 1W, 1m 16 ohm (10 ohm minimum) |
| Average Room / Moderate Volume Large Room / Loud Large Room / Concert Level Max Music Input Power Max sustained RMS Power | 2 – 4 watt 4 – 16 watt 16 – 50 watt 200 watt 150 watt |
| Bandwidth Group Delay Horizontal Acoustic Center Horizontal Listening Window Vertical Listening Window | 30 – 20kHz < 5ms (awesome time domain accuracy) 40" [101cm] 60° 60° |
| Full-range Driver Network Super-tweeter Network | none 1st order @ 8kHz (lead high > 1µF-S > 6 Ω /12W-Rs > red terminal > 10 Ω /12W-Rp // non-inverting) |
| Internal Cabling | Zu Event/Druid-5A cable harness and interconnection. |
| Cabinet | mixed materials with the core being North American made high-density Comp-60. Also utilizes NidaCore and heavy 27 ounce tri-axial Vector ply E-glass matte and VE resins |
| Spike / Feet Insert Thread | 3/8–16 TPI (9/16" hex nut, 14mm wrench can be used but is tight) |
| Included With Loudspeaker | hard surface ball-end footers installed with S.S. 9/16" jam nuts, also included are carpet spikes |
| Manufacturers Country Of Origin | U.S.A. [99%] |
| Life Expectancy | 100 years plus, all parts |
| Compliance | CE RoHS WEEE (U.S. models my not use CE compliant binding posts) |
| Warranty & Service | 5 years limited on cabinet and drivers—warranty does not cover misuse, abuse, components upstream from the loudspeaker system, modifications or non-factory service. |



