



PRESENCE

Mk. I

Guidebook

2008



Welcome

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 can see 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

Thank You

Thank you for your purchase of the Presence loudspeaker. Every element is designed for a lifetime of trouble free high performance playback. It is our desire to exceed your expectations in product performance, quality, durability and service. If we have simply met your expectations or have fallen short, we would sincerely appreciate knowing how we may improve. Likewise, if we have exceeded your expectations we hope to hear from you too.

Sincerely,

Sean Casey, Adam Decaria, Chris Thiel, Marty Petersen, Randy Sandman, and the Zu team.



Manufactured by: Zu Audio in Ogden, Utah, U.S.A.
Model: Presence
Generation: 1

Engineering: Sean Casey, Adam Decaria
Line manager: Marty Petersen
Driver production manager: James Read
Cabinet composites & finish: Zu composite and finish team
Electronics testing and matching: Stefanie Casey
Production engineer: Randy Sandman
Production manager: Chris Thiel



Warning

WARNING: The integrated Hypex UcD amplifier presents a short between the black loudspeaker inputs and RCA connector grounds. If you connect both channels of a bridged amplifier to a single Presence Hypex amp you may short circuit your bridged power amp. Your main amp will be fine, regardless of type, so long as you:

- Do not connect RCA-type cable to the amp without first removing the speaker level jumpers.
- Do not connect left and right loudspeaker level inputs into a single Presence Hypex amp.

WARNING: Never leave children unattended in your playback room. Listen to music WITH your kids.

Even though Presence has a wide base, care should be taken while positioning, packaging, connecting, or working around your loudspeaker. Never let a child play near a floor standing loudspeaker. (You know if you let them in your room alone they are going to bust your needle, play catch with your discs, bend your tube pins, maybe even write their name on your favorite chair. So hang with your kids, listen to some great music together, teach 'em about the Clash, Miles, Hendrix, Beethoven, Zepplin, Sinatra, Rush, Silver Jews, Debussy, Woody Guthrie, Deep Purple, Wagner, Black Keys, Marty Robbins, Kyuss, Spoon, Steve Earle, Sabbath, Velvet Underground, Eels, the CVB—lets not forget Cracker, Ry Cooder, Cash, Ryan Adams, Zappa, John Prine, Who, pretty much everything from Ian McKay, Zakk Wylde, Sex Pistols, (okay maybe not the Pistols until they're at least eleven. Same goes for music from Julian Cope, Alice In Chains, Legendary Pink Dots, Buckcherry...) better chuck the Stones, Charlie Parker, Hank Williams, Elvis, Beatles and Mozart in there somewhere.

WARNING: electrocution through loudspeaker cable is possible, though very unlikely.

To avoid electrocution make sure your amplifying gear is switched off prior to connecting or disconnecting cables. This will also reduce the possibility for accidental damage to your audio amplifier.

WARNING: Presence loudspeakers are 90 pounds (41 kgs) each. We recommend you have a buddy give you a hand.

WARNING: The loudspeaker drive units inside Presence create stray magnetic fields that extend far beyond the boundaries of the cabinet.

We recommend you keep magnetically sensitive electronics and media at least 3 feet (90cm) from the loudspeaker.

WARNING: Presence loudspeakers are capable of extreme sound levels, play responsibly. If caution is not exercised your hearing will be damaged.

Unpacking

- Lifting with your legs and not your back and with the assistance of a friend and try and work in an open area.
- Lay box horizontal and cut banding wrap. While still laying down, remove the top and internal side segments of the box.
- Roll the box so the exposed Presence is now facing the floor, remove the other half of the box.
- Remove top and bottom closed-cell foam plates. Leave the middle foam bulkheads.
- If not on carpet, place a rug under the bottom of the loudspeaker to protect the loudspeaker's base from damage when you stand it upright.
- Now push/lift the top of the loudspeaker up, the base will touch the floor, continue lifting the top and stand the speaker up.

Note: Hard surface flooring feet are installed at the factory. Leave these in place while you move the loudspeakers around. Once you have found where in the room they sound and look their best, and you have carpet, you may wish to lay the speaker over on it's face and replace the ball-end feet with the included carpet spikes.

Included With Each Pair Of Presence

Installed User Serviceable Hardware:

- (6) 1" stainless-steel 3/8" x 16, ball-end feet. Installed.
- (6) 5/8" stainless-steel 3/8" x 16, jam nuts. Installed.
- (2) Sub-Amp Output to Subwoofer Input jumpers. Installed.

Additional Items Included In Package:

- (1) 6-1/2" (2.0 meter) Zu Birth™ power cable to be used when internal plate amp is powering subwoofers.
- (6) 2" stainless-steel 3/8" x 16, carpet spikes.
- (1) connector polishing kit for copper lugs.
- (1) loudspeaker finish care kit.
- (1) owners manual.

READ THIS! Electrical Inputs & Connections

All connections should be made with the equipment switched off.

Note, you need a power cable connected to each loudspeaker if you are using the integrated subwoofer amp. If you have removed the loudspeaker level jumpers, factory installed between the *Sub-Amp Out* connector and the *Subwoofer Input* connector, and are externally powering the subwoofers of the Presence you do not need to have a power cable plugged in to the IEC power inlet.

Removing the jumpers between *Sub-Amp Out* and *Subwoofer Input* connectors completely removes all electrical influences from the two 10" forward firing subwoofers located behind the grill of each Presence. And as there are no loudspeaker level filters between *Subwoofer Input* and the subwoofers, and no amplifier, the user will need to connect an outboard amplifier to the *Subwoofer Input*. The user will also need to use some form of signal processing prior to amplification to properly filter and integrate the performance of the subwoofers with the front drivers, room, system electronics and user tastes.

When Using Internal Subwoofer Amplifier

Connect the loudspeaker cables running from your main amplifier (the one in your rack) to the input binding posts on the Presence marked *full-range input*. (You do not need to do anything with the two stacked binding posts; marked *subwoofer input* and *sub-amp output*. They are there in case the user desires to bypass the Presence integrated Hypex plate amp and use an external amp to power the subwoofers.)

Plug the supplied Zu Birth™ power cable in the wall outlet and then in to the Presence' power inlet, located on the Hypex plate amp just below the main input posts. Switch the Hypex amp on with rocker switch next to IEC inlet. We recommend that you leave the Hypex on unless you are going out of town or something. The class D circuitry is very efficient and uses next to no energy when idle.

If you are not happy with the green LED power indicator, we recommend a bit of black electrical tape.

Baseline setting for the Hypex amp are listed below in top to bottom order. See diagram.

Level knob: set to 12:00 o'clock.

Crossover Mode: switch toggle to observer left. (Filters can be bypassed completely if you wanted to run the amp full-range.)

Freq Sub: set to 50Hz (9:00 o'clock).

Level Bass EQ: set to +6dB (5:00 o'clock).

Freq Bass EQ: set to 20Hz (7:00 o'clock).

Switch toggle to observer left (0° / 180°).

Phase Sub: set to 0° (7:00 o'clock).

High Power In: Supplied jumper wires should run from one pair of binding posts up to the *full-range input* posts.

(+) mark on Definition Mk2 input connectors correlates to positive (forward) driver diaphragm motion.

(+) mark on Definition Mk2 Sub Amp Output connectors correlates to "positive" voltage from internal sub-amp.

Bypass Integrated Subwoofer Amp

If you are not a sound engineer, or have not done much work with crossovers, parametric equalization or other forms of signal processing, you are in for a ride. In addition to running two external amps, one to power the front drivers, a second to power the rear subwoofers, you will also need to add processing for the subwoofer section; variable low pass filters, and parametric filters are the basic tools of the trade here. Allowing Presence to run full-range and unfiltered on the front drivers, and then running the subwoofers on the rear with independent outboard amplification and processing to adjust for room, and other variables, offers the best chance of uninhibited playback gratification and as good as it gets room integration. Note, we feel external bass amplification and signal processing to be difficult for most home audio users. If you do not have a firm grasp of acoustics we would hope that you can kick back and enjoy the integrated Hypex amp solution and the adjustments it provides.

(+) mark on Presence input connectors—full-range and subwoofers—correlates to positive (outward) driver diaphragm motion.

Remove power cable from Hypex amp on loudspeaker. Remove the two stacked binding post knobs (sub-amp output) (subwoofer input) and the jumpers that reside behind them. Now remove the aluminum input binding post knobs and black plastic clamping blocks. Now remove the two loose white jumper wires from the system. Replace the clamping blocks and aluminum knobs. (But honestly, if you have used a parametric EQ and set up multi amp arrays, you know what's going on here.)

Sub-amp is now bypassed and subwoofer cables can be safely connected to the bottom binding post marked (subwoofer input).

Note on connectors: Presence features Cardas® pure copper unplated binding posts and are internally cold forged to the internal cabling (terminated using a high pressure crimp system in place of solder). They accept standard and oversized spade lugs, bare wire and banana plug. While they accommodate a wide array of terminals we recommend 1/4" spade lugs with recommendation on the use of our unplated pure copper spades. In some countries, 4mm banana plugs are considered a safety hazard, and of similar interest the binding posts featured on the Definition Mk2 loudspeakers comply with CE standards regarding loudspeaker binding post inputs.



Caution: If Main Amp Is Bridged Please Read

The Presence' integrated low frequency amp can be feed signal through loudspeaker-level "high power" inputs and line-level RCA-type inputs. Under normal operation no damage can come to bridged amplifiers connected to the Presence. However, there are two things you should not do if you are running bridged amps.

1. You can short circuit if for some odd reason you hook both channels of your main into a one loudspeaker. True with any loudspeaker.
2. You connect the low-level RCA input feed on the Presence integrated bass amp without first removing the "high power" jumpers.

CONNECTING LINE LEVEL INTERCONNECTS AND FEEDS FROM THE MAIN AMPLIFIER TO ZU PRESENCE LOUDSPEAKER-LEVEL "high power in" SIMULTANEOUSLY WILL VERY LIKELY CAUSE BRIDGED AMPS TO SHORT CIRCUIT.

Assuming only one channel of outboard amplification to one channel of loudspeaker, here are the relevant specs.
Hypex amp as used on Zu Presence:

DCr between power inlet Earth pin & loudspeaker level input "+" terminal is greater than 1M Ohm.
DCr between power inlet Earth pin & loudspeaker level input "-" terminal is greater than 1M Ohm.
DCr between power inlet Earth pin & RCA center tulip input is greater than 1M Ohm.
DCr between power inlet Earth pin * RCA outer screen input is greater than 1M Ohm.

DCr between RCA center tulip and outer screen input equals 5k Ohm.
DCr between RCA center tulip and loudspeaker level input "+" terminal equals 8k Ohm.
DCr between RCA center tulip and loudspeaker level input "-" terminal equals 7k Ohm.

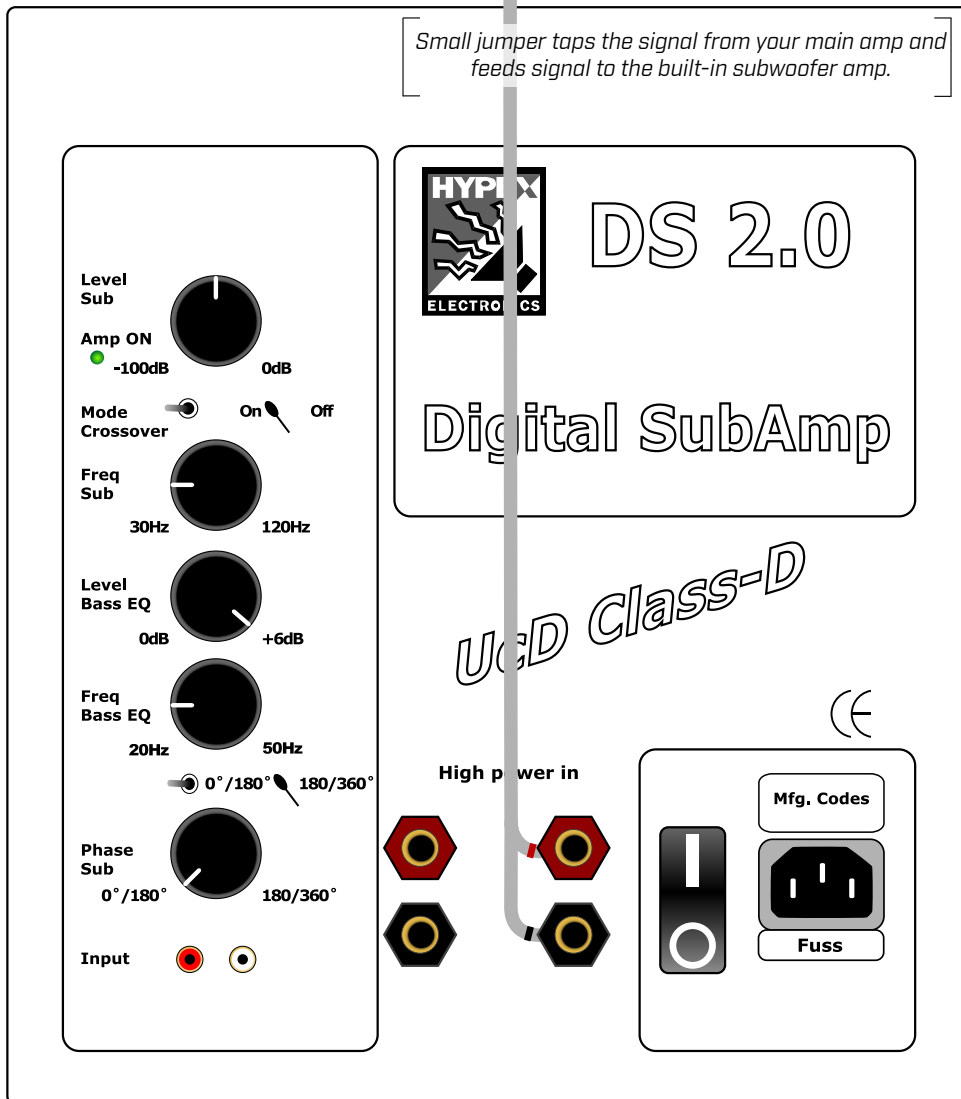
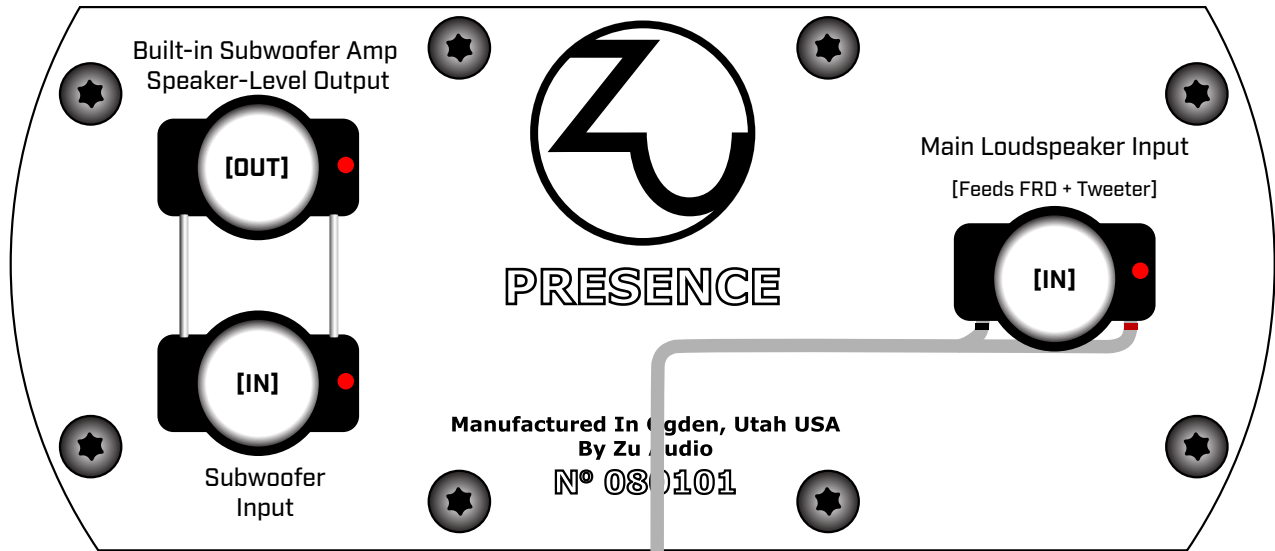
DCr between RCA outer screen input and loudspeaker level input "+" equals 1k Ohm.
DCr between RCA outer screen input and loudspeaker level input "-" equals 0.2 Ohm (SHORT)

DCr between loudspeaker level input "+" and "-" loudspeaker level input equals 1k Ohm.

CONNECTING LINE LEVEL INTERCONNECTS AND FEEDS FROM THE MAIN AMPLIFIER TO ZU PRESENCE LOUDSPEAKER-LEVEL "high power in" SIMULTANEOUSLY WILL VERY LIKELY CAUSE BRIDGED AMPS TO SHORT CIRCUIT.

Zu Presence Connector And Subwoofer Amp Plate Diagram

Baseline Settings



Initial Placement

While your initial placement for the Presence loudspeakers may not be the sonic best, these speakers are not hyper-sensitive to placement within the room. Satisfactory room integration is attainable from nearly any position within a room. Nevertheless, you will be rewarded if you work on setting them up for the best sound. The following details may assist you in the pursuit of texture, tone, and natural stereophonic recreation.

Placement for left / right front: Presence should be placed to work with the natural acoustics of the room rather than fight them. The following basic points should be followed.

- Presence should point at the listening position.
- We recommend starting with “toe-in” so each loudspeaker faces the center of the listening area.
- Less toe-in should be tried as a finishing touch on dialing in treble timbre and stereophonic presentation.
- From the listening position, Presence must be equidistant for compelling stereo performance.
- They should not be placed any closer than 3 inches (7.5cm) to any wall.
- We think a wide spread between speakers is usually better for both music and home theater setups.

Ball-End Feet & Carpet Spikes

Hard surface ball-end feet have been installed in the Presence at the factory. Carpet spikes have been included in the package. Ball-end footers are designed to be gentle on hard surface flooring but will likely mar flooring if the loudspeaker is slid, we recommend that you lift and move the loudspeakers to avoid damaging your flooring while positioning.

CAUTION, make sure you're snaps, jewelry, and belt buckle free when positioning the loudspeakers.

For carpeted floors we recommend that you use the supplied carpet spikes once you have decided where the loudspeakers are going to stand. This will provide increased support to the loudspeaker, allowing it to couple with the structure of the floor and not wobble about. Carpet spikes will also eliminate permanent carpet impression.

Carpet or hard surface, we recommend that you level the loudspeakers by adjusting the spike or ball-end studs. Each loudspeaker should stand straight and level .

Placement Fine Tuning

Perhaps it has been the lack of skilled engineers, maybe audiophiles at large have lacked discipline; for whatever reason the current consumer playback world is lost in its conception of acoustics and the nature of sound—much has been written in consumer magazines but little of it is genuine. Original recommended works on the subject include: Music, Physics and Engineering (formerly titled Musical Engineering) by Harry F. Olson, Science & Music by Sir James Jeans, Fundamentals Of Musical Acoustics by Arthur H. Benade, Fundamentals Of Acoustics by Lawrence E. Kinsler, Austin R. Frey, Alan B. Coppins and James V. Sanders. There are several other good sources of researched data; these represent a good cross-section.

The following technique is Zu Presence specific. It addresses the loudspeaker's relationship with the room and works for both 2-channel and multi-channel setups. How and where the loudspeakers excite the room and how the room reacts is relative to the type and source of excitation and room reactance—a function of boundaries (walls, floors, etc.), boundary properties (mass, compliance, Q, damping, texture and structure), area impedances (shape, volume), diffusion and absorption (furnishings, people, flooring, etc.), source and type of wave excitation (loudspeaker design and placement), resonators (closets, forced air ducting, hallways, etc.), even atmospheric pressure and humidity, though very minor, will influence sound. While the above are beyond the scope of this guidebook, the recommendations and listed books will start you down the right path. And just to drive it home, before you trust another modern work relative to playback and acoustics please research the above listed references!

With your loudspeakers positioned for visual appeal, livability and fidelity, you can now begin fine-tuning. This involves three major steps. In sequence they are bass, mids and treble. If you can't fine-tune your system within an evening please contact us or your local pro audio, or hifi shop, asking if the resident sound guy is available for hire. They work pretty cheap and more often than not, they know what they are doing. Note, hifi or pro guy, if they don't know who Harry Olson is, don't hire 'em.

Anyway, likely you will have one loudspeaker that is framed with less wall space, this is the loudspeaker you will fine-tune and then simply mirror the other. Select recordings with large amounts of sustained low frequency information; dramatic pipe organ and dance music work as do test recordings that have warbled low frequency tracks (50 - 100 Hz range). Note that steady state sine, triangle and square wave signal prove very difficult to interpret. Bass information with some transient content will enable the listener to make fast work of fine-tuning. With the loudspeaker playing at a moderate level, (only the “tuning loudspeaker” should be on) walk over and kneel down next to it. Kneeling will put your head in the seated listening horizontal plane and allow you to hear how the loudspeaker integrates with the room. Now move your head to either side of, and back and forth of the loudspeaker, in big dramatic sweeps, after all, it's big bass waves we are listening to here. Listen to the fidelity of the bass, does it sound woolly and muddy right behind the loudspeaker? Is the bass more defined to the left or right? If the bass sounds better to the left, move the loudspeaker to this position and then listen again. Remember that moving the loudspeaker also changes how the room reacts. You should only have to move the loudspeaker two, three or four times to get it right. If you aren't hearing much, move on.

Midrange & Treble: Once the lower octaves are sounding good, natural, vibrant midrange and treble can now be dialed in. Before you begin I think it's important to understand a few concepts. Midrange tuning, while similar to that of bass, is a task of inches (decimeters) rather than feet (half

meters) and upper octaves a mater of half inches (centimeters) and loudspeakers firing (wavefront) axis. Even though midrange and treble changes can be heard at the “being positioned loudspeaker”, it is helpful to have a friend position while you listen in the seating area. Here, you may want to select less bass heavy recordings; jazz, space-ambient, violin solos, guitar solos, stuff with good overtone color and not too heavy.

Staying with the same loudspeaker “room-tuned” for low frequencies, (remember you only tune one channel and mirror its mate) and with your favorite less heavy recording playing, start tuning for mids and highs. Move it toward the closest wall, in increments of a few inches (4 - 6cm). While moving, the “in the listening area” observer, and possibly the person positioning the loudspeaker, should notice midrange color (presence) transition from low and masked to open and intimate. There may be several spots within the good sounding bass area that have good presence, go with the widest point (closest to the wall) for an expansive and engaging soundstage, don’t worry about center focus, Presence will do quite well with its capacity for expansive and focused stereophonic recreation. Once a midrange position is selected its time to work on the highest octaves. This is usually as simple as rotating the loudspeaker to face directly at the seated listener. Now listen again for voice openness and intimacy, minor placement adjustments and face angle (toe-in) may be necessary. If it’s a bit too treble rich, rotate each speaker to focus behind the main listening area a few feet. Experiment. And yes, this same technique works for the Definition and Druid loudspeakers.

Additional Thoughts About Playback, Room And Tonality

Presence overcomes so many problems with regard to room, attack, sustain and decay. All the attack of the complete audio bandwidth and musical scale emanates from the full range driver. Bass and deep bass are communicated by the two lower 10” drivers; and it’s on those two drivers that room correction really should be done, changes that won’t mess up attack and the soul of the sound. Why? Because the attack, more than any other aspect of a waveform, gives the listener the clues to process source, direction, amplitude, character, intelligence, and so on. Close in importance are the dynamics within that immediately follow the attack. A simple example: When a piano key is struck, three main components are set in motion. These make up the attack of a note; the mechanical noises including that of the impinging hammer, initial string motion, which has many extra components and initial coupling of piano body and sound board. The first several milliseconds are very dynamic and have many features. To get the attack correct is solely a function of the playback system and has very little to do with the room. Aside from placement, if you have changed your system to combat your room, attack and dynamics can never be correct. Most people can only pinpoint tonal problems with steady-state or semi steady-state music or signal, this is a big problem because room influence on steady-state sounds are huge, the single largest influence if included as a component of your playback system. So, people usually tweak things to get the steady-state and decay tonally correct which inadvertently kills the life in the attack. This is a reason why cables as tone control, digital room correction, parametric equalizers and the like can never “fix” fundamental problems, unless of course the time axis is also programmed and correlated to harmonic structure and then set to react to any dynamic anomalies within the signal, overlaid with the room the original recording was made in and compared... yeah, we’re just a few years from having all that figured out—right.

Break-In

All Zu loudspeakers now come with at least 160 hours of real music conditioning at what we consider to be the right levels in our burn-in rig. This puts the loudspeakers in a position to really sound good within a few days, really great in a few weeks and awesome in the end. We do not recommend recordings specifically designed for loudspeaker, system or cable burn-in. The quickest and most enjoyable way to finish the conditioning of your Zu loudspeaker is to play music and movie scores that are fun, dynamic and harmonically dense. No longer do you need to worry about cranking them up either. Let your neighbors know where they can send tips, that’s Zu in Ogden, Utah.

Break-in Phenomenon: A running-in of driver suspension components is the prime influencing factor in loudspeaker break-in. Cable burn-in is also a factor but secondary. Presence loudspeakers generally go through two or three break-in sound transformations. The first is mechanical effecting bass and intimacy. We now take care of this to good effect at the factory. The second is electrical and primarily effects soundstage and resolution. We start this process at the factory, burning in the drivers with the cable assembly at the same time.

The following table is an approximation of Zu Presence loudspeaker in-home final burn-in playing at typical levels. Double the hours for each if played at very low levels.

Out of the box, sound is good, a bit constricted and reserved; worse if shipped in winter months.

After first 50 hours of play, the first week, sound should be much more present and extended in bass and treble.

After 100 hours of play things should be very open and alive with compelling transient accuracy. You know if you are liking them or not by this time.

After 200 hours of play, they should be nearly transparent, music should sound very relaxed yet be full of resolution and recorded detail.

After a year you will swear Presence are sounding even better. The burn-in we run all our loudspeakers through lays the groundwork for the evolution that was simply not possible prior to our development of our burn-in process.

Amplification

Bipolar or F.E.T., class A or switching, O.T.L. or transformer matched, one bottle single ended triodes or 500 Watt “who needs central heating” pentodes; Presence loudspeakers will work well with all audio amplification designs. Even so, there are some that certainly work better than others, and it has been our experience that for the money vacuum tubes offer a much better value and generally allow you to hear deeper into the texture, tone and even resolution of a recording.



Loudspeaker Cable

The most common abuse in hi-fi home audio is to use cable as a form of tone control. Doing so usually leads to frustration and further loss of fidelity. When cable affects timbre it affects timing, phase, frequency response, and so on. **DO NOT USE CABLE AS TONE CONTROL.** Timbre problems are usually solved with loudspeaker break-in and correct loudspeaker placement. One last note on tonality and cable, if the cable has good properties relative to phase, gain, group delay, impedance, and bandwidth, it will likely convey with fidelity the transmitted emotion and color.

While insulation, jacket materials, pigments, conductor shape, metallurgy and structure are important (yep, they really are), all pale compared to the influence of electrostatic / electromagnetic, virtual ground plane, and conductor relational geometry. This final E&M (electronics & magnetism) model, or cable geometry, largely determines measured attributes. Presence features a specifically engineered B3 silver alloy cable for internal hook-up. We strongly recommend the use of our Ibis or Libtec loudspeaker cables terminated with our pure copper spade lugs.

Improvements that will be noticed from well engineered cables should include bass depth and resolution, system noise floor, harmonic structure and timbre, attack, stereophonic accuracy, easy of listening—simply a lot closer to the recorded event and a lot further from the typical “make your ears bleed” hi-fi rig.

Maintenance & Cleaning Of Finish

Zu Smooth Matte: Nothing special, the shit is super tough. Just wipe it down when you feel the need, damp microfiber cloths rock.

Gloss, hand cut and polished premium automotive finish: do not wax your speakers during the first three months of ownership, six if it's a cold climate. Likely nothing will happen but under perfect conditions it can trap solvents that will otherwise escape the clearcoat. For cleaning and dusting of our hand cut and polished premium automotive gloss finish loudspeaker simply use a clean damp cotton towel or clean microfiber cloth.

Zu Smooth Matte or our premium automotive gloss finish, both are very durable, waterproof, and will remain so for decades to come.

Dusting of the 10" drivers should only be done with hand-held compressed air as used in photograph and sensitive electronics dusting. Or you can put on some hard drivin' music and just crank the system up to "11"

Maintenance & Cleaning Of Binding Post Terminals

The unplated pure copper binding post terminals should be cleaned once or twice a year using the supplied polishing compound.

Once you have cleaned and polished the binding posts and spade lugs (if you are also using our unplated pure copper spade lugs) avoid touching the spades or the binding posts. Keeping the contacts free of the halides from on your skin help ensure a long term and trouble free connection.

Instructions for cleaning and polishing the binding posts.

1. Wash your hands with soap and water prior to cleaning the terminals.
2. Completely remove the machined aluminum binding post nut and black plastic terminal block. This will make for easy access of the pure copper lugs.
3. Using the supplied pink colored polish cloth (jar labeled "polish"), rub the exposed copper lug until it is clean, usually about 15 to 30 seconds is all that is needed.
4. While still wet, wipe the polish off the copper lugs with the supplied white buffing cloth.
(DO NOT WASH THE POLISH OFF WITH ALCOHOL OR SOME CONTACT CLEANER, POLISH MUST BE REMOVED BY BUFFING ONLY.)
5. Refit the black plastic terminal block and machined aluminum binding post nut.
6. Again wash your hands with soap and water. The pink polishing cloth does contain a small amount of petroleum distillate.

The supplied pink polishing cloth is good for roughly ten years or one hundred binding post cleaning's and should be stored and tightly sealed in its jar to keep it from drying out. The pink polishing cloth should be replaced if it becomes dry or if it becomes excessively dirty (all black and gray with no pink).

If you are also using our loudspeaker cable fitted with our pure copper spade lugs, we recommend that you clean your spades the same time that you clean the binding posts. Polish each spade for 15 to 30 seconds then buff with the white buffing cloth.

The Human “Listening” Evaluation & Review Of A Device Within The Playback System—A Preliminary Overview

Like any complex system, the playback system, and the environment that surrounds it, cannot be fully modeled without profound insight into every detail and the interplay of elemental and subsystem components—and that is to assume that fundamental nature searched for within the field of physics are completely understood. Even so, this is not to say that devices evaluated within any given playback system can only be done by those with a broad and deep understanding of the system’s physical detail.

Facts That Must Be Considered—playback systems are not chains.

- Playback systems function as a system and any change will affect the final product.
- We can never assume that an assembled array of playback equipment, or any used device is even close to perfect.
- The perfect recording does not exist.
- Unless we’re the recording engineer responsible for the work, played back in the same space it was recorded or mastered in, can never know or assume the recordings real nature and accuracy, to say nothing about the playback system and space.
- High fidelity playback systems should present any recording with a high degree of “yeah, it should sound like that.”
- We should realize that a change anywhere within a system can and should impact the system’s performance.
- We must realize that each person listens and hears a bit differently; we are all sensitive to sound but not in the same way. And I will only mention the whole psychoacoustic aspect of connecting with music and sounds.
- All systems being different (and rooms must always be considered) a specific device under a listening test will react and perform differently.
- General listening specific assumptions can be made after a large enough sampling of systems and observers but it is only relevant to the state-of-the-art of playback systems within its sampled generation.
- All devices will change over time.
- Generally, our senses are easily deceived.

So, I have a system that is sounding really good, excellent detail, spot on stereophonic recreation, excellent attack, perfect pitch and timing and great timbre and tone. I then replace my loudspeakers with a different pair of well-used loudspeakers. The system now has increased bass detail, deeper perceived sound-field depth and broader width but now sounds bright. Is the loudspeaker the source of the brightness? While I think I can say the increased bass detail would be attributable to my new-used loudspeakers and its reaction with the amplifying device, unless I know what brightness is and can define it as a particular frequency bandwidth and the distortion within that band—whether amplitude, harmonic, transient compression or so on—I cannot attribute the brightness to the loudspeakers or any other device within the system. The more knowledge regarding a system, the more likely the correct assumption will be.

It is easy to present situations that cause a desired result. Both in oneself and in those you wish to influence and especially in the psychoacoustic realm. For the most part it is quite easy to know performance changes relative to primary system attributes. Shades and gradients of primary and secondary attributes are much harder to wrap your ears around but it is usually with the secondary attributes that we find the details and magic we are looking for.

In cable evaluation for example, observers are really trying hard to hear a difference because they believe the difference will be subtle. This compounds the potential for outside influence. If the observer has a predisposition to a model or brand being compared there will likely be subconscious events that will shape the outcome. There are several tricks that can be had by the listener or demonstrator. A few include:

- Second set of listening of the same material results in increased awareness by the observer thus allowing more of the material to be recognized and remembered, particularly after a brief relaxing calm or distraction and so is usually regarded as the better sounding.
- Playback of recordings that are known to “work” with or against the bias.
- Playback with equipment that works with or against the bias.
- Observers usually relate a small increase in amplitude (1 - 2dB) to increased fidelity.
- Observers are “coached” by the demonstrator either before or after the played set. Combine this with the “second set” phenomenon and the demonstrator can easily direct the desired result.
- Observers reputation will win or lose him friends and will influence the observer especially if the observer knows what is under evaluation.
- Reputation, price and looks of the device and brand.

The only way to even attempt to know the performance of a device is to follow some semblance of scientific observation. A double blind test within a large enough sampling of gear and people with the observers keeping their notes to themselves until the completion of the study.

A simple cable test could then consist of two or more observers and a controller that have at least a basic understanding of musical acoustics and can accurately communicate using musical or scientific terms. The controller must not communicate anything to the observers. There must be two cables to be observed. Three usually increases the level of complexity and duration to unusable limits in terms of information and listener fatigue. The controller must also account for any change in amplitude between the two cables prior to running the test. (Electrical characteristics of a cable influence power transfer between transmitter and receiver, even at line-level.) Observers are not allowed to know which cable is under test or know the device cycle. Then there is the very large topic about recorded material and how it factors in, but a song or two are selected and the set is played twice without change to the system. This is so the observers can listen to the music the first go round and then take notes as she listens to the set the second time. The controller randomly changes between the two cables, sometimes leaving one cable in for multiple cycles and so on.



Limited Warranty

If you have a problem please contact us and we will do our best to prove that our service is as solid as our products.

The Zu Presence has been designed and manufactured to the highest quality. However, if something does go wrong, Zu will fix or replace the product free of charge.

This limited warranty is valid for a period of five years from the date of purchase.

Terms And Conditions:

1. The warranty is limited to the repair of the Presence loudspeaker. Shipping and other such charges are not included or covered by this warranty.
2. This warranty will not be applicable in cases other than defects in materials or workmanship; for damage caused by incorrect installation, connection or packaging; for damage caused by misuse, negligence, modifications; for damage caused by faulty or unsuitable ancillary equipment; for damage caused by accidents, lightning, water, fire, heat, war, public disturbances or any other cause beyond reasonable control.
3. Products whose serial number have been altered in anyway are not covered.

Zu Audio

Ogden Commercial Industrial Park
3350 South 1500 West
Ogden, UT 84401
USA

+1-801-627-1040
+1-801-627-1108 fax
www.ZuAudio.com

A Revolution.
in American Hi-Fi

Presence™ Loudspeaker Basic Specifications

2008 February

Direct radiating, controlled dispersion, infinite baffle (sealed) 60 degree triangular floor-standing loudspeaker with internally powered, forward firing, two 10" low frequency drivers with simple user bypass ability—allowing the integrated bass amplifier and all filter networks to be electrically removed, affording unhampered use of digital or analog processing and external amplification for the deep bass drivers.

Version	1.0
Launch	2007
H W D	47-1/2" x 15" x 13" (121 x 38 x 33 cm) (Base: 16-3/4" wide, 14-1/2" deep)
Weight	80 pounds (36 kgs)
Packaged	90 pounds (41 kgs)
Driver Compliment	1x Zu103FR 10.3" full-range transducers, 177 Oz. (5025 Gr.) Zu/APT50/3 super-tweeter with ZuG1 high frequency lens 2x 10" U.S. made Eminence® low frequency drivers used below resonance
Recommended Connector	1/4" spade (6.3 mm fork)
Accepted Connectors	standard and oversized spades, 1/4" ring lugs, bare wire, pin, banana (banana plugs are clamped between block and lug, not socketed)
Efficiency	101 dB-SPL @ 1 watt / meter
Impedance	16 Ω nominal as used in Presence (50 - 20 kHz, music weighted)
Average Room / Moderate Volume	1 - 4 Watt
Large Room / Loud	8 - 24 Watt
Large Room / Concert Level	24 - 64 Watt
Max Music Input Power	300 Watt
Max sustained RMS Power	200 Watt
Bandwidth	16 Hz - 25 kHz
Group Delay	< 4 ms (full bandwidth)
Dynamic Range	125 dB
Horizontal Acoustic Center	40" (101 cm)
Horizontal Listening Window	30°
Vertical Listening Window	30°
Full-range Driver Network	none
Super-tweeter Network	6 dB / octave, 10 kHz center high-pass
Low Frequency Array Network	none (integrated bass amp. filter specifications below)
Adjustable Low Pass Network Int. Bass Amp	30 - 120 Hz, L-R 18 dB / octave
Adjustable Bass Boost Int. Bass Amp	20 - 50 Hz, 0 - +6 dB
Adjustable Bass Level Int. Bass Amp	-100 dB - 0 dB
Adjustable Phase, Continuous, Int. Bass Amp	0° - 180° / 180° - 360°
Bass Amp Power Requirements	120 V. service = 3A. / 240 V. service = 1.5A.
AC power inlet / Fuss	standard (IEC320 / C14) / T1.6A. 250V.
By-pass	yes, user removable jumpers with discrete binding post inputs
Internal Cabling	Zu I-2 silver alloy B3 (Ibis, half mass equivalent)
Cabinet	SuperPly with maple core and composite shell
Base	maple ply1-1/2" (38 cm)
Spike / Feet Insert Thread	3/8" x 16 TPI
Standard Finishes	Zu Smooth matte: black, charcoal, cobalt, phoenix red, moss, sage, dune
Custom Gloss Finishes	Zu can match or create any color or optical effect desired including foregrounds and custom art.
Included With Loudspeaker	Zu Birth™ 6.6' (2.0 m) power cable; stainless-steel hard-surface floor footers, S.S. jam nuts, S.S. carpet spikes; owners manual; binding post cleaning kit
Warranty	5 years
Manufacturers Country Of Origin	USA
% Of Product Made In USA	> 90%

