

# The Radial intercom

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Summer 2008 Edition

## ARTIST FILE

### Daniel Lanois and his new Phazer

(Bob Dylan, U2, Peter Gabriel, Robbie Robertson)



"We tried other phase adjustment tools but they did not work for us. The Phazer does exactly what we expected. It works great!"

### Chuck Leavell, The Stones & Radial

(George Harrison, Eric Clapton, Larry Carlton)



"After 148 Rolling Stones shows my Radial DIs have performed without a hitch! They produce pure, transparent sound with full dynamics."

### Acoustic Wiz Al Pettway & his PZ-Pre

(Grammy Winner, Top 50 Acoustic Guitar Magazine)



"I'm blown away! The Radial PZ-Pre is like the holy grail of acoustic guitar preamps. The PZ-Pre gives us the best amplified sound ever!"

### Steve Bailey and his Bassbone

(Jethro Tull, Willie Nelson, Dizzy Gillespie)



"The Bassbone is extremely versatile and the EQ is simple & effective - it reminds me of my favourite SVT amp. It lives in my gig bag!"

### Bruce Sweedien and his Radial JDV

(Quincy Jones, Michael Jackson, Jennifer Lopez)



When asked about Radial, Bruce said: "Radial builds DIs exactly how I would do it. Real quality and they sound great. I love them!"

## Chuck Ainlay Adds Primacoustic Recoils

As soon as we launched the larger RX-17 Recoils, we sent a set to Chuck Ainlay for his Adam monitors. This is what Mr. Ainlay had to say: "When I began using the Primacoustic Recoil Stabilizers I immediately noticed improvements in the low end clarity of my near field monitors, to the point that I no longer needed to use a separate subwoofer. Incredibly, the detail of high frequencies and image localization were also improved. Your mixes are only as good as your monitors and mix environment and the Recoils play a key role in my studio."

**Chuck Ainlay**



Chuck Ainlay, Producer / Engineer

Dire Straits, Vince Gill, George Strait, Lyle Lovett, Sheryl Crow, Dixie Chicks

## Radial Expands with Modular V8 Snake



The Radial Custom Shop is pleased to announce the V8 Coupe snake system; a compact version of the highly successful Radial V12 modular snake.

According to Custom Shop's Clint van Blanken: "With more and more artists doing fly-in gigs, the push to providing more compact solutions has become all the more important. The new V8 addresses this need with a compact frame that will allow as many as 48 channels in only 8 rack spaces. The modular design offers tremendous benefits: You can order off-the-shelf components such as 8 channel input modules, sub groups or multi-pin output modules and configure the system to suit. Best of all, the modularity lets you reconfigure your system as your needs change."

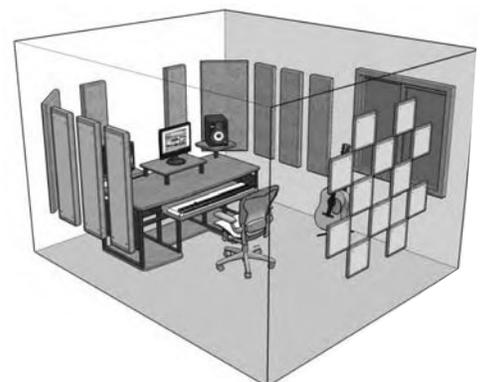
The new V8 Coupe can be configured as a standard analogue snake or as signal splitter when used with digital consoles. Input modules may be ordered with a choice of Radial or Jensen transformers and all popular multi-pin connector formats are supported.

## Primacoustic Intros Affordable Acoustics

Primacoustic is please to announce the London 12a, the first in a series of affordable room kits designed for home theatre, post production and studio.

According to Primacoustic product specialist Jay Porter: "For years, folks have understood the need for acoustics but they have resisted due to the less than ideal esthetics of foam, fire safety concerns, mounting problems associated with glue, and the high cost of fabric covered panels. Our new Broadway series changes the rules by providing a cost effective solution that is made from premium fiberglass panels and we have come up with some really easy to use mounting impalers that do away with glue for good! Best of all, the sonic performance of our 6lb panels is superior to foam and it is class-1 fire safe!"

A complete London kit (as shown below) retails for \$599 including all mounting hardware!



# Feature product: The Radial SGI Studio Guitar Interface



Eric Clapton

Carlos Santana



Joe Perry

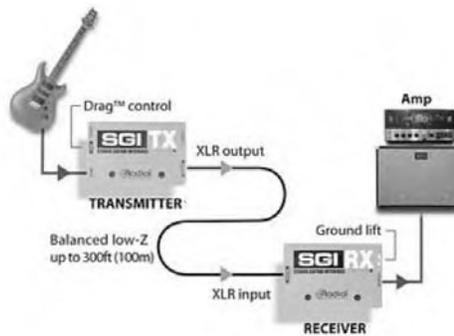
Mark Knopfler

What do you say when four of the world's top guitar legends use one of your products? Maybe one should start with an extra big 'thank you' to the guitar techs behind the scene that make sure these living legends sound great every night! These include: Ed Adair with Santana, James Towler with Eric Clapton and Steve Winwood, Jim Survice with Joe Perry, and Glen Saggars with Mark Knopfler. *Thank you for your tremendous support!*



And what exactly are these legends using? The **Radial SGI Studio Guitar Interface**. The SGI is a 100% discreet class-A buffer - the same we use in the Radial JD7 Injector and the BigShot PB1 power booster. The SGI is used to drive the guitar signal across large stages to the pedal-board and back to the amps to ensure a clean, natural tone. The **SGI-TX** converts the guitar signal from high impedance to a proprietary balanced low impedance signal which is transmitted via standard XLR mic cable to the **SGI-RX** receiver.

And for all of you that think rock stars get all their gear for free... All four of these artists purchased their Radial SGIs. They choose to use Radial - they do not endorse our products.



## COOL IDEA!

The Radial SGI has become a popular device for houses of worship where bands want to get the tone of their amps played loud. They simply drive the guitar signal to an isolation room using the SGI and then feed the in-ear monitors by mic'ing the guitar amps off-stage. Great guitar tone is now easy on quiet stages!

## Radial Launches Two New Bone Pedals

Radial is pleased to announce 'The Bones' an affordable range of Tonebone pedals designed for pedal-crazy guitarists that use a pedalboard and desire pedals that are compact and employ standard 9V power supplies for multi-power supplies.

According to company president Peter Janis: "Over the past several years, our Tonebone range of pedals have become a favorite with top players around the world. Artists as diverse as Eric Johnson, Brent Mason, Mark Tremonti and Will Lee are just a few examples. The problem is that Tonebone pedals were designed for professionals and they are somewhat expensive for the average player. This prompted us to create a new range that is both more affordable and more compact."

"By the time this gets to print, we should be shipping the first of several models: The Bones range will include the London and Fullerton distortion pedals; the Texas overdrive, the Vienna Chorus and we even have a few surprises in the works!"



## Great Looking Home Theatres Made Easy With Primacoustic Broadway



"The new Broadway panels have been a tremendous hit!" comments Jay Porter... and he is right! This new range of high density fibreglass panels (6lbs/per cubic foot) are highly effective, look amazing and are easy to install using the various impalers that are now available from Primacoustic. This means no more messy glue during the installation and you avoid severe wall damage when you decide to relocate the panels.

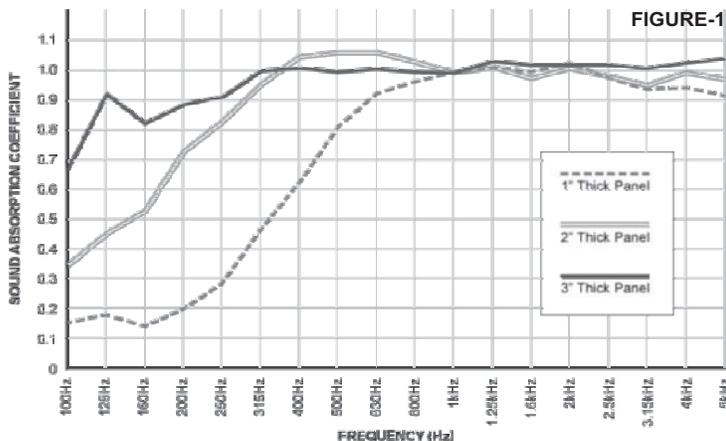
Best of all, the Broadway panels have been tested to meet stringent Class-1 requirements for worry-free use in public places. Tests have been performed by Bodycote Laboratories to meet CSA, UL and ASTM standards. This is important especially when you consider the legal liability involved when installing urethane foam.

# Tech-File: Acoustics Made Easy

## EASY FIX FOR YOUR VOCAL BOOTH

For years folks have complained that most vocal booths do not sound good. The problem is commonly known as 'chest hump' or more precisely, an accentuated response in the low mid-range that causes the voice to boom in the 150Hz to 300Hz region. Now if you take a minute and think about it... and then do a little bit of easy math, you will quickly come to the realization that it is the room itself that is causing the problem. Good news is Primacoustic offers a really easy and affordable solution!

Let's start with some simple facts: most vocal booths employ 1" thick acoustic material to absorb sound energy. Although these may work very well in controlling upper mids and sibilance, they are not very effective below 500Hz as shown here in figure-1. Thicker 2" panels are better, but they too roll off quickly below 300Hz. If you imagine a perfect room having a flat response or being acoustically neutral, if you only absorb upper frequencies it follows that you will be left with extra bottom end.



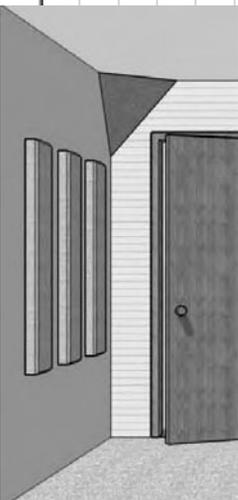
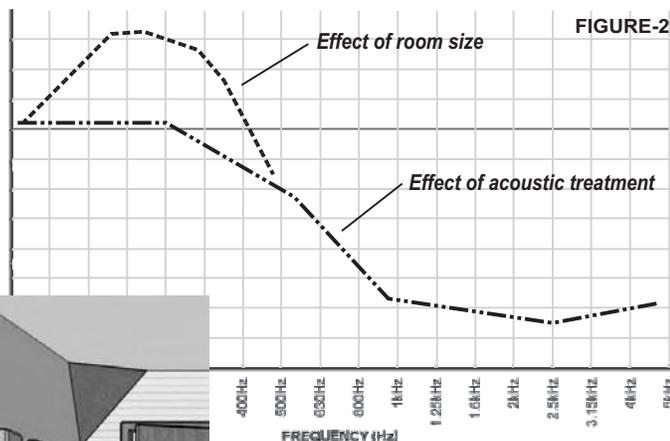
$$\frac{1130}{4} = 282\text{Hz}$$

$$\frac{1130}{6} = 188\text{Hz}$$

$$\frac{1130}{7} = 161\text{Hz}$$

Now let's look at some basic math to predict where the problems will be accentuated. Using the speed of sound as a constant (1130ft/sec), we can measure the resonant frequencies inside the room by simply dividing 1130 by the room dimensions. A typical voice-over room will be 4ft x 6ft with a 7ft high ceiling.

As you can see, this results in room 'bumps' or modes at 282Hz, 188Hz, and 161Hz. The plot thickens... Now, if you combine the effect of the room treatment and superimpose the effect of the room resonance, the outcome will likely look very much like what is shown in figure-2. This clearly demonstrates how the bottom end will be accentuated and will surely result in the boxy sound known as chest hump.



The solution is simple: add some Cumulus triangle bass traps to the vocal booth to balance out the absorption. Cumulus triangle traps are amazing devices that spring mount in minutes. All you do is screw in the eye-bolt and presto! You get a simple bass trap that fits high, out of the way, up in the corners and it will do an absolutely amazing job for you!

Cumulus is available in three colors and comes complete with spring mounting hardware, eye-screw and clamps.

# Tommy Emmanuel Chooses Radial J48 For Live/Recording

If you have never heard Australia's Tommy Emmanuel play, log onto Youtube.com and do a search with his name and the Beatles. You will be astounded. Tommy is considered to be the No.1 Acoustic player on the globe and we are pleased as punch that he has added Radial J48s to his rig.

Tommy had this to say: *"I love my Radial J48 direct boxes! They produce a big, fat and clean signal that is so good, they are the ones I use for my live recordings. Thank you Radial!"*



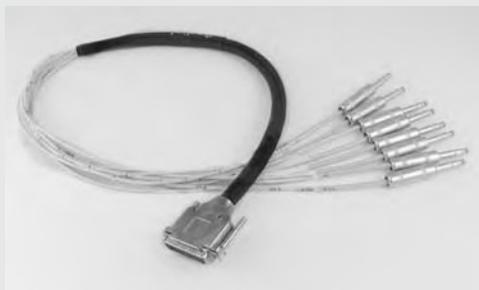
Radial artist Tommy Emmanuel is absolutely amazing! He is a two-time Grammy nominee, a Certified Guitar Player, rated Best Guitarist by Rolling Stone, and tops with Guitar Player & Acoustic Guitar

## Radial Offers Mogami To Its USA Customers

Radial is pleased to announce that it has been given the go-ahead by Mogami to offer cable assemblies to all of its customers throughout North America.

According to Radial President Peter Janis: *"We started distributing Mogami in Canada in 1991 when our company first started and for over 15 years, we have been committed to the brand. With more and more customers asking for premium custom audio, video and digital assemblies, we thought the time would be right to offer our services to all of our customers in North America."*

Radial produces over 1200 standard assemblies plus any configuration imaginable. Radial cable customers include CBS TV, Sony Broadcast, the Canadian Broadcast Corporation, Cirque du Soleil along with a multitude of casinos, performing art venues, houses of worship and sound reinforcement companies.



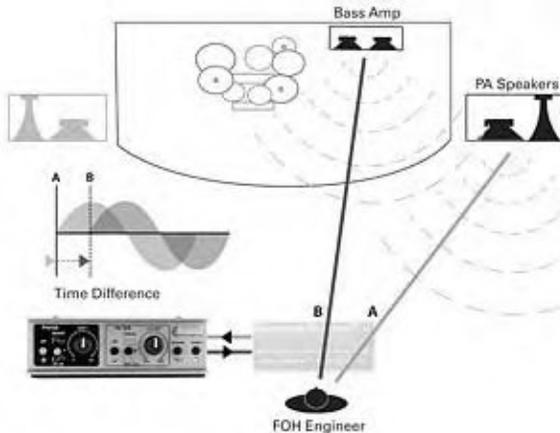
# MOGAMI

# Tech-File: Using the Phazer on Bass

A common request we get from engineers is to help solve the problem of bass signal phase cancellation in a live venue. This problem is caused by the bass amp (stage volume) mixing with the bass signal in the sound system which, depending on where you are sitting will either cancel out or be amplified.

Because of the enormous power required to generate bass, the bass amplifier on stage will often be three to six times greater than the power employed by the electric guitar. For example, the Ampeg SVT is 300 watts while a Marshall 50 watt half stack can easily keep up. Once powerful bass energy is generated, it travels further and of course sends out a wider dispersion pattern, particularly at lower frequencies.

Because the two sound sources are positioned differently with respect to the front of house (FOH) mix position, they arrive at a different time and therefore become out of phase. This not only happens at the fundamentals, but also at the harmonics which of course send information to the brain such as slap, tone and localization. As the bass level coming off the stage increases, the resulting effect (called comb-filtering) makes mixing the sound all the more difficult. Unfortunately, when the stage volume exceeds the sound engineer's ability to control the signal, the bass is often turned off (muted) in the front of house mix and bass definition is lost for most listeners.



As it is impossible to 'solve' all of the phase problems in a room, (due to reflections off walls and ceilings and seating position) the intent is to at least provide the mix position with the best sound possible so that the end mix is balanced. This is where the Phazer comes in.

A typical stage set up is as follows: The bass connects to a direct box which feeds the PA. The bass signal then goes to the stage amp. As sound travelling from the DI box to the front of house will travel at speeds approaching light, it will arrive, be mixed and sent to the PA almost instantaneously. This signal will reach the sound engineer's mix position based on how far he is stationed away from the PA system. Sound travels through the air at 1130 feet per second. Let's assume the mix position is 50 feet away from the PA. This means that the sound will arrive in about 40 milliseconds.

The sound from the bass amp will also be generated almost instantaneously but since the bass amp is positioned at the back of the stage, well behind the loudspeakers, the bass signal will arrive 10 or 15 milliseconds later. By phase adjusting the signal going into the PA system, we can time-align the two signals so that it sounds better; they will be in phase.

Bass is like the foundation of a house. Fix the bass and all of a sudden everything gets easier to manage.

## ARTIST FILE

### David Isaac and his Recoil Stabilizers (Eric Clapton, Stevie Wonder, Bette Midler)



"The Recoil Stabilizers proved themselves as soon as I put them up! It's incredible how much of a difference they make. Nothing is missed!"

### Jay Baumgardner and his Radial Phazer (Papa Roach, POD, Evanescence, Godsmack)



"The Phazer is incredibly easy to use. It only takes minutes to dial in the sweet spot and create really cool sounds. The results are dramatic."

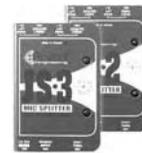
### Brent Mason and his Radial Cabbone (Vince Gill, Brookes & Dunn, Faith Hill, Rascaal Flatts)

(Vince Gill, Brookes & Dunn, Faith Hill, Rascaal Flatts)



"The Cabbone has made my life so much easier. In sessions, I can switch cabinets instantly! Best of all, the Cabbone does not mess with my tone!"

### Michael Davis, Dolly Parton & Radial



"We have been extremely happy with our Radial mic splitters for Dolly's touring system and are really glad to have Radials along with us!"

### Steve Winwood and his Radial DI



"We have been using Radial DIs for a couple of years on stage and in the studio. We use Radial because they give us the best tone."

### On tour with Will.I.Am, Vivi Rama and her Bassbone!



"The Bassbone lets me switch between electric and keyboard bass. The tone is clean and faithful to my bass while introducing natural warmth."

## Radial Intros J-Iso Signal Isolator

The J-ISO is the latest interface to become available from the creative minds at Radial. This +4dB to -10dB interface is equipped with Jensen transformers for premium audio delivery and noise elimination. It is also outfitted with a recessed level control to allow the user to 'set & forget' the signal level when driving computer sound cards, I-pods and other unbalanced devices.

As with all Radial products, the J-ISO is made from heavy duty 14 gauge welded steel 'U-beam' and features a unique protective book-end design that keeps connectors, switches and controls safe from abuse. A full bottom no-slip pad will keep the J-ISO from sliding around and provides added electrical insulation.

The perfect interface for live recording!

