

HIFI CRITIC

AUDIO REVIEW MAGAZINE
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REVIEWED THIS ISSUE:

TEAC UD-501, BENCHMARK DAC2 HGC,
MYTEK STEREO192-DSD, KRELL CONNECT, TOWNSHEND
SEISMIC CORNERS, BURMESTER 036, NAIM NAP300,
AURORASOUND VIDA, ROKSAN CASPIAN M2,
AVALON COMPAS, AUDIOLAB M-DAC,
MUSICAL FIDELITY V90-DAC, MUSICAL FIDELITY M1 CLIC,
RESOLUTION AUDIO CANTATA MUSIC CENTRE,
RING AUDIO MASTER HORN-JAZZ, SPENDOR D7,
NAIM NACA5, STILLPOINTS ULTRA SERIES, PANDA FEET



SEVEN DACs A mixed bag of seven DACs include three with DSD capability and two that stream

STREAMING KRELL Assessing the Krell Connect, the company's first streamer, complete with DAC and fresh from the solder bath

FLOATING THE SPEAKERS Speakers and stands need spikes, right? Max Townshend disagrees and reckons floating them on springs is the answer

NAP300 REVISITED In revisiting the Naim NAP300, Martin Colloms discovers the benefits of an extended running in period

CLASSIC BURMESTER Stan Curtis tries out Burmester's least costly and most compact 036 power amp

AURORASOUND VIDA A high quality Japanese solid state phono stage examined by Chris Bryant

AVALON COMPAS The Avalon Compás is a substantial floorstander that puts the emphasis firmly on dynamic performance

LONG TALL SPENDOR Spendor's unassuming looking D7 has impressive but well hidden depths

MUSIC & MUCH MORE

Floating the Speakers

MAX TOWNSHEND TAKES DELIGHT IN UNDERMINING SACRED COWS. HE RECKONS THAT SPRING-DECOUPLING IS BETTER THAN SPIKE-COUPLING FOR PLACING SPEAKERS ON FLOORS, SO WE DECIDED TO CHECK IT OUT.

It might have taken a few years to get from prototype to production, but that's Max Townshend for you. He's first and foremost an ideas guy, and sometimes those ideas run ahead of his production skills. He has been exploring the benefits of and various techniques that decouple components from external vibrations for many years. This began with air-suspension systems based on inner tubes. Although these proved effective enough, it was necessary to keep a bicycle pump handy and add some air every six months or so (as one would for the tyres of any bicycle), and this did seem to be a problem for some customers.

The solution was to replace the air suspension with a spring arrangement based on a *Seismic Load Cell*, in which a spring is located within cup-shaped end caps and encased in intentionally leaky 'bellows' that provide very effective damping for the springs.

The Seismic Range

A major disadvantage in moving from air to spring suspension is that the springs need to be matched to the weight of the component being supported, which does make things more complicated. To cater to all likely requirements, Townshend produces a comprehensive range of *Seismic* components – individual *Pods*, three sizes of *Seismic Platforms*, four sizes of *Seismic Stands* (racks), and the *Seismic Corners*. Each is based on *Load Cells*, usually used in groups of four or eight, and available in six degrees of stiffness, each *Cell* providing support from 1kg to 32kg. The individual *Load Cells* are designated AAA (1kg), AA (2kg), A (4kg), B (8kg), C (16kg), and D (32kg). Although single *Pods* (with additional feet) are priced from £89 to £130, the sixteen *Load Cells* required for the *Seismic Corners* needed to support two high mass loudspeakers takes the total price up to a substantial £2,780.

Another potential difficulty with the Townshend spring-decoupling system concerns supporting components with asymmetric weight distribution. Some of the *Seismic* devices incorporate adjustable feet, which can provide some compensation.

Some years ago I'd told Max Townshend I was using Bowers & Wilkins *800 Diamonds* as a

reference speaker, and he suggested I should try 'floating' them on *Seismic* supports. I'd all but forgotten our conversation when Townshend announced he'd like to bring down a package to 'float' the *800 Diamonds*. A problem arose as the speakers weigh 100kg each, so lifting them onto *Seismic Speaker Platforms* proved impractical.

Installation and Listening

The solution was to use the individual *Seismic Corners*, which were well suited to the rectangular base of this particular loudspeaker. Though less satisfactory from an aesthetic point of view, they were easy enough to fit once the existing socketry had been removed. It took some time to make the changeover, so it wasn't be possible to make proper before-and-after comparisons, but I needn't have been concerned. The benefits of decoupling the speakers were immediately and surprisingly obvious. This was even true when playing late-at-night quietly from a TV source, which was all that was possible immediately after finishing the initial installation.

The following day I was able to use my music system properly, and the advantages of 'floating' the loudspeakers became even more obvious, and the sheer breadth of the improvements was some way beyond the merely surprising. The system could be driven much harder to a significantly higher level without creating any aural distress. Imaging was sharper and better defined, with tighter focus and better depth perspectives. A friend who'd visited a couple of days previously, before the change, summed up the effect at modest listening levels rather well, describing the overall sound as: "simply more delicate". Human voices in particular seemed more real and believable, while clarity and information through the bass region was substantially enhanced, with better discrimination between notes and significantly less coloration.

Some have suggested that moving from a spike-coupled system that supports the speaker with a combination of mass and stiffness, to an arrangement where it is inherently mass-loaded might adversely affect the musical timing.

PAUL MESSENGER

This didn't seem to be the case at all with my experimentation, which involved using three different loudspeaker models on a suspended wooden floor.

Most of the listening was done using the Bowers & Wilkins *800 Diamonds*, for which the set of *Seismic Corners* had originally been designed and intended, but they also worked pretty well under an alternative pair of speakers that I was reviewing for another journal. The Kaiser *Kawero! Chiara* is an exceedingly hefty stand-mount that incorporates an integral stand. While nowhere near as heavy as the 100kg *800 Diamonds*, the *Chiara* still weighs 34kg, and seemed to sit well enough on the springs, with manifestly effective behaviour.

The consequences for the sound quality were broadly similar to those for the Bowers & Wilkins speakers, giving notable improvements in imaging and clarity in general. However, with these speakers the underlying tonal balance tends to be a little lean in the upper bass and lower midband, and adding *Seismic Corners* does rather emphasise this deficiency. Furthermore, there's no denying the pretty dire aesthetics of using the *Corners* in this case; their appearance had been much more acceptable around the large square base of the *800 Diamonds*.

The PMC *IB2i* was another speaker tried with the corners. The technique proved very successful in sound quality terms, but here the baffle-mounted drivers make this speaker decidedly 'front-heavy', so some careful foot adjustment was required.

While chatting to Townshend, he mentioned that PMC's Peter Thomas had also tried the *Seismic Corners* and reacted with some enthusiasm. Since I know Thomas quite well and have long respected his sound quality judgement, I contacted him and found his reaction was, if anything, even more positive than my own. His only real reservation concerned the cost of implementation, which is certainly not trivial.

HIFICRITIC went for *Seismic Corners* primarily for the practical reason of being able to add and remove them by simply rocking the loudspeaker. However, because each corner necessarily requires two load cells for stability, this is the more costly option. It's also aesthetically less attractive than the *Seismic Isolation Speaker Platforms* that Townshend also makes, and which would seem to make better sense for most circumstances.

Component Decoupling

Whether 'floating' the source and amplification components in a similar way offers comparable benefits I really cannot say. Townshend's various

Seismic ranges certainly seem very effective at controlling lower frequency vibrations, and the technique undoubtedly avoids a heavy loudspeaker exciting – and in turn being excited by – the floor on which it's placed (at any rate on my particular suspended wooden floor).

However, I suspect the situation with amplifiers and sources might well be rather different. In the UK at least (and with the exception of this new Townshend approach), serious hi-fi loudspeakers are almost invariably spike-coupled to the floor, with little if any alternative. However, the same cannot be said for the supports used for the other components in the hi-fi system, which come in numerous different forms.

It may well be that Townshend's current *Seismic Stands* would prove very effective as equipment supports, though I'm not at all sure that glass – or indeed the hefty steel used in the *Platforms* – represent the best materials for supporting electronics. For most of the past decade I've had very good results, albeit at rather higher prices, using the Vertex AQ/LeadingEdge approach to supporting key components. Although the latter do include some measures to combat vibration from the environment, their main function is to use labyrinths to absorb and remove any mechanical vibrations created by whatever means within the components themselves.

The two approaches are philosophically totally different, so direct comparison is difficult, and possibly meaningless. I tried putting my LeadingEdge-supported *NAC552* pre-amp on top of a *Seismic Platform*, but it had little if any effect, though the jury's still out here, since this Naim Audio component also incorporates an internal spring suspension. The comparison is therefore of questionable relevance.

Conclusions

I'm not yet able to come to any firm conclusions about the Townshend support furniture, but am seriously impressed by the effect of *Seismic* 'spring-decoupling' rather than the usual spiking for the loudspeakers. Converting from part-stiffness-and-mass to damped mass-control for the speakers certainly proved very effective indeed in reducing coloration, sharpening imaging and 'clarifying' the bass registers, at least when using heavy loudspeakers on my suspended wooden floor. There didn't seem to be any associated timing problems, so I suspect that the technique will also bring improvements to many other systems. This is certainly one of the more cost-effective upgrades I've encountered recently.

HIFICRITIC
RECOMMENDED



Townshend Seismic Corner

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Townshend Audio

Seismic Vibration Isolation Platform



TOWNSHEND AUDIO HAS been working on seismic isolation platforms for a long time now. It started with cases that enclosed an air chamber (see bicycle inner tube) and has steadily been refined. The latest incarnation is the most elegant and well made, it also avoids the need for inflation by using a range of cleverly damped springs to accommodate different weights of component.

The Seismic Platform consists of a steel top plate that has a damping layer underneath and a second steel plate beneath that, this sandwich creates a constrained layer that minimises vibration in the platform itself. At this point most support makers stick some rubber feet on and consider the job done, not Townshend Audio. These feet are called Seismic Load Cells and consist of stainless steel cups at either end of a rubber bellows-type arrangement that forms a damped spring. A spring alone would bounce for ages if moved, this approach means the platform sits still should there be footfall around it or movement in the component on top.

Spring into action

What makes the Seismic Platform effective is that the Load Cell can move in three dimensions, so that when the spring is chosen to match the weight of the component it supports, it will isolate it from vibration above 3Hz. As you can have a Load Cell for weights anywhere between one and 32kg, it's possible to choose a Platform that will accommodate almost any piece of audio equipment. The potential drawback is that some components do not have balanced weight distribution. In such situations a weight specific system like this is difficult to level, which is why Townshend can supply Load Cells in different spring rates on the same platform, just mention what you are planning to support when ordering and they will pick the appropriate springs.

Seismic Platforms come in three sizes ranging from 43x30cm (size 1)



to 52x40cm (size 3) with prices increasing according to the spring rates. I test a Size 2 (49x34cm) sprung for up to 7kg (£590) and another for up to 16kg (£630).

I test them by putting components on a rigid Target stand and then placing the Seismic Platform between the two. The first component is Naim's latest UnitiLite. This is a 9.4kg chassis, that's not totally balanced. Using the streamer and amp in the UnitiLite and going from the Target table to the Seismic Platform atop it delivers a dramatic and all round improvement in sound quality. The first thing I note is a massive increase in stereo three dimensionality, notes become solid in the room. Then it becomes apparent that the sound is cleaner, a degree of harshness has disappeared and left a stronger sense of timing in its wake. At the same time the bass goes deeper so that the double bass on Gregory Porter's *Liquid Spirit* has more power and the groove is stronger. The icing on the cake is that Porter's voice has regained its full richness – there is more tonal depth, which makes everything sound more real. Quite a transformation in truth, and one that you'd be hard pressed to replicate with any similarly priced upgrade.

Next I move onto a 6.3kg Rega RP6 turntable on a lighter sprung 7kg Seismic Platform. Here the sense of space increases and the noise floor

seems to go down, meaning that more of the quiet sounds on the record are identifiable. There is more instrumental and vocal texture thanks to a deepening of tone. With Rickie Lee Jones' *Flying Cowboys* album the sense of the band being in the room increases dramatically and dynamic impact brings greater vitality to the sound.

Believe in miracles

The final candidate is a Leema Antila CD player, which is a pretty capable and solid machine. Spinning Beethoven's *Symphony No. 1 in C Major, Op.21* (Klemperer) once again transforms the result from a flat, dynamically restrained presentation to a vigorous and thrilling musical experience. The increase in dynamic range is nothing short of miraculous, now the power of the orchestra is palpable and its precision of tempo clear to all.

The Townshend Seismic Platform seems able to transform the potential of electronic components as well as, if not better than turntables. I am surprised that the Naim and Leema gain the most from proper isolation, but maybe that's a reflection of my expectations. What is clear is that few hi-fi components give their best without isolation and the Platform delivers as much in a neat and effective package and comes highly recommended. **JK**

DETAILS

PRICE
From £550

WEBSITE
townshendaudio.com

OUR VERDICT





THE 50 HOTTEST PRODUCTS OF 2013

Editors Pick the Best of the Best

stereophile

DECEMBER 2013



Wilson's stunning new Alexia speaker:

POWER MEETS GRACE

STATE-OF-THE-ART DIGITAL SOUNDS

from Parasound & Electrocompaniet

OUTSTANDING ANALOG PLAYBACK

from Thrax, Channel D, Michael Fehlaer

HOT, HIP HEADPHONES

from PSB & Sennheiser

AMPLIFICATION FROM SUPREME TO PERVERSE

from Simaudio, Lindell, Sophia



ARE AUDIOPHILES SNOBS?

Summoning Nashville's Spirits:

TONY JOE WHITE

Online authority: www.stereophile.com

A SOURCE INTERLINK MEDIA PUBLICATION

The first step is to ensure that the speaker is well suited to the room. This is not always the case, and it can be a common mistake to place a speaker in a room that is not suitable for it. The speaker should be placed in a room that is well suited to it, and the room should be treated accordingly. This is a common mistake to avoid.

UK: EAST MOLESEY, LONDON

Paul Messenger

Coupling a loudspeaker to the floor with spikes has been de rigueur for British hi-fi enthusiasts since the late 1970s. Whether the technique originated in Britain or elsewhere I can't say, but it spread quickly, and gives improved sound quality compared with simply placing a speaker on the floor, a bookshelf, or piece of furniture. (See also: Shannon Dickson's "Bad Vibes!" *Stereophile*, November 1995. www.stereophile.com/reference/52/index.html.)

But there's at least one dissenting voice. Max Townshend, an Australian engineer and hi-fi enthusiast who has spent his working life in Britain, seems to take some satisfaction in coming up with products that fly in the face of audio orthodoxies. The best-known example is probably his The Rock series of turntables—radical designs with a trough that applies silicone damping to the tonearm/cartridge at the headshell, where it arguably does most good. The Rocks have never won universal acceptance, but they have a significant constituency, and have done much to establish Townshend's reputation for creativity.

Townshend Audio's more recent products have only reinforced its founder's reputation for creating the unconventional. For example, his Allegri passive controller uses autochokes rather than transformers, and has quickly built an impressive reputation for the transparency of its sound.

Arguably, Max Townshend's most heretical products are those intended to replace spikes that couple speakers to the floor with deliberate mechanical decoupling, something he's been working on for at least two

decades. In the late 1970s, Townshend was a young engineer at the time of the first speaker design he ever designed. He was looking for a way to improve the sound of his speakers. He was looking for a way to improve the sound of his speakers. He was looking for a way to improve the sound of his speakers.

The great secret of the world is not the knowledge itself, but the way in which it is used. It is not the amount of knowledge that counts, but the way in which it is used. It is not the amount of knowledge that counts, but the way in which it is used. It is not the amount of knowledge that counts, but the way in which it is used.

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A Townshend Seismic Corner loudspeaker platform.

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decades. This began with his Seismic Sink platform and Seismic Sink Stand, designed to support electronic components and using a pneumatic suspension based on inner tubes sandwiched by steel “trays.” Although this worked well enough, the need to pump up the inner tubes (about every six months, in my experience) was not popular with buyers. Townshend then developed platforms and stands based on springs encased in a deliberately leaky rubber sheath to damp the movement.

Townshend’s original Stella isolating speaker stands first appeared about five years ago; he has now developed his basic damped-spring Seismic Pod into more than 50 products for isolating from the environment different types of components of different weights.

Townshend Audio’s more recent products have only reinforced its founder’s reputation for creating the unconventional.

The Pods come in six versions, each supporting weights ranging from 1 to 32kg, and are arranged in groups of four or eight sizes to support a wide range of platforms and stands. Although some of the Pods include height adjustment, components that present inherently asymmetric loads can create difficulties.

I’d waited some time for Townshend to come up with suitable decoupling supports for the Bowers & Wilkins 800 Diamond, which I use as my reference loudspeaker. Max and I decided on the Townshend Seismic Corners rather than the Seismic Platforms—the Corners are more costly and less pretty, but more practical because of the 800 Diamond’s great weight (225 lbs). On my suspended wooden floor, going from loading the speakers with a combination of stiffness and mass to mass alone gave results that were dramatic and intriguing. Colorations were considerably reduced, especially through the upper bass and lower midrange, which were now much clearer; imaging, too, was significantly improved. Such a radical change usually has some sort of downside, but I have yet to hear one! ■



HIFICRITIC



AUDIO REVIEW JOURNAL

£13.50 Vol6/No2 APRIL - JUNE 2012

REVIEWED THIS ISSUE:

FOCAL DIABLO
PMC TWENTY.24
WIDEALAB AURENDER S10
AUDIO NOTE CDT-SIX/FIFTH ELEMENT
ARCAM FMJ D33
KRK ROKIT 10-3G2
VERTEX AQ ALETHEIA DAC-1
BURMESTER 089
VOXATIV AMPEGGIO DUE
REGA RP6
TIGER PAW KHAN
CYRUS AUDIO STREAM XP
MARANTZ NA7004
PRO-JECT STREAM BOX DS
TOWNSHEND ALLEGRI
ALACRITY AIDIO CATERTHUN
EVENT ELECTRONICS OPAL
MUSICAL FIDELITY V-DAC II
MUSICAL FIDELITY V-LINK 192

ULTIMATE CD?

Is Audio Note's four-box CD player the best ever?

ARCAM'S SUPERDAC

Rafael Todes tries Arcam's FMJ D33 DAC

VOXATIV VOBISCUM

The ultimate single driver speaker.....probably!

A REGA COMPARISON

How much better is an RP6 than an RP3?

STREAMING MUSIC

Cyrus, Marantz and Pro-Ject music streamers assessed

ULTIMATE CONTROL

Is Townshend's Allegri the bargain-of-the-decade?

MUSIC & MUCH MORE

Ultimate Control?

MARTIN COLLOMS RECKONS THAT TOWNSHEND'S ALLEGRI PASSIVE CONTROL UNIT IS ONE OF SERIOUS HI-FI'S GREATEST BARGAINS

MARTIN COLLOMS

Back in HIFICRITIC Vol5 No3, I reviewed the Music First Reference and the Townshend Glastonbury Pre-1, two excellent sounding and versatile transformer 'pre-amps' (more accurately described as 'control units'). However, both units were unquestionably costly at around £9,000, and both brands have subsequently announced 'stripped down' versions that sell at a fraction of the price of those originals.

First to arrive was Townshend's single-ended input Allegri, which at £1,850 costs just a fraction of the price of its bigger and more elaborate brother. (Music First's more elaborate Baby Reference alternative includes balanced connections and is expected to cost £5,000.)

The Allegri contains the same auto-transformers as the Glastonbury Pre-1, but here they're fitted inside a very compact alloy and steel case. Sometimes stripping down can provide improvements, and there's some potential for that here, despite the Allegri's use of utilitarian 'terminal strip' audio connectors. The latter provides six inputs and two outputs (all stereo phono pairs of course), the inputs are selected by one of the two front knobs; the other is a 24-position volume control. A convenient mute switch supplies infinite attenuation (zero volume).

The second column of the Table shows the actual 'as it comes' measured volume steps corresponding to the Attenuator Settings shown in the first column. 0dB is therefore full volume according to the source output (typically CD) and power amplifier gain; +2 and +4dB at slightly compromised performance are supplied for very quiet recordings.

Townshend commented: "It's a nightmare deciding how best to distribute the 24 available gain steps", but he will make specials on request to suit a given system.

With a 2V CD player in my system I am running at -8 to -14dB for decent volume levels (2V full level gets me 350W/ch, 4ohm), so my suggested preferred scale is the third column of numbers in dB, which supplies higher resolution over my usual working loudness range (see Table).

The auto-transformer core is 80% nickel Mu-metal, 0.3mm laminations wound with proprietary multi-stage, deep cryogenic 'Fractal' copper wire (Townshend's term for the resulting crystal structure). Initial build problems included a loose lamination and a detached connector, but these were quickly resolved over the telephone, and then listening got under way.



Sound Quality

If anything the Allegri exceeded the extraordinary performance achieved by that Glastonbury Pre-1, perhaps due to shorter signal paths and less switch work. As before the result was wholly musical, highly involving, exquisitely natural and neutral. Indeed, it was hard to detect whether it was in the signal path at all.

Listeners were immediately aware of the lack of electronic hash, glare, hardness and artificiality. Instead we heard near magical transparency, exceptional bandwidth, tight control, fine clarity, wide dynamic range, excellent pace and timing, and deep, wide soundstages. Scores can become a little crazy when one encounters components that redefine sound quality, but I have to give this control unit a massive 235 under good source and load conditions.

Lab Report

The gains were as specified, with accurate channel balance and very wide frequency responses, better than 3Hz - 50kHz -1dB for almost all settings. And the method provides excellent matching at input and output, with next to zero noise and distortion. As it's largely unscreened, slight hum might be audible if placed too near a mains transformer.

Conclusions

Let us hope build quality settles down as more units are made. With that proviso, this stunning little line controller deserves most enthusiastic recommendation. Facilities are understandably limited but it achieves what it sets out to do very well indeed.

Attenuation Table

Attenuator Setting (24 steps)	Measured attenuation dB	Suggested attenuation dB
1	-63	-52
2	-55	-46
3	-48	-40
4	-42	-35
5	-37	-31
6	-33	-27
7	-30	-24
8	-28	-22
9	-26	-20
10	-24	-18
11	-22	-16
12	-20	-15
13	-18	-14
14	-16	-13
15	-14	-12
16	-12	-11
17	-10	-10
18	-8	-9
19	-6	-8
20	-4	-6
21	-2	-4
22	0	-2
23	+2	0
24	+4	+2

Data

Attenuation	see Table
Inputs	6 x RCA/phono stereo pairs
Outputs	2 x RCA/phono stereo pairs
Dimensions (W x H x D)	127 x 45 x 305mm
Weight	1.5kg
Price	£1,850



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