

Jeff Rowland Design Group Continuum S2 Integrated Amplifier

by Roy Gregory, January 6, 2014

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For a while, things really did seem to be getting simpler. The audio community seemed to have grasped once again (having already forgotten -- again) that less is indeed more and that straight-line design extends beyond circuit boards and the inside of products to systems themselves. The results being obtained from four-box systems (source, integrated amp and speakers) were reaching quite remarkable levels, often eclipsing or embarrassing the performance of more expensive and complex rigs, proving all over again that the *musical* always outweighs the *sonic* and that problems with system setup multiply exponentially with the number of components involved.

For all of the noise generated by the audio community's Greek chorus of scientific reductionists, constantly chanting, "Cables can't possibly make a difference," the

audible evidence as to just how much damage poorly designed or executed cabling can really do is all too clear to anybody who takes the time to actually listen. Of course, the more boxes you have, the more cables you need to hook them together, so the more potential there is for disaster. The ironic thing is that not only is this not a new argument, one of its chief protagonists is Naim Audio, at whose altar so many of the cable naysayers abase themselves. The same Naim that produce one or more external power supplies for just about everything they make? Yes, the same Naim that, when it came to CD players, always espoused keeping the DAC in the same box as the transport, thus eliminating interfacing issues between the two. The same Naim that supplied/specified signal and power cables for every eventuality. They may not have been the world's best wires, but they were a known quantity and that, as results demonstrate, counts for a lot.



What exactly all that has to do with the Jeff Rowland Continuum S2 might not be that obvious -- until you think in terms of system functionality. The rise of digital removed the phono stage from the preamp, turning what used to be two boxes into three. Then the emergence of the DAC as a separate entity added another, an independence further reinforced and complicated by the advent of multiple digital sources. Currently, the boxes in systems seem to be proliferating quicker than rabbits in spring, bringing a whole host of issues and possible problems along with them. People seem to have forgotten (again) just what it was that made the integrated amp so appealing: the combination of easy accommodation and predictable musical performance.

Well, the Continuum S2 is here to remind them -- and possibly take that argument a whole step further.

What you see is less than what you get

One glance at the Continuum S2 and anybody with more than a passing interest in audio equipment will instantly identify it as a Rowland product. The highly polished, scalloped and subtly curved face plate; those tiny, almost flush-fitting and crisp-feeling buttons; the clear, uncluttered display and beautifully weighted volume control; the extensively machined and heavily contoured casework. They're all unmistakable identifiers of this most identifiable of brands. But familiarity brings its own burden, and many an observer will, having recognized the product's source, stop looking any further, skating over much of the subtle detail that really sets the Rowland products apart.

By way of an example, just take a closer look at the heatsink ridging on the top plate. Those heavily indented grooves and lands obviously serve to increase the radiating area and thermal dissipation of the casework. What's not so obvious is that the width of each land is graduated across the lid, each ridge being a different width to its neighbor (with a total of five different dimensions in all), a pattern that's repeated on the side panels too.

Likewise, the stocky proportions and plain front panel give no real indication as to just how capable and versatile this Rowland is. For that you need to start looking at the numbers. Let's start with the four inputs:

two sets of balanced XLRs, two sets of single-ended RCAs. There's also an unbalanced bypass input. As well as a pair of Cardas speaker binding posts for each channel, there's a pair of balanced XLR and single-ended RCA variable outputs too, allowing you to add extra amps to your main system or daisy-chain to other rooms or systems as required.



So far pretty normal and definitely no warning of what's to come. That's the figures for rated output. The Continuum S2 will dump 400 watts into an 8-ohm load, doubling that to 800 watts into a 4-ohm load! It also weighs in at 35 pounds, which is far from trivial. But the surprises don't stop there. How about the fact that the output stage operates in class D? Not that much of a surprise given the size and output capabilities -- unless you've listened to this amp first, before being told that it uses a class-D output topology, in which case the surprise is going to be considerable.

Just think about that for a second. Class-D amps - - they're the ones that are cool running, lightweight, super efficient and crazy powerful, at least when it comes to simple loads. So why does the Continuum



weigh so much, double its output into half the impedance (just like a real, grown-up amp should). Why does it run so cozily warm? Why will it drive an awkward loudspeaker up a hill without breaking sweat? Well, dead weight is kinda hard to fake, and those heatsinks are not just for decoration. The power output isn't just on paper either. Plug this amp into the real world with a nasty, real-world loudspeaker load and you quickly realize just how capable it is, the effortless authority it brings to musical reproduction. All of which makes the Continuum S2 something of a conundrum -- the kind of product that, if you are an experienced listener judging this book by its cover (another phrase for letting your prejudices run wild), is going to shock or embarrass you, depending on the situation.

But there's more. Obviously, any integrated amp brings the pre-power interface in-house, so to speak, eliminating not just one junction within the system but the natural boundary that separates its two halves. If conventional wisdom divides systems into three parts (source, amp and speakers), practical experience suggests that in reality systems divide into two parts, the relationship between power amp and speakers being so critical that they need to be considered as a pair, while the variety of sources and their specific demands in turn dictate the nature of the line stage. By bringing the line stage onboard with the power amp, you have the opportunity to optimize the input to the power stage, improving its chances of mating happily with the speaker load, while the electrical demands of the various available source options are reasonably predictable.

I say *opportunity* because that's exactly what it is. Just because they could and should doesn't mean that all designers will. In fact, many integrated amps over-egg their value by dispensing with an active line stage, employing a passive switching-and-gain-control option instead. This might show dividends in terms of transparency, but it pays a heavy price in terms of musical substance and authority. Look behind the rear panel of the Continuum S2 and you'll see that the input socketry connects directly to a full input/output board, imported lock, stock and barrel from Rowland's Capri preamp. In turn, that means you benefit from the optimized input impedance and transformer coupling that feature as part of that product. So, when

it comes to system matching, once you are happy with the amp/speaker pairing the only question becomes, Are there enough inputs of the right type?

So, are there?

In its simplest form the Continuum S2 offers the four input options outlined above, along with a bypass for home-theater use. That's enough for most people. However, as you'll be getting to realize, when it comes to this product things aren't necessarily that simple. In fact, RCA Input 1 can be reconfigured using optional internal boards to accept either digital or RIAA phono input. Adding these two functions to the in-house suite eliminates the two most critical source interfaces -- the ones that most people rely on most of the time -- further simplifying the cable loom, eliminating connection- and connector-quality issues and dispensing with another box along the way, which isn't just tidy -- it saves a ton of money too.

The phono stage (\$350) can be configured to offer 40, 50 or 60dB of gain, with loading options of 47k, 400 and 100 ohms, values which cover most of the bases without getting too involved. They are selected using small jumpers positioned on the boards themselves, which are in turn mounted directly to the input PCB. It's a fiddly operation that involves going inside the unit, but it's a lot easier if you actually dismount the boards to carry it out. The alternative DAC boards (\$450) mount in the same location and will accept data at sample rates of up to 192kHz. While the phono cards are dual mono, the DAC circuitry is built onto a single circuit board. This is mounted behind the right-channel inputs, an umbilical and small interface board carrying the signal to the left channel. Once installed you need only make the usual single S/PDIF connection, in this case to the right-channel RCA input. That of course means that you don't get a USB input option, so if that's your source of choice and you want to take advantage of the Rowland's neat internal DAC solution, you'll need to employ some sort of USB-to-S/PDIF converter.

So, let's summarize shall we? What you have here is one very pretty box that can take signals from a digital source or record player straight in, along with balanced and single-ended line-level inputs. It can be integrated into a home-theater system and it can be used as a hub to



feed secondary zones. It will drive pretty much any speaker you want to hook up to it, and that includes 2.1 and 2.2 configurations. Along the way it will grow with your system, accepting bigger and more demanding sources, bigger and even more demanding speakers -- and save you a fortune in interconnects and power cords along the way.

But if it were really that easy, wouldn't all amplifiers be integrated and incorporate DACs and/or phono stages? The integrated solution isn't without its own challenges. Combining AC and DC in the same box is never easy (hence the industry obsession with external power supplies). Likewise, ultra-low-level signals and the much larger signals needed to drive loudspeakers don't much like to mix -- not least because the much larger components demanded by the latter generate significant mechanical energy that can impact the former. Finally, you'd better be very careful with the grounding arrangements if you are going to mix digital and analog signals in the same box, especially if you have switch-mode power supplies in there too.

Like anything else in audio, building a successful integrated amp depends on what you use and how you use it, as much or more than it does on the basic concept of stuffing everything into a single box. By opting for a sophisticated switch-mode supply, Jeff Rowland Design Group eliminate the large low-frequency mechanical output of a big transformer. Instead, you get lower levels of energy, but at far higher frequencies -- at least that's a problem you can deal with. The power supply and output stage are built onto a massive slab of raw aluminum that braces the chassis. But look closer at the components and you'll see what looks like liberal applications of toothpaste applied to and between them. It's the mechanical equivalent of potting the components, but it's actually far more effective. Not only do you still allow maximum thermal dissipation (a perennial problem when it comes to the longevity of potted circuitry) you avoid exchanging multiple mechanical frequencies for a single dominant one. Sinking everything in a block might reduce mechanical interference, but it doesn't eliminate it. Instead, everything just shakes at the same frequency. The integrity of the incoming signals is maintained by the transformer-coupled inputs, the 14dB of gain in the line stage and its associated low-impedance drive characteristics. The board carrying them is physically

remote and at right angles to the AC inlet and the board carrying the power supply and output circuitry. I could go on to discuss the power-supply arrangements in detail, as well as the range of steps taken to mechanically and electrically isolate the low-level circuitry from potential harm, but by now you are probably getting the picture. Anybody who goes to the time and trouble of varying the fin dimensions on a heat sink (on an amplifier that many people will tell you shouldn't need a heat sink) won't be leaving the more obvious stones unturned when it comes to optimizing sonic and musical performance.

Despite the obvious cost savings that go hand in hand with the elimination of multiple casework (and the system savings resulting from eliminating cables and support levels) it is still astonishing that Jeff Rowland can produce a product as beautifully finished and as capable as the Continuum S2 for the asking price. In truth, something has to give, and in this case it's the remote control. The supplied unit is a simple plastic wand with a dozen identical buttons, covering the inputs, volume and balance, mute, absolute phase and dimming the display. It works -- and unlike some considerably fancier handsets, it works every time, whether you can see the amp's front panel or not (just don't shut it in a cupboard). It might not add to the pride of ownership, but it is functional and practical, and it won't give you a hernia or hurt when you sit on it.

If I don't seem greatly offended by its basic form that's because I'm not. On the whole I don't use remotes, and in this case, doing so only denies you the considerable tactile pleasure of operating the Continuum S2 manually. Just like winding a lovely watch, how else are you going to enjoy the repeated gratification and amusement of using that beautifully weighted volume control, the crisp, positive action of the control buttons?

The one function that is available solely from the remote is the display-dim option. This should really be labeled *display off*, 'cos that's what it does. Hit the button and the status lights and volume readout are killed stone dead: they don't revive when you operate a function. It's on or off -- and given that the unit looks a whole lot prettier with the display lit, why would you bother? Because killing the display produces a clearly audible improvement in the sound. Dowsing the lights removes an upper-mid glaze from the sound, adds depth



to the soundstage and increases resolution, particularly obvious in the case of instrumental harmonics and the vocal overtones that really let a voice breathe. How big a difference? With the right material and the right setup you will be able to pick it blind, while the subtle hint of warmth that's added to proceedings brings the overall balance just the right side of cool, making for longer-term listening pleasure. By all means experiment in your own situation, but once I'd heard the difference, the lights were gone for good.

However, there is a better option. If you (or better, your dealer) go inside, tucked away at the bottom of the preamp board are a couple of tiny jumpers that will set the display to light every time you activate a control, manually or via the remote, and then fade out again after five seconds. Further manipulation of the front-panel buttons and volume control will also allow you to adjust the brightness of the main display (when it is lit) as well as choose between single-digit, dual-digit and dual-digit-with-halves volume readouts. It's a comprehensive array of adjustments that, given the impact the display has on the sonic quality of the unit, are welcome indeed.

Confronting preconceptions

In some ways, it would be easier to simply ignore what's inside the Continuum S2's chassis and concentrate purely on its performance. Except that doing that would avoid the spotlight that this product throws on one of the most prevalent and limiting tendencies in audio. As a group, audiophiles (including -- even especially -- reviewers) do rush to judgment, compounding the problem by routinely overstating the case. So, we say, "It's the best ever" instead of "It's the best I've heard." In the same way, we hear one product in one context and draw a general conclusion: "I've heard single-ended triodes [300Bs, Class D amps, or any other product category] and I can tell you that they are all good [or bad]." Simply delete as appropriate.

Such statements are clearly nonsensical, yet tread the corridors at any hi-fi show and they constitute the bread-and-butter of most conversations taking place. There are good tube amps and bad tube amps, good solid-state amps and bad ones. What you can say is that there are far fewer really good amps than there are bad or indifferent ones, yet that's not an opinion that gets aired too often.

Vertec Tool: CNC machinists to the stars

The gorgeously sculpted casework and front panels that have become Jeff Rowland trademarks over the years are the product of Vertec Tool, a CNC machine shop that has achieved almost legendary status and is located just a few blocks from Rowland in Colorado Springs. Vertec is used by many of the prominent US high-end manufacturers to carve their chassis. Walking the aisles between the ranks of mechanical milling machines, the anodizing baths and lasers, you'll see skeletal elements from many a familiar product. But Rowland is Vertec's oldest hi-fi customer (they spend a lot of time making parts for airplanes and satellites, amongst other things) and the one that pushes them the hardest. In many ways the casework and mechanical construction of the Rowland amps is a cooperative effort: Jeff asks for the impossible and then Vertec work out how to do it.

But their inventiveness is matched by their meticulous approach, from the inspection (and frequent rejection) of aluminum bar stock to the astonishing tolerances that they establish -- and maintain. The advent of widescale manufacturing in the Far East meant that where CNC casework used to be a clear indicator of component quality -- or at least ambition -- now it is ubiquitous. But there's CNC work and CNC work, and not all machines and not all machinists are created equal. A perfect example is the curved front fascia that graces products like Rowland's Corus preamp and Continuum S2 integrated. Beautifully understated, part of their class lies in the combination of the elegantly worked and polished finish with the minimalist controls and buttons.

But what looks simple on the surface is anything but in practice. Achieving that surface finish requires multiple separate operations -- and machine time is *definitely* money -- while the curvature of the fascia itself means that each of the buttons needs to be a different length. This is an approach that has nothing to do with cost savings or economy and everything to do with producing



So, in this light, let me make an admission: I've never enjoyed the sound of class-D amplifiers -- at least those I've heard to date. That's an important caveat. Not only does it recognize that I've not heard every class-D amp there is, but it also admits the very real possibility, indeed the probability, that one day I will hear a class-D amp I like. Well, that day has arrived. Clearly time cures all ills -- even class-D ones.

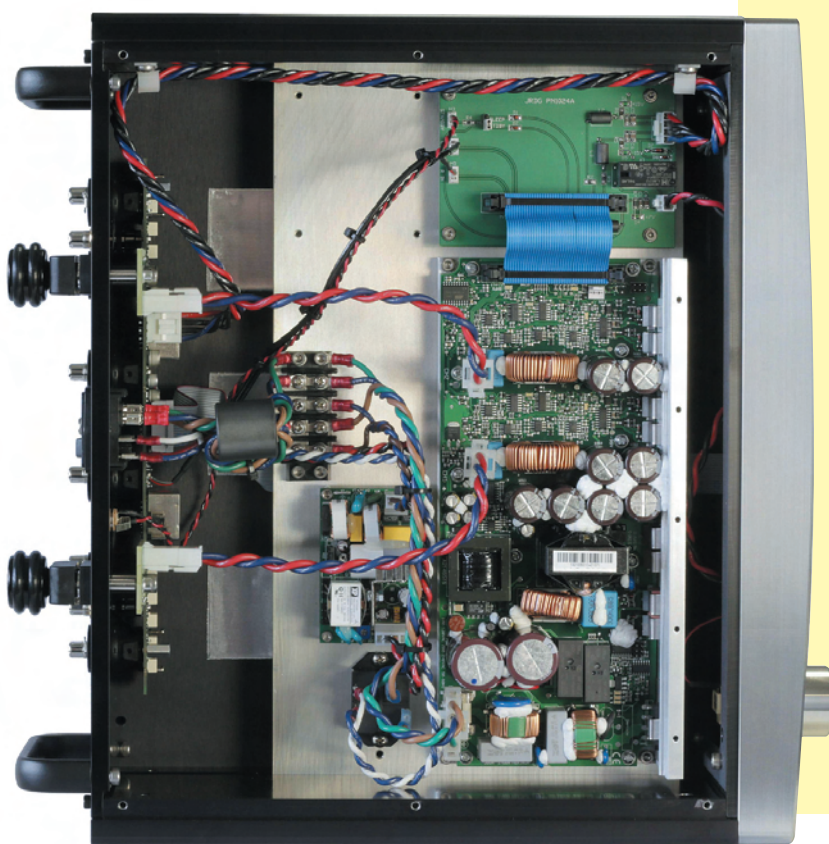
On reflection, the fact that the Continuum S2 should be the first such amp to pass muster under the controlled circumstances of listening at home should come as no great surprise. Jeff Rowland Design Group have been working with the core technologies that

a product that marries high-end performance to high-end standards of fit, finish and design. The Rowland products would not look out of place sat amongst a display of expensive watches, pens or any of the other ostentatious paraphernalia that populates high-end boutiques. Yet unlike those products the Rowlands compete in a heavily populated and cost-conscious marketplace, setting the standard against which others are measured and which few match.

To combine their exceptional musical performance to such exquisite construction, and to do so without suffering a crippling cost penalty, can only be the result of a deeply held belief in and commitment to the importance of both sides of the product's personality -- that and Vertec's commitment to pushing the physical limitations on just what you can get out of a CNC machine. In a world where one august commentator suggested (only half in jest) that, "If it works first time, it can't be high-end!" the meticulous attention to detail on the inside and outside of the Rowland products creates an end result that delivers not just stellar performance but real pride of ownership.

You can see Vertec in action in this video: <http://vimeo.com/81139012>. It shows footage of the Continuum S2, 825, 525, and Corus casework being manufactured and gives some sense of just how involved and meticulous that process is.

- Roy Gregory



underpin this product for some considerable time, with genuine flagship designs like the 301 and now the new 825 stereo amp and 925 monoblocks all operating in class D. The 625 and 725 might use class-AB output stages, but they too use switch-mode power supplies and the company's proprietary Power Factor Correction technology. If anybody is going to make the Continuum concept into a success, it's Rowland that have the necessary track record.

So while I can't ignore the fact that the Continuum S2 uses a class-D output stage, I'm suggesting that you should. Concentrate on its performance. Whether you are a class-D advocate or a listener who thinks that it's the devil's spawn, listen to the music rather than the amplifier and you'll be as surprised and as pleased as I am. Because the one thing this amplifier doesn't sound like is a class-D design. It suffers none of the compressed dynamic range, stuttering rhythmic progression or bleached tonality that I've come to anticipate from



such devices. Nor does it mimic classic class-AB sound. It doesn't sound like class A and it definitely, definitely doesn't sound like tubes. In fact, it doesn't sound like much at all -- at least not in the recognized range of audio aberrations that we're all so familiar with.

Seeing things in an entirely new light

Even on first acquaintance it's immediately obvious that the Continuum S2 is both a special and a distinctive performer. There's a difference to the way it projects music, to the way it sets up the performance in your room. It takes a little while to nail just what is different, partly because the amp takes time to warm through -- it relaxes and fills out as it does so -- but the more you listen the more you recognize its character and take its qualities for granted.

What sets it apart? It's a combination of two things, the first and most obvious being the sense of air and space enclosing the recorded instruments and voices. The second (indivisible from the first) is actually more fundamental, far harder to pin down and even harder to explain. Let's just say that, after considerable listening and consideration, the best description I've come up with is that, compared to what I'm used to, this integrated reconstructs the musical event inside out. That means the events occur differently -- not so much in the sense of perspective but in terms of your relationship to it.

That sounds pretty radical, but in reality it is not that obvious. The recording is still the recording; the band is still the band. But the way everything works is suddenly put together on a subtly but pervasively different basis. It definitely sounds different, but it takes a while (at least it took me a while) to work out what that difference is.

Perhaps I should start at the beginning. At first the Continuum S2 can sound a little lean, a little bleached, but give it a day or two to hit its stride and you'll appreciate just how wrong those snap judgments can be. What might appear as a spot-lit quality, an imposed, almost sunny coloration, is just that start-up coolness exaggerating the extent to which this amp imposes the recorded space on the listening environment. We are used to amps that set up soundstage boundaries. There are those that re-create the sense of space enclosing the musicians -- some with an almost astonishing

dimensional accuracy. There are those that set up a vague acoustic space in which the music happens, and then there are those that manage to resolve the space between and around the players. But in all cases, we are placed and expect to be placed on the outside looking in.

That's not what the Continuum S2 does. Instead it re-creates the acoustic quality of the air in the recording venue, as distinct from the air in your listening room. That air, the space it defines, is quite distinct from the air in your listening room or its boundaries. It's also the raw medium through which the music travels. The voices and instruments act on that air to create the sound we hear as music. It's almost as if the Rowland goes straight to source, starting exactly where the amps we are more familiar with leave off. It starts with the air around and between the musicians and builds out, rather than establishing the space the musicians occupy as a whole and then trying to see further and further in.

The result is an uncanny sense of continuity and coherence, an initial impression of heightened reality, a little like looking at a hologram after a photograph. It's not that one is more real than the other, it's that it has a different sense of substance and speaks to us in a different voice. Let me be clear: that analogy is not to do with dimensionality per se -- it's about how the same thing can be expressed in two different ways.

It's a slightly strange realization at first, one that was a little disorientating or unsettling, at least on a subliminal level -- if only because it is so different. But it's remarkable how quickly you acclimatize and start to take it for granted. Because along with that air, the Continuum S2 brings the performance, the instruments and voices that excite it, the energy it carries. This is the second thing it does. First it establishes this coherent space in which the music exists, then it projects that music, solid yet unforced, right from its core -- from within the space not from the system.

Does that mean that the Rowland amp doesn't image? Not at all. Play one of those spooky, walk-in recordings and the Continuum S2 will establish a broad, deep and incredibly explicit soundstage. One of the tracks that demonstrates this perfectly is "True Love Ways" from Buddy Holly's *From The Original Master Tapes* CD [Geffen UICY-6045]. Using the Continuum S2 to



drive Focal Scala V2s, as the mics come up, the soundstage (reversed on this Japanese-issued CD) stretches way beyond the speakers, the floor, side walls and rear wall of the studio clearly defined, with Holly dead center and perfectly positioned for height, his band wide left, the strings and sax stage right. The control-room speaker and the voice of the arranger/conductor are clearly separated in space and character. The three-dimensional map, the position of the pieces upon it, couldn't be much clearer. In fact, the last time I heard this soundstage defined this clearly it was on a pair of old Quads driven by DNM electronics -- and that was from the MCA record.

Likewise, "Easy Money" from Rickie Lee Jones' first album [Warner Brothers 7599-27389-2] happens in a clearly defined acoustic space, each member of the band defined in terms of height and position. You hear

her walk up to the mic and as each instrument enters it just appears, literally out of nothing, without disturbing the established sense of presence and place. Oh, yes, given the right material, this amp will image. In fact, I've heard the effect before, without being able to pin it down. Hindsight is a wonderful thing, but listening to Rowland's 301 monoblocks I heard this selfsame immediacy and complete absence of grain, the creation of a transparent volume within the listening room. It's just that in the presence of an unfamiliar system, it was impossible to attribute the cause.

But what actually impresses me more is what the Continuum S2 achieves with less-than-perfect recordings. It's almost as if the amp is looking out, rather than you looking in. Instead of trying to decipher the music and recording from outside, you are sucked right into its core. Key to this effect is the unforced and unimpeded sense of pace, tempo and dynamics. Rowland's 625 and 725 amplifiers are remarkable for their combination of musical authority and deft touch, their ability to let the music and the performance set their own natural pace, neither seeming to lag on slower tempi nor rush and hurry the faster ones. The Continuum S2 seems to

take that ability another step forward. Rhythm and tempo are firmly anchored yet never earthbound. Instead, the performance simply proceeds at its own natural pace, with upshifts, hesitations and pauses all occurring within its natural gait. The musical performance unrolls with an almost cinematic sense of continuity and flow.

So where Nick Cave's "Jubilee Street" (from the *Push The Sky Away* LP [Bad Seed BS001V]) can sound ponderous and slow through some systems, its steady pace seems totally natural with the Rowland. There's an unforced ease to the playing, a flexibility and sinuous quality

that echo the angst in the vocals. When, after the middle eight the tempo suddenly lifts, it's a shift that happens so naturally that, whilst you mark the change, what you notice is the shift in emotional tone -- now there's an urgency and thread of real anxiety,

reflecting the changing scenario played out in the song. The amp's ability to stand aside and let the music talk extends the expressive range of the system, its musical integrity and its ability to engage and affect.

This ability to place its boot firmly in the rump of a performance, instilling it with a natural sense of life, immediacy and presence, gives mediocre recordings a whole new ability to hold the attention and communicate -- because it ceases to be the recording that matters. Rather than a barrier to overcome, the recording just seems to define the extent to which the music can spread and separate. That's what I mean by being on the inside looking out. I've not heard another amp that sounds like this or another amp that unravels the musical event in quite this way.

Gillian Welch's *The Harrow & The Harvest* CD [Acony 5052498671724] is another typically powerful outing for the bluegrass queen, but one that lacks the raw immediacy of Time (*The Revelator*). The inner substance and core stability of the Continuum S2 cuts right through the dull and listless recording, reproducing the picked banjo with characteristic verve and bright, lively attack,





David Rawlings' guitar with depth, body and tone. The solo voice is unmistakable, the harmonies properly, almost surgically correct. But what really impresses is the shape the amp brings to the phrases, the surges and relaxations in the tempo, the hesitations and renewed attack. For music with no rhythm section, no bass instrument and no drums, that relies on the rhythmic integrity in the playing, the accents that can be added by hand or foot, this sure moves with a swing. The intricate, interlocking dance steps of banjo and guitar have a clarity and precision that lay out the tempo like stepping stones in front of you. In locational terms, this isn't the most natural of recordings, with lateral separation of voices and instruments that should be one above the other, but such is the sheer temporal integrity of the delivery that neither the performance nor your enjoyment of it suffers. Slower-tempo tracks have an almost mesmeric presence and stability, while the upbeat numbers will have you kicking up your heels (even if you probably shouldn't) and you really can't ask for more than that.

Despite the clarity and purpose that the Continuum S2 brings to the music, it's not what I'd describe as an *obvious* performer. It certainly doesn't waste its energy on "look at me" gestures or sonic spectacle. Its ability to resolve musical nuance and sort through layers of information and overdubs is remarkable; that it does so without lifting that information clear of the whole even more so. Percussive accents and tambourines are clearly identified, with distinctive tone and plenty of detail to beads or rattles, but they remain integral to the music, serving their purpose rather than distracting the listener. This integration and rhythmic/temporal coherence bind performances together, a strong antidote to the tendency in too many high-end products to dissect, over-define or pull apart the performance they're supposed to be re-creating.

So far so very, very good. But what are the S2's weaknesses? Essential to its lack of muddle or musical

clutter is an absence of padding. There is no rounding or softening, warming or removal of edges. This amp's considerable musical appeal lies in its ways with structure and flow, time and tide, not in the realms of cuddly, inviting tonal warmth. "Wide open" rather than "wide open arms" is the order of the day. It is almost brutally neutral, an effect that can leave a system sounding slightly cool, especially if the other elements it contains have been voiced to enhance apparent detail. This is not a kind or forgiving integrated amplifier -- it is an accurate

one. That means that it won't cover up inadequacies elsewhere in the system -- or limit the potential of its partners. But it also means treating it with respect. The good news is that expend that time

and effort and the S2's engaging musical integrity will step well and truly to the fore, relying on its way with musical structure and meaning rather than pretty tonal colors or sonic fireworks.

It might be a little unkind to hang this one on the Continuum S2, but use it with the sort of wide-bandwidth speakers that it drives so comfortably and the bass is deep enough, powerful enough, but above all, transparent and mobile enough to make speaker placement super critical. Tiny shifts in speaker position will have a clearly audible effect on low-frequency weight and energy -- and the amp is more than capable of letting you hear that. The difference between close and spot on is musically and sonically almost alarmingly obvious. Of course, the good news is that this is something that costs you nothing but time and a little effort to get just right.

By now, it should be apparent that the Rowland Continuum S2 integrated amplifier offers both exceptional performance and arguably even greater value. It's not cheap, but it is spectacularly effective as well as having the sort of appearance and physical grace that imbue ownership with a regular sense of warmth -- not to say self-satisfaction. The selection of the Rowland integrated is unlikely to be anything other





than a good choice well made. But in a very real sense, the integrated amplifier is only part of the story -- albeit the lion's share. Factor in the internal option to add a DAC or phono stage, further streamlining the system, and you ramp up the value even further. How good is the performance of the internal boards, given their modest cost, and where do they fit into a high-value system strategy?

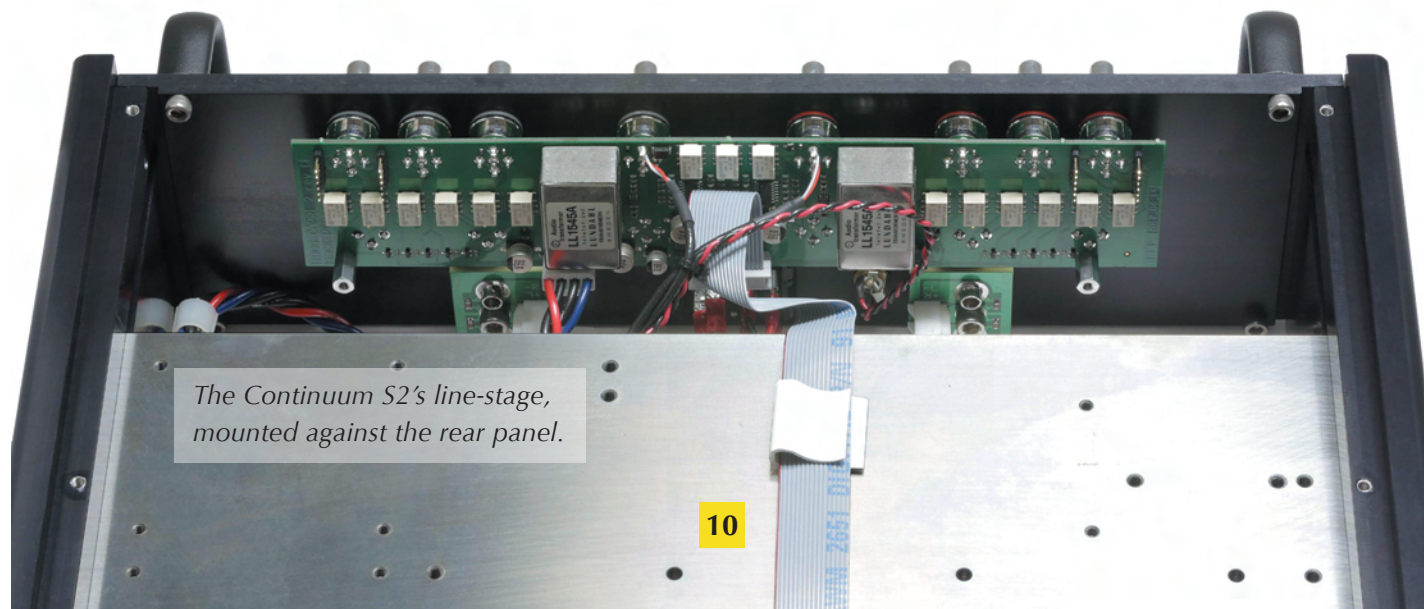
Keeping count: the DAC and phono options

The DAC option is frighteningly effective. Super quick and clean, it will sound rather thin and overly polished on first installation, but run a signal through it for a week and it soon starts to fill out and settle down. Clarity and purpose are its strong suits, performance traits that dovetail perfectly with the emphatic dynamics and solid sense of presence generated by the CEC TL 3N transport. This was a combination that performed well beyond its price point -- bettering the results from both the Wadia transport section and the dCS Paganini transport feeding the DAC input. Of course, the fact that the CEC uses an RCA on its S/PDIF output (mirroring the one on the Continuum S2's DAC input) eliminates the need for an RCA/BNC adapter on the digital lead and that can be no bad thing either. But, whether the reason is electro-mechanical, a case of synergy or a combination of the two, this was a spectacularly cost-effective combination.

In absolute terms the Rowland DAC card does flatten the depth perspective and introduce an overall smoothing of textures. Even running from the CEC transport it never had the textural finesse or overall sense of spatial coherence, that sense of the air not just between but surrounding the instruments, that you get from a player

like the Wadia S7i -- but then it doesn't do the same damage to your bank balance of a player like the Wadia. The Wadia is more three-dimensional in terms of both the images and the overall acoustic, and it offers a broader and more natural range of tonal colors. But that is to rather miss the point. The S7i might well be considered a natural partner for the Continuum S2, as might Rowland's own Aeris DAC, but both come at a heavy price. The internal DAC option offers both a viable stop-gap solution -- one that will easily outperform equivalently priced freestanding units -- or a step up in performance for a secondary source. In either role, its crisp, clean, dynamic and purposeful delivery, full of drive and energy, will make it welcome.

As well as the CEC, I found myself using the Naim UnitiServe for much of the review period. This UPnP network server solution, connected via its own S/PDIF output rather than a separate streamer, seemed like the natural partner for the no-nonsense approach of the Continuum S2. Its mellow, relaxed sound and typical Naim sense of musical pace offered the perfect source for the internal DAC's positive sense of musical purpose. Sure, if I hooked up the dCS Vivaldi it was only too obvious what I was missing, but for general musical enjoyment and non-critical listening this iPad-driven source component/library was ideal -- and I can see the internal DAC card fitting right into this role. Some will question the absence of a USB input, but that reflects the geographical divide when it comes to file-replay solutions. It is ironic that the Continuum hails from the US of A, hotbed of USB activism, while it actually offers the perfect solution to standalone network-based solutions. This is one dichotomy that remains (and needs) to be resolved, but it's also a debate that's well beyond the scope of this review. Suffice to say, every



*The Continuum S2's line-stage,
mounted against the rear panel.*



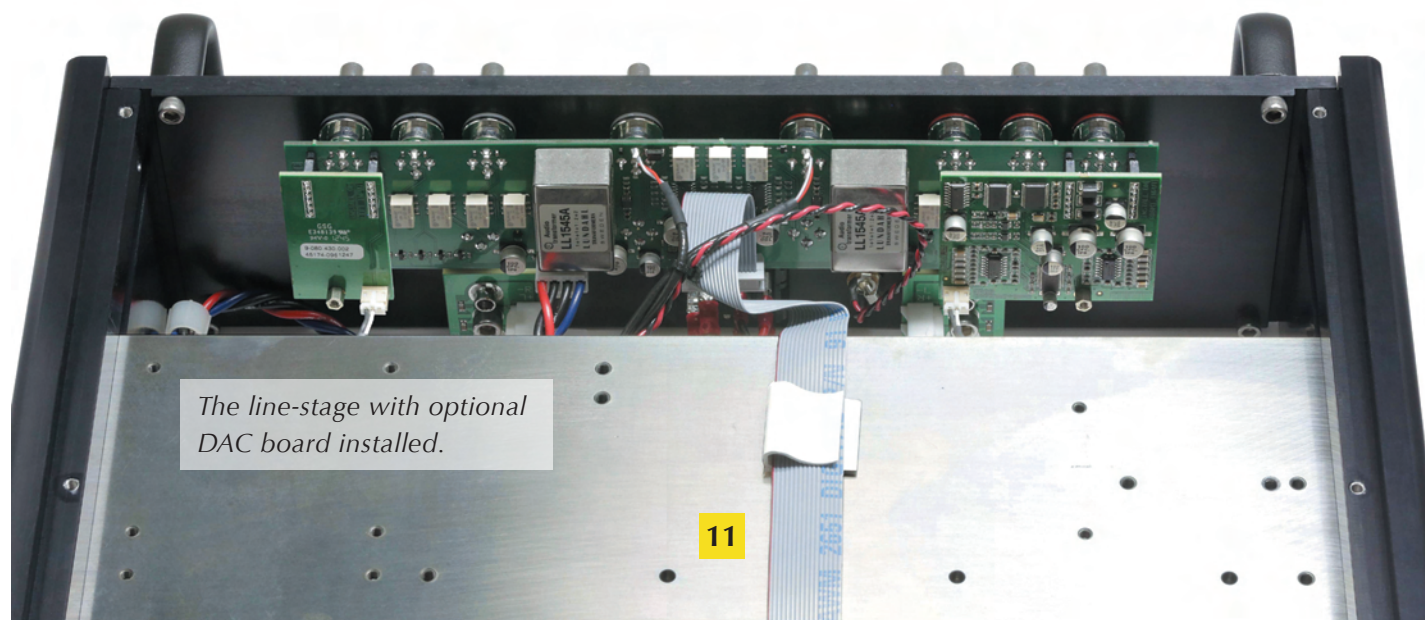
time I moved the Continuum, I seemed to be moving and reinstalling the UnitiServe too -- which pretty much tells its own tale.

It would be easy to assume that, in much the same way that the DAC is an ideal stepping stone or secondary source solution, the internal phono option is best considered a stop-gap, unlikely to satisfy those looking for the last word in vinyl replay. In practice it's a lot better than that, offering a step up in performance over the DAC card and in many cases I suspect that it will be as much phono stage as many listeners will want and a better phono stage than they've ever had. In many respects that should come as no great surprise; from standalone devices like the Michell Iso onwards, simple but carefully executed IC-based phono stages have demonstrated just how capable and cost effective they can be. Shackle this one to the kind of power supply and electrical infrastructure that go with the Continuum internals and the results are exceptional given the price.

With a choice of three gain settings and three different loadings, all set with internal jumpers, it provides enough adjustability to meet most requirements, not so much as to confuse. With gain settings of 40, 50 and 60dB (on top of the 14dB in the line stage) the internal cards will handle MM (>3.0mV output), medium/high-output moving-coil (>2.0mV) or low-output coils (>0.4mV), while the loading options of 100 ohms, 400 ohms or 47k ohms are equally well chosen and will cover most of the popular cartridge options. The only caveat here is that the tiny jumpers used to set values make this a true "fit and forget" solution. If you want to adjust gain or loading you'll be pulling the amp out of the rack and lifting the top plate, so having (or your dealer having) a good idea of the optimum values for your cartridge and system is a real bonus.

In use, the Continuum phono cards are a model of precision, transparency and focus, qualities that dovetail perfectly with the clarity, presence and musical flow delivered by the rest of the amplifier. Play a naturally recorded vocal and you'll quickly establish just how musically subtle and expressive they are. Maria Pihl's pared-back live performance of "Halleluja" (from *Singing Other Songs*. . . Meyer Records Vol. 1 [Meyer Records No 150]) rests on her emotive vocal and Peter Stirner's acoustic-guitar accompaniment. The images are beautifully scaled and stable, locked in space. Again, the emphasis is clearly on the space between the performers rather than the acoustic as a whole, but the convincing diction and intimacy in the vocal, the body, weight and strings of the guitar (as well as the odd flat note) hold your attention so securely that the wider space ceases to matter. If a great system is all about putting performers in front of you, then playing records through the Continuum S2 is a pretty darned cost-effective way of achieving that goal.

The challenge for any high-resolution phono stage is giving access to the music buried in those vinyl grooves without letting the storage medium and its shortcomings intrude. I can't say that the Continuum S2's phono cards are particularly kind to surface noise -- they're too quick and extended for that -- but they do have the happy knack of reproducing clicks and pops in a completely different plane to the music. During the review period I picked up an early EMI ASD pressing of Menuin leading Bach Violin Concertos and the Double Concerto with Christian Ferras [EMI ASD 346] in my local thrift shop. The surfaces were a little grubby but otherwise appeared "clean" to the eye, and after a quick bath I gave it a spin to see just what I'd got. As with a lot of older records, the condition wasn't quite as pristine as it first seemed,



The line-stage with optional DAC board installed.



with the typical rustle and odd pop on the first section of each side -- but I was impressed by not just the natural space and perspective afforded the performance by the recording, but the way the system kept the spurious noise from intruding. It was there -- and you couldn't miss it -- but it was held so separate from the playing and players that it didn't prevent me enjoying this classic reading.

The true vinyl devotee will probably want more facilities and more performance than the Continuum S2 phono cards deliver. Greater tonal differentiation and insight would be nice, as would switchable EQ curves -- but at what price? I compared the internal boards to several of the standalone units I have in-house and they consistently delivered a quicker, cleaner sound with far greater poise and structural clarity than the external options -- and at a lower cost too. These are no afterthought or make-weight option, but a genuinely capable vinyl replay solution. For listeners who want continued access to an existing vinyl collection, even as they transition to or reinforce a greater reliance on digital media, they'll be a godsend -- as well as being a more than capable answer for the more dedicated vinyl listener while he waits until his bank balance recovers enough (after buying the S2 and/or a turntable, 'arm and cartridge) to afford the standalone phono stage of his dreams. Don't overlook the Continuum S2's phono stage on the basis of price; you could be very pleasantly surprised.

The whole enchilada

Here's an important warning for all fans of great Mexican food: You won't find it in Europe -- you definitely won't find it in Britain. Over here the subtlety in the spicing, the quality and variety of ingredients, the layering of flavors all get lost in translation as dishes collapse in on themselves, becoming single, homogenous entities. It's not something our own one-dish dinners escape either -- which might explain why the Continuum S2 constitutes such a welcome surprise. The fully loaded Rowland integrated is that rarest of beasts, an audio bargain that achieves musical greatness without cutting corners.

It's not simply that it successfully manages to combine multiple functions (phono/DAC, line and power stages) into one box, eliminating multiple costly casings, packaging and paraphernalia; in doing so it

also eliminates the interface issues, cabling conundrums and support requirements that go with the complex, multiple-box solutions so beloved by the high end -- and all the potential problems that go with them. In a world where

system infrastructure (and the damage that can be done by inadequate or inattentive system setup) is so poorly appreciated, the one-box solution delivered by the Continuum S2 also imposes its own internal discipline, not just avoiding potential pitfalls but eliminating them altogether. The result is not just a product that is capable of great performance, it's a product that will deliver that performance more often than not -- a quality that's not to be sneered at. Just take a walk along any corridor at any hi-fi show to appreciate just how much audio equipment underperforms as soon as it passes through the factory gates!

Sitting at the heart of a well-balanced system, the Continuum S2 really can be most things to most people. The majority of my listening centered on the Wilson Benesch Square Five (itself something of a bargain), the Raidho C1.1 and the Focal Scala Utopia V2. In each case I kept thinking that I'd found that happy match, a union where the two halves really click, creating a whole that's greater than the sum of the parts. Eventually it dawned on me that actually the Continuum S2 simply has that happy knack of bringing out the best in its partners. It does big, it does loud and it does small and quiet. Unlike most Class D amps that I've heard, it also excels at the transition from one to the other. Its temporal security gives music a tangible sense of shape and a sure-footed agility, helped by the fact that despite its undoubted power, it sounds neither heavy nor earthbound. Bass is deep and powerful when necessary, but it is also poised, subtle and, when necessary, insistently propulsive. Tonality is natural, if not overly rich, and familiar voices are just that -- instruments instantly identifiable and separated with ease.

What the Continuum S2 promises is a more elegant and in many cases more capable system solution -- one that doesn't compromise on performance or those aspects of functionality that really matter. What it actually delivers is more elegant and in many cases more cost effective. Okay -- you get the picture. This is the integrated amp that really does do what it says on the tin. It will drive most speakers, accept enough inputs for most listeners, do it gracefully and in a modestly sized package whose presentation puts most of the high-end competition



to shame irrespective of price. Excuse my slightly shell-shocked reaction, but after all those years of broken promises, it really is a bit like coming across Charlize Theron in full red-carpet regalia, halfway down the dry-goods aisle at Walmart. Sure, your personal taste might run to brunettes, and you might also look for a slightly cuddlier form, not quite so clear of structure and line. But overcome your preconceptions, spend a little time in its company, and I'd be astonished if you don't find an awful lot to like in the Continuum 2.

Beautiful to look at and beautiful to use, compact, elegant and versatile, the Continuum S2 is a genuine and highly accomplished all-rounder, as well as being a master of that one thing that really matters -- projecting a credible, involving and communicative sense of performance into your listening room. So much more

than just a go-to solution for those who can't be bothered, it could easily become that final stop on the long and winding road that many an audiophile has traveled, constantly swapping equipment in search of nirvana. The very antithesis of hobbyist tweakery, the Continuum S2 just does it -- without fuss or fanfare. For me at least it has scored something approaching an audio hat-trick: an integrated amp that establishes a new benchmark for one-box performance, an affordable amp that actually delivers on the promise of class-D amplification, and a genuinely versatile single box that actually delivers a genuine whole system solution.

The price of owning an all-Rowland system just got a lot more affordable. It's no coincidence that the price of genuine high-end amplification just got more affordable too.

Price: \$9500 (\$9950 inc. DAC, \$9850 inc. Phono).

Warranty: Five years parts and labor.

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Associated Equipment

Analog: VPI Classic 4 turntable with SDS; VPI JMW 12.7 and Tri-Planar Mk VII Ull tonearms; Lyra Titan i, Scala, Dorian and Dorian Mono cartridges; Clearaudio Goldfinger Statement cartridge; van den Hul Condor cartridge; Allnic Puritas and Puritas Mono cartridges; Nordost Odin tonearm lead; Connoisseur 4.2PLE phono stage.

Digital: CEC TL-3N CD transport, Wadia S7i CD player, dCS Paganini and Vivaldi transports, Wadax Pre 1 digital control unit.

Preamps: Aesthetix Janus, Connoisseur 4.2.

Power amp: Aesthetix Atlas Stereo, Audionet Amp 1 v2.

Speakers: Wilson Benesch Square Five, Raidho C1.1, Focal Scala Utopia V2.

Interconnects and speaker cables: Complete looms of Nordost Odin, Crystal Cable Absolute Dream or Ultra from AC socket to speaker terminals. Power distribution was via Quantum QRT QB8s or Crystal Cable Power Strip Diamonds, with a mix of Quantum Qx2 and Qx4 power purifiers and Qv2 AC harmonizers.

Supports: Racks are Hutter Racktime or Quadraspire SVT Bamboo. These are used with Nordost SortKone equipment couplers throughout. Cables are elevated on Ayre myrtle-wood blocks or HECC Panda Feet.

Acoustic treatments: As well as the broadband absorption placed behind the listening seat, I employ a combination of the LeadingEdge D Panel and Flat Panel microperforated acoustic devices. These remarkably simple yet incredibly effective acoustic panels have become absolutely indispensable when it comes to hearing what the system is actually doing.

Accessories: Essential accessories include the Feickert protractor, a USB microscope and Aesthetix cartridge demagnetizer, a precision spirit level and laser, a really long tape measure and plenty of masking tape. I also make extensive use of the Furutech anti-static and demagnetizing devices and the VPI Typhoon record-cleaning machine. The Dr. Feickert PlatterSpeed app has to be the best ever case of digital aiding analog.