## MOON Evolution Series 850P Preamplifier & 880M Mono-Bloc Amps

February 22nd, 2012 -- by Roy Gregory

Source: HiFi+

Simaudio's MOON series electronics are a well-established face on the UK hi-fi scene, with an enviable reputation for solid engineering underpinning excellent sound. For many a dealer they are fast becoming the "go-to" choice, capable of delivering musical performance in a whole host of different system situations. That's an enviable position for the mainstream MOON series electronics to occupy, but the MOON Evolution series, and especially these flagship models need to offer a bit more than that.



MOON Evolution Series 880M Mono-Bloc Power Amps

The 850P pre-amp and 880M mono-blocs supersede the P8/W8 combination, the difference in designation in part reflecting what the company feels is a significant step up in performance (as well as price in the case of the 850P). As always with MOON products, the evolutionary nature of their development means that the changes on paper, one model to the next, might appear small. But the scale of such incremental advances aren't necessarily reflected by the advances in sonic performance and this pre-power combination is not just the most impressive pairing I've heard from MOON (and by some distance), it is genuinely impressive by any standards. But let's start at the beginning and see what goes into these products. The 850P (£19K) shares a number of important features with its predecessor (the £14K P8) including the now familiar twin chassis format, with audio circuitry in one box and power supply and control circuitry in the other. That power supply features no fewer than three of MOON's proprietary toroidal transformers. These use special core materials and vacuum encapsulation to create designs that are smaller, more efficient and generate less vibration than equivalent conventional units. In this case they feed no fewer than 40 individually filtered supplies for the fully differential, dual-mono audio circuit. Parts in the signal path have been revised and upgraded, particularly when it comes to the silicon, whilst the 850P employs the same stacked circuit board topology as the P8, a complex and costly exercise, but an approach that, in combination with the use of four-layer boards, significantly shortens the signal path. But the real advances are in the physical construction of the unit. The rigidity of the casework has been improved with thicker panels, while in the case of the PSU it is now also smaller, making it the same size as the audio chassis as well as also further improving the stiffness of the structure. Of course, that doesn't actually help unless you provide an exit route for stored energy. Thankfully, the MOON's rigidly coupled feet do exactly that. But the biggest change is internal, where the audio circuit board is now suspended on an octet of high-performance (and high priced) polymer isolators to further eliminate microphonic effects. Taken together these measures have reduced the signal to noise performance of the already extremely quiet P8 by another 3dB, making the 850P not only a serious contender for the title of World's Quietest Pre-Amp, but pushing its performance to the limits of current measurement techniques. All Evolution series units share the same chassis design, with its four legs and adjustable cone feet – just don't be tempted to stack the 850P's two boxes. Do so and you'll seriously erode the low-level resolution and transparency.

The 850P has a total of seven line inputs (there's a matching, standalone phono-stage on the way). Like most modern pre-amps, the 850P employs a discrete resistor array to set level in 0.1dB steps. Where it differs is in the beautiful weighting of the rotary knob and its associated control logic, which is equally beautifully judged, offering two carefully chosen rates of change on the knob itself and three on the remote. Finally, the sensibly low 50 Ohm output impedance should eliminate any question of matching issues. The 880M mono-blocs share the same improved chassis mechanics as the pre-amp and offer considerably more power than their predecessors. With 32 bi-polar output devices per channel, their selection and the details of their deployment are key to the amplifiers' performance. MOON employ a carefully selected transistor that has been further refined to their specifications. The circuit is fully differential throughout, but unusually, each output device is individually decoupled (one from another) to further lower the output impedance and increase the damping factor - to a figure of 2000! Like all MOON amps (and pre-amps), the mono-blocs are global feedback free and DC coupled throughout. According to MOON the amps are unconditionally stable and run to 10 Watts in Class A. Both the 880M and 850P feature DC servos to eliminate the risk of inadvertent damage to loudspeakers; with 800 Watts on tap, smoking your drive units with a moment of loud carelessness is all too real a possibility.

You want loud, there's few better places to look than the Thin Red Line OST, with its combination of sheer scale and massive dynamics. Yet it is also a subtly crafted piece, full of the texture and delicate detail. The epic 'Journey To The Line' ably displays the MOONs' grace under pressure and unburstable appetite for massive dynamic impact. The huge drum crashes that underpin the central crescendo seem bottomless in their depth and weight, without ever being ponderous. Whilst MOON describe the output stage of their amps as unconditionally stable irrespective of electrical load, it's a terms which could equally be used to describe their musical performance.

Running the MOONs over this particular musical obstacle course, quickly reveals two things: the sense of musical purpose and sheer momentum that characterized early big MOON amps has survived intact, but here it's combined with a significant increase in subtlety and the preservation of low-level detail; but more importantly, to hear these benefits you'll need to get your listening level just so, which probably means slightly louder than you expect. Don't worry, the MOONs can handle the dynamic demands, even if your existing amps can't. Lose your bottle and back off the volume and the pace and momentum of the track rapidly dissipates, becoming just impressive (and rather bombastic) noise rather than effective music.

Don't underestimate just how musically critical (and demanding) these amps are. Get that (beautifully weighted) volume control set to just the right level and you'll be swept away; anything else and the results can be distinctly ho-hum. These amps are all about the dynamic envelope and scale of real life, real instruments, real performances – and that includes the volume. In fact, they insist on it.



MOON Evolution Series 850P Dual-Mono Preamplifier

As important as the level is to large-scale works like The Thin Red Line, it becomes even more critical and apparent with smaller scale pieces. Switching to Shawn Colvin's Steady On, and the track 'Shotgun Down The Avalanche', even at optimum volume, the Moons lack the

immediacy and startling projection, the almost ghostly naturalness of the vocal that set this track apart. The stop-start conjunction of verse and chorus, the way the instruments punctuate the phrasing, the way that shifts in playing pressure accent the track and drive it along – all these things are diminished. That is, they're diminished until you dig out the LP,. It's another example of just how critical or revealing the MOONs are when it comes to performances and the media on which they're stored. What I'm describing here is the discrepancy in quality between the original LP and the CD transfer.

The MOONs offer a more holistic, contained version of events. Those sleigh bells, the attack on the driven guitar chords are all held in the same acoustic space, rather than given the emphasis of those other amps. Which you prefer is down to personal taste, but throughout the listening period the MOONs resolutely refused to exaggerate the music they played. So, what you hear is what is there – just don't expect the MOONs to sweeten things or make the sound any more cuddly.

The MOONs still can't quite match the rhythmic articulation and deft micro-dynamic expression of small amps or the OTL Bernings. But the cost here is much smaller than anticipated, especially given the load tolerance and sheer potential energy on tap. What's more, as the musical forces involved increase and the density of the recording fills in, the MOONs find their feet. The stark clarity of 'Shotgun...' presents them with their severest test. Stepping up to Short Sharp Shocked with its more fluid, traditional arrangements and fuller sound, the results are significantly better. Step up again, this time to Neil Young's Sleeps With Angels and the MOONs' absolute stability and seamless top-to-bottom continuity really come into their own. 'Safeway Cart' basks in the easy dynamic grasp of the big MOON amps, its measured tempo and the natural attack and shape of the deep guitar notes giving it a real sense of direction and musical purpose, perfect contrast with the fuzz guitar fills and the bleak subject matter. The result is a musical and emotional tour de force.

Neil Young to Beethoven might seem like a bit of a reach, but DGG's SACD transfer of Carlos Kleiber's supreme 7th (with the Vienna Philharmonic) draws all these strands together to brilliant effect. The second movement employs much the same measured tempo and repeated phrasing that defines 'Safeway Cart', and presents systems with a similar challenge. It's Kleiber's masterful control of the VPO, his direction of the orchestral forces that makes this performance so special. With the MOONs you really hear his influence, the orchestra really does become one. Meanwhile, the 1st offers startling dynamics and tonal shading. It demands a simultaneous shift in level, shading and density, but the 850P and 880Ms simply take it in their stride, without hesitation or any apparent effort.

You'll notice that I've barely covered these amps' tonal character. That's basically because, to all intents and purposes, they don't have one. Yes, they lean, ever so slightly, to the cooler side of neutral, but it's a deviation that's so small that other elements in the system will make much bigger differences. What's much more important is that they are incredibly even from the deepest bass to the highest treble, with no unsightly lumps or bumps to intrude on or distract the listener. In the same way that dynamics — or more properly, dynamic limitations — are not allowed to shatter the musical illusion, tone and to a large extent texture are utterly consistent, never undermining the performers or their performance.

It's this poise, control without constraint, the ability to encompass both the musical and expressive demands of the programme, that marks the MOON amps apart. They allow the different elements and strands in the music to coexist, their relationships in level, time and

space preserved, unimpeded by the nasty, mechanical business of audio reproduction. The MOONs reestablish the world of the performers and invite you in.

Opt for the MOON-light and you'll be rewarded with electronics that while unfailingly critical and demanding when it comes to set-up, partnering equipment and the quality of recordings, are also holistic, natural and unexaggerated in their presentation, and possess an innate sense of balance and poise that (almost) never allows the real world to intrude on the reproduced. These Moon amps are confident, unflappable, evenhanded and so far as I've been able to discover (and believe me, I have tried) unburstable. They also possess a level of musical sophistication, expression and range that escapes all but the very best electronics.

## **Technical Specifications**

## 850P

Type: Fully balanced dual-mono line-stage Inputs: 3prs balanced XLR, 4x RCA Tape Loop: 1x singled-ended RCA Input Impedance: 11kOhms

Input Sensitivity: 200mV - 4.0V RMS

Gain: 9dB

Outputs: 2prs balanced XLR

2prs single-ended RCA (fixed and variable)

Output Impedance: 50 Ohms Weight (total shipping): 32kgs

Dimensions (WxHxD): 18.75x4.0x16.5 each

## 880M

Type: Fully balanced mono power amp Inputs: Ix balanced XLR, Ix RCA Input Impedance: 47.5 kOhms

**Input Sensitivity: 2.25**V

Gain: 31dB

Outputs: 2prs 5-way binding posts Rated Output: 800 Watts/8 Ohms

1.6 kWatts/4 Ohms

Weight (total shipping): 42kgs each

Dimensions (WxHxD): 18.75x7.5x16.5 each

**Manufacturer:** Simaudio Ltd URL: <a href="https://www.simaudio.com">www.simaudio.com</a>

**Distributor:** More Music URL: <a href="https://www.moremusic.nl">www.moremusic.nl</a>