



EQUIPMENT REVIEW

ISOL-8 Substation LC and HC power conditioners

By Alan Sircom

ISOL-8 is one of the country's foremost power conditioning experts. The SubStation Vogue tested last year was one of the best power conditioners we had heard, but the LC and HC raise the game still further. The two – that notionally replace the Vogue – takes the basic concept, sprinkles in some DC blocking and makes it modular. In the process, it makes the SubStation LC and HC two of the must own audiophile devices for 2011.

The two devices look similar, especially from the front, but perform very different functions and are built from the ground up unlike. As the names suggest, the LC (or 'low current') is destined for relatively low-demand sources, such as CD players, preamps

and integrated amps. It has four IP54-grade protected 13A sockets – good for keeping dust and prying little fingers at bay – and a Neutrik power socket for input. It starts with a DC-blocking circuit (used elsewhere in the ISOL-8 range in the PowerLine Axis). Essentially, this corrects the commonly unmatched peak AC voltages creating a DC component on the mains, caused by the power supplies of other devices behaving inappropriately with the mains. The Axis circuit rebalances the AC waveform by eliminating the DC offset. That in itself can do wonders, removing audible hum from power transformers inside components and drastically lowering the noise floor of analogue electronics. Each output is effectively isolated from the others, by ISOL-8's own 'transmodal' filter circuit, which includes both common and differential mode filtration (essentially one set of inductors for common mode filtration and a set of capacitors and another set of inductors for differential mode). In other words, short of a series of galvanically-isolated mains regenerators for each component, you would struggle to get cleaner power than this.

Technically, all the HC (high current) does is halve the number of sockets available (two instead of four) and double



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the current delivery to each of those sockets (16A instead of 8A in the LC). Of course, saying that is easy, doing it is far harder and the higher rating involves a lot more capacitance, more copper foil in the inductors, a higher spec Axis circuit and effectively doubles the weight of the LC. But the concept (DC-blocking, followed by a lot of filtering) remains the same. There are four obvious advantages to separating the two sections out. Physically separating them bestows an extra grade of isolation, although in fairness the SubStation Vogue itself was pretty much the gold standard of isolation between high and low current pathways. Next, it means those with a system comprising CD player and integrated amp (for example) can benefit from the DC blocking and filtering of the LC without the additional weight (and expense) inherent in the HC section. Third, it allows you to grow your power conditioning solution in stages as and when they become important and finally it means those who have the sources and preamps in one part of the room and the power amp in another don't have to traipse long power cables around the room. Given the potentially huge cost of some power cables, that's a bonus.

But do they work? Oh yes! Not only do they work, but they work in a surprisingly uniform and consistent manner. Plug the SubStation between the wall and your equipment and the most immediate point is things just sound quieter; physically (if your system has any transformer hum, be prepared to say goodbye to it) and sonically (it's as if the noise floor of the system just fell away). This is not a subtle difference, but paradoxically, it's one of those things you tend not to notice directly. It's the kind of improvement that makes you pick out a component as sounding 'right' even if you can't put your finger on why it's 'right'.

The more direct improvements are increased detail and a more expansive, more three-dimensional and more separated soundstage. These are more immediate 'stand up and take notice' improvements. John Rutter's Requiem highlights this perfectly; it's a good recording anyway, but there's more of a sense of the live ambience of the hall and it gives more of that ability to pick out individual singers in the choir better than before. In short, the SubStations act to make a good high-end system sound like a better high-end system, and it does that regardless of the quality of the high-end system it feeds. Notice that I've not tried to differentiate between LC and HC here, because that consistency extends to both. What applies to the LC on sources and integrated amps, applies directly to the HC and honking great power amps. What does change is the stance toward using power conditioning on power amps; usually these devices get short shrift when it comes to clean power, but some of this comes down to current demands and conditioner placement. Both of which are resolved here.

Despite the almost unilateral praise, there's limits to all this. There's no point whatsoever using the LC with a turntable, although those decks that use a laptop switch-mode supply to power their motors are potentially undermining the mains for the rest of the sources, and using the LC on other devices will help enormously. In addition, the more energy you put into getting the mains sorted prior to the point where the SubStations are used (those with dedicated mains spurs and beyond, for example), the less you seem to need a SubStation and those who are pursuing a very specific sound that doesn't focus on the detail and soundstaging may find they are improving aspects of performance they don't want improved at the expense of things they seek in their musical portrayal. This could be likened to a guitarist praising the sound of a particular effect pedal, and finding a way of improving the sound of their guitar in general, but undermining that specific effect. Whether that's a trade-off or a deal-breaker, depends on your viewpoint.

For my own standing, the LC (and HC) take already good products that point toward the high-end and high-endify them still further. That enhanced

detail, clarity, better separation and space round the instruments and that almost spooky quiet they bring to backgrounds, is like doubling the cost of every component in the system. I understand that not all systems benefit from such enhancements (the Naim UnitiQute, for example, lost a lot of its character in the process), but those that do benefit, really shine with the SubStations in place. As it's also a power conditioning system that can grow with your system, it's an obvious choice. +



TECHNICAL SPECIFICATIONS

Number of available outlets: 2 on LC, 4 on HC

Power outlets: Protected 13A (Schuko and 15A for EU and US)

Maximum continuous Current: 8 Amps RMS for LC 16Amps RMS for HC

Protection: Rear panel circuit breaker

Dimensions (WxHxD): 23.2x13.5x42cm

Weight: 5.8kg (LC), 10.9kg (HC)

Finish: Aluminium alloy chassis and panels, silver or black

Price: £1,899 (LC), £1,999 (HC)

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