The Power of Clean Power

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As audio translates electricity into sound, it is obvious that the feeding current determines the quality of the performance in a very basic way. Late at night when many polluting devices are 'asleep', listeners often catch a glimpse of what they usually miss out on. However, only when 'power' is addressed comprehensively, one can fully experience how important clean power and clean signals are and what amazing difference in sound quality they can make.

Technical progress has brought about a host of polluters of AC lines, from seemingly 'innocent' devices like energy-saving lamps, dimmers, computers, TVs etc., not to mention industrial-type installations.

Pollution coming directly through the wall socket mains is only one of several sources of degradation. As already a short piece of wire acts like an antenna, AC earth (power line ground) with its many ramifications to all wall sockets in a building, while satisfying the intended safety aspect, picks up high-frequency signals from radio frequency transmitters (radio-/TV stations, WiFi, mobile phones, etc.). This high-frequency hash is ready to creep into audio circuits when signal-ground is linked to an AC grounded chassis.

Even more critical is the situation when unshielded power or signal cables are used to connect audio or video equipment, not only because they similarly pick up interference but as there are often bundles of cables coming together, they also 'talk' to each other, ie they act both as emitters and receivers – those connected to digital equipment being the 'loudest' and the most sensitive at the same time. Another overlooked 'port of entry' for parasitical disturbances are low quality connectors and poor contacts in general.

If all that resulting degradation is to be fought successfully, it has to be done on several levels. Ordinary filtering has its downsides for audio, particularly when it has to be grounded or earthed (see above). Ensemble has therefore developed a comprehensive 'clean signal' concept. Avoiding traditional filtering, it is based on the following measures :

1) Use of very effective shielding in power and signal cables, as prevention is always better than cure

The Ensemble SILINX™ EXTREMA power cable is protected by three global and an individual film shield for each electrical conductor, a total of nine shields. As these extreme shielding measures are coupled with low transfer impedance and supplemented by crosstalk-cancelling topology, internal damping of micro-vibrations and the lowest possible dielectric absorption, the result is not only undisturbed transmission of AC power and an ultra-low noise floor, but also a fantastic improvement in sound quality. More information on the Ensemble cables in a separate leaflet.

2) Build quality

Ensemble electronics represent a build quality similar to medical equipment and therefore require no AC grounding. An important interference path is therefore quite simply not present (or, in the case of the amplifiers as the 'hub' of a system and earthing therefore a de facto standard, a choke coil guards the earth path).

3) Distribution of AC in the best possible quality: the Ensemble POWER LINK™

The distribution unit can dispatch AC to eight pieces of equipment. Housed in an aluminum chassis to maximize high-frequency interference rejection and fitted with excellent contacts, the POWER LINK also sports a phase indicator, ie a blue LED that lights up when the unit is powered in correct phase. This feature allows operation of all attached equipment with the lowest possible stray currents (voltage to ground), further reducing the noise floor.

4) Use of an isolation transformer for source equipment: **the Ensemble ISOLINK™** (see page 3)

The Ensemble amplifiers FUOCO™ and EVIVO™ have their own isolation transformers.

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ISOLINK™

ISOLATION TRANSFORMER

SONDORO™ series

The Ensemble **ISOLINK** is the 'magic' link. It adds the touch of perfection to a music system, making hifi components outperform themselves.

The ISOLINK is much more than a power line filter, because it is not a filter in the ordinary sense. It operates without need for AC grounding (as filters normally do), and thereby avoids a potential source of pollution and degradation, and it does what power line filters cannot do: the galvanic isolation between primary and secondary, between what is usually the power drawn from a wall socket and the power at its output. A hifi source component that is powered from the output of the ISOLINK is therefore electrically isolated from the rest of the system - neither can it pollute (what most digital equipment normally in some measure does) the rest of the system (sensitive analog and digital circuits), nor can any other item of the system negatively influence that isolated component through the power line. Each component can therefore play and perform under the most ideal conditions.

The ISOLINK is a highly researched piece of transformer technology that has little in common with ordinary isolation transformers as used in electrical installations for safety purposes. Made to medical equipment specifications, an inner screen provides effective interference rejection and has the ability to attenuate overvoltage spikes up to 20 kHz. Due to a special topology, creating a magnetic field of very limited stray radiation, and a high efficiency core, the ISOLINK is extremely fit to respond to fast-changing current demands.

The **ISOLINK SONDORO** takes the concept two important steps further. A specifically developed coil, working in tandem, strengthens the ability to ward off spurious, distorting upper harmonics and redresses sinusoidal characteristics.

While the ISOLINK transformers are floating free from chassis and AC ground, a separate earth path for equipment that needs AC grounding is provided all the same. To optimize this path a specifically designed safety choke coil helps to attenuate high-frequency interference.

The **ISOLINK DUO** model houses two entirely separate units rated at 175 VA and 250 VA, each with its dedicated input, in a chassis of the same design as the electronics. (The **UNO** model, available on special order, just has the 250 VA transformer). While the inputs are switchable between 115 and 230 V, on the output side each transformer has a dedicated 115 V (American/Nema 5-15) and a 230 V (Continental European/Schuko) outlet [=standard model]. Following the Ensemble MICROSORB™ concept of providing optimal vibration control, the two transformers are decoupled from the chassis. A partition further isolates them electromagnetically from each other.

Once Ensemble cables are installed, the sonic improvements will first seem like magic, as one would never expect them to be so big and comprehensive. The music starts to shine and sparkle, has harmonic shades and touches unheard before. Musical information is coming through for the first time, contexts open up, musical insights are born. Transients and complex rhythmical passages have the room to unfold, and the dynamic scale is widened to an extent that even the smallest differences come to life. The music reaches out to a new level of coherence, set against a quiet, naturally spaced envelope that lets the music expand and breathe. A new level of experiencing music.

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ISOLINK™ SONDORO — POWER LINK™

SPECIFICATIONS

ISOLINK™ SONDORO

Type of transformer	split-core, for IEC class II (= earth-free) operation (4000 V isolation between primary and secondary) Input voltage switchable between 115 V 50/60 Hz and 230 V 50/60 Hz
Outputs	115 V / US (Nema 5-15) and 230 V / General European Type (SCHUKO) [Standard model]
Power rating[1)]	DUO model : 250 VA and 175 VA constant (UNO model : 250 VA constant)
Fuses	250 VA transformer: 2 x 3.15 A T for 115 V operation 2 x 2 A T for 230 V 175 VA transformer: 2 x 2.5 A T for 115 V operation 2 x 1.6 A T for 230 V All fuses are 5 x 20 mm slow-blow, high-current (>35 A), 250 V type
AC ground	independent of transformer, with safety choke coil
'Power on' light	linked to 250 VA transformer 115 V LED light (BA9s bayonet socket)
Chassis	epoxy-lacquered steel mechanical decoupling of transformers
Dimensions (wdh)	395 x 315 x 135 mm (15.5" x 12.4" x 5.3") 550 x 430 x 350 mm (21.6" x 17" x 13.8") boxed
Weight	DUO model: 18 kg (39.5 lbs), boxed: 21 kg (46 lbs) shipping weight (UNO model: 14 kg (30.8 lbs), boxed: 17 kg (37.5 lbs) shipping weight)

POWER LINK™

Input	International standard appliance coupler IEC 320 / C14, 15 A / 125 V , 10 A / 250 V
Outlets	Model 1: 8 General European Type (SCHUKO), 16 A / 250 V Model 2: 8 US-Type (Nema 5-15) sockets, 15 A / 125 V
Power rating [1)]	Total maximal power to be consumed by equipment connected to it: Model 1: max. 2500 W / 230 V Model 2: max. 1800 W / 125 V
Phase indicator	blue LED lights up when distribution unit is powered up in correct phase
Phase orientation	right-hand contact (as viewed from front), on input (IEC 320/ C14) as well as on US (Nema 5-15) and European (SCHUKO) sockets
AC ground	electrical input must see a 3-pole cable carrying a ground (earth) contact
Chassis	aluminum chassis with upholding brackets; vibration-absorbing feet, adjustable in height; option: chassis flat-lying, with simple sides
Dimensions (wdh)	542 x 95 x 141 mm (21.3" x 3.7" x 5.5") 590 x175 x 100 mm (23.2" x 7" x 4") boxed
Warranty	2 years on parts with the exception of faults due to mishandling, unauthorized modification, or overload

[1)] The actual power consumed by the equipment connected to the Isolink

MADE IN SWITZERLAND

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