

lumenwhite

mystere



superlative

limited edition turntable

a tour-de-force in ultra-precision engineering,

psycho-acoustic research,

true balanced-spectrum materials, design and construction

for ultimate signal fidelity,

sonic realism and

harmonic integrity in

lp playback.

drive train

proprietary, direct coupled drive train and air bearing technology, developed in cooperation with a leading technical university research laboratory.

cogging free, multiple pole, high torque motor, designed and built to molecular-mechanics research standards. exhibits zero disperse magnetic flux effects.

motor spin capacity of up to 1.2 tons eliminates all groove-tracing "brake" and speed-variation effects from the platter, providing dynamic signal tracing fidelity and timing precision well beyond conventional belt drive, direct drive and idler wheel drive technologies.

re-programmable, "soft" algorithm, logic drive controller with 16 million times per rotation (320000 x 4096) resolution adjusted for speed ripple < 0,08.

"virtual-constant-counterforce" technology eliminates "after the fact" regulation impact and regulation-impulse overshoot effects present in alternative control systems.

electronic speed selection, 33 and 45 rpm (78 rpm & other formats on request).

bearing

custom aerostatic platter bearing, designed and built to molecular-mechanics research standards for the lowest, technically possible, bearing friction under all climate conditions.

maintains the platter fully air suspended with zero mechanical contact to the rest of the turntable. provides ultimate immunity of the grove reading process from environmental mechanical impacts and chassis-to-platter energy feedback and feed-through effects.

platter radial run out (spindle centering) and axial run out (planarity) < 1 micron.

platter

high inertia, resonance-optimized, variable curve and angle geometry platter, manufactured from proprietary "balanced-spectrum alloy"tm.

dramatically reduces parasitic resonances, standing wave-, energy storage- and delayed-release- (memory) effects.

resonance-optimized design and materials avoid parasitic and out-of-band resonance and energy storage effects, rendering the application of always signal altering and - annihilating damping measures unnecessary to start with.

resulting in superior groove decoding precision without time-smear, overtone obfuscation and loss of emotionally crucial subtle musical content - by design.

chassis

modular chassis construction. proprietary, "balanced spectrum"tm alloy core with optimized mechanical grounding and vibration energy evacuation design. selected, psycho-acoustically conforming, instrument grade materials and assembling techniques.

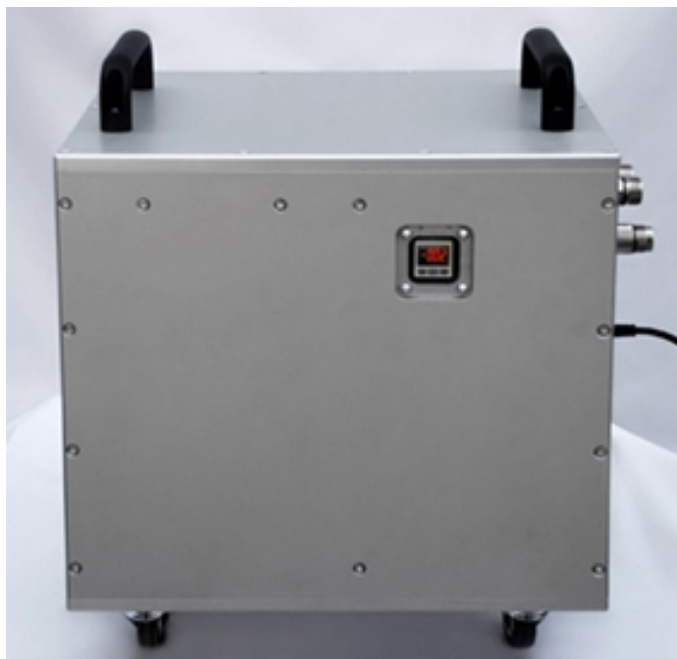
design free of damping compounds, aggressive synthesis- and unnatural spectrum materials, results in unprecedented preservation of natural voicing and overtone harmonics, subtle transients and time-structure information.

proprietary, patented, "mechanical diode" decoupling system provides a predominantly one-directional vibration evacuation pathway - out of the turntable - via precision machined, ultra-coherent, controlled crystallization -vector materials.

interchangeable, solid wood frame, available in ebony, palisander and rosewood. additional woods and black piano lacquer available on request.

air-supply

self contained, laboratory standard compressor unit with integrated air-filter and reservoir, cooling and moisture extraction facilities. logic controller with comprehensive safe-run and protection routines. digital air pressure and status display. generously oversized 24/365 components and design for longterm reliability and least maintenance use.



dimensions

turntable: 50 cm wide and 40 cm deep, weight 45 kg,

outboard compressor & controller unit: 54 cm long, 40 cm wide, 40 cm deep, weight 45 kg,

integrated air supply and drive control interlink cable 2 m (additional lengths up to 10 m on request)

universal voltage design

certified CE, RAEE, ROHS

designed by

lumen **lumenwhiteresearch** group

switzerland

manufactured in the eu

lumenwhite

“mystere”

selected technologies commentary

controlled energy design

the core elements of the “mystere” turntable apply multiple, variable curve and angle geometries and selective asymmetric element design to counteract the creation and amplification of standing waves, local energy concentration effects and related parasitic resonances. they allow for fastest settling times with regards to excitation energies caused by the record playing process and environmental impacts affecting the turntable.

resonance optimized components and design

a decade spanning research initiative in the systematic mapping of the specific sonic signatures and resonance patterns of numerous materials, design choices, geometries and their various interaction patterns - allows us to implement them specifically during the design process in order to achieve local tuning effects and resonance neutrality of the overall design.

this approach avoids a multitude of parasitic sonic effects from arising in the first place and provides for an efficient neutralization of others without the application of traditional damping measures, avoiding the latter's signal-altering, -annihilation, content obfuscation, editing and time-smear effects.

the target of this very elaborate, detail-intensive and time-consuming design approach is to achieve the best possible acoustic and emotional vanishing of the playback technology from the listening experience.

a significantly higher level of “true-fidelity”, closer to the masterband-, closer to the original event-experience, and resulting genuinely deeper emotional involvement of the listener, is the result.

sonically optimized platter

the “mystere” turntable platter's balanced-spectrum(tm) alloy and variable curve and angle design counteract parasitic resonance creation and uneven energy distribution & concentration-, storage-, -reflection-, -amplification and delayed release (memory) effects, resulting in superior signal fidelity and audibly refined natural sonics.

testimony to its advanced design, no mat has been found yet to improve its sound.

immunity to airborne agitation energy

the “mystere”'s elegant chassis and platter designs not only provide for visual elegance and timeless style; its multiple, variable-angle profiles also significantly reduce the turntable's sensitivity to excitation via air -transmitted sound wave energy when compared to conventional, constant -surface designs.

airborne agitation is a widely ignored source of signal degradation in turntables, and omnipresent in listening rooms due to ample quantities of loudspeaker generated air motion.

psycho-acoustically conforming, instrument grade materials and construction

consequent avoidance of aggressive-synthesis and unfavorable spectrum materials.

the “mystere” turntable is assembled from selected, instrument grade materials, chosen for their psycho-acoustically benign sonic signatures which helps avoid perceptual stress and the onset of listening fatigue resulting from the inflationary use of multitude of psycho-acoustically inferior materials which have become the backbone of current audio manufacturing routines.

modular design and upgradability

the “mystere” turntable system is based on a modular design concept which allows for all core components of the system to be easily exchanged, providing for easy upgrade path and superior longterm value. owners of the systems will be notified when future upgrades or add-ons to the system become available.

correcting record production artifacts

a promising research perspective

the “mystere”'s clean spectral signature and outstanding transparency make it a superbly tuneable acoustic device and as such ideally suited for the compensation of equalisation effects caused by the record production process.

a first set of suitable tuning & voicing accessories is currently under research. applicable and removed within seconds by the user without any special expertise, they permit for overtone-robbed, compressed or otherwise over- processed recordings to be played back with improved naturalness, overtone splendor and emotional depth by rebalancing the overall signal spectrum.

as a side effect these capability of the system allow for a comprehensive revoicing of a complete playback chain where local conditions make such necessary or desirable.

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