3 series

Reviving the Soul of Sound

Reviving the Soul of Sound

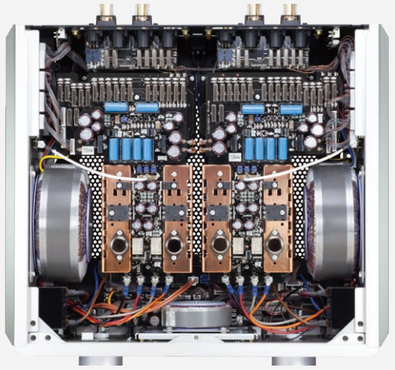
INTEGRATED AMPLIFIER A-3

PHONO EQUALIZER E-3

STEREO POWER AMPLIFIER A-3core

INTEGRATED AMPLIFIER A-3

Completely separate GND with integrated amplifier
P-3 (pre-amplifier) and 2x M-3 (monoblock) into one enclosure without compromise

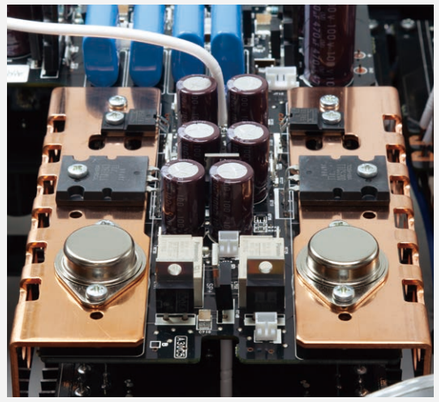


Complete separation of left and right channel GNDs

The GND separation technology incorporated in the P-3 pre-amplifier is applied to this model with a power amplification circuit. Originally, how to ground the GND of a power amplifier that handles high current to the chassis was a key design issue, and there is no precedent for GND non-grounding. However, ungrounding of the power amplifier's enclosure was achieved through simple non-NFB circuits, optimized artwork design, minimization of high current loops, elimination of inductance components, and other factors. This led to the birth of the integrated amplifier A-3 with completely separated left and right GND. Furthermore, by separating the control signals of the selector, volume, protection circuit, and other relays with a photocoupler, we could achieve complete GND separation, taking capacitance and inductive components into consideration. The three-dimensional sound field space and spaciousness are the new frontiers of integrated amplifiers.

4-stage Darlington configuration with super-powerful driver and pre-driver

To drive the TO3(Metal CAN-type) transistor easily, ultra-powerful TO3P transistors are used in the driver as well as in the pre-driver. Ensuring perfect current supply all the way to the bottom end without regard to hfe fluctuation at high currents makes it possible to achieve both deep expressiveness and an exciting groove.



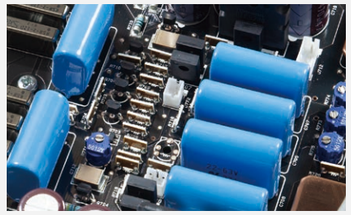
Single push-pull output stage

The output stage uses a single push-pull SEPP circuit with a TO3(Metal CAN-type) bipolar transistor as used in the M-3. It realizes blur-free music reproduction with correct timing from ultra-low to super-high frequencies. The heart-stirring music reproduction is the result of the single push-pull that does not break the micro time axis accuracy.

Copper bus bar heat sink

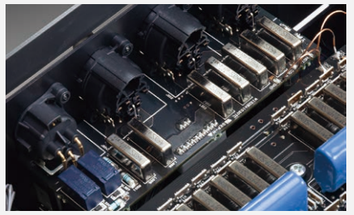
A lightweight, compact copper plate is used as the main heat sink. This heat sink also serves as a bus bar for supplying power to the TO3(Metal CAN-type) transistor, and the terminals of the TO3(Metal CAN-type) transistor penetrate the bus bar and are mounted directly on the board underneath. This eliminates wiring, which is a drawback of the TO3(Metal CAN-type) transistor, and helps overcome instability caused by the inductance component, while at the same time avoiding sound quality degradation caused by the insulation sheet dumping on the device. The sound quality effect is also extremely impressive, with a sense of freedom and transparency due to the physical independence of the heat sink from the chassis. Furthermore, in the A-3, the power supply board and amplifier board are connected by a bus bar heat sink, which also serves as a structural component to form a block. It is truly a "four birds with one stone" heat sink.

New Type-R circuit, fully balanced non-NFB



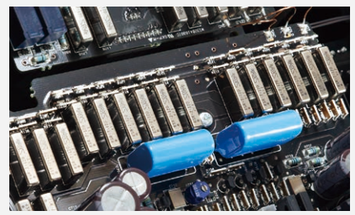
For voltage amplification, a newly developed high-gain-to-GND single-stage Type-R circuit is adopted. Naked foil resistors are used generously for all resistors involved in amplifier operation.

GND switching input selector



The selector that disconnects to GND was an important point of the P-3. This is also employed in the A-3. It eliminates sound quality degradation caused by GND loops that occur when many playback devices are connected. The highest grade RSR custom relay is applied for the relay.

Resistor-switching volume



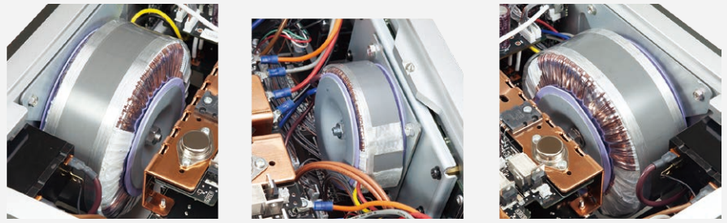
The resistor-switching volume is the simplest and allows for the least freshness deprived from the sound source. Of course, RSR custom relays and naked foil resistors are used throughout. This is the highest-grade volume ever considered.

GND anchor

The GND of the left and right channel power supply units is grounded to the left and right-side metal insulated with ceramic washers, a special enclosure construction that acts as a GND anchor. A sense of openness and low-end grip is achieved at a high level.

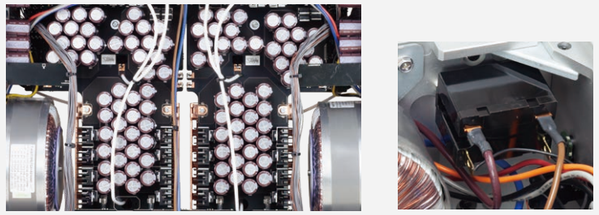
Bring out the soul of the artist in the sound source

Super-strong power transformer



2x 700VA unimpregnated toroidal power transformers are used for the power amplification, to the left and right. In addition, three power transformers, including the control system power transformer, are packed into one enclosure. They are all mounted vertically so that the magnetic field lines are parallel to the board.

High-speed non-NFB power supply



For the rectifying capacitor, a specially selected high withstand voltage small capacitance low magnification foil filter capacitor of only 470uF is used. To optimize the capacity, the number of units used was determined and the load on the power transformer was reduced. This further improved the real regulation of the ultra-powerful power transformer. For the rectifier diodes, SiC diodes of the latest specifications with enhanced allowable inrush current are used. This is the most powerful and high-speed power supply configuration ever considered. In addition, two large power relays with excellent sound quality are used independently and without fixing as power switches for the two main power transformer. In other words, the power switch on the front panel is dedicated to the control system sub-transformer. Independent power switch for each power transformer, which is a high current contact point, is extremely crucial for sound quality.

Unfixed structure

The amplifier block, terminals, AC inlet, top cover, and bottom cover are all unfixed. In particular, the amplifier block uses a three-point lateral sliding structure with titanium sliders. While escaping from the harmful vibration of the power transformer, it also releases its own intrinsic vibration.

Volume bypass function

One each of XLR and RCA can be set for volume bypass with gain fixed at 22dB. By connecting the output of an AV preamplifier, it can be used as an AV power amplifier.

Multiple-unit connection function

By connecting a 3.5Φ stereo mini-plug cable, multiple units can be linked (simultaneous control of volume, etc.). By setting a leader and a follower, all followers will follow the state of the leader. In addition, the follower can differentiate between the leader's and the follower's volume. This function enables, for example, volume control in a multi-amp configuration with digital channel dividers after DA conversion. Of course, the floating GND of the control system eliminates problems such as GND loops caused by coupling.

REC OUT function

REC IN / REC OUT terminals are provided to connect an open reel deck or digital recorder.A connection can be made with XLR or RCA cables.

[Specifications]

Input	3 (balanced), 3 (unbalanced)
Output	1 (loudspeaker)
Volume bypass	1 (balanced), 1 (unbalanced)
Rated output	120W + 120W (4 ohm)
Total harmonic distortion	0.27% (1W, 8 ohm)
Frequency characteristic	2Hz to 200kHz (+/-3dB, 1W, 8 ohm)
Input sensitivity	480mV
S/N	110dB
Maximum gain	33dB
Power voltage	230V AC 50Hz(A-3E)
Power consumption	180W/86W (during idling)
Maximum external dimensions	454(W)×189(H)×456(D)mm(including spike feet)
Weight	31kg
Included accessories	Spike board, spikes,spacer(for Spike board floating), remote controller, power cable

INTEGRATED AMPLIFIER A-3

Premium Silver/Premium Black

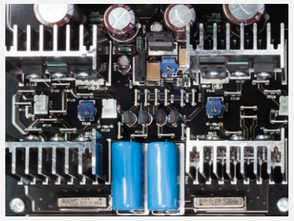
[Included accessories]

See also our facebook page! https://www.soulnote.co.jp/eu_sn_facebook_archives.html

PREAMPLIFIER P-3

Fully integrated ultra low loss custom relay RSR-2-12D and naked foil resistor
A monster preamplifier for truly live and enjoyable music performances

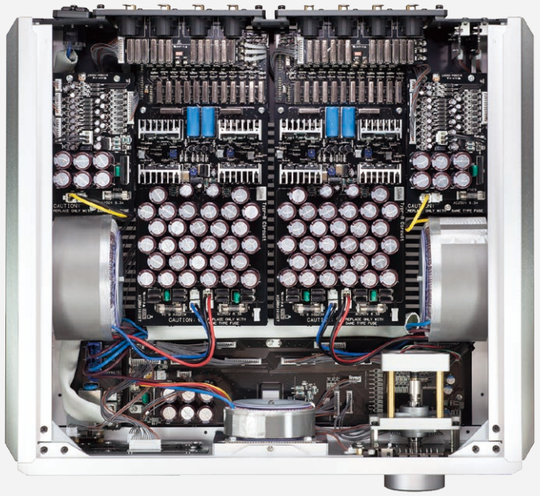
Type-R circuits are used inside the non-NFB balance amplifier



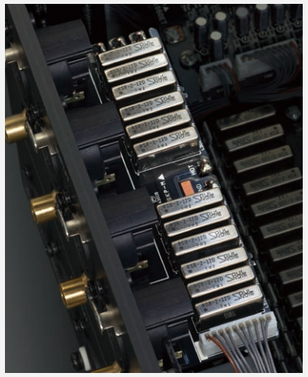
The output line amplifier uses Type-R discrete non-NFB balance circuits that have been finely tuned for preamplifier use. It also includes the newly-developed super high-quality naked foil resistors. With 1ohm emitter resistors and 3.9ohm output resistance, it delivers astonishing information detail and SN presence for superior power preamplifier drive capabilities.

High-end resistance switching method audio volume control circuit

The best possible methods and the highest-quality parts create the best audio volume control. All the resistors in this unit are ultra high-quality, naked foil resistors. The switching relays also use the newly developed RSR-2-12D (Reference SOULNOTE Relay) ultralow loss custom relay. Volume control is configured with 144 steps in 0.5 dB intervals. Vibrancy and sound quality remain unaffected, even when lowering the volume.



GND switching input selector



One major factor affecting sound quality deterioration in preamplifiers is GND loops and noise intrusion when connecting multiple sound sources. One way to eliminate this problem is to adopt a switching method on the GND and signal end so that unselected devices are held in a state where their connectors are unplugged. In addition, to avoid any interference from the relay connection, the selectors in this unit completely use the RSR-2-12D.

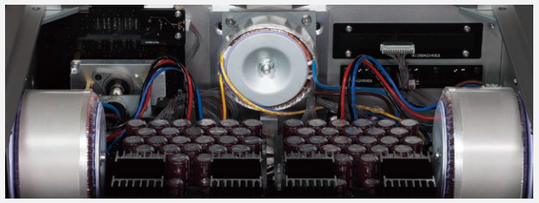
Perfect dual monaural construction

This unit utilizes a dual monaural construction that employs two identical and dedicated sets of I/O terminals, circuit boards, power supply circuits, power transformers, relay drive circuitry, and relay power supplies for the left and right channels. The microcomputer power supply, including the transformer, is also completely separate. A photocoupler keeps control signals completely separate from the relay, the only point of contact with the signal system.

Completely separate GND

The left and right channel, and control systems each have a ceramic-insulated chassis to achieve complete separation of the left, right and control GND. Each GND can be connected through the rear switch settings, but because each GND is completely separate, the listening experience offers an incredible expansive three-dimensional sound field with expressive, natural sound.

Extremely powerful power transformer



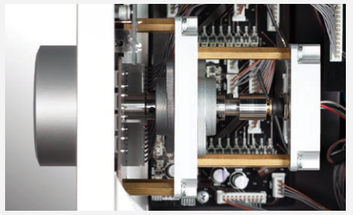
Each side of the analog power transformer uses a 280 VA large-scale non-epoxy resin filling toroidal transformer. Including the control transformer, this unit can reach a total 600 VA and the strongest capacity in SOULNOTE history. The transformer's audible drive capacity improves in proportion to better regulation made possible by the larger capacity. The P-3's high drive capabilities will change the grade of the power amplifier and the loudspeaker.

Vertical transformer mounting

The transformer is mounted vertically on the circuit board, so any harmful leakage flux is oriented parallel to the circuit board, to prevent possible circuit ingress.

Nothing else but just Sensation is there

Optical rotary encoder with double bearings & flywheel



The flywheel effects from the large, solid aluminium volume knob and the two large-scale bearings used to eliminate mechanical backlash combine to create a solid and extremely precise volume control.

3-point spike grounding

The spike connected directly to each of the three power transformer bases (three spikes total) eliminate harmful vibrtions from the transformers before they can propagate to the chassis.

Unfixed AC inlet base

The AC inlet uses the Jodelica ETP-600CU. By not mechanically fixing the aluminium AC inlet base, rear-panel dumping is prevented, resulting in more expansive sound quality.

Audiovisual source bypass function

Each XLR and RCA circuit has an audiovisual source bypass setting that can fix volume and output with zero gain.

Floating construction

The Type-R circuit board and top cover are mounted in a floating construction without mechanical fixing. Freeing the P-3 from mechanical stress and the harmful effects of air dumps creates a natural sound quality and soundscape similar to removing the top cover.

GND anchor

The left and right side metals are isolated from the main chassis by ceramic washers and are directly connected to separate left and right GND. This amplifies the benefits (more expansive soundscape and clearer feeling) of the left and right GND floating construction.

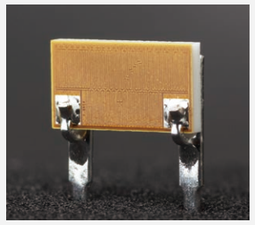
Multiple device connection system

Multiple devices can be connected using UART signals. Master and slave settings allow all slave settings to follow those of the master. This allows duplicating differences in the master volume to the slaves. This feature enables, for example, multi-amplifier volume control via a digital channel divider following DA conversion. And, of course, these connections completely avoid GND loops or other issues thanks to the floating GND control system.

RSR-2-12D (Reference SOULNOTE Relay)

An ultra low loss glass tube sealed reed relay that performs similar to a mercury relay as a base has been further customized. This is an original custom relay created by SOULNOTE that can reach sound quality levels comparable to that of wire. Each P-3 contains 94 of these relays.

Ultra high-quality naked foil resistors



We have applied artificial satellite grade ultra-high precision foil resistors with exceptional temperature properties and have made additional customizations with an emphasis on sound quality. These ultra-high sound quality resistors were developed in-house and employ a naked foil design to eliminate dumps with mold resin. Each P-3 contains 156 naked foil resistors.

[Specifications]

Input	XLR x 4, RCA x 4
Output	XLR x 3, RCA x 1(selectable XLR or RCA)
Total harmonic distortion	0.0015%(1.5Vrms)
Frequency characteristic	2Hz～1MHz(±3.0dB)
Residual noise	13μV (20kHz L.P.F.)
Maximum output	21Vrms
Output impedance	6.8ohm
Maximum gain	11dB
Power voltage	230V AC 50Hz(P-3E)
Power consumption	20W
Maximum external dimensions	454(W)×174(H)×430(D)mm(Mainunit)
Weight	25kg
Included accessories	Spike board, spikes, remote controller, power cable

PREAMPLIFIER P-3

Premium Silver/Premium Black

[Included accessories]

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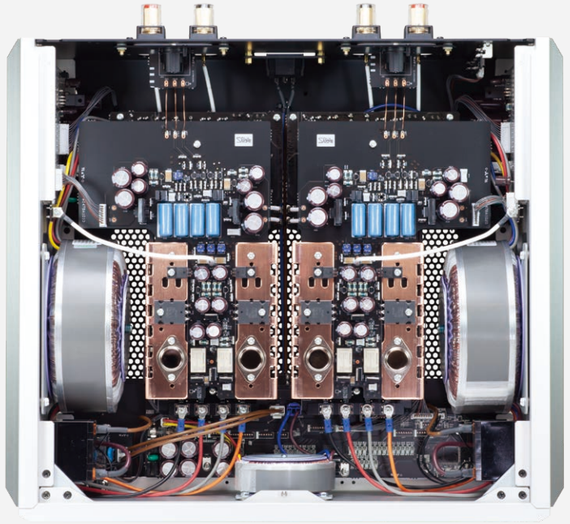
STEREO POWER AMPLIFIER A-3 core

Stereo power amplifier with complete separation of left and right channel GNDs

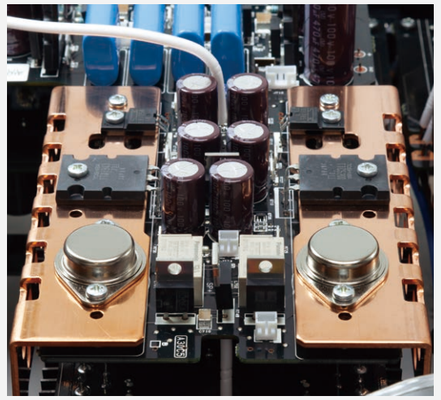


Complete separation of left and right channel GNDs

The GND separation technology incorporated in the P-3 pre-amplifier is applied to the A-3core power amplifier as well as the A-3 integrated amplifier. There is no precedent for GND non-grounding in stereo power amplifiers handling high currents. A-3core achieves power amplifier enclosure ungrounding through simple non-NFB circuits, optimized artwork design, minimization of high current loops, elimination of inductance components, and other factors. This led to the birth of the stereo power amplifier A-3core with completely separated left and right GND. The three-dimensional sound field space and spaciousness are the new frontiers of stereo power amplifier.

Single push-pull output stage

The output stage uses a single push-pull SEPP circuit with a TO3(Metal CAN-type) bipolar transistor as used in the M-3. It realizes blur-free music reproduction from ultra-low to super-high frequencies. The heart-stirring music reproduction is the result of the single push-pull that does not break the micro time axis purity.



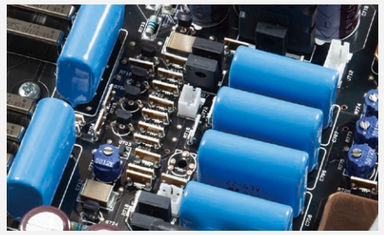
4-stage Darlington configuration with super-powerful driver and pre-driver

To drive the TO3(Metal CAN-type) transistor easily, ultra-powerful TO3P transistors are used in the driver as well as in the pre-driver. Ensuring perfect current supply all the way to the bottom end without regard to hfe fluctuation at high currents makes it possible to achieve both deep expressiveness and an exciting groove.

Copper bus bar heat sink

A lightweight, compact copper plate is used as the main heat sink. This heat sink also serves as a bus bar for supplying power to the TO3(Metal CAN-type) transistor, and the terminals of the TO3 transistor penetrate the bus bar and are mounted directly on the board underneath. This eliminates wiring, which is a drawback of the TO3 transistor, and helps overcome instability caused by the inductance component, while at the same time avoiding sound quality degradation caused by the insulation sheet dumping on the device. The sound quality effect is also extremely impressive, with a sense of freedom and transparency due to the physical independence of the heat sink from the chassis. Furthermore, in the A-3core, the power supply board and amplifier board are connected by a bus bar heat sink, which also serves as a structural component to form a block. It is truly a "four birds with one stone" heat sink.

New Type-R circuit, fully balanced non-NFB



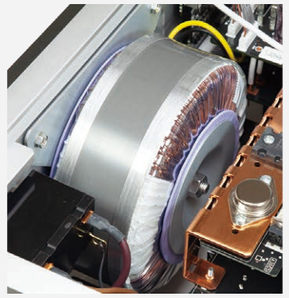
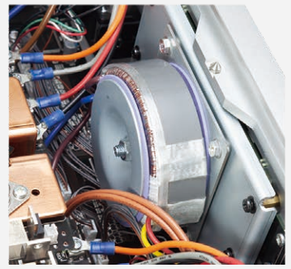
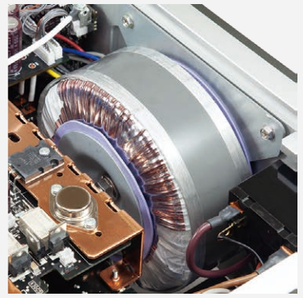
For voltage amplification, a newly developed high-gain-to-GND single-stage Type-R circuit is adopted. Naked foil resistors are used generously for all resistors involved in amplifier operation.

GND anchor

The GND of the left and right channel power supply units is grounded to the left and right-side metal insulated with ceramic washers, a special enclosure construction that acts as a GND anchor. A sense of openness and low-end grip is achieved at a high level.

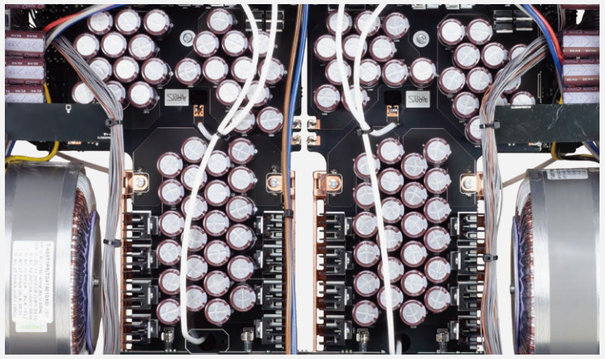
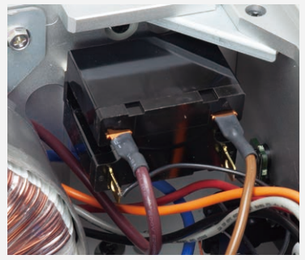
Combination of P-3 and A-3core provides both the highest quality and space factor

Super-strong power transformer

2x 700VA unimpregnated toroidal power transformers are used for the power amplification, to the left and right. In addition, three power transformers, including the control system power transformer, are packed into one enclosure. They are all mounted vertically so that the magnetic field lines are parallel to the board.

High-speed non-NFB power supply

For the rectifying capacitor, a specially selected high withstand voltage small capacitance low magnification foil filter capacitor of only 470uF is used. To optimize the capacity, the number of units used was determined and the load on the power transformer was reduced. This further improved the real regulation of the ultra-powerful power transformer. For the rectifier diodes, SiC diodes of the latest specifications with enhanced allowable inrush current are used. This is the most powerful and high-speed power supply configuration ever considered. In addition, two large power relays with excellent sound quality are used independently and without fixing as power switches for the two main power transformer. Independent power switch for each power transformer, which is a high current contact point, is extremely crucial for sound quality.In addition, the power switch on the front panel is dedicated to the control system sub-transformer.

Unfixed structure

The amplifier block, terminals, AC inlet, top cover, and bottom cover are all unfixed. In particular, the amplifier block uses a three-point lateral sliding structure with titanium sliders. While escaping from the harmful vibration of the power transformer, it also releases its own intrinsic vibration.

[Specifications]

Rated output	120W + 120W (4 ohm)
Total harmonic distortion	0.27% (1W, 8 ohm)
Frequency characteristic	2Hz to 200kHz (+/-3dB, 1W, 8 ohm)
Input sensitivity	480mV/24kΩ
Gain	22dB
Power voltage	230V AC 50Hz(A-3coreE)
Power consumption	180W/86W (during idling)
Maximum external dimensions	454(W)×189(H)×435(D)mm(including spike feet)
Weight	29kg
Included accessories	Spike board, spikes,spacer(for Spike board floating), power cable

STEREO POWER AMPLIFIER A-3 core

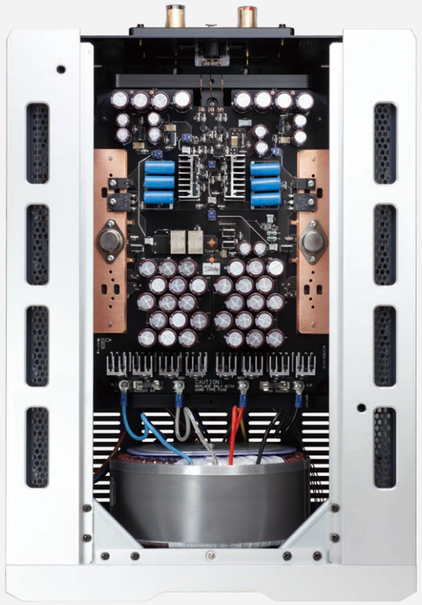
Premium Silver/Premium Black

[Included accessories]

See also our facebook page! https://www.soulnote.co.jp/eu_sn_facebook_archives.html

MONOBLOCK POWER AMPLIFIER M-3

Newly incorporated industrial grade can-type output transistors
to achieve a perfect non-NFB single push-pull structure



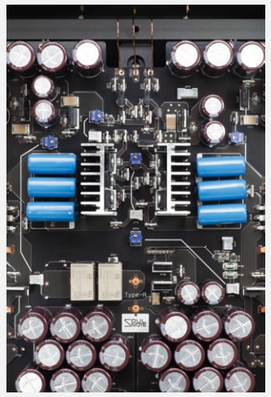
A single push-pull output stage with 4-stage Darlington can-type transistors

We decided that a single-end and single push-pull output was indispensable in creating an emotional musical experience, thus eliminating the "blurring in the microscopic time domain" so often symbolized by improvements in sound quality through high-end clocks. However, there is a still problem that have to overcome the relatively low levels of current provided by the typical single push-pull configurations. As a result, the M-3 has adopted industrial grade can-type output transistors with a relatively small Cob and large current flow. The driver stage incorporates the same output stage transistors used in the A-2 to easily drive these large capacity cans for a total of four Darlington construction stages.

Bus bars with copper plate heat sinks

The main heat sink uses small, lightweight copper plate heat sinks – a rarity in conventional high power amplifiers. This heat sink also combines a bus bar to power the can transistors, while the can-type transistor terminals pass through the bus bar and are mounted directly on the board underneath. This eliminates wiring – the Achilles' heel of can-type transistors – while also removing instability from inductance components and deteriorations to sound quality caused by insulating sheet dumps in the device. Additionally, the heat sink is physically isolated from the chassis, which significantly impacts sound quality aspects such as transparency and providing a feeling of openness. This way, this heat sink kills three birds with one stone.

Non-NFB differential circuits (new Type-R circuits) redesigned exclusively for power amplifiers is used in the voltage amplification stage



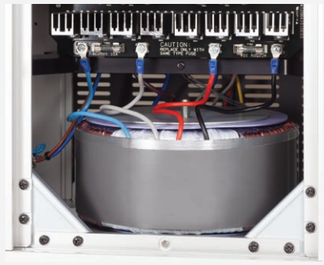
Only a single transistor is used to fully amplify the emitter follower, voltage, and differential circuits without any gain. The load impedance in this transistor is a "GND one-stage amplification single-end non-NFB circuit" that connects only to the GND. These new Type-R circuits were created using only 4 bipolar junction transistors and 10 resistors to extract ideal full swing output across a wide spectrum, even though this configuration is primarily the same as that used for single ended tube amplifiers. This ideal non-NFB circuit could easily be dubbed a reference circuit for how well it performs.

Extremely simple construction

We discovered that large current power amplifiers should be dedicated to a single function. It features just one set of input terminals and speaker terminals. It is a single-function monoblock power amplifier with no selectors or attenuators. The signals input from the XLR terminals travel directly to the base of the first stage transistors, undergo single stage amplification, and are output via a single push-pull circuit. The only available operation is the power switch. As expected, the unit contains no unnecessary circuits or components like microcontrollers, etc.

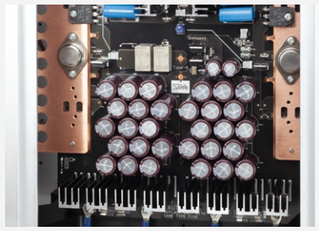
Overwhelmimg music playback with outstanding spatial expressiveness

Ultra low loss 1600 VA non-epoxy resin-filling toroidal power transformer



We developed a large power transformer that can be carried by one person alone. This giant power transformer is mounted vertically to the front panel so that any leakage flux travels parallel to the circuit boards, and it is suspended on titanium washers and connected to a spike to ensure that harmful vibrations are not transmitted to the chassis.

High-speed non-NFB power supply



The commutating capacitors use specially selected 470 uF high resistance, small capacity, low magnification foil filter capacitors. Optimizing capacity according to the number of capacitors used and minimizing the power supply load further improves real regulation in this heavy-duty power supply transformer. The rectifier diode uses newly adopted SiC diodes with the latest specs that reinforce the maximum input current value. This creates an unimaginably powerful and fast power supply structure.

Amplifier container completely separate from the main body, each grounded by three spikes

Three spikes ground both the main body and the amplifier container for a total of six spikes in the M-3. While these two components are completely physically separate, the power supply line from the power supply transformer has been shortened to eliminate any negative impacts as a result of vibrations and leakage from the transformer. This truly ideal construction results in an incredulous sound quality that can be experienced by attaching or removing the transportation screw. And of course, the audio board, AC adapter, speaker terminals, input terminals, and base plate are all non-rigid parts.

[Specifications]

Maximum output	160W (4ohm)
Total harmonic distortion	0.1% (1W)
Frequency characteristic	2Hz ～ 200kHz (±1dB)
Input sensitivity/impedance	2V/25kohm
Gain	22dB
Power voltage	230V AC 50Hz(M-3E)
Power consumption	110W/36W(no signal)
Maximum external dimensions	340(W)×257(H)×512(D)mm(Main unit)
Weight	31kg
Included accessories	Special speaker cable, Special rack, Power cable, Setting plate

MONOBLOCK POWER AMPLIFIER M-3

Premium Silver/Premium Black

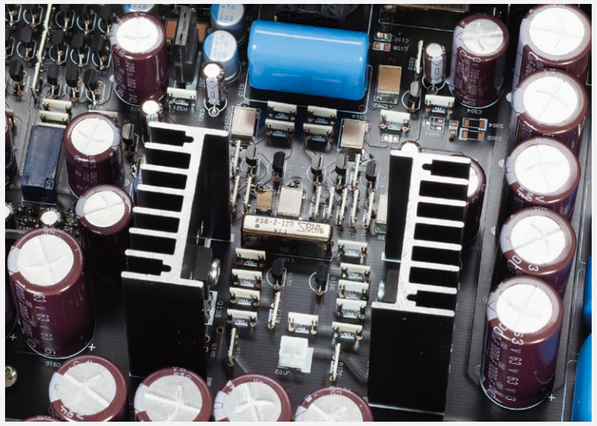
[Included accessories]

See also our facebook page!　https://www.soulnote.co.jp/eu_sn_facebook_archives.html

PHONO EQUALIZER E-3

A phono equalizer dedicated to DS Audio optical cartridges

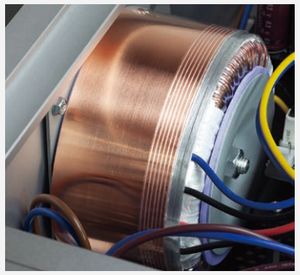
A new Type-R circuit, fully balanced non NFB

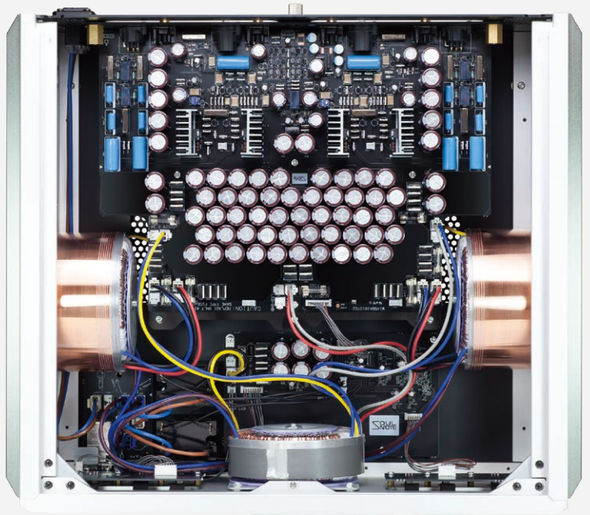


Newly developed discrete, non-NFB, balanced amplification circuit (New Type-R circuit) dedicated to optical cartridges. Not only the voltage amplification, but also the output stage is a single system that operates entirely with respect to GND, eliminating push-pull and bias circuits. From input to output, the signal passes through only four transistors. A very simple non-NFB circuit protects the freshness of the music signal with excellent transient response of optical cartridges.

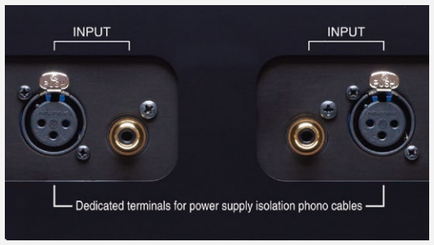
Super-strong power supply with 3 power transformers

The power supply consists of three transformers: a large transformer dedicated to the New Type-R Circuit with independent left and right circuits, and a transformer for the LED power supply of the optical cartridge. For a phono amplifier of only 19W, the power consumption has a power supply capacity equivalent to that of a 500W power amplifier. This margin supports unwavering music reproduction.A newly developed power transformer with copper short ring is used as the analog power transformer.This further improves the fine expression by suppressing noise caused by leakage flux.





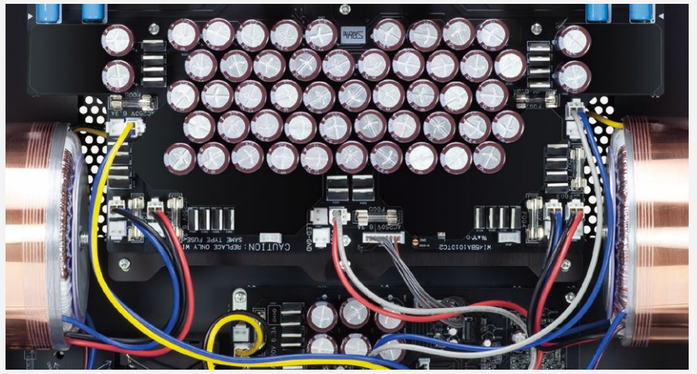
Power Separated Phono Cable Compatible



The XLR input terminals are compatible with the "power supply separated phono cable" developed by DS Audio and Uesugi Laboratories. By separating the paths of the fine phono signal and LED current, the SN and dynamism that are the characteristics of optical cartridges are further improved.

New Type-R circuit
Reviving the all soul cut in the groove

High-speed non-NFB power supply



For the rectifying capacitor, a specially selected high withstand voltage small capacitance low magnification foil filter capacitor is used. To optimize the capacity, the number of units used was determined and the load on the power transformer was reduced. This further improved the real regulation of the ultra-powerful power transformer. For the rectifier diodes, SiC diodes of the latest specifications with enhanced allowable inrush current are used. This is the most powerful and high-speed power supply configuration ever considered. In addition, two large power relays with excellent sound quality are used independently and without fixing as power switches for the two main power transformer. In other words, the power switch on the front panel is dedicated to the control system sub-transformer. Independent power switch for each power transformer, which is a high current contact point, is very effective in terms of sound quality.

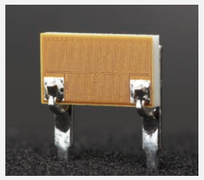
Unfixed structure

The amplifier block, terminals, AC inlet, top cover, and bottom cover are all unfixed.

RSR-2-12D (Reference SOULNOTE Relay)

An ultra low loss glass tube sealed reed relay that performs similar to a mercury relay as a base has been further customized. This is an original custom relay created by SOULNOTE that can reach sound quality levels comparable to that of wire. The E-3 uses the RSR-2-12D for all relays through which audio signals pass.

Ultra high-quality naked foil resistors



We have applied artificial satellite grade ultra-high precision foil resistors with exceptional temperature properties and have made additional customizations with an emphasis on sound quality. These ultra-high sound quality resistors were developed in-house and employ a naked foil design to eliminate dumps with mold resin. The E-3 uses ultra high-quality naked foil resistors for all resistors related to sound quality.

[Specifications]

Input	1(XLR), 1(RCA) (DO NOT connect both) Dedicated to optical cartridges
Output	1(balanced), 1(unbalanced)
Sensitivity(1kHz)	50mV
Rated output(1kHz)	2.54V(balanced), 1.27V(unbalanced)
Maximum output(1kHz)	12V(balanced), 6V(unbalanced)
Gain(1kHz,balanced input)	34dB (balanced), 28dB (unbalanced)
RIAA deviation	±0.2dB
THD (1kHz with 20kHz LPF)	0.03% (balanced 2.54V)
Power voltage	230V AC 50Hz(E-3E)
Power consumption	19W
Maximum external dimensions	454(W)×189(H)×407(D)mm(Mainunit)
Weight	27kg
Included accessories	Spike board, spikes,spacer(for Spike board floating), power cable

PHONO EQUALIZER E-3

Premium Silver/Premium Black

[Included accessories]

See also our facebook page! https://www.soulnote.co.jp/eu_sn_facebook_archives.html

Z E U S

SOULNOTE ZERO LINK　ULTIMATE SYSTEM

D/A CONVERTER **D-3**

NETWORK TRANSPORT **Z-3**

10MHz CLOCK GENERATOR **X-3**

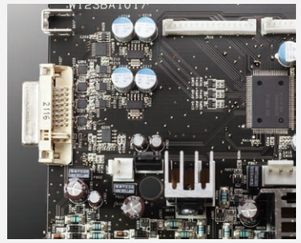
CLOCK CABLE **RCC-1**

D/A CONVERTER D-3

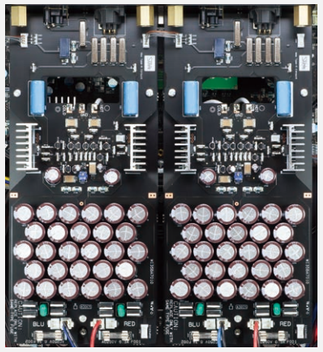
The ultimate D/A converter
with ZERO asynchronous circuits

ZERO LINK

Connecting a network transport equipped with ZERO LINK creates a network system that is completely synchronized with the DAC clock, achieving dramatic improvements in sound quality by eliminating asynchronous circuits. The input from the ZERO LINK terminals connects directly to the DAC chip using a layout unique to ZERO LINK.

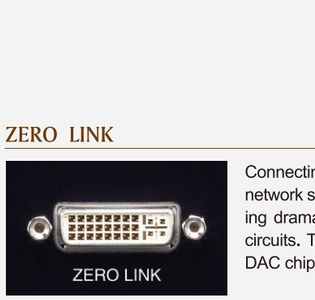


A dual monaural analog section



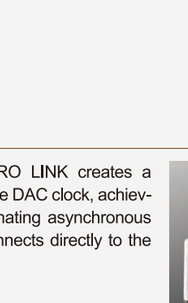
The analog circuit of the D-3 is a dual monaural construction using two identical circuit boards. It is also fully separated from the digital power supply, including the transformer. The mounting base for the aluminium circuit board is not fixed, laying the foundation for uninhibited and more impassioned sound quality. Analog circuit boards are mounted on independent right and left circuit board chassis and are also independent from the rear panel connectors.

Type-R circuits are used inside the non-NFB balance amplifier



The output line amplifier uses New Type-R discrete grade non-NFB balance circuits. This circuit has no push-pull or bias circuit and is ultimately simple.It also includes the super high-quality naked foil resistors. With 3.9ohm output resistance, it delivers astonishing information detail and SN presence for superior power preamplifier drive capabilities.

Four ES9038PRO circuits



Each channel in the DAC chip uses two ES9038PRO chips, for a total of four in the unit. Each channel's incomparably powerful 120 mA current output is an essential element of the discrete non-NFB DAC. One current voltage conversion resistor uses naked foil resistors to convert current output into voltage directly before the first stage of the New Type-R circuit.

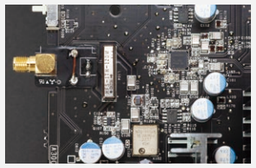
Dedicated external clock generator design

X-3

The D-3 features built-in ultra low jitter crystals and can link with the ultra high frequency external clock generator (10MHz) to further improve the accuracy of the time axis. It uses a high-frequency relay for switching the standard clock to eliminate any chance of additional jitter.The X-3 is the most suitable external clock generator for pure sound quality. We highly recommend the RCC-1 clock cable.

RCC-1

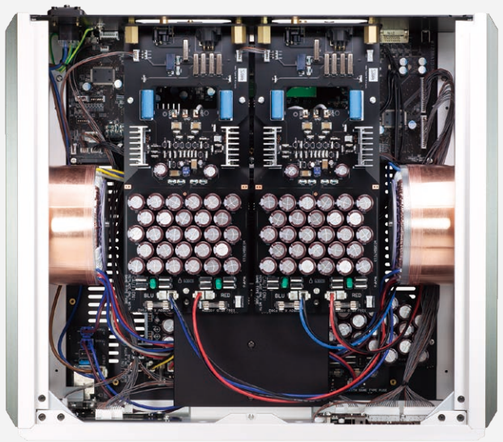
Femtosecond order DDS



With its extremely low jitter of 45 femtoseconds, the DDS LMX2594 gives rise to a high-quality master clock that aligns sampling frequencies from the 10 MHz clock input. As a result, it can drive the ES9038PRO in Non-DPLL mode (128 femtoseconds), i.e. the best sound quality mode. By generating a master clock that matches each track's sampling frequency transmitted from the transport during ZERO LINK, this achieves perfect synchronization with the transport without any use of PLLs or sampling rate converters.

Releasing all the Soul in the sound source

Independent left-right grounding for power transformers

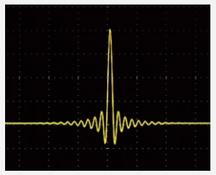


The power transformer with copper short ring is divided into independent transformers – digital and analog – with each section mounted independently on the side of an aluminium base that convey any transformer vibrations from each base to a grounding spike. Each of the transformers is mounted vertically in parallel with the circuit board to prevent possible noise interference in the circuits caused by leakage flux. A vital component of sound quality, the transformer base's sandwich structure features an aluminium side floated at three points by titanium spacers and employs optimum materials, structure, and shape to eliminate resonance and avoid dumps. The 152 low-magnification electrolytic capacitors in the rectifier capacitor and 52 ultra high-speed SiC diodes in the rectifier diode demonstrate our unwavering dedication to sound quality. They constitute the core of this massive power supply.

NOS mode

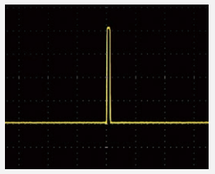
The D-3 uses the highly acclaimed NOS (non-oversampling) mode. This mode does not generate the pre- and post-echoes observed in FIR oversampling. * The NOS mode cannot be used with DSD.

● Impulse output waveform with an FIR oversampling filter



Pre- and post-echoes are artificial "sounds" created by data calculations before and after the data is interpolated. They make waveforms like sine waves appear smoother, but calculation algorithms can affect the sound quality or ambiguity and be added to the time axis.

● Impulse output waveform in NOS mode

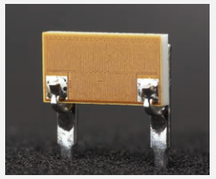


This waveform can only be achieved by combining a non-NFB discrete amplifier with superb transient response performance. Because music waveforms are actually a series of impulse waveforms of different heights, the NOS mode eliminates any ambiguity in the time axis information, creating a more realistic and natural sound quality and an expansive listening environment to the human ear, which is extremely sensitive to the time axis.

RSR-2-12D (Reference SOULNOTE Relay)

An ultra low loss glass tube sealed reed relay that performs similar to a mercury relay as a base has been further customized. This is an original custom relay created by SOULNOTE that can reach sound quality levels comparable to that of wire.

Ultra high-quality naked foil resistors



We have applied artificial satellite grade ultra-high precision foil resistors with exceptional temperature properties and have made additional customizations with an emphasis on sound quality. These ultra-high sound quality resistors were developed in-house and employ a naked foil design to eliminate dumps with mold resin.

[Specifications]

Supported sampling frequency	
ZERO LINK,USB	Maximum 768kHz(PCM)/Maximum 22.6MHz(DSD)
Coaxial AES/EBU	Maximum 192 kHz(PCM)/Maximum 2.8MHz(DSD64 DoPv1.1)
PCM quantization bit rate	
ZERO LINK,USB	16bit,24bit,32bit
Coaxial AES/EBU	16bit, 24bit
Digital input	ZERO LINK, USB (Type B) 2, Coaxial (S/PDIF), AES/EBU
*BULK PET,JPLAY supported(USB)	
External clock input	10MHz (SMA 50ohm)
Analog output	XLR 1, RCA 1
Analog output level	(XLR) 5.6Vrms, (RCA) 2.8Vrms
Frequency characteristic	2Hz～120kHz(+0/-1dB)
SN ratio	110dB
Total harmonic distortion	0.008%(NOS/176.4kHz)
Analog filter	Primary passive type
Power voltage	230V AC 50Hz(D-3E)
Power consumption	48W
Maximum external dimensions	454(W)×174(H)×407(D)mm(Main unit)
Weight	28kg
Included accessories	Spike board, spikes, spacer(for Spike board floating), remote controller, power cable

D/A CONVERTER D-3

Premium Silver/Premium Black

[Included accessories]

See also our facebook page! https://www.soulnote.co.jp/eu_sn_facebook_archives.html

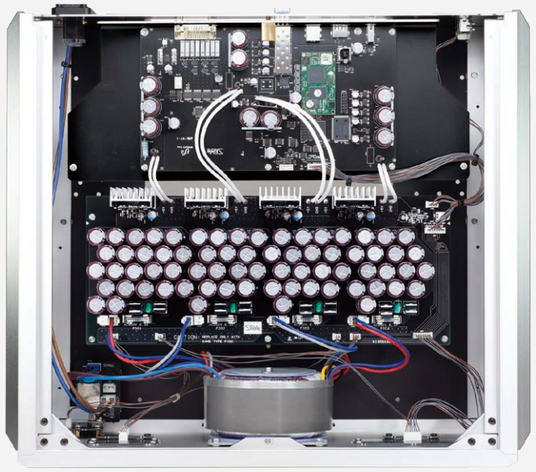
NETWORK TRANSPORT Z-3

Flagship Network Transport was born
to maximize the ability of ZERO LINK

ZERO LINK

ZERO LINK is the ultimate link, jointly developed by SFORZATO and Soulnote to achieve the highest possible sound quality in digital playback equipment. ZERO LINK drastically reduces the work of the D/A converter and completely eliminates the use of asynchronous components in the D/A converter housing. In the Z-3, ZERO LINK replaces every asynchronous component to transmit only signals polished beautifully by the clock to the D/A converter. The resulting sound quality is an unprecedented leap forward in the sonic universe. This solution surpasses the highest levels of analog playback.
* Includes a dedicated ZERO LINK cable.

Ultra powerful non-NFB discrete power supply

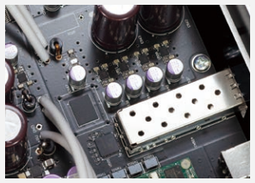


The Z-3 uses the same digital high-regulation transformer as D-3. An unprecedented 260 VA large-capacity transformer is used to create four non-NFB discrete power supply circuits separated from each circuit winding. It uses a total of 16 ultra high-speed SiC rectifier diodes and 70 low-magnification electrolytic capacitors. This provides endless expressive power with overflowing clarity and directness.

SFP port

By incorporating an optical link module, this opens up the door to optical cable connections. Besides the use of an SFP RJ45 module allows for compatibility with regular LAN cable connections.
* The optical link module, RJ45 module, optical cables, and LAN cables are not included with the Z-3. Please consult with your local retailer.

SC Cut ultra low phase noise OCXO



An SC Cut OXCO is installed in the dedicated SFP circuit clock. Although it is an asynchronous component, every effort was made to counteract its effects by maximizing the clock quality. When ZERO LINK is connected, the high-quality D/A converter master clock transmitted by ZERO LINK is used in the I2S generation circuit and Non-PLL Sync is applied.

A dedication to non-rigid housing

Beyond the plate, we went above and beyond to create a non-rigid housing, including the AC inlet, I/O terminals, circuit boards, and circuit board chassis. We applied the full breadth of SOULNOTE expertise to components like titanium washers, spike placement directly under the transformers, and more. The air volume presented by the relatively large housing contributes to an unprecedentedly vast soundscape.

Sense of energy and spatial expression
that can surpass even the finest analogue playback

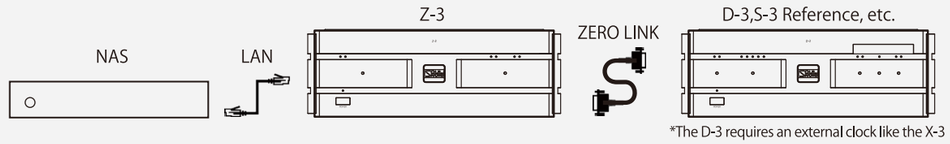
Roon Ready

The Z-3 is a certified device as Roon Ready. It receives music stream based a protocol called RAAT from the Roon core via network, and offers playback in high quality. The Roon core can be set up easily by adding the free software provided by Roon on your Windows/MAC PC

A variety of applications

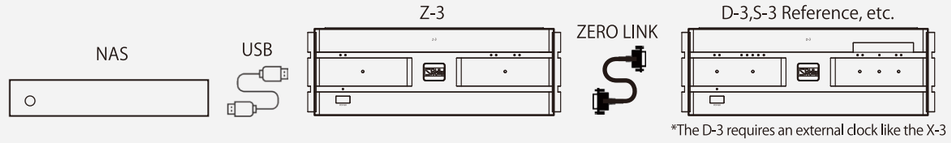
The Z-3 can be used in the following three ways.

①As a ZERO LINK network player (LAN input – ZERO LINK output)
The ultimate separate network player can be created by inserting an optical link module or RJ45 module into the SFP port and using it as a LAN input, then using a ZERO LINK connection with the D-3 or S-3 Reference This connection method will create the highest quality sound.
* LAN input is compatible with DLNA, OpenHome, and diretta (LAN DAC).
* diretta input is only possible when connecting with diretta compatible devices.



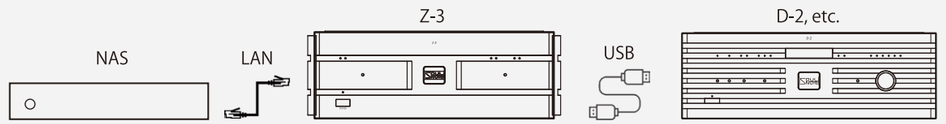
*The D-3 requires an external clock like the X-3

②As a ZERO LINK bridge (USB input – ZERO LINK output)
By using the USB input to connect to your computer or music server, it is also possible to use as a ZERO LINK bridge with output from the ZERO LINK. High-quality ZERO LINK sound can be easily obtained by using the Z-3 in the same way as a general USB DAC.
* The USB input is compatible with Bulk Pet and JPLAY.



*The D-3 requires an external clock like the X-3

③As a network transport (LAN input – USB output)
As a high-definition network player can be used by connecting it to your USB DAC.



* USB input – USB output is not possible.

[Specifications]

Input	SPF, USB
Output	ZERO LINK, USB
Supported format	
PCM	Maximum 768kHz(AIFF, WAV, FLAC, Apple Lossless, mp3, AAC)16bit, 24bit, 32bit
DSD	Maximum 22.6MHz(dsf, diff)
Power voltage	230V AC 50Hz(Z-3E)
Power consumption	30W
Maximum external dimensions	454(W)×174(H)×393(D)mm(Main unit)
Weight	20kg
Included accessories	Spike board, spikes, ZERO LINK cable, power cable

NETWORK TRANSPORT Z-3

Premium Silver/Premium Black

[Included accessories]

See also our facebook page! https://www.soulnote.co.jp/eu_sn_facebook_archives.html

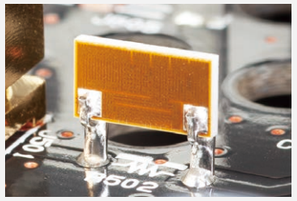
10MHz CLOCK GENERATOR X-3

Born out of discovery of World-first designing principle
It's an incredible breakthrough in designing Clock generator

SC Cut ultra low phase noise OCXO

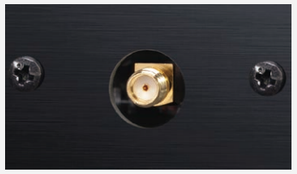
The X-3 incorporates an SC Cut ultra low phase noise OXCO (thermostatic bath-type crystal oscillator) selected for its unprecedented sound quality.

Naked foil resistors



As they greatly impact clock sound quality, the output resistors employ naked foil resistors adapted from artificial satellite grade ultra-high precision resistors, with exceptional thermal properties and low thermal noise. We believe that at this stage, this is where extraordinary resistors are most effective.

SMA output terminal



The output clock signal originates from an SMA terminal with specs above 20 GHz. Only one output is provided for the ultimate sound quality. The X-3 is supplied with an SMA–SMA 50ohm dedicated clock cable, but we highly recommend using the optional RCC-1 clock cable. Relive music that unleashes the ambiences of the soul.

Non-NFB power supply

An overwhelmingly large capacity 200VA toroidal transformer of 100w power amplifier class is used for the current required for the crystal oscillator. The Ultra-high speed SIC diodes are newly adopted for rectifier diodes. The rectifier group is composed of numerous low-magnification, electrolytic capacitors of small size connected in parallel, while the regulator incorporates SOULNOTE's unique non-NFB discrete power supply.

Quiet power supply domain

All unnecessary circuits like power supply LEDs, relays, etc. have been stripped from the crystal oscillator to provide a super-quiet power supply domain.

Housing prioritizing sound quality

The X-3 housing adopts unique new design. The housing consolidates features like air dump elimination through a dual non-rigid top plate, non-rigid AC inlets and - output terminals, three spike supports directly under the transformers, titanium washers, carbon washers, and more. Our core expertise has developed the highest sound quality.

10MHz CLOCK GENERATOR X-3

Premium Silver/Premium Black

[Included accessories]

[Specifications]

Output	SMA x 1
Output frequency	10MHz
Output impedance	50 ohms
Output level	1.0Vp-p
Power voltage	230V AC 50Hz(X-3E)
Power consumption	2W
Maximum external dimensions	430(W)×111(H)×376(D)mm(Main unit)
Weight	7.5kg
In-cluded accessories	SMA–SMA dedicated clock cable, SMA–BNC converter plug, spikes, power cable

See also our facebook page! https://www.soulnote.co.jp/eu_sn_facebook_archives.html

About ZERO LINK

ZERO LINK is the ultimate digital link system between transport and D/A converter developed for achieving a goal that “ Leaving asynchronous circuits out from D/A converters to aquire high sound quality" formulated by SFORZATO and SOULNOTE.
The improvement in sound quality by leaving out asynchronous circuits from the D/A converter is actually overwhelming.
And it is ZERO LINK that enables asynchronous circuits in D/A converters ZERO.

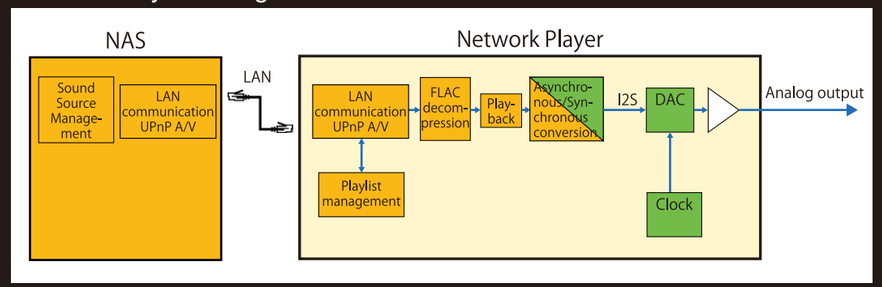
ZERO LINK not only sends Master clock signals and I2S signals, but also interactively communicates between Transport and D/A converter. That is, the transport transmits the format of the sound source to the D/A converter before playback first, and the DDS of the D/A converter generates a high-grade master clock synchronized to this format and sends it back to the transport. Then the transport generates a pure I2S signal synchronized to that master clock and sends it to the D/A converter again. As a result, ZERO LINK enables DAC and Transport completely synchronized with Master clock generated by DAC, and as a result enables completely leaving out synchronous circuits that can cause sound quality deterioration.

Internal operation of a typical network connection

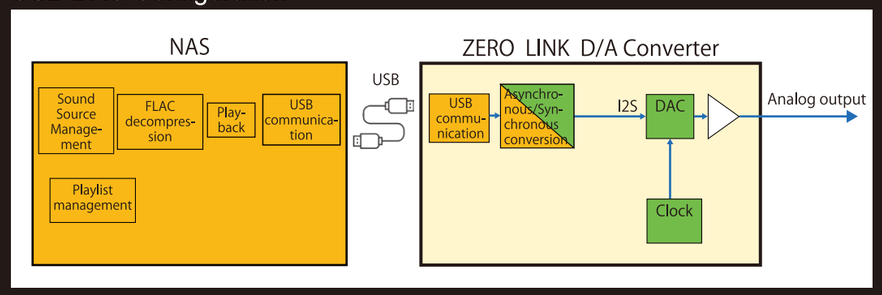
Both connection methods have asynchronous circuits in the D/A converter.

Asynchronous
Synchronous

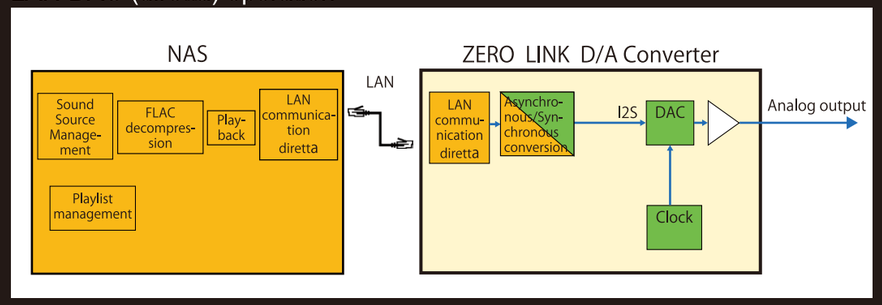
Network Player Configuration



USB DAC Configuration



LAN DAC (diretta) operation

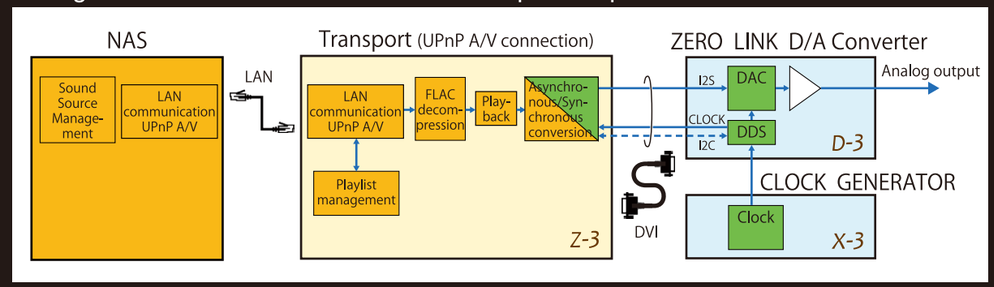


Internal operation of ZERO LINK connection

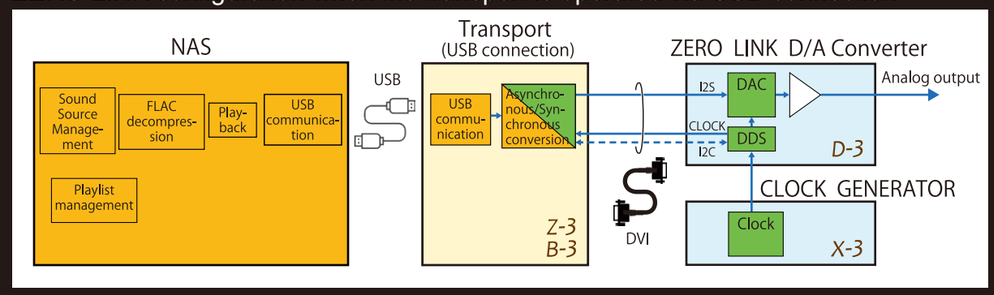
In ZERO LINK operation, the D/A converter has no asynchronous operation at all.

Asynchronous
Synchronous

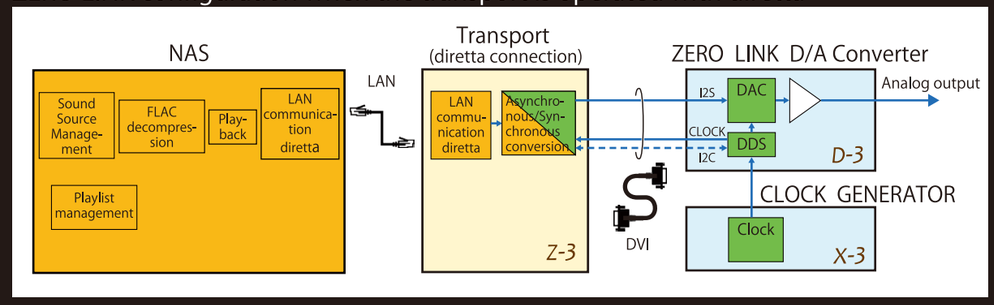
Configuration of ZERO LINK when the transport is operated with UPnP A/V



ZERO LINK configuration when the transport is operated via USB connection



ZERO LINK configuration when the transport is operated with diretta



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*As of July 2025　Specifications, standards, and appearance are subject to change without notice for improvement.

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