



VIBRATO 
by NSR

MODEL ONE
Integrated Amplifier

OWNER'S MANUAL

Safety precautions

Move/Unpack

- The Model One is pretty heavy and it is strongly recommended to move it by 2 people in case it hurts others.

After unpacking

- Please keep all the package and use the original package for all further transport.
- Please check the cabinet and see if any damage caused by the transport. If found any trace of damage, please contact the authorized distributor of VIBRATOTM and will help solve it properly.
- Please take out and check the accessory box according to the following list. Make sure all the accessories are included. Please contact the authorized distributor of VIBRATOTM if it is incomplete.

Accessories List :

- 1 pc of IEC power cables
- 1 pc of remote control
- 1 pc of 3V button cell

You may download this manual on www.nsraudio.com

Warranty Service

- Please send back the warranty card to the following address within 15 days after purchasing:
Room 1103, Building 1,Phase 6, Tian'an Digital New City, No.12, Jianping Road, Guicheng Subdistrict, Nanhai District, Foshan City, Guangdong Province, China
- Please keep the dated original receipt as a proof for warranty.
- Please keep the package and send back to after-sales department with the whole package when needed repairing
- MODEL ONE is entitled to 3 years free warranty. Please refer to the warranty terms by the warranty card.

Caution: The internal of Model One is afforded by a circuit that higher than the safety voltage, with a precision of high integration circuit design, and there is not any spare parts that could be repaired by user. To remain the best setting and reduce the risk of electronic shock, please do not take apart the cabinet in case being canceled the warranty service .

Product description

1. HDMI native DSD interface

HDMI interface could support both 1080p video and 8-channel high definition digital audio with bandwidth as high as 18Gbps. The Native 12S and DSD digital audio internal bus are built in the main internal bus of the HDMI interface, making audio transport without any format conversion. It could transmit 8-channel of PCM audio with 24bit 192KHz directly and DSD native audio stream with 1bit 5.6Mbps.

The decoding process is that HDMI native DSD bus interface could transport the DSD original format audio stream received from the output of SACD or blue ray SACD HDMI interface to DSD internal bus of ESS9018 chip without any format conversion process, which realizes an authentic DSD native data decoding directly and ensures the 100% realistic reproduction of music.

2. Based on the Latest Xmos DSD Solution

Another biggest feature is that the latest Xmos is equipped with built-in DCA, which not only supports Native DSD data transportation provided by USB Audio Class 2.0 but also be compatible with the current common DSD mode of DDP mode. The Xmos USB core technology could input Native DSD data which is up to 32-bit/384kHz PCM, DSD64/2.8Mhz, DSD128/5.6Mhz and DSD256/11.2Mhz to the USB audio interface. Except for the traditional PCM digital stream, it supports all popular PC digital audio format but also the decoding for the native stream of DXD and DSD.

3. Dual ESS9018 DAC design with 8-channel parallel mono output mode

Audio decoding is powered by 2 groups of ESS Sabre ESS9018 chip with patented technology of 32 bit "Time Domain" eliminate jitter clock, and digital audio data is completely available for PCM up to 32bit/384kHz, DSD64/DSD128 and DSD256 by Xmos USB interface. As a result, it could be compatible with those high resolution format without any further upgrade. At the same time, it is equipped with a TCXO (Temperature Compensated Crystal Oscillator) with ultra high accuracy as little as 1ppm so that the high dynamic high contrast characteristic of high resolution digital audio could be perfectly remain. You could enjoy an unprecedented experience even though playing the compressed audio like MP3.

4. Pure analogue power design

The power system of digital circuits and analogue circuits are separated that ensures the pure and accurate reproduction. Digital part is totally isolated from analogue parts from power to circuit board, and the internal cables are as less as possible so as to reduce the interfere with the sound. The circuit board design use the quality sound as a starting point with sophisticated materials.

The apparatus has a built-in authentic hi-end analogue preamplifier featuring with a finely tuned DAC which could set a proper level balanced XLR output to amplifier. The preamplifier part has a built-in Pre out output interface so as to connect the external audio equipment. The output of single-ended signal is provided by high quality bandwidth and ultra CMRR transformer, being completely consistent with the sound from the XLR output and providing a more suitable sound for the audiophile within the sound characteristic of big dynamic, high density and vigorous.

5. Floating design

The floating designed DAC has a instrument level single-ended output module (audio coupling transformer) with CMRR up to 90dB and bandwidth up to 22Mhz. It could provide large dynamic and wide bandwidth audio single-ended output with reduction rate of 100% symmetric interface, making the sound more listenable and interesting. Audiophiles could enjoy the high quality sound from symmetric interface by the single-ended output.

6. Ultra-low distortion with high precision balanced analog volume potentiometer

The output volume from the traditional DAC decoder which supports high level pre amplifier output is adjusted by DAC chip digital attenuator, however, we chose balanced analog amplified volume attenuation system modules, as a result, linear regulation could be accurate to 0.5db per step, making the volume control more smoothly without any distortion and noise from the traditional potentiometer.

Model one could be used as a preamplifier as the DAC symmetric output level could be up to 2.7v rms and the non symmetric one could be up to 1.2v rms. A pure analog symmetric high precision potentiometer is designed at the output, which could control the output volume level more precise with 0.5db per step from 90db to 0db. The analogue symmetric audio signal outputs directly via symmetric level adjustment so as to realize the control to the preamplifier output volume which is convenient for connecting dual amplifier or high quality active subwoofer.

7. The heavy weight double sandwich chassis design

The ultra-thick combined sandwich chassis is made by mixed material with a design of unique suspension and shock-absorbing technology. The customized shock-absorbing material is sandwiched between steel casing and thick aluminum alloy chassis base, which could eliminate the bad effect of vibration to the sound subtly with the large bronze spikes and realize a perfect suspension. The effect of perfectly isolating from the interference of the external vibration and eliminating the mechanical resonance itself is far more than a common so-called heavy weight materials designed with single material.

The internal circuit boards and components are all coated by shock absorption material, which could completely eliminate the effects of subtle vibrations due to the voltage and current that generated by working component to the sound, as a result it could significantly increased the cleanliness and fluency of the sound. All the electronic components are working in exactly the same temperature due to the hermetic chassis, which prevents the component and circuits from being corroded by dust and moisture, thus increasing the service life.

8. Fully balanced high-speed analog amplifier circuit

The available bandwidth of the apparatus could reach to 650 kHz in (-3dB) and ensure the flat of the frequency response within listening range, which can perfectly reproduce the high resolution files and the essence of high-contrast and high bandwidth for the new generation recording. Not only ensures the available wide bandwidth but it also allows the rotation rate to reach to excellent as 85Vus(p-p), and the result is that the reproduction details will not be dragged and fuzzy, like accurately focusing a high resolution pictures. Thanks to the selective transistor, the High power could coexist with low distortion, and there is absolutely no roughness like the normal transistor. The paired transistors are working in the environment of the same temperature and low vibration due to the built-in non resonance thermal design and further the music reproduction perfectly. The key to make the music alive and rich is that the full range has a very low distortion while full power output.

Install Caution

Power requirement

MODEL ONE with default setting applies to 50Hz/220v AC power. Please make sure the AC power is consistent with the specification marked on the label of the apparatus before using it.

If MODEL ONE is applied with a improper AC voltage, it may cause damage to it and will lead to safety and fire problem.

Position and ventilation

- In order for ventilation, please do not put anything above the apparatus if it is installed on the rack, such as the roof of the rack . Please do not put the apparatus into the inclosed rack or closet.
- Please place the apparatus on a flat, smooth and stable surface.
- To reduce the lenght of the inter connecting cables, please mount the apparatus as close as possible to the other components
- The place for mounting should be dry and well-ventilated without being exposed to the sunlight.
- The apparatus should not be exposed to high temperature, moisture, steam, smoggy, or dusty environment.
- To avoid damaging and the risk of electronic shock, do not pour the water directly on the apparatus

Warning :

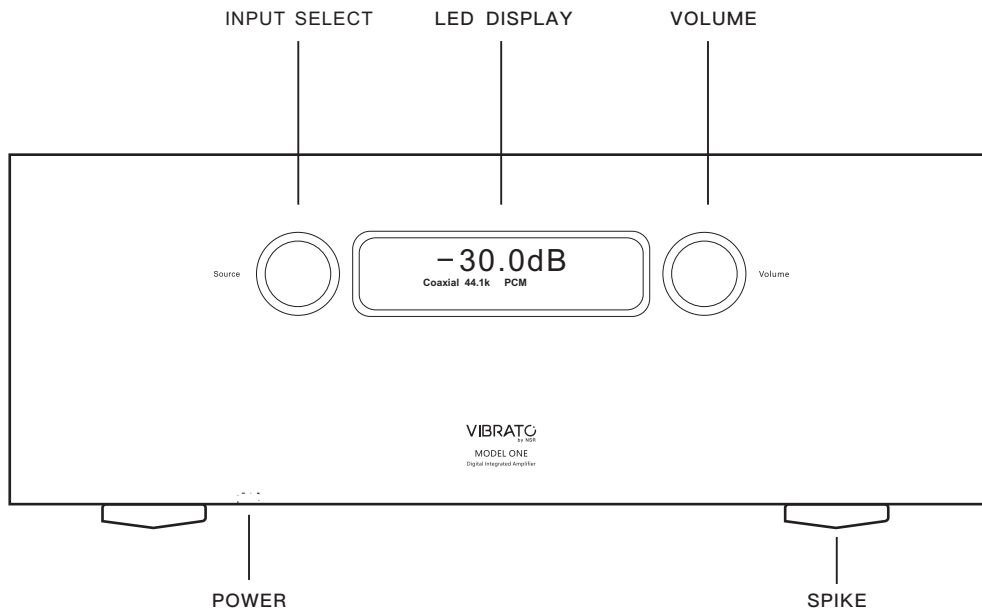
1.Make sure that all components in the audio system are properly grounded. Please do not use the grounding disconnecter which could destroy the polarity or grounding plug that has the safety performance, since it will cause a dangerous voltage between components and lead to personal and property losses.

2.MODEL ONE could deliver a elegant and unforgettably within ultra high power.

Your power supply conditions may become as one of the factors to limit the system performance based on your listening habits, as well as the quantity of speakers and power amplifiers that you require in your system requirements. You may consider to install a specified AC circuit if it happens. Please consult a qualified electrician if the power is supplied by multiple AC circuit so as to make sure all the components are working in same, stable and low impedance grounding condition. Unplug the MODEL ONE during lightening storms or when unused for long period of time.

3. Unplug the MODEL ONE from the power socket before remove it and make sure the power is off.

Front panel



POWER

Power button is hidden in the lower left side of the spikes, and could switch on/off

KNOB

Input source select : Push the Source knob before selecting the input source, then switch to different sources by left-right rotating. The source name would be shown on the LED display.

VOLUME

This is a volume knob without sections, and it ranges from -99dB to 0dB with precise adjustment. Increase the volume when turning to right, and decrease the volume by turning left.

LED DISPLAY

It is OLED display and could show information as follows:

Volume

Input source name

Input source format(DSD/PCM)

Sample frequency and quantization accuracy

Mute

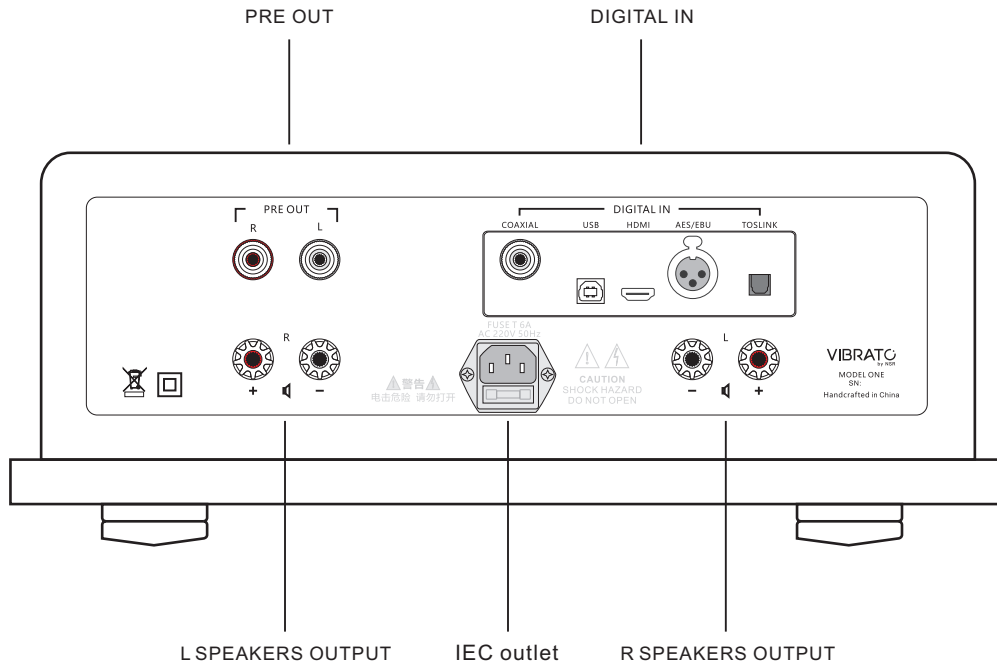
Bronze spikes

It could precisely adjust the level of the machine as a part of suspension system.

Warning:

The apparatus could memorize the volume of the last status. In order to avoid damaging the drivers by the sudden high volume, please turn down the volume before switching off or switching the input source.

Rear panel



IEC outlet

Please use the apparatus according to the specifications of the voltage/frequency and fuse.

DIGITAL IN

COAXIAL (RCA) ; HDMI ; USB ; AES / EBU (XLR); Optical

PRE OUT

Through the terminal before the level signal transmission to the level or ultra-low sound box, can be used as independent with the front-end decoder

Pre-amp signal could be transmitted to Amp. or subwoofers by this terminal, and could be used as a independent decoder with pre-amp.

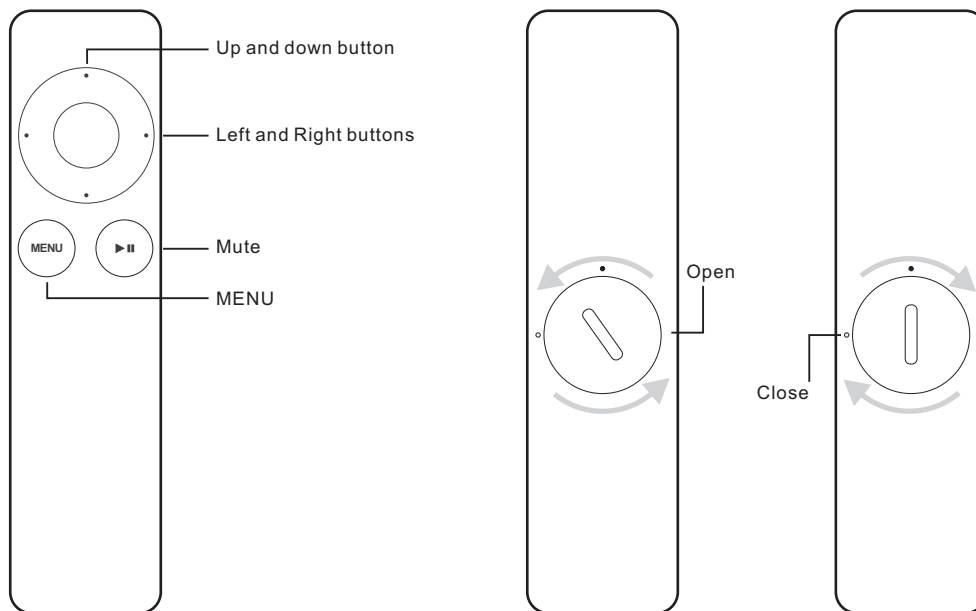
SPEAKERS OUTPUT

Could be connected to the speakers by banana or spade plugs

Warning

Although MODEL ONE has a speaker protective device, it still could lead to the permanent irreparable damage to the amplifier in individual cases, such as speaker output terminals in short-circuited state at a high volume. As a result, touching of the positive and negative speakers wire is prohibited.

Remote Control



Up and down button : Control the volume by press up or down.

Left and Right buttons : Select the input source when used with the Menu button.

MENU : Press this button when you want to switch the input source, then press left or right to select the source.

▶ || Mute: Volume could be turned down 20dB when press it, and back to normal by press it again.

Operating the Remote control

- Point it to the front panel of the MODEL ONE When using the remote control . Make sure there are no obstructions between the Model One and remote control , such as furniture. The interference of Light, fluorescent and plasma video displays may affect normal operation of the remote control.

- The effective distance of the remote control is about 5 meters, depending on the lighting conditions

- You can use the remote control toward to the MODEL ONE within 45° angle on both sides.

- The Valid range of the remote control will be weakened when the MODEL ONE is placed behind a tinted glass.

- If intermittent failures happen when using the remote control, please replace old batteries with new batteries.

Mount the battery

A 3.0V Br2032 or CR2032 lithium-ion coin cell will be attached to the Remote Control.

To mount the battery, please use a coin into the groove then rotate to the left for opening the battery cover, then mount battery with correct polarity, then put the battery cover back and turn right to tighten it.

Characteristic

1. Based on the Latest 32 bits Xmos and PCM/Native of Exx-Sabre DSD Solution
2. USB audio class 2.0 interface supports up to 32bit 384khz PCM decoding
3. Support decoding for Native DSD64/ 2.8Mhz, DSD128/5.6Mhz , DSD256/11.2Mhz
4. 1ppm Ultra-high-precision dual-clock TCXO
5. Ultra-low jitter clock to 0.01UI(p-p)
6. Support Audio class 2.2 asynchronous drive at Windows
7. Native DSD及DSD audio over USB, Dop Mode
8. Dual ESS9018 DAC design with 8-channel parallel mono output mode
9. Digital CPLD logic signal processing technology could deal with all the digital audio input signal effectively.
10. With former high-level output stage increases the analog volume control system, low distortion, and support IR infrared volume control
11. The sound effect of Single-ended analog output is consistent with the effect of the symmetric interface by using the single ended of 22M bandwidth audio output transformer with high CMRR floating design, which is convenient for users to connect dual amplifiers or high quality sub woofer.
12. Multi digital input: HDMI ; USB ; AES/EBU ; SPDIF, Optical
13. Built-in CPLD logic processor could switch the audio signal and realize the error correction technology.
14. Clear OLED LCD display with large screen
15. All the audio outputs could protect your terminal equipment by the anti-impact sound switch design.
16. All the electronic components are working in the stable status due to the hermetic chassis, which prevents the component and circuits from being corroded by dust and moisture, thus increasing the service life.
17. The reproduction of the music comes to unprecedented by the shock isolation design of a variety of materials with a long-term experiment verification.
18. Unique and adjustable bronze alloy spikes
19. The internal audio cables are all 6N OCC customized by Atlas Cables in Scotland.
20. The external terminal are all 75 ohm customized by WBT with bandwidth over 1G
21. Digital and analogue part are independent.

Warning: The apparatus has a 200 hours aging process before it leaves factory, and it could enter the work state each time after booting 30 minutes. Please feel relieved the use.

Technical specification

Pre amp RCA analogue output:

Frequency response : 20Hz-20Khz -0.1dB ;

THD-N : <0.001% @ 1khz/20khz,

SNR : -100dB

output amplitude : 1.2V

Output impedance : 50 watt

Amplifier Parts :

Output power : 100 watt RMS/channel@8 ohm ; 160watt RMS/channel @4ohm

Frequency Response : 20Hz- 20kHz \pm 0.1dB ; 3Hz-650kHz -3dB

Slew Rate : 85v /uSec

Dampening Factor : At 100hz 8 Ω = 800

THD-N : <0.02% @ 1khz/20khz,100W,8 Ω ;

Digital Part :

receivable sample frequency/bit depth : PCM : 16bit44.1khz ; 24bit 44.1khz, 48khz, 96khz, 176.4khz, 192khz, 352.8khz, 384khz ;

1Bit DSD : DSD56/2.8Mhz ; DSD128/5.6Mkhz ; DSD256/11.2Mhz

Digital audio input :

HDMI ; USB ; AES/EBU (XLR) ; S/PDIF (RCA) ; Optical

Pre amp analogue output : RCA non symmetric

Speakers output : WBT terminal

Power : AC 220V 50Hz

Static power consumption : 25Watt

Maximum power consumption : 500Watt

Net weight : 30kg

Size : 45x43x18.5cm(Width*depth*height)

Package size : 71x58x32cm(Width*depth*height)

Gross weight : 48kg