OSD NERO

XC1

INTEGRATED AMPLIFIER & DAC

OWNER'S MANUAL



Introduction

Welcome to a new kind of centerpiece.

The OSD Nero XC1 packs a complete high-fidelity system into one strikingly compact aluminum chassis. A high-current Infineon MERUS multi-level Class-D output stage delivers a commanding 135 watts into 4 ohms, fed by a reference ESS Sabre ES9038K2M DAC and a genuine audiophile XMOS XU316 USB engine through a fully DC-coupled signal path. Virtually every source you own has a home here — balanced XLR, phono, line, optical, coaxial, USB-C, HDMI ARC and Bluetooth aptX HD.

Front and center, the brilliant 5.2-inch XC-Touch display brings the music to life with classic meter views and a full-band spectrum analyzer, while a machined gold volume knob puts precise, tactile control at your fingertips.

Big sound. Serious engineering. Beautifully compact.

Why Nero XC1

What sets the Nero XC1 apart.

The refinement of Class-A/B, the efficiency of Class-D

A carefully voiced high-fidelity architecture — fully DC-coupled, with a benign, mostly low-order distortion character — delivers the warmth and musicality listeners associate with classic Class-A/B amplifiers, while a modern multi-level Class-D output stage keeps the XC1 cool, compact and effortless.

Infineon MERUS multi-level Class-D

High efficiency with low switching noise, for effortless power and a clean, refined top end.

Fully DC-coupled signal path

No coupling capacitors in the audio path, avoiding the phase shift and tonal coloration they can add — the signal stays pure from input to output.

Audiophile components

WIMA MKP film capacitors in the output filter and premium audio-grade parts throughout the signal path.

Reference digital front end

An ESS Sabre ES9038K2M DAC and an XMOS XU316 USB engine resolve high-resolution audio up to 768 kHz / DSD512.

Iron-grip bass control

A damping factor of 200 (0.04 Ω output impedance) keeps the woofer tightly controlled for articulate bass and clean transients.

Measurably clean, naturally musical

THD+N below 0.0065%, a 102 dB signal-to-noise ratio and a ruler-flat 20 Hz – 20 kHz response mean the amplifier adds as little of its own signature as possible.

Important Safety Instructions

VOLTAGE SELECTOR — READ FIRST. The XC1 is not auto-ranging. Before connecting the power cord, set the rear voltage-selector switch to match your local line voltage: ~100–120 V (100–120 V / 60 Hz regions) or ~220–240 V (220–240 V / 50 Hz regions). Connecting power with the wrong setting can damage the unit and is a safety hazard.

1. Read these instructions and keep them for future reference.
2. Do not expose the unit to rain, moisture, dripping or splashing; do not place liquid-filled objects on it.
3. Install in a well-ventilated location. Do not block the ventilation slots, and allow space around the unit for heat to escape.
4. Keep away from heat sources such as radiators, heat registers, stoves, or other heat-producing equipment.
5. Use only the supplied or an equivalent approved AC power cord. Route the cord so it will not be walked on or pinched.
6. The fuse (T16A / 250 V) is not user-serviceable. Refer all servicing to qualified personnel.
7. Unplug during lightning storms or when unused for long periods.
8. Switch off and unplug the power cord before connecting or disconnecting speakers or source cables.

Features

- 135 W into 4 Ω / 70 W into 8 Ω from an Infineon MERUS multi-level Class-D output stage.
- ESS Sabre ES9038K2M DAC with an XMOS XU316 USB engine — PCM to 768 kHz/24-bit, native DSD512, DoP256.
- 5.2-inch XC-Touch touch display with three meter views and a full menu system.
- Eight inputs: balanced XLR, RCA line, RCA phono (MM) with ground post, coaxial, optical, USB-C, HDMI ARC and Bluetooth.
- Variable RCA pre-out for a subwoofer or external power amplifier.
- Bluetooth 5.0 with SBC, AAC, aptX, aptX HD and aptX Low Latency.
- Direct mode for the shortest, purest analog signal path.
- Machined gold volume knob with a dimmable illuminated light ring.
- Black anodized aluminum chassis, 265 mm wide.

Front Panel



XC1 front panel, shown on the Inputs screen.

1. Brand mark

OSD Nero brand mark.

2. XC-Touch display

5.2", 1280 × 416 — shows the selected source, volume in dB, the detected sample rate, and the active meter view. Touch the screen to open the menus and to change display modes.

3. Tab column

Inputs, Display and Setups. Inputs selects the active source; Display holds the Dimmer; Setups holds the system options. On the playing screens a shortcut column appears down the right-hand edge of the display instead — see The XC-Touch Display.

4. Volume knob

Marked PUSH with a power symbol — press to switch the unit on or to standby; rotate to raise (+) or lower (−) the volume. The illuminated light ring around the knob indicates power state and is dimmable.

5. Model designation

XC1.

Rear Panel



XC1 rear connection panel.

1. AC/MAINS POWER

Master ON/OFF rocker switch and AC inlet. Supply is ~100–120 V / 60 Hz or ~220–240 V / 50 Hz. The panel legend reads MAINS POWER.

2. Voltage selector

Manual ~100–120 V / ~220–240 V switch. Set to match your local line voltage before connecting power.

3. SPEAKER OUTPUTS

Two pairs of binding posts (L +/–, R +/–) for one stereo speaker pair, 4–8 Ω.

4. ARC

HDMI ARC input; connect to a TV's HDMI ARC port for television audio.

5. BT-ANT

Bluetooth antenna connector, between the HDMI ARC port and the COAXIAL input.

6. SERVICE (USB-C)

For firmware updates and service only; not an audio input.

7. USB (USB-C)

Asynchronous USB audio input from a computer (PCM to 768 kHz/24-bit, DSD512).

8. COAXIAL / OPTICAL

S/PDIF digital inputs (to 24-bit/192 kHz).

9. LINE / PHONO (RCA)

Analog line-level input and moving-magnet turntable input (L top row, R bottom row).

10. PRE OUT (RCA, L/R)

Variable pre-amplifier output to a power amp or subwoofer.

11. BALANCED INPUT (XLR, L/R)

Balanced analog input.

12. Ground terminal

Marked with the earth symbol, at the far right of the panel, outboard of the balanced inputs. Attach a turntable's ground wire here.

Setting Up

Set the voltage selector

Confirm the rear voltage selector matches your local line voltage (~100–120 V or ~220–240 V) before doing anything else. See the safety notice above.

Connect speakers

1. Ensure the unit is switched off and unplugged.
2. Connect the left speaker to the L (+/–) binding posts and the right speaker to the R (+/–) posts, observing correct polarity.
3. Use speakers with a nominal impedance of 4–8 Ω. Bare wire, banana plugs, or spade lugs may be used.

Connect sources

- **Analog:** connect line-level sources to LINE (RCA) or to the balanced XLR input; connect a turntable to PHONO and attach its ground wire to the ground terminal at the far right of the rear panel.
- **Digital:** connect players or a TV via COAXIAL, OPTICAL, or HDMI ARC; connect a computer to the USB-C audio input.
- **Bluetooth:** fit the supplied antenna to the BT-ANT connector at the far right of the rear panel for reliable wireless reception.

Power on

1. Connect the AC power cord and set the MAINS POWER rocker to ON.
2. Press the volume knob to bring the unit out of standby. The display will illuminate.

Everyday Operation

Power and standby

Press the volume knob to switch between on and standby. To fully power down, use the rear MAINS POWER switch. In standby the unit draws less than 0.8 W.

Volume

Rotate the knob clockwise to increase volume and counter-clockwise to decrease it. The level is shown on the display in decibels and adjusts from 0 dB down to -80 dB in 1 dB steps; below -79 dB the display shows MUTE.

Selecting a source

Touch the display to open the Inputs screen, then tap the source you want (XLR, PHONO, LINE, COAXIAL, OPTICAL, USB-C, BT or ARC). The selected source and its detected sample rate are shown on screen.

Auto standby

To save energy, the XC1 can power down automatically when no audio signal is present. The timer can be set to 20, 60 or 120 minutes, or to Always On, from the Setups menu.

The XC-Touch Display

The 5.2-inch XC-Touch display is the main interface. It shows the active source, the volume in decibels and the detected sample rate, and it offers selectable meter views and a full settings menu — pairing classic meter style with modern touch control.

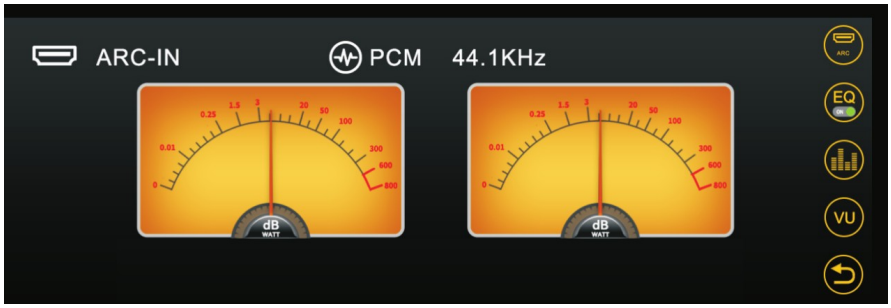
Input screen



The input screen — active source, level in dB, and the touch shortcut column.

The input screen is the normal playing view. The selected source is named at the top left and the current level is shown as a large dB readout. The shortcut column on the right switches meter views, toggles EQ, and returns to the previous screen.

Meter views



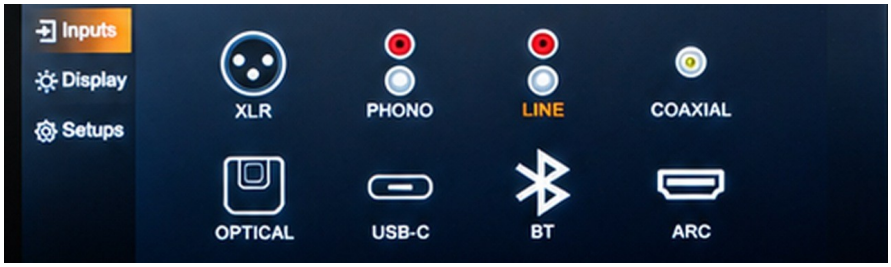
The analog-style level indicator — one of three meter views.

Three meter views are available from the shortcut column:

- **Analog-style level indicator** — a pair of orange analog dials.
- **Dual VU meters** — a horizontal pair of VU meters.
- **Full-band spectrum analyzer** — a colored multi-band display across the left and right channels.

Note: the figures printed on the analog meter faces are part of the dial graphic. The meter is a visual level indicator and is not a wattage readout.

Menu navigation



The Inputs tab — tap any source to select it.

Touch the screen to reveal three tabs — Inputs, Display and Setups. Inputs selects the active source; Display holds the Dimmer; Setups holds the system options.

Display tab



Dimmer — screen brightness, under the Display tab.

Dimmer sets the brightness of the XC-Touch display.

Setups menu



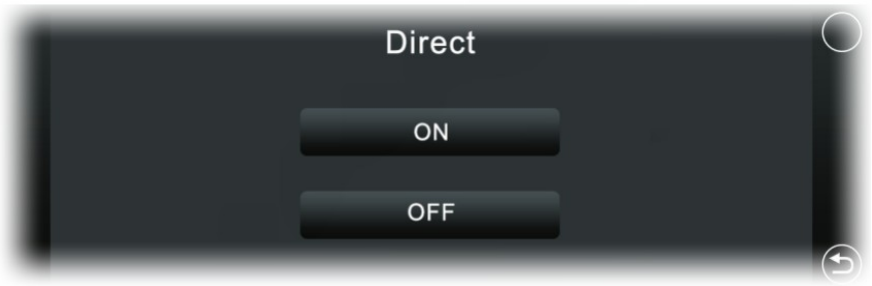
The Setups tab, first page. Scroll for Direct and Light Ring.

The Setups list runs over two pages — EQ, Balance, Auto Standby, Info, Screensaver and Reset on the first page, Direct and Light Ring on the second.

Setting	Function
EQ	Adjustable treble and bass tone controls.
Balance	Left / right channel balance.
Auto Standby	Automatic power-down timer: 20, 60 or 120 minutes, or Always On.
Info	Shows the model (OSD Audio XC1) and firmware revision.
Screensaver	Display timeout: 5, 10 or 30 minutes, or Always On.
Reset	Restore factory settings (Reset all / Cancel).
Direct	ON / OFF — see below.
Light Ring	Brightness of the volume-knob LED ring: 100%, 75%, 50%, 25% or Off.

The XC1 has no Speaker out option in the Setups menu; speaker A/B switching is a feature of the XAB1, not this model.

Direct mode



Direct — ON / OFF, on the second page of the Setups menu.

Direct mode gives the shortest, purest analog signal path and is available on the analog line input. With Direct on, the volume is fixed at 0 dB and the EQ and Balance are bypassed, and the LINE entry in the Inputs tab changes to DIRECT.

Bluetooth Pairing

1. Select BT as the input on the XC1.
2. On your phone, tablet, or computer, enable Bluetooth and search for new devices.
3. Select "OSD Nero XC1" from the list to pair and connect.
4. Play audio from your device; it will stream to the XC1.

The XC1 uses Bluetooth 5.0 with support for SBC, AAC, aptX, aptX HD and aptX Low Latency. The codec used depends on the transmitting device. Effective wireless range is up to about 15 meters in open space.

USB-C High-Resolution Audio

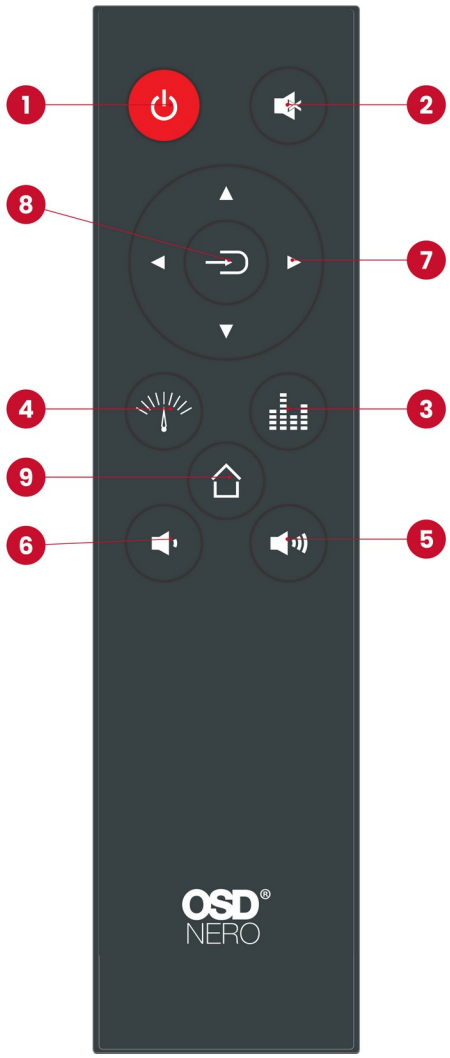
At the heart of the XC1's digital section is a true audiophile USB engine — an XMOS XU316 interface feeding the ESS Sabre ES9038K2M DAC. Connect a Mac or PC to the USB-C input and the XC1 becomes a reference-grade desktop DAC.

- **Every bit of your hi-res library** — PCM up to 768 kHz / 24-bit, plus native DSD up to DSD512 and DoP up to DoP256, delivered untouched.
- **Bit-perfect and low-latency** — USB Audio Class 2.0 (and UAC 1.0 compatible) with ASIO support for pristine, driver-level playback.
- **Works with everything** — plug-and-play on Windows, macOS, Linux, Android and iOS. A driver may be needed on Windows for the highest rates and ASIO.

Select USB-C as the source on the XC1 and choose the XC1 as your computer's audio output. Use the rear jack marked USB — the jack marked SERVICE is for firmware updates only.

Remote Control

The included infrared remote duplicates the main front-panel functions. Point the remote toward the front panel and avoid blocking the line of sight.



Nero series infrared remote — control callouts.

1. Power
Switches the unit between on and standby.

2. Mute
Mutes and unmutes the output.

3. Source
Steps through the inputs.

4. Tone
Opens the tone / EQ controls.

5. Vol +
Raises the volume in 1 dB steps.

6. Vol –
Lowers the volume in 1 dB steps.

7. Navigation pad
Moves through the on-screen menus.

8. Enter
Confirms the highlighted selection.

9. Back
Returns to the previous screen.

One infrared remote operates every model in the Nero family, so not every button applies to every model.

What's in the Box

- OSD Nero XC1 integrated amplifier
- Detachable AC power cord
- Bluetooth antenna
- Infrared remote control
- Safety & Quick Reference card, with a QR link to this manual

Troubleshooting

Symptom	What to check
No power	Confirm the rear MAINS POWER switch is ON, the cord is seated, and the voltage selector is set correctly. Press the volume knob to leave standby.
No sound	Check that the correct input is selected, cables are firmly connected, and volume is turned up. Verify speaker connections and polarity.
Volume shows MUTE	The level is below -79 dB. Turn the knob clockwise to raise it.
Hum on the phono input	Attach the turntable's ground wire to the ground terminal marked with the earth symbol, at the far right of the rear panel. Keep the turntable away from the amplifier and its power cord.
Volume will not change	Direct mode fixes the volume at 0 dB. Set Direct to OFF in the Setups menu.
Bluetooth won't connect	Ensure the antenna is fitted to BT-ANT, select the BT input, remove the device's old pairing, and pair again within range.
No USB audio	Select USB-C as the source and select the XC1 as the output device on the computer. Use the USB jack, not SERVICE. Install a driver if required.
Unit gets warm	This is normal. Ensure ventilation slots are clear and the unit has space around it.

Specifications

Amplifier

Output stage	Infineon MERUS multi-level Class-D
Power output	70 W into 8 Ω, 135 W into 4 Ω, 1% THD, 2 channels driven
Continuous output current	>8 A RMS
THD + Noise	<0.0065% (1 kHz, 2 × 5 W into 8 Ω)
Signal-to-noise ratio	102 dB, A-weighted
Frequency response	10 Hz – 20 kHz ±1 dB; 5 Hz – 50 kHz ±3 dB
Input sensitivity	525 mV for 55 W into 8 Ω
Voltage gain	32 dB (×40)
Crosstalk	>68 dB at 1 kHz (2 × 5 W into 8 Ω)
Damping factor	200 (output impedance 0.04 Ω)
Signal path	Fully DC-coupled; WIMA MKP film output-filter capacitors

Sources & Conversion

DAC	ESS Sabre ES9038K2M (stereo)
USB interface	XMOS XU316 (xcore.ai)
Digital inputs	Coaxial RCA; Optical TOSLINK (24-bit/192 kHz)
USB input	USB-C, USB Audio Class 2.0 (UAC 1.0 compatible): PCM to 768 kHz/24-bit, native DSD512, DoP256; ASIO support
USB OS support	Windows, macOS, Linux, Android, iOS
Bluetooth	Bluetooth 5.0; SBC, AAC, aptX, aptX HD, aptX LL; range up to ~15 m
Analog inputs	1 × balanced XLR, 1 × RCA line, 1 × RCA phono (MM) with ground terminal
HDMI	1 × HDMI ARC (PCM 24-bit/192 kHz)
Outputs	1 × RCA pre-out; stereo speaker binding posts (4–8 Ω). No headphone output.

General

Display	XC-Touch — 5.2" touch, 1280 × 416 (three meter views + full menu)
Volume range	0 to -80 dB in 1 dB steps; MUTE below -79 dB
AC input	AC ~100–120 V / 60 Hz or 220–240 V / 50 Hz, manually switched
Fuse	T16A / 250 V (not user-serviceable)
Power consumption	<0.8 W standby, 10 W idle, 350 W max
Finish	Black anodized aluminum
Dimensions	265 × 63 × 207 mm (10.4 × 2.5 × 8.1 in), incl. feet, knobs and terminals
Weight	2.2 kg (4.9 lb) net; 2.7 kg (6.0 lb) gross

Specifications per OSD engineering data and are subject to change without notice.

Warranty Information

OSD Audio electronics have a two (2) year Limited Warranty against defects in materials and workmanship. Proof of purchase must accompany all claims. During the warranty period OSD Audio will replace any defective part and correct any defect in workmanship without charge for either parts or labor.

OSD Audio may replace returned electronics with a product of equal value and performance. In such cases, some modifications to the mounting may be necessary and are not OSD Audio's responsibility.

For this warranty to apply, the unit must be installed and used according to its written instructions. If necessary, repairs must be performed by OSD Audio. The unit must be returned to OSD Audio at the owner's expense and with prior written permission. Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse or from servicing performed by an agency or person not specifically authorized in writing by OSD Audio.

OSD Audio sells products only through authorized dealers and distributors to ensure that customers obtain proper support and service. Any OSD Audio product purchased from an unauthorized dealer or other source, including retailers, mail order dealers and online sellers, will not be honored or serviced under existing OSD Audio warranty policy. Any sale of product by an unauthorized source, or in any other manner not authorized by OSD Audio, shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, you must email customer service at RMA@audiogeargroup.com for a Returned Merchandise Authorization (RMA) number, then the unit must be shipped to OSD Audio at the owner's expense along with a note explaining the nature of service required. Be sure to pack the product(s) in a corrugated container with at least 3 inches of resilient material to protect the unit from damage in transit.

This Warranty Does Not Cover

- Damage caused by abuse, accident, misuse, negligence, or improper operation (installation).
- Any products that have been altered or modified.
- Any product whose identifying number or decal, serial number, etc. has been altered, defaced or removed.
- Normal wear and maintenance.

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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