



ZEN Phono 3 Black

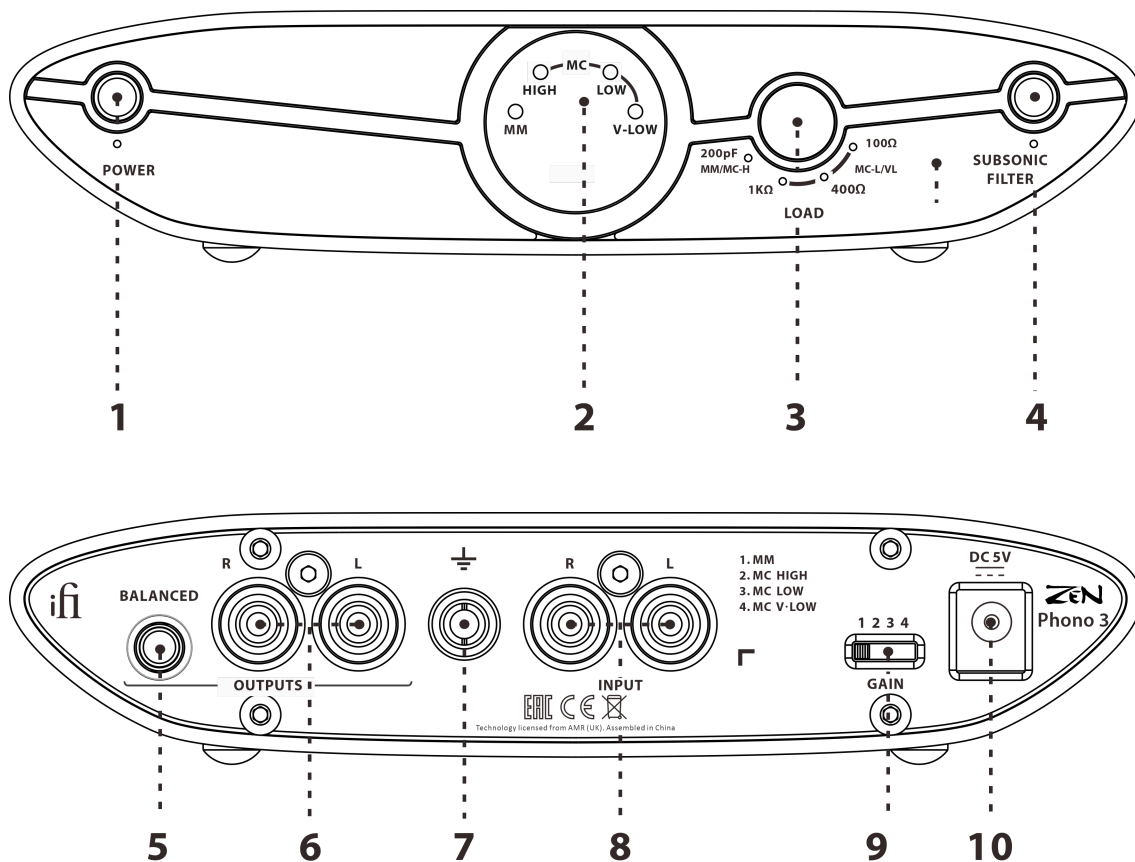
User Manuals

Thank you for purchasing the ZEN Phono Black from the ZEN series. The ZEN Phono 3 Black is a balanced MM/MC phono stage.

Unleash the full potential of your favourite vinyl records with the **ZEN Phono 3 Black**. It boasts an intelligent subsonic filter that transforms the sound of your warped vinyl records, a noise floor quieter than some Class A+ phono stages, providing greater dynamic range and supports four MC/MM gain selections to ensure compatibility with a wide range of cartridges. The **ZEN Phono 3 Black** creates a serene listening experience that allows every musical detail to shine through.

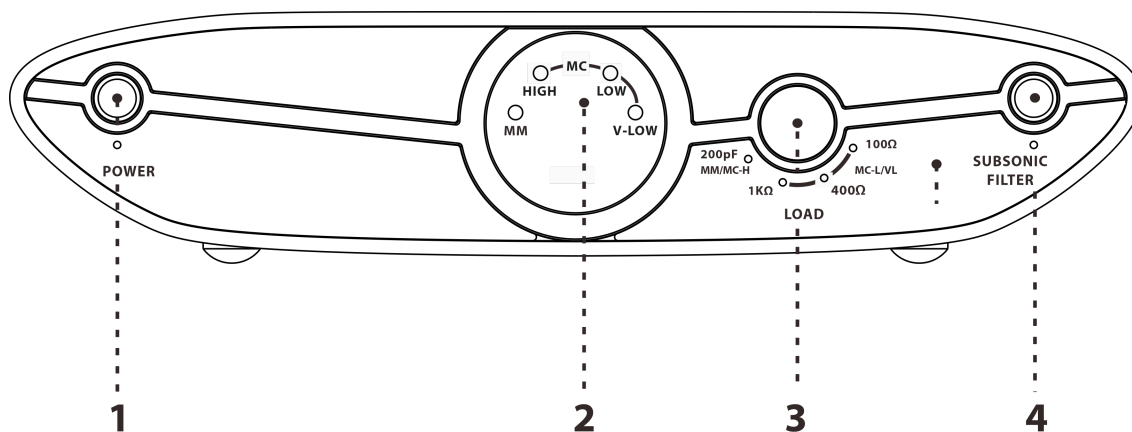
FEATURES:

- Supports four MC/MM gain selections from 36dB to 72dB and four input impedance settings, ensuring compatibility with a wide range of cartridges
- Features intelligent subsonic filter to intelligently remove only the ultra-low frequencies caused by warps, not by the music, unlike typical bass-reducing filters
- With an EIN (Equivalent Input Noise) of -151dBV, this phono stage surpasses some Class A+ models by 20dBV, ensuring a super-silent noise floor
- Precise RIAA with balanced output, performance matches that of a \$1,000 phono stage
- Internal high-tech 1.2MHz clean power supply, rivalling classic tube amplifiers' LC filtering circuits



1. Power Switch
2. MM/MC Gain Mode Display
3. Load Mode Selector Switch
4. Subsonic Filter On/Off
5. Balanced 4.4mm Line Output
6. RCA Single-Ended Line Output
7. Grounding Terminal
8. RCA Single-Ended Line Input
9. Gain Mode Switch
10. DC 5V Power Supply Input

SPECIFICATIONS:



1. Power Switch

Short press to switch the device on/off.

Note: If the device has been on for 10 minutes or more, press the power switch twice to turn it off. This only occurs after extended use, as the MCU disengages from the signal path to ensure the best sound quality!

2. MM/MC Gain Mode Display

The LEDs indicate the currently selected gain mode (see item 9).

LED	Gain Mode (9)	Cartridge Output Level
MM	1 MM	>2mV
HIGH	2 MC HIGH	≤2mV
LOW	3 MC LOW	≤0.5mV
V-LOW	4 MC V-LOW	≤0.25mV

Tip: After 10 minutes of operation, ZEN Phono 3 Black enters a locked state, preventing any changes to the settings. To unlock and make adjustments, simply short-press the intelligent subsonic filter switch (4).

3. Load Mode Selector Switch

This button cycles between 4 load levels:

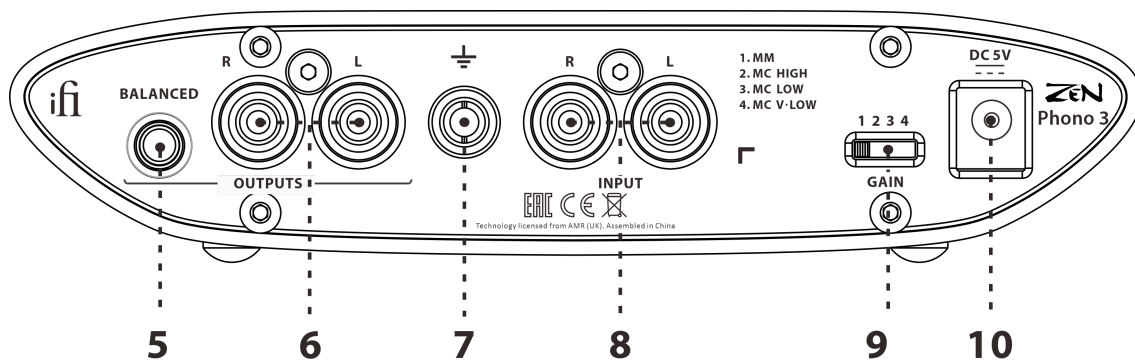
Load	Gain Mode
200pF (Default is 100pF)	MM/MC HIGH
1kΩ/400Ω/100Ω	MC LOW/MC V-LOW

Tip: After 10 minutes of operation, ZEN Phono 3 Black enters a locked state, preventing any changes to the settings. To unlock and make adjustments, simply short-press the intelligent subsonic filter switch (4).

4. Subsonic Filter On/Off

This is the Subsonic filter switch.

The iFi-designed subsonic filter will intelligently detect whether a subsonic frequency is a record warp or a bass note. It will eliminate the warps and let all the bass and mid-range frequencies pass through untouched. Therefore, it will not adversely affect the sound quality.



5. Balanced 4.4mm Line Output

This is an analogue output via 4.4mm > XLR or other balanced interconnects. You can use this to connect to active speakers or amplifiers that have a volume control.

Tip: As the ZEN Phono 3 Black is balanced, this is the recommended output.

6. RCA Single-Ended Line Output

This is an analogue output via RCA > RCA or other single-ended interconnects. You can use this to connect to active speakers or amplifiers that have a volume control.

7. Grounding Terminal

This is the ZEN Phono 3 Black's grounding terminal; please connect it to the turntable's grounding wire.

8. RCA Single-Ended Line Input

This is the analogue input. Connect your turntable to the ZEN Phono 3 Black here.

9. Gain Mode Switch

This switch allows you to select between 4 gain levels, ranging from 36-72dB of amplification:

Gain Channel	Cartridge Output Level
1. corresponds to MM	(>2mV)
2. corresponds to MC HIGH	(≤2mV)
3. corresponds to MC LOW	(≤0.5mV)
4. corresponds to MC V-LOW	(≤0.25mV)

Note: Please adjust the gain channel switch in accordance with your preference and your turntable/cartridge specifications.

10. DC 5V Power Supply Input

The ZEN Phono 3 Black is powered by a 5V supply only. Please connect the ZEN Phono 3 Black to the enclosed power supply.

Tip: For best performance, upgrade the enclosed power supply to a super-low noise power adapter such as SilentPower's iPower2 5V or iPower X 5V.

SPECIFICATIONS:

Analogue Input:	RCA L/R
Analogue Output:	Balanced 4.4mm
	RCA L/R
Max.^ Output Voltage RMS:	
Balanced	≤19.98V RMS 100kΩ (THD+N <1%)
	≤12.75V RMS 600Ω (THD+N <1%)
Single-Ended	≤10.07V RMS 100kΩ (THD+N <1%)
	≤7.94V RMS 600Ω (THD+N <1%)

Output impedance:

Balanced $\leq 200\Omega$

Single-Ended $\leq 100\Omega$

Input impedance:

MM/MC HIGH $47k\Omega$ 100pF or 200pF (optional)

MC LOW/MC MC V-LOW $1k\Omega$ or 400Ω or 100Ω (optional)

Gain settings

MM 36dB (± 1 dB)

MC HIGH 48dB (± 1 dB)

MC LOW 60dB (± 1 dB)

MC V-LOW 72dB (± 1 dB)

SNR: (All 2V Balanced/1V Single-Ended)

MM 91dB (A-weighted)

82dB (unweighted 80kHz BW)

MC HIGH 81dB (A-weighted)

71dB (unweighted 80kHz BW)

MC LOW 89.6dB (A-weighted)

80dB (unweighted 80kHz BW)

MC V-LOW 78.6dB (A-weighted)

69dB (unweighted 80kHz BW)

Ein (equivalent input noise): (All 2V Balanced/1V Single-Ended)

MM $8.9nV/\text{Hz}$ (unweighted) -127dBV (A-weighted)

-118dBV (unweighted)

MC HIGH $7.95nV/\text{Hz}$ (unweighted) -129dBV (A-weighted)

	-119dBV (unweighted)
MC LOW 0.7nV /Hz (unweighted)	-149.6dBV (A-weighted)
	-140dBV (unweighted)
MC V-LOW 0.63nV /Hz (unweighted)	-150.6dBV (A-weighted)
	-141dBV (unweighted)
Total Harmonic Distortion:	(All 2V Balanced/1V Single-Ended @ 600Ω)
MM	<-91dB/0.0027%
MC HIGH	<-80dB/0.0095%
MC LOW	<-70dB/0.031%
MC V-LOW	<-73dB/0.022%

General

Channel Separation: >75dB (1kHz all modes)

Frequency Response: 20Hz - 20kHz (±0.15dB)

20Hz - 80kHz (±3dB)

Power Supply Requirement: DC 5V/0.5A (centre +ve)

Power Consumption:

No Signal ~1.5W

Max Signal ~1.8W

Dimensions: 158 x 115 x 35 mm (6.2" x 4.6" x 1.4")

Net Weight: 456 g (1.0 lbs)

Limited Warranty: 12 months*

**12 months typical or as permitted/required by local reseller laws.*

***Specifications are subject to change without notice.*

^See FAQ at ifi-audio.com for more information.