rePro ducer

EPIC 4

Compact Precision Nearfield Studio Monitor

User Guide

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Welcome!

Thank you for purchasing this set of Epic 4 two-way professional compact nearfield monitor speakers! We hope you enjoy this amazing near-field monitoring solution. This guide will give you some important safety tips and suggestions to get the best perfomance from your Epic 4 monitors!

The Concept Behind Epic 4

Trends in the last couple of years have moved many producers to work in smaller, more intimate spaces, while multi-channel content development has also reached never-before-seen levels. Much of this content is destined for enhanced multichannel home theater systems, and producing it requires a system of many smaller reference monitors, typically coupled with a larger subwoofer, such as 5.1/7.1 surround, Dolby Atmos systems, etc.

Our Epic 4 compact nearfield studio monitor is the perfect solution for either of these use cases. It's compact size makes it perfect for home studios, improvised studios, traveling engineers and producers, and multi-channel monitoring systems.

In the tradition of creating uncompromising products, the reProducer Audio Labs team insisted on in-house development of all key speaker parts, to allow for the most accurate sound performance possible.

Unboxing

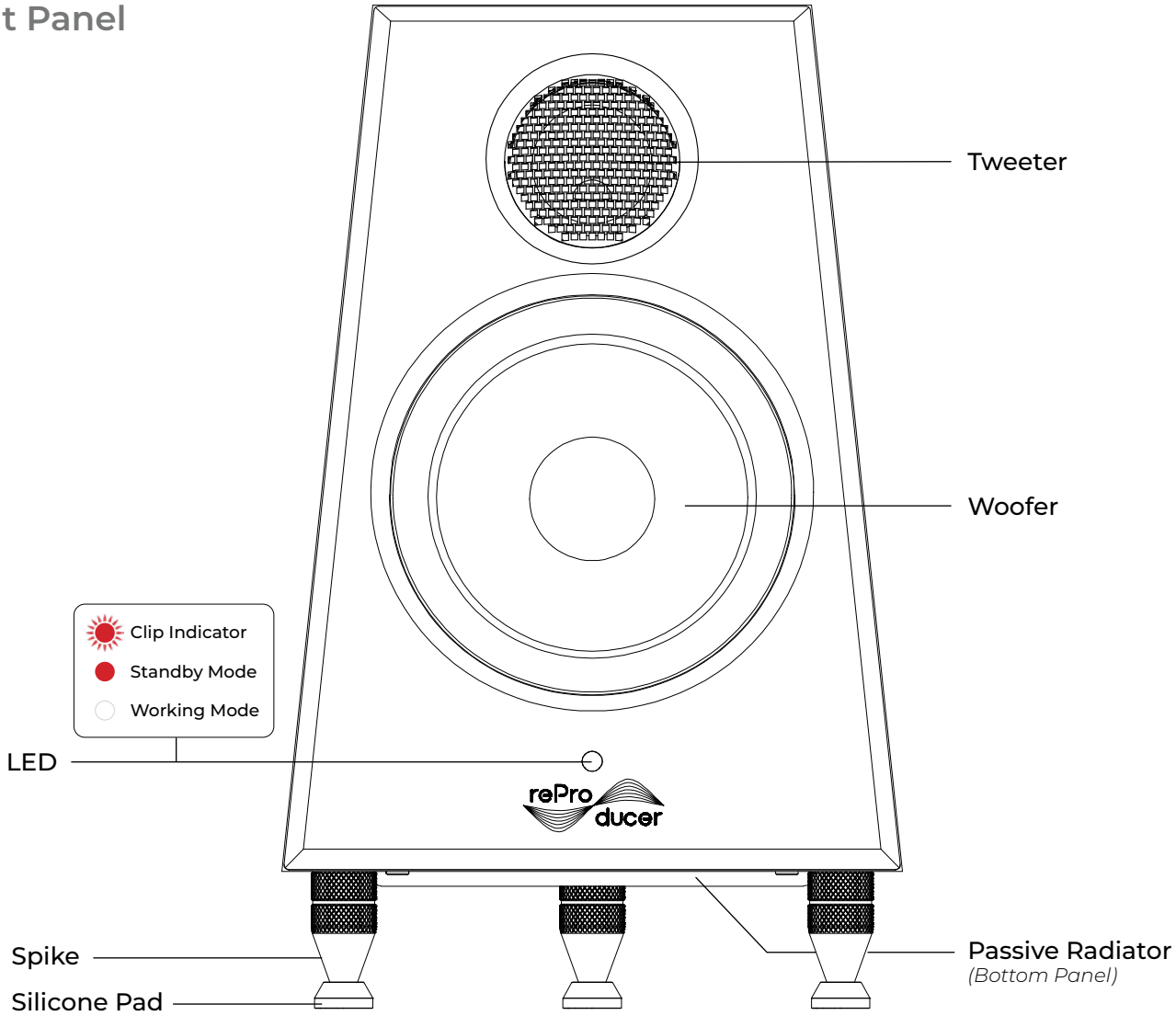
Remove the Epic 4s from their carrying case, and from their protective cloth bags, being sure not to touch the passive radiator, which faces up within the bag.

Share Your Studio!

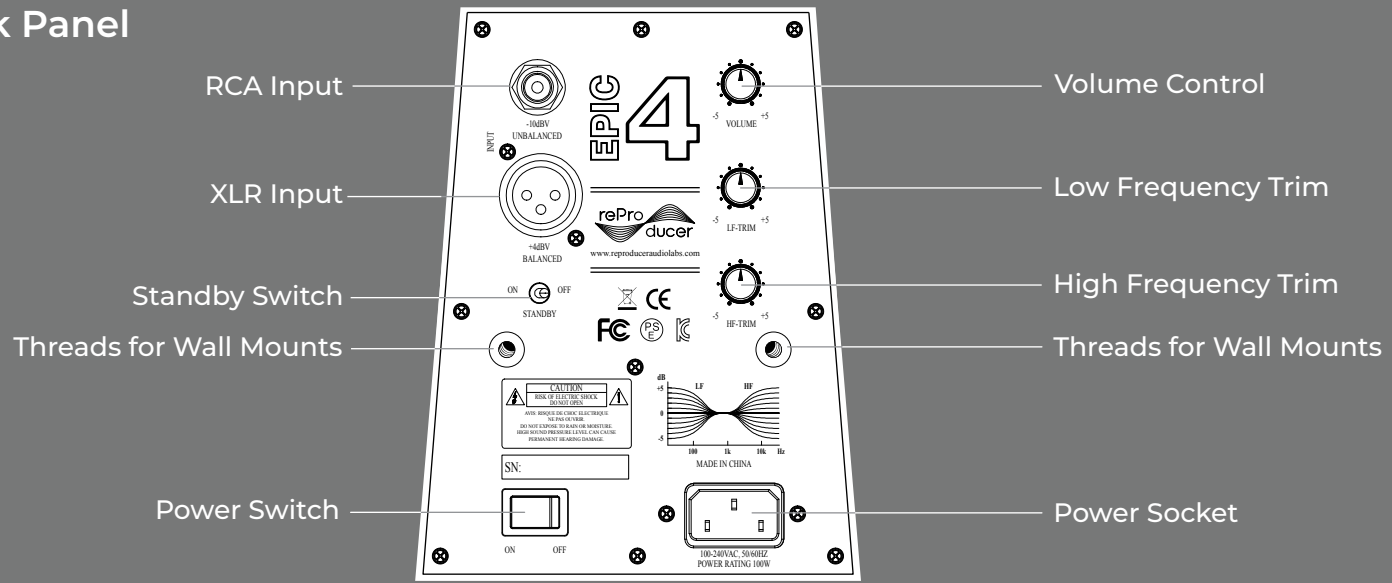
We get excited each time someone opens, unboxes, and installs their new Epic monitors, please feel free to tag us and share your studio pictures with us!

Epic 4 Quick Reference

Front Panel



Back Panel



When removing your Epic 4s from the case, be sure not touch or damage the passive radiator in the process.

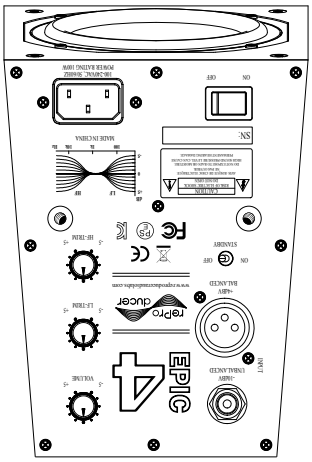
Setup Recommendations

In order to achieve the best possible sound quality, we recommended considering the interaction between the loudspeakers and the surrounding physical and acoustical environment, as well as the position of the listener relative to the loudspeakers.

Please make sure there are no obstacles between the speakers and your ears. Nothing that will obstruct or break the sound waves, like monitor screens, large-leafed plants, etc... Acoustically transparent elements can be placed there, but we can't think of any qualifying items currently. Please let us know if you find exceptions to the rule!

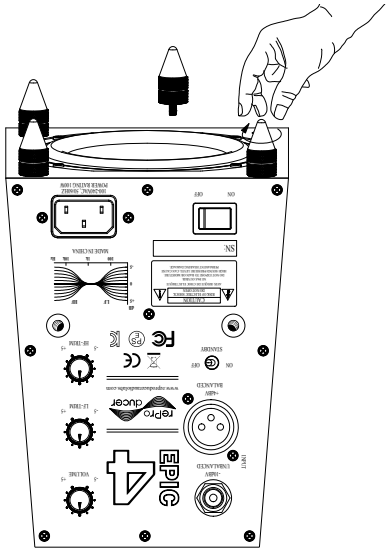
Spikes & Silicone Pads

Before using your Epic 4s, we recommended installing the included silicone pads to dampen vibration, and to prevent the speakers from moving at when played at a high volume (though this will ultimately depend on the surface).



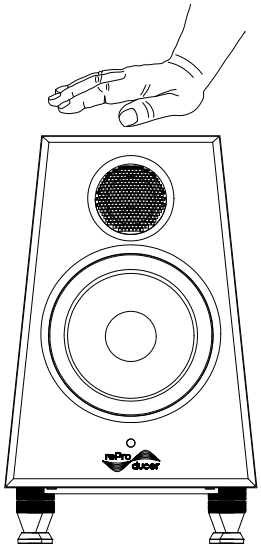
Step 1

Place the speaker upside down on a flat surface.



Step 2

Install the spikes in cabinet by threading them in clockwise.

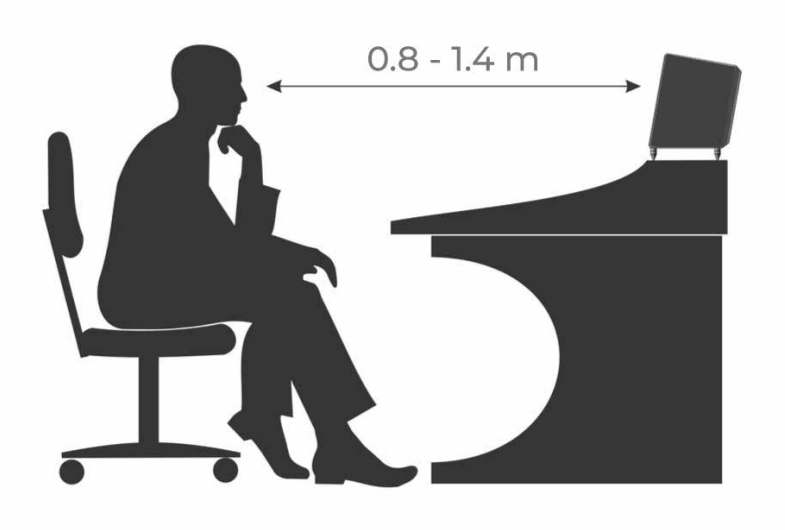


Step 3

Place spikes into the silicone pads and push cabinet from the top to seat the spikes in the pads.

Ideal Listening Distance & Height

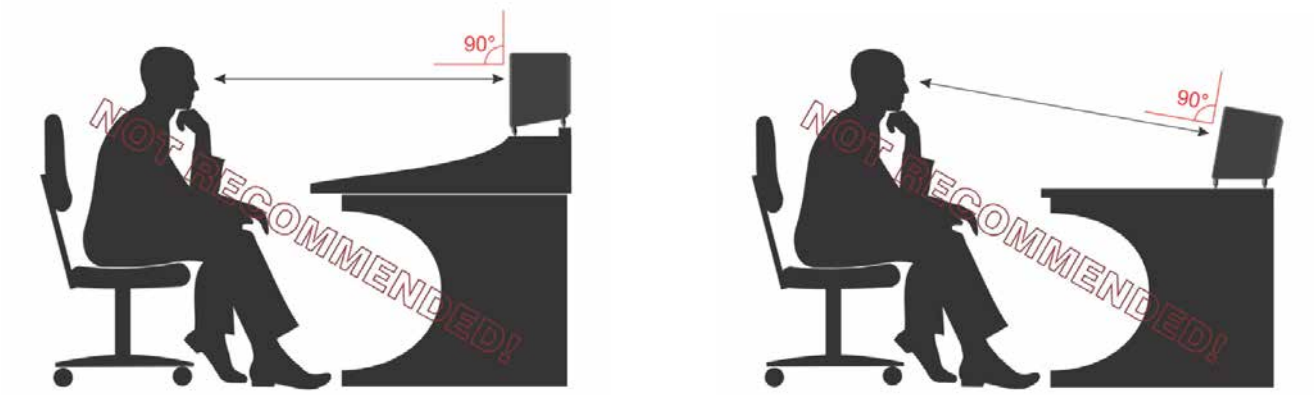
Epic 4 is optimized for a listening distance of 0.8 m to 1.4 m, with the tweeter level with the listener's ears.



Correct Temporal Alignment of Drivers

The front plate of the Epic 4 is designed to be inclined! – Do not raise the back of the cabinet, resulting in a vertical front.

We highly recommend **not** using your Epic 4s on a writing desk or placing them below ear level. Please make sure to use a stand or leveler to achieve the right position.



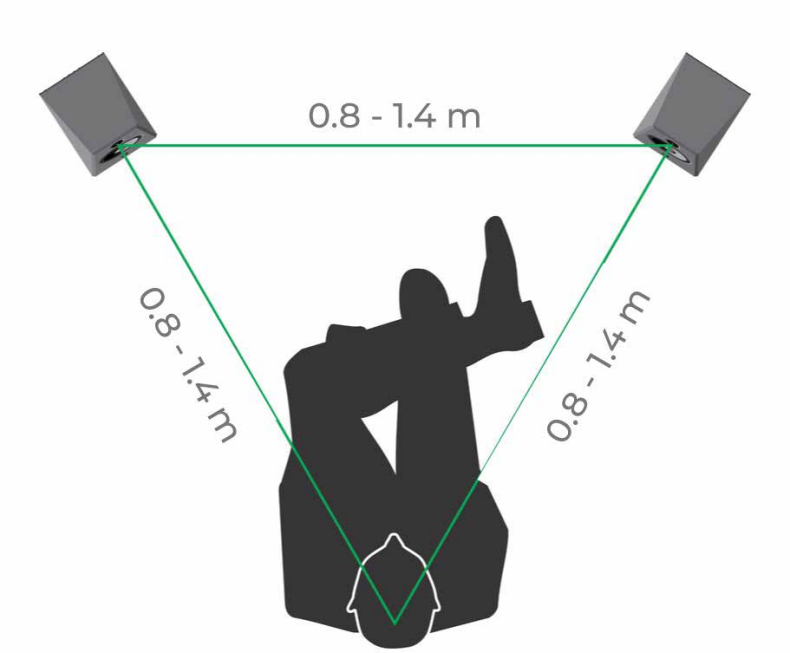
*Just to make sure, **do NOT** set up the Epic 4s according to either diagram above!*

Stereo Image

To achieve perfect stereo imaging please make sure that the position of the speakers – and the listener of course – are located symmetrically in the room, so the distance from left speaker to left wall and right speaker to right wall should be (approximately) similar. The farther away the walls are the more leeway you have as the reflected sound will be delayed more.

The often quoted equilateral triangle is a practical recommendation, but depending on the spatial configuration of the listening room and the amount and quality of any reflections (primarily from the walls, ceiling and floor) it might be preferable to move the listening position to a spot slightly inside the triangle.

An easy way to find the optimal listening position is to play a mono signal over both speakers, moving slowly back and forth until a solid phantom source is discernible in the middle.



A good rule of thumb to establish a solid stereo image is to construct an equilateral triangle between the two cabinets and the listening position.

Spacing

Your Epic 4s do not only output sound on-axis! The passive radiator on the bottom of the cabinet also displaces air. The supplied spikes must be used to allow the required fast airflow and the area beneath and around the passive radiator should be clear.

Wall Mounting

Epic 4's back panel features threaded mounting holes that can be used to attach wall mounts.

Please do not exaggerate the level as this can possibly damage your ears permanently!

Sound Level

The linearity of human auditory perception is highly dependent of the sound pressure level, and the range for optimal linearity is limited! We recommend a use of 83-86 dB Sound Pressure Level (SPL) at the listening position. Staying in this range will ensure you are able to make the right mixing decisions for a long period of time.

With these values you can't go wrong! Mastering engineer Bob Katz recommends working at 83 dB SPL (C-weighted, slow meter setting), calibrated using pink noise for a single channel, 86 dB for stereo (stereo combined using uncorrelated pink noise). And account for listening fatigue. Take a break when you feel the need to raise the overall level. Rest assured, this is the right thing to do!

Fine Tuning and Room Adjustments

The listening environment usually has a big influence on the perceived sound quality. Depending on the position of the speakers in the room and the properties of the space a correction may be needed, and what do you know? We have just the thing!

On the back side of the cabinet you will find two knobs that allow you to optimize the tuning of the Epic 4. Both trims cut or boost in a range of ±5 dB in 1 dB steps. The HF-Trim starts above 2.5 kHz, the LF-Trim below 250 Hz.

In a bright sounding room, with many flat and solid surfaces, you may need less treble. Use the HF-Trim-Knob ("High Frequency Tune") to attenuate the HF range. In a dark or boomy sounding environment, or if the listening distance is higher than recommended, you can increase the HF component proportionally.

The LF-Trim ("Low Frequency Tune") works in a similar fashion. It will usually be the distance between the cabinets and the walls that necessitates a LF adjustment. The original tuning was determined in a free (4Pi), anechoic environment with the knobs in the middle position. Close to any wall this will change to a kind of boundary, 2Pi arrangement with a LF boost. You can reduce this effect using the LF-Trim.

All the while maintaining excellent phase response!

Overload

When the white LED on the front plate turns red it indicates that your level is nearing the clipping point. Temporary red flashing is acceptable, especially when working with audio containing a disproportionate amount of LF content. But when the LED is more on than off you should grab the precision gain attenuator (not a simple volume control!) and back down.

Breaking-In Your Speakers

We recommend breaking in your new Epic 4s for approximately 72 hours. During the break-in period, it's recommended to play a variety of program material at moderate volume. The break-in process ensures maximum flexibility in the rubber components of the speaker cones.

Safety Precautions!

- High sound pressure level can DAMAGE your hearing permanently! Especially at short distances the Epic 4 is able to generate a significantly higher SPL than the recommended limit for ear protection!
- To prevent compression effects we decided not to use any dynamic limitation. Please make sure to reduce the levels if you became aware of any DISTORTION!
- Please do NOT expose the speakers to heat, direct sunlight or moisture! Please only use a lightly moistened cloth to clean the surface of the cabinet.
- Please do NOT attempt to open the cabinet! There are no user serviceable parts inside and you risk getting an electric SHOCK.

Technical Specifications

Frequency Response (Tweeter)	+/- 3 dB – 80 Hz — 30 kHz
Frequency Response (Woofer)	+/-10 dB – 65 Hz — 40 kHz
Amplifier Power	Woofer 50W RMS, Tweeter 50W RMS
Amplifier Technology	Class D, 115 dB dynamic range, high current and damping, range over 100 kHz, ultra-low no-noise
Max. SPL per pair (1m/above 100 Hz):	106 dB(C) SPL
Power Supply	100-240 V AC, 50/60 Hz
Power Consumption (Max)	93 W
Power Consumption (Idle/No Signal)	1.1 W
Power Consumption (Standby Mode)	.46 W
Woofer	4”, own design, fast transient, free of parasitic response
Tweeter	1”, own design, metal dome with rear chamber
Crossover Frequency	3 kHz, 24 dB/Octave
Input Impedance Balanced (XLR)	12 kOhm
Input Impedance Unbalanced (RCA)	3.3 kOhm
Input Sensitivity Balanced (XLR)	+ 4 dBu
Input Sensitivity Unbalanced (RCA)	-10 dBV
Room Correction EQ High Frequency	+/- 5 dB in 1 dB steps from 2.5 kHz
Room Correction EQ Low Frequency	+/- 5 dB in 1 dB steps below 250 Hz
Standby	On/Off Switchable
Dimensions without Spikes	210(H) x 160(W) x 175(D) mm
Dimensions with Spikes	240(H) x 160(W) x 175(D) mm
Weight per Unit	2.95 Kgs

Technical Support

If you need help with your Epic 4s, please don't hesitate to contact us!

https://reproduceraudiolabs.com/support

Limited Warranty

Epic 4 monitors are covered under warranty to be free from defects for a period of one year from the date of purchase.

Register your monitors with us:

https://reproduceraudiolabs.com/register

reProducer Audio Labs designs reliable, sonically uncompromising, and visually stunning studio monitors that allow audio engineers to make sound decisions quickly in professional working environments and project studios alike.

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