Royer Labs
Professional Audio Products

dBooster

In-Line Signal Booster

The Royer model R-DB20 is a phantom-powered ribbon and dynamic microphone signal booster and impedance buffer. It offers a clean signal boost for passive low-output ribbon and dynamic microphones. Designed for professional applications, the **dBooster** provides two levels of clean gain boost; 12dB or 20dB, selectable by a front panel switch.

How to set up your dBooster

NOTE: It is a good idea to make all your connections before activating phantom power and turning up your preamp level control!

The **dBooster** goes between any non-powered ribbon or dynamic microphone and your preamp, DAW or audio interface. It will provide either 12dB or 20dB of signal boost for low output microphones. A front panel switch establishes the gain setting. The microphone is connected to the INPUT of the **dBooster** via a standard 3-conductor XLR microphone cable. The OUTPUT of the unit is connected to any preamplifier, DAW or interface that is enabled with phantom power capability.

The **dBooster** is a microphone level device and not intended to drive line-level inputs directly. After your connections are made, apply phantom-power and slowly bring up the preamp level to verify that the microphone is passing signal. To achieve the best performance from your **dBooster** with minimal noise or distortion at the preamp, use the lowest gain setting that will provide satisfactory results. The higher gain (20dB) setting is best for use with very low output microphones, quiet signal sources or low-gain preamplifiers.

Each application will vary based on the microphone, signal source and preamplifier, so feel free to experiment and familiarize yourself with the **dBooster** and its capabilities. If you have any questions regarding the use of this product you can always contact us by visiting our website: royerlabs.com

Circuit Description

The **dBooster** is an electronically sophisticated device. The **dBooster** design starts with a differentially configured input stage consisting of multiple paralleled PNP semiconductors for low noise performance. These semiconductors run in pure Class A for minimal distortion. The preamp uses a current feedback mechanism and high-quality, thin-film resistors to further keep noise and distortion low.

The output section utilizes a pair of operational amplifiers that act as buffers and low impedance line-drivers. The output stage enables the **dBooster** to drive difficult loads without sacrificing gain or performance while maintaining excellent headroom. Circuit power is derived from a phantom-powered source and is fully regulated and de-coupled internally, providing clean voltage and current for optimum circuit operation.

Warranty

The **dBooster** is covered by a one-year bumper to bumper warranty. This warranty covers parts and labor but does not cover damage as a result of misuse or abuse.

This product was designed and assembled in the U.S.A. from components and materials sourced globally.

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