



DB-500 D-Bass Amplifier

The Most Advanced Bass Amp Ever Developed

The DB-500 D-Bass Amplifier combines Roland's new FFP amplifier technology with its acclaimed COSM sound modeling engine to deliver a surprisingly loud and dynamic bass amp with big, bold tube, tube overdrive, and solid state tones. Thanks to its efficient FFP design, the digitally-controlled DB-500 can deliver this powerful bass tone in a compact and lightweight package, complete with rich, dynamic D-Chorus effects, COSM-based Compression and specially tailored EQ controls. And because the DB-500 is digital, users can even save and recall their favorite amp settings with effects for instant access via footswitch.



- World's first DSP bass amplifier with proprietary Feed Forward Processing (FFP) Technology for maximum output and compact design
- Employs COSM modeling technology to recreate the sounds of the best Solid State, Tube and Tube Drive bass amps and natural tube compression effects
- Includes new dynamic "D-Chorus" effect
- Offers Shape controls and three-band EQ with semi-parametric midrange
- Amp settings can be stored in program memory for instant recall via footswitch
- 160W total output power using 12" speaker and high-efficiency horn tweeter
- High-quality components used throughout for years of reliability
- Simple operation with knob-based Gain, Volume, EQ, D-Chorus, and Master Volume control

** Product pictured is a prototype model. Actual product appearance may be subject to change.*

A Digitally Controlled Bass Amp

Thanks to Roland's proprietary Feed Forward Processing (see FFP sidebar), the DB-500 is easily the most responsive, interactive bass amplifier ever developed. Put simply, FFP technology allows the digitally controlled DB-500 to precisely predict and adjust the response characteristics of amplifier and speaker output before the bass signal reaches them. This ability to "sense" incoming signals and adjust for them in advance greatly improves the DB-500's efficiency, allowing it to use a single 12-inch speaker and precision tweeter, yet produce a clear, responsive, and very powerful-sounding output far beyond its conservative 160-watt rating. Comparing the sound of the innovative DB-500 to conventional bass amps of greater size and weight will easily prove the power of FFP technology.

A Variety of Amp Sounds and Colors

Thanks to Roland's proprietary COSM technology—the same modeling technology behind the legendary VG-8 V-Guitar System—the DB-500 can faithfully emulate the sounds of classic Solid State, Tube and Tube Drive bass amplifiers with the turn of a knob. These sonic "models" cover every nuance of the modeled amp type, yielding some truly impressive results. What's more, the DB-500 even includes newly developed COSM-based compression effects, which emulate the natural compression characteristics of tube amps, as well as specially tuned split-frequency "D-Chorus" processing—adding lush dynamics-sensitive chorus to the high-end without muddying up the fat, punchy lows. And when users have dialed in to a sound they like, it can be stored into A and B memories for instant recall via footswitch.

Easy-to-Use Controls

Though it incorporates some very sophisticated processing technology, the DB-500 is controlled much like a conventional bass amp. Three-band EQ with a semi-parametric midrange allows for tonal shaping. A Shape button tightens up the sound for popping or slapping. Onboard D-Chorus and Compression can be adjusted via knobs. Straightforward level controls include Preamp Gain and Volume and a Master Volume knob. Inputs include High and Low jacks, while outputs include an XLR-type Direct Out and Line Out, Insert (Send and Return) jacks, a Headphone jack, plus a Footswitch jack for control of A/B memory, Manual mode and D-Chorus.

FFP and COSM Technology

The DB-500 is able to produce a loud, dynamic bass sound with amazing tube-like character and warmth due to proprietary Roland FeedForward Processing (FFP) and Composite Object Sound Modeling (COSM) technologies. These technologies literally represent years of Roland research into acoustic and psychoacoustic (Gestalt) principles, digital signal processing, and audio product design.

To understand the true power of FFP and COSM technology in the DB-500 Digital Bass Amp, one must first understand how conventional bass amps are designed. Put simply, in conventional bass amps, the output is fed back to the input as a reference in order to achieve system uniformity. Typically, the strongest parts of the system are effectively suppressed to the performance levels of the weakest parts, while maintaining the best possible output. This type of classical amp design can be thought of as "feedback". And unfortunately, it does not allow for maximum performance of all of the amp's components. So the result is heavy, high-wattage conventional bass amplifiers which do not operate at maximum efficiency.

The DB-500, on the other hand, uses FFP technology to enhance the weaker parts of the system to the performance levels of the strongest parts. More specifically, FFP adjusts the transfer level and rate of the system by "predicting" the response of all components including the speaker before the input signal has reached them. The process is totally different from "feedback," which cannot achieve maximum response, but only gauge and attempt to improve existing response. FFP thus allows every component—from the preamp to the speaker—to work at maximum efficiency, resulting in a consistently loud, clean output that sounds much fuller and more powerful than the amplifier's rated specification (in the DB-500's case, 160 watts).

FP technology is combined with Roland's highly acclaimed Composite Object Sound Modeling (COSM) to deliver truly exceptional bass tone. Through COSM, the DB-500 is able to faithfully recreate the sounds of three distinct amp types—Solid State, Tube, and Tube Drive—as well as tube amp compression characteristics. These sonic "models" are not merely sets of EQ curves; they represent all of the sonic nuances of the given amp—the way the amp responds to dynamic changes, the affect of EQ tweaks, etc. So with the DB-500, bassists get a powerful, compact amp which can serve as "three amps in one."



Specifications

Output
160W/8 ohm

Speakers
12" (30cm), Horn Tweeter

Switches
Manual, Write, Memory A, Memory B, Amp Type, Shape,
GND Lift (for XLR jack), Power

Knobs
Gain, Volume, Compressor, Bass, Middle, Mid Freq., Treble,
Chorus, Master Volume

Connectors
Input (High, Low), Direct Out (XLR), Line Out (XLR,
Balanced Phone), Insert (Send, Return), Phones, Foot
Switches (A/B, Manual, Chorus)

Dimensions
511 (W) x 339 (D) x 476 (H) mm (20-1/8" x 13-3/8" x 18-
3/4")

Weight
24 kg (52 lbs. 15 oz.)