

User's Guide

Ellipse™ Matrix Blend



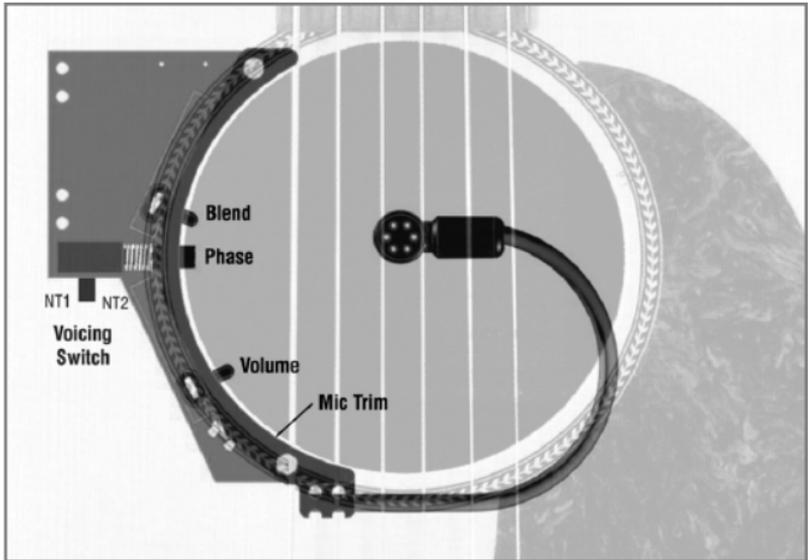
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Ellipse Matrix Blend



WELCOME...

...and thank you for choosing the Ellipse Matrix Blend onboard preamp system. Now you can achieve the incredible acoustic sound of our acclaimed undersaddle pickup – the Acoustic Matrix – blended with an adjustable condenser mini-microphone.

A patented neodymium mount holds the Ellipse preamp cleverly inside the soundhole, with the controls right at your fingertips: Volume, Blend, Feedback-Fighting Phase and a Natural I & II Voicing switch. And, as with all of our electronics, the preamp has been engineered to be extremely quiet, yet still reproduce the dynamics of your playing.

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FEATURES

Gooseneck Microphone

This quality electric-condenser cardioid microphone will provide very high-level sound reproduction before feedback when it is used in conjunction with the unit's phase switch.

Volume

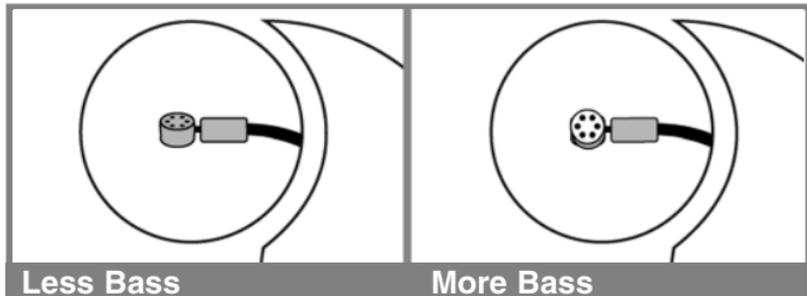
Generally set the Volume as high as possible (without causing your amp or mixer to distort) to achieve the cleanest sound.

Phase Switch

Push the phase switch in and out until you find the position that sounds the best and reduces feedback.

Blend

Move the Blend slider to change the balance between the pickup and the microphone.



Microphone Position

Position the microphone to find the sonic “sweet spot” inside the instrument. Take the time to experiment with microphone placement until you find the position that works best in your instrument.

Plug in the guitar and move the Blend slider to the left for mic only. Start with the mic capsule so that it faces the back of the guitar. Move the mic closer to the soundhole for more bass. Turn the capsule toward the sides of the instrument for less bass.

Microphone Trim

A small circular potentiometer is recessed below the volume slider and can be accessed with a small slotted screwdriver. Set the Blend slider to the center position, and adjust the trim control until both the microphone and pickup levels are balanced to your liking.

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Voicing Switch (Natural I & II)

Reach into the soundhole with your index finger and locate the slide switch behind the control panel, just to the right of the phase switch. Push this switch away from you for deeper bass (Natural I voicing) and toward you for a leaner response (Natural II voicing). Choose the setting that works for your instrument and your performing requirements. Here are some guidelines.

The deep bass of the Natural I voicing (switch toward bass side) compliments solo guitarists and singers who accompany themselves, especially with smaller bodied instruments.

The Natural II voicing (switch toward treble side) cuts through the mix if you play in a band. Natural II does a good job controlling boominess and low frequency feedback onstage, especially with full-size guitars.

Battery

When the battery is low, you will hear distortion as you play through the Ellipse system. Remove the strings to access the battery inside the guitar. Replace with a fresh 9V alkaline battery.



We recommend that you remove the battery prior to shipping or airline travel. If loose inside the guitar, the battery may damage the instrument.

Electrical Specifications

General:

Typical 9V alkaline battery life:	220 hrs.
Typical current consumption @ 9Vdc:	2.3mA
Nominal output impedance:	1k Ohm
Maximum output level (onset of clipping):	+7dBV

Pickup Input

(Measured with Blend control set to Pickup):

Signal gain with Matrix pickup:	+3.5dB
Baseline noise (A-weighted):	95dBV
Dynamic range (A-weighted, referenced to onset of clipping):	102dB
Signal to noise ratio (A-weighted, referenced to -10dBV output):	85dB

Voicing Switch

Natural I Setting:

Frequency response (-3dB referenced to 2kHz):	50Hz – 160kHz
Bass boost:	+3dB @ 90Hz

Natural II Setting:

Frequency response (-3dB referenced to 2kHz):	80Hz – 140kHz
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Microphone Input

Mic Trim gain range:	-1.5dB to +8.5dB
Baseline noise at maximum gain (A-weighted):	-103dBV
Baseline noise at minimum gain (A-weighted):	-105dBV
Dynamic range (A-weighted, referenced to onset of clipping, maximum gain):	110dB
Signal to noise ratio (A-weighted, referenced to -7dBV, maximum gain):	98dB
Frequency response (-3dB referenced to 2kHz, -10dB at 100Hz):	300-Hz – 75kHz

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All specifications and information in this manual are subject to change without notice. This product is protected by one or more of the following patents: 6,278,059, 4,774,867, 4,727,634, 4,944,209, 5,029,375, 5,155,285, 5,319,153, 5,189,771, 5,463,185, 5,670,733, 5,817,966, 4,911,057, 4,984,498, 5,693,898, 6,239,349, 6,429,367, 4,785,704, 4,356,754, 6,680,431, and 6,677,514. Other patents may also apply. **17L15** 0607-12