

Introduction

Congratulations and thank you for selecting an Ovation Acoustic/Electric guitar equipped with the OP-24Plus or OP-24Plus C preamp. Please read this brief manual thoroughly to insure you get the best performance from your new Ovation.

The Ovation OP-24Plus/OP-24Plus C preamps access a wide range of "studio-quality" contemporary acoustic/electric guitar sounds offering a player tremendous control and sonic flexibility. The circuitry is exceptionally quiet and adds no unwanted coloration. In addition, the OP-24E features a built-in chromatic tuner.

Referring to fig. 1 or fig. 2, you'll see the layout and nomenclature associated with the control features of these units.

Preamp Features & Functions

The preamp's audio circuitry is whisper quiet with very low distortion (see specifications table). Tone control is greatly enhanced with a "three-and-a-half" (we'll talk about that later) band graphic equalizer. Moreover, you can connect your guitar to a wide range of audio amplification and recording equipment with the preamp's standard 1/4" Hi-Z, unbalanced phone jack output.

Connections

Near the endpin of a guitar featuring these preamps, you'll notice a 1/4" phone jack. This jack provides the signal from the preamp to any of a number of audio devices... mixers, effects, amps.

The Hi-Z Connection

To connect your guitar to any high impedance (Hi-Z) acoustic guitar amp or mixer, use a standard, shielded, 1/4" guitar cable inserted into the 1/4" jack on the guitar. The preamp will drive most audio equipment with rated inputs down to about 1000 Ohms (this mean you can connect to almost anything). If you have a battery installed in the guitar, you're ready to play.

Operation

Make sure a fresh 9V battery is installed into the battery compart-

ment of your guitar. The battery will fit only one way to assure correct polarity. Plugging a 1/4" shielded guitar cable into the jack on the guitar activates the electronics in your guitar. Please note that the tuner will operate without "plugging in." After connecting the guitar, plug into a PA or acoustic guitar amp for best results.

Controls

Please refer again to figures 1 + 2 to help yourself associate control names with their functions.

Volume

This slide control allows you to set the output level of the preamp. Moving the slider toward the top increases the output level. The OP-24Plus/OP-24Plus C can output a very potent signal, so be careful not to "overdrive" your amp or mixer. If you notice any unwanted signal coloration, just reduce the output level of the guitar with this control.

Battery Low

This indicator performs two functions. First, when you plug in a cable to the output jack, it will flash briefly to indicate that a battery is present. If no flash is evident, your battery is either dead or not installed. Secondly, this indicator will illuminate (and stay on) if the voltage of the battery installed in the guitar dips below about 7 volts. Replace the battery as soon as possible. With average use, expect 100 hours of operation per battery.

EQ Controls

The EQ section allows you to accent or attenuate certain frequency bands within the guitar's audio spectrum. When all of the controls are in the center (detent) position, signals pass through the circuit unaltered. Raising an EQ knob above the center position increases the energy contained within that spectrum. Likewise, moving the control below the center position decreases the signals within that band.

The OP-24Plus and OP-24Plus C preamp offers ± 12 dB control simultaneously over three discrete ranges of the guitar's sonic spectrum. In addition, with the Mid-Shift switch, you can change the center frequency of the Mid EQ control by roughly one octave.

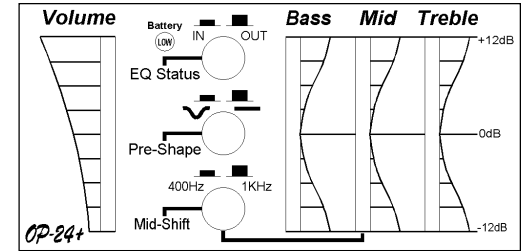


Figure 1

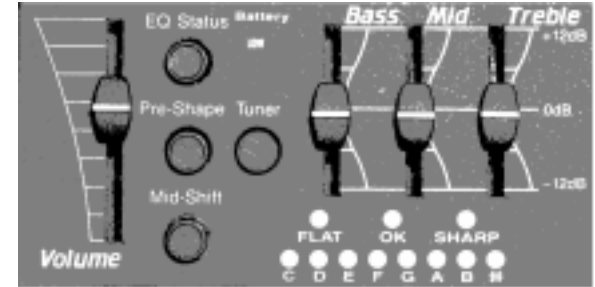


Figure 2

The **Low** EQ control allows you to increase or reduce the sound in the bass region. Raise this control above the center position to add fullness or bottom to your sound. De-emphasizing this band results in a lighter, less ponderous sound quality.

The **High** EQ control performs similarly to the "Low" control except that its effect shapes the high frequency, or treble band. Increase this control for bright or airy sounds, or decrease for darker or round tonalities.

Much like the High and Low controls, the **Mid**-band control adds coloration to one of two user-selectable midrange frequencies. With the **Mid-Shift** switch in the **400Hz** position (down), the mid EQ is effective controlling "nasal" tone qualities while in the **1KHz** position, the mid control can add punch in upper mids or help "round off" the attack present in this frequency spectrum.

EQ In/Out

This push-button enables you to engage or defeat the EQ section. When the switch is in the depressed position, the EQ is active.

Mid-Shift

As discussed above, this switch allows you select the center of the frequency band in which you would like the Mid control to operate.

Pre-Shape

By engaging this control (switch in the "down" position), you add a fixed EQ curve on the sound from the pickup. Technically speaking, when the pre-shape circuit is in operation, the bass and treble frequencies are enhanced while at the same time, mid range response is attenuated. This pre-emphasis can be used alone, or with any other EQ settings you "dial in" with the three EQ controls.

Tuner (OP24 Plus C only)

Pushing the tuner button activates the built-in tuner. When turned on, the green "OK" LED flashes. Playing a note on your guitar will illuminate a "note" LED on the bottom row which indicates the name of the note played. If this note is a sharp (or flat) the LED on the far right will also light. In addition to these LEDs, one of the three indicators in the row above will turn on. If the note you're playing is substantially flat, the left LED will glow brightly and, as you tune the string sharper, this "flat" LED will get dimmer and finally shut off as the "OK" LED lights to indicate that the pitch you're playing is in tune. Likewise, if you're playing a note that is sharper than the correct pitch, the "Sharp" LED will light. Tuning the string lower will cause this LED to dim and finally yield to the "OK" LED.

It is not usual to perform the tuning procedure on all strings more than once to get your instrument tuned correctly, especially if you're using new strings. Although there is a built-in auto-off feature for the tuner circuit, to conserve battery power, it's a good idea to push the tuner button again to manually turn off the circuit when you're done tuning.

Specifications: OP24Plus

Current Draw:	5mA @ 9VDC
Flat Ref. Level:	-7.5dB
Freq. Response:	20Hz-20KHz (\pm 0.5dB)
Signal to Noise:	
EQ bypass	- 91dB
EQ in w/flat setting:	- 89dB
EQ in w/max High:	- 84dB
EQ Response:	
Low:	\pm 13dB @ 80Hz
Mid:	\pm 12dB @ 400Hz
	\pm 6dB @ 1KHz (shift)
High	\pm 12dB @ 10KHz
Output:	Max. Level @ 10K Ohm: 4Vp-p 1.4VRMS
THD:	< .28% @ 500mV input
Tuner "On" Time:	30 Seconds
Low Battery "ON" voltage:	7.7V

Specifications: OP24Plus C

Current Draw:	6mA @ 9VDC Tuner Off 10.8mA Tuner On Max. 0.4uA Off
Flat Ref. Level:	-7.5dB
Freq. Response:	20Hz-20KHz (\pm 0.5dB)
Signal to Noise:	
EQ bypass	- 91dB
EQ in w/flat setting:	- 89dB
EQ in w/max High:	- 84dB
EQ Response:	
Low:	\pm 10dB @ 134Hz
Mid:	\pm 12dB @ 400Hz \pm 7dB @ 880Hz (shift)
High	\pm 10dB @ 10KHz
Output:	Max. Level @ 10K Ohm: 4Vp-p 1.4VRMS
THD:	< .28% @ 500mV input
Tuner Accuracy:	< .1%
Low Battery "ON":	7.7V



Ovation®

OP-24Plus®

OP-24Plus C®

Acoustic/Electric Guitar Preamps

Owner's Manual

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