

OP-PRO STUDIO **OP-PRO STUDIO OP-PRO STUDIO** OP-PRO STUDIO OP-PRO STUDIO

Owner's Manual

# OP-PRO Studio preamp

The OP-PRO Studio combines state-of-the-art audio quality with exclusive features designed to meet the needs of professional guitarists. The easy-to-operate unit offers 3-band EQ, exciter and compressor/limiter circuitry, and a chromatic tuner. Ovation's exclusive Expressor and Drive sliders put dynamic control and harmonic enhancement at your fingertips, allowing you to dial in the precise amount of sustain and punch required by the music.

How the OP-Pro Studio Works:

#### 1. GAIN:

Adjusts the overall output level of the preamp. Turning clockwise increases sound level; counter-clockwise decreases level.

#### 2. LOW EO:

Boosts or cuts the low frequency elements of the guitar's sound. If moved above the center position the amount of bass, or low frequency power, is increased. Below the center, these sound are reduced. In the center detent position, the preamp does not affect these frequencies.

## 3. MID EQ:

Boosts or cuts the middle frequency elements of the guitar's sound. If moved above the center position the amount of mid frequency power is increased. Below the center, these sound are reduced. In the center detent position, the preamp does not affect these frequencies.

#### 4. HIGH EO:

Boosts or cuts the high frequency elements of the guitar's sound. If moved above the center position the amount of treble, or high frequency power, is increased. Below the center, these sound ore reduced. In the center detent position, the preamp does not affect these frequencies.

## 5. DRIVE:

Increases or decreases the depth of harmonic enhancement from the exciter circuit. Turning this control clockwise increases the harmonic content of the sound in the range of open string fundamental frequencies as well as the guitar top frequencies. This provides a richness to chording and a woody timbre to upper register solo performance. This control is used in conjunction with the "Expressor" slider (see below) which regulates the amount of the harmonic content mixed with the piezo signal.

#### 6. EXPRESSOR:

Simultaneously controls the mix of the exciter and sets the threshold of the compressor/limiter. This silder allows the player to set the playing level where the compressor/limiter circuit engages. Once set, when the player increases playing level above this selected level, the output of the preamp output increases is only a fraction of the playing level change. This feature allows the performer a greater dynamic playing reange without negative effects on the performance mix or creating headroom issues for mixers or amps. Once the threshold setting of this control is established, the Drive control can be set to achieve the desired harmonic enhancement appropriate with the established compressor/limiter setting.

#### 7. TUNE:

Activates the built-in tuner function. Pressing this switch once mutes the output of your guitar and turn on the automatic tuner referenced to A440Hz. If you need to tune to some other reference, like an out-of-tune piano, tune one of your strings to the corresponding note on the other instrument. While that note sustains on your guitar, press the tune button a second time. Tuning is now referenced to the other instrument. Simply tune the remaining strings as usual. To conserve battery power, the tuner atuomatically deactivate after two minutes, returning to the default A440. Holding down the tune button for about 2seconds will turn off the muting feature and tuner at any time.

The tuner is fully functional without plugging in (battery must be installed).

## 8. DISPLAY

When you play a note after pressing the tune button, the tunerdisplay window clearly annunciates the following information.



## **TUNER ENABLED**

The upper and lower segments alternately flash when the tuner is on and no note is played.



# NOTE IN TUNE

When the note played is in tune to the reference, the note nams is displayed with a "diamond" on the right.



#### NOTE FLAT

When the note is flat, the note nams is displayed with an arrow pointing upthe direction to move the string's pitch.



## **NOTE SHARP**

When the note is sharp, the note nams is displayed with a down arrow the direction to move the string's pitch.

## 9. BATT. LOW:

The LED performs several function. First, when an appropriate plug is inserted into the guitar's output jack, this LED will briefly glow red to indicate power-up. Second, the LED will flash red when the battery is reaching the end of its useful life.



Specifications	
Battery Voltage	9VDC
Idle Current	16mA (approx. 25 hours battery life)
Tuner on	22mA (max)
Sleep Current	20 uA (approx. 2 years battery life)
Battery LED	6.8 V (turn on)
LED Flash Rate	= 25/minute
Max. Input	16Vp-p @ 1KHz (Volume max / All controls flat)
Max. Output (Unbalance)	9 Vp-p (47n Load / Volume max / All controls flat)
Max. Output (Balance)	16 Vp-p (Phantom on)
T.H.D	< 1% @ 1Vp-p input
S/N Ratio	80dB
Freq. Response	10Hz ~ 8KHz (-3.0dB)
Low EQ	± 8.5dB @ 80Hz
Mid EQ	± 13 dB @ 600 kHz
High EQ	± 13dB @ 14 kHz
Tuner Accuracy	< ± 1 Cent
Tuner Auto - Off	2 minutes



