

Opti-Mu Prime

By Lightning Boy Audio

User's Guide (2013)

Congratulations on your purchase of this exquisite piece of hand-crafted vacuum tube technology from Lightning Boy Audio! Please note, due to the nature of our built-by-hand process, certain minor cosmetic imperfections may be present and the sound from one unit to the next may vary slightly. The following guide is provided to help you get the most out of your purchase.

GETTING STARTED:

Aside from the obvious, all you'll need to get your Opti-Mu Prime working is a suitable power supply. The pedal has been tested with a Visual Sound 1 Spot power supply. We certify this power supply to provide low noise and proper operation of your new pedal. For reference, Opti-Mu Prime requires 9v DC at 600mA (minimum amperage required for normal operation). The tip is wired negative, which is standard for most guitar FX pedals on the market. A well-regulated power supply is required to prevent noise. While it is possible to run this pedal off of 12v, its not recommended because it will create significantly more compression than normal. Exceeding 12v will void the lifetime warranty.

Powering up: Once a suitable power supply is connected and your instrument is plugged in, turn up the volume control until it clicks. This turns the pedal on. You will probably need the volume up $\frac{3}{4}$ of the way or more for normal operation. The vacuum tubes need to warm up before they will transmit any signal. It may take 30 seconds or so before you hear anything. The pedal will sound its best after it has been on for at least 10 minutes.

Controls: We have already covered the volume control, so lets talk about the 2 compression controls. The compression knob is simple to understand. Turning this knob up will give you more compression. When the knob is fully counter clockwise it is at its most minimal setting. Even at its lowest setting, Opti-Mu Prime is still compressing the signal. The other control is the "Knee" switch. This toggles between soft knee compression in the downward position (towards the foot switch) and hard knee compression in the upward position. The sonic effects of each can be more easily heard with the compression knob turned all the way up. Basically, hard knee is a more aggressive/punchy sounding compression and soft knee is a more transparent/musical sound.

Tubes: Opti-Mu Prime requires two 12AU7 type vacuum tubes, which are supplied with the pedal. The tube on the top left is the compression driver tube and the tube on the right is the preamp tube. The compression driver tube does not directly affect the sound/tone of the pedal, but does affect how much compression the pedal generates. By removing this tube, the pedal will become a clean booster pedal. The tube on the top right is the preamp tube, which directly affects the sound/tone of the pedal. If you want to experiment with different brands/styles of 12AU7 tubes, this would be the tube to swap out. There are higher quality NOS tubes out there that can give you better sounds than the preamp tube the pedal is shipped with, but you will pay a pretty penny for those kinds of "holy grail" tubes. Current production tubes tend to have a lower output volume than NOS tubes and higher grades of NOS tubes have more output volume than average. Knowing this, you can create more or less compression in the pedal by swapping out the compression driver tube with a different type of 12AU7. To remove the vacuum tubes from the pedal, gently wiggle them back and forth as you pull on them. Installing new tubes is basically the same thing... gently wiggle the tube back and forth as you push it in.