

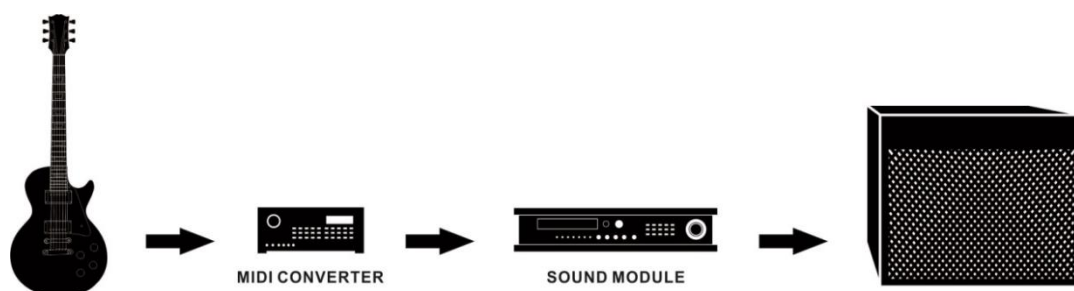
Skyline Tuner White Paper

• Fast Frequency Detection Technology and MIDI Guitar

The Hotone Skyline Tuner distinguishes itself from other tuners in that it utilizes unique ultra-fast frequency detection technology, which Hotone is proud to name FDTC: Fast Frequency Detection Technology based on Time-Domain Characteristics. This type of frequency detection is able to virtually instantly analyze a signal's time domain characteristics and thus rapidly detect the signal frequency. This technology rests on years of accumulated research by Hotone's MIDI guitar team.



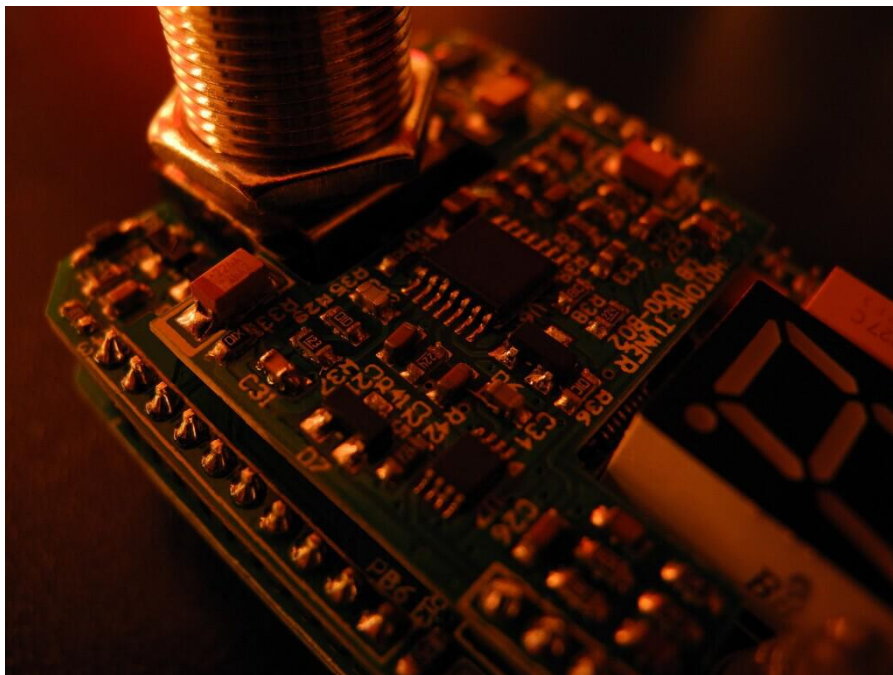
The MIDI guitar takes a set of guitar signals through MIDI converter circuitry, converting the guitar to MIDI signals in real time. The resulting MIDI signals can be used to drive a sound module system, which allows the guitar to produce a variety of sounds, even of other musical instruments.



Central to the MIDI guitar concept is speed and accuracy in the signal conversion process. Not only must the mechanical guitar signal be converted to a MIDI signal in an extremely short amount of time, it must also accommodate the subtleties of playing style, being sensitive to any slight change, while maintaining response accuracy.

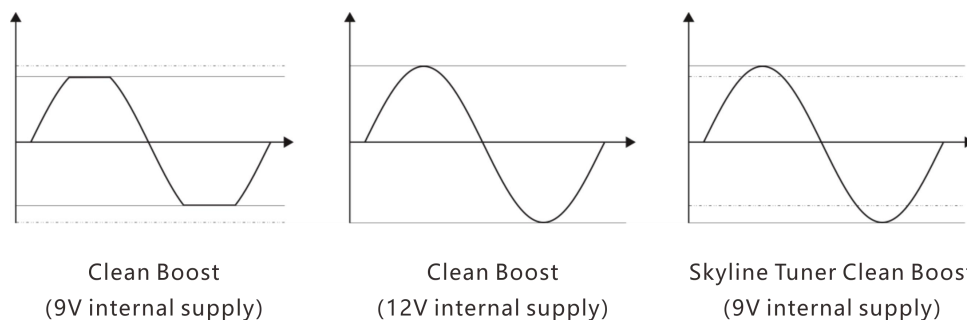
Ideally, detection time must never exceed 10ms, but the time it takes the human ear to hear a note played on guitar is actually much less. Most professional musicians agree that to sound right, detection time must be kept under 4ms. That is the extremely short amount of time, we've referred to. As for sensitivity and response accuracy, musicians have demanded that even the slightest string movement must sound out immediately and with perfect response and detail.

The Hotone RD team began research for MIDI guitar technology as early as the beginning of the millennium and had produced a great playing prototype by 2006. Through an unending process of modification and testing, we have finally been able to apply this complex technology to the guitar tuner. What's more, we found a way to accommodate all the high tech circuitry in a single compact Skyline standard casing.



The implications are monumental: guitarists no longer have to wait on their tuner, and they no longer have to deal with inaccurate or unstable note display. With the Skyline Tuner, you can see clearly if you're in tune or not instantly. With any tiny pluck of the string you're able to immediately see where you're at on the big, bright display.

But speed and accuracy isn't all the Skyline Tuner has to boast, there is the Clean Boost too. Tuner's clean boost rockets out of special circuitry that provides the greatest amount of headroom possible while guaranteeing a truly pure tonal path. Even as a 9V powered pedal, the Skyline Tuner gives the kind of headroom you could previously only achieve with a 12V unit!



But make no mistake, the Tuner doesn't simply automatically boost; there is a volume knob to give you control for up to an extra 12dB. Turn the level all the way down and you have muted tuning and a simple mute switch for when you need it.

• True Bypass Footswitch and Clear Display

Skyline Tuner uses a True Bypass switch design. And even though it's a small stompbox, we made sure the bright display would be large enough to be clear and easily visible on any stage.