peterson

VS-S *StroboStomp* ™

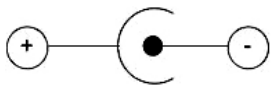
Owners Manual

Congratulations on your purchase of the Peterson StroboStomp. Please take the time to read through this manual and use the tuner/DI as directed.

Power

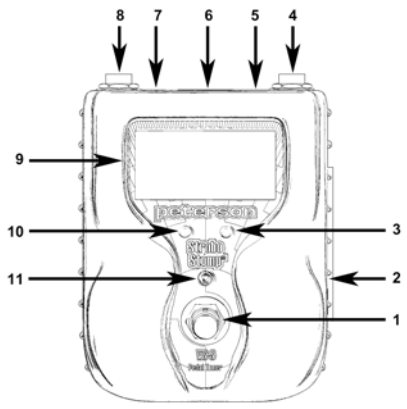
Your new StroboStomp pedal tuner is powered by a 9V battery. To change or gain access to the battery, remove the snap-off battery cover and carefully remove the battery clip. For best results always use a Duracell battery.

Using a regulated 9VDC Adapter connected to the StroboStomp's DC Input jack, you can power additional pedals from its DC Output jack (please observe the correct polarity and output capacity of your adapter):



WARNING: USING A WALL TRANSFORMER WITH THE INCORRECT POLARITY OR VOLTAGE MAY CAUSE PERMANENT DAMAGE TO THE TUNER!!

Functions



1. Tuner On/Off Stomp Switch
2. Battery Compartment
3. SELECT Button
4. Signal Input
5. 9VDC Power Input
6. Active DI Signal Output (balanced XLR)
7. DC Power Output
8. Signal Output
9. Strobe Screen
10. MENU Button
11. LED Status Indicator (ON = Tuner Unmuted)

Setting up the StroboStomp

The Peterson StroboStomp can be set up in two ways by means of a mechanical dip-switch located in the battery compartment behind the battery.

Position 1 –

100%True Bypass Operation

In this position, the instrument signal flows through the tuner circuits only when muted by the stomp switch to enable silent tuning. When the tuner is bypassed or unmuted, both the input and the output are physically disconnected from the tuner circuit and the tuner is switched off. An LED is lit to indicate the status of the tuner. This allows the instrument signal to flow freely from input to output without any physical or electronic contact with the tuner's internal circuits. The StroboStomp is the first commercially available tuner to offer this feature.

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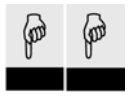
Position 2 –

Tuner Monitoring + DI Output



In this position, the tuner and DI are active at all times but can both be muted to enable silent tuning. When unmuted, the tuner remains on and can still monitor the tuning. An LED is lit to indicate the status of the tuner. The built-in Active DI produces a balanced signal at the XLR socket in addition to the regular unbalanced signal at the ¼" jack socket output. This feature is suited to Acoustic Guitarists and Electric and Acoustic Bassists, enabling simultaneous connection to an acoustic combo/bass amplifier and/or mixing console/recorder.

Electric guitar players can "tap" the DI signal using an XLR to ¼" adapter to power a second amp, or record a dry signal for later processing.

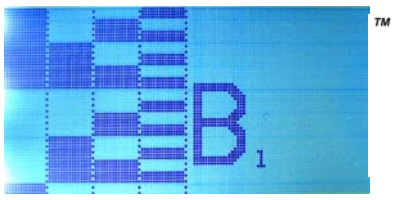
A Ground Lift switch is provided for the elimination of possible ground loops.

Your Peterson StroboStomp is shipped in this mode.

Getting Started

For normal operation, the tuner can be used out of the box; no special adjustment is needed to use with anything from a 7 string bass to a guitar. After installing the battery, simply activate the StroboStomp by inserting a guitar cable into the input jack of the tuner, then connect the tuner output jack to the input of an amplifier. Use the Stomp Footswitch (1) to mute the instrument's signal and proceed to tune. When finished, use the stomp switch to return to playing.

Factory Default Settings

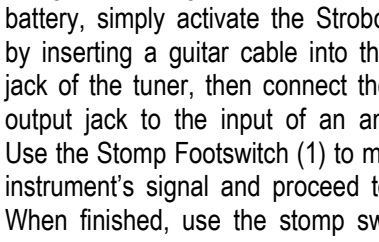


Your StroboStomp Pedal Tuner was shipped with the following factory default settings:

True Bypass	OFF
DI (Balanced Line Out)	ON
Concert Pitch	A=440Hz
Preset Temperament	EQU (Equal Temp)
Drop-Tune/Capo Tune	0 (OFF)

Changing the Concert Pitch Reference

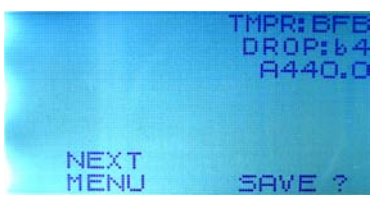
Press the MENU button; the following screen appears:



To adjust the Concert Pitch to a value other than A=440.0Hz, press the SELECT button until the desired value is displayed. The StroboStomp can be calibrated from A=433Hz to A=447Hz in 0.5Hz increments.

(NOTE: If you wish to exit the EDIT menus at any time, simply unplug the tuner before navigating to the "SAVE" page - the previous values will apply.)

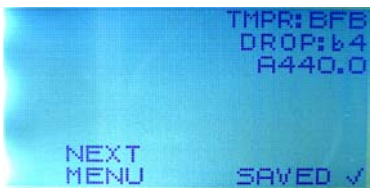
If you wish to save any new values, press the MENU button repeatedly to get to the "SAVE" page:



Press the SELECT button twice to save it as a power-up default.

The sequence looks like this:

Press SELECT button to confirm.....



Your settings have now been saved as the power-up default.

In the case above, the temperament has been changed to Buzz Feiten Bass and a Drop Tune setting of four half steps (semitones) flat.

The StroboStomp always displays the changes you have made, to avoid confusion .

(NOTE: If your friends should borrow your StroboStomp, always let them know about any special adjustments you have made)

Drop Tuning

Press the MENU button twice; the following screen appears:

Use the SELECT button to choose a setting.

The available settings are:

0= No Drop/No Capo
+1 = Capo on the first fret
+2 = Capo on the second fret
+3 = Capo on the third fret
+4 = Capo on the fourth fret
+5 = Capo on the fifth fret

♭4 = Drop Tune four half steps (semitones)

♭3 = Drop Tune three half steps

♭2 = Drop Tune two half steps

♭1 = Drop Tune one half step

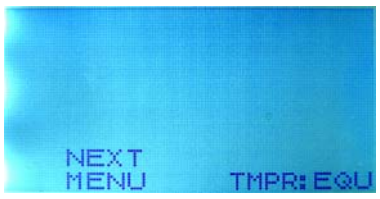
Press the MENU button twice and the SELECT button twice to save it as a power-up default.

User Programmable Temperaments

Two user-programmable temperaments called P-1 and P-2 are included.

Choosing a Temperament Preset

Press the MENU button 3 times; this screen appears:



Use the SELECT button to choose a tuning offset.

The choices are:

EQU:
Normal Chromatic tuning suitable for regular or alternate tunings

GTR:
Peterson Exclusive Sweetened tuning for guitar. Suitable for EADGBE or one half step flat.

BAS:
Peterson Exclusive Sweetened tuning for bass guitar when playing with acoustic piano.

12-↓:
Peterson Exclusive Sweetened tuning for 12 String guitars; this preset is for the 6 standard strings.

12-↑:
Peterson Exclusive Sweetened tuning for 12 String guitars; this preset is for the 6 higher octave strings.

BFE:
Optimized Peterson settings for Electric Guitars equipped with the Buzz Feiten Tuning System®.

BFA
Optimized Peterson settings for Acoustic Guitars equipped with the Buzz Feiten Tuning System®.

BFB
Optimized Peterson settings for Electric Bass Guitars equipped with the Buzz Feiten Tuning System®.

BFT↓:
Optimized Peterson settings for 12 String Guitars equipped with the Buzz Feiten Tuning System®.
This preset is for the 6 standard strings.

BFT↑:
Optimized Peterson settings for 12 String Guitars equipped with the Buzz Feiten Tuning System®.
This preset is for the 6 octave strings.

When you have chosen a setting, press the left button once and the right button twice to save it as a default.

*Buzz Feiten Tuning System® is a registered trademark of Buzz Feiten Design.

Programming Your Own Temperament

Press and hold the MENU button while you plug a guitar cord into the input jack (3).

The StroboStomp is now in Program Mode:

Using the SELECT button, choose either P-1 or P-2 as a basis for your new tuning offsets.

Press the MENU button to confirm your choice and to begin programming.

Use the SELECT button to tap in the cent value.

(NOTE: Like all modern Peterson tuners, increments are in 0.1 cent). Press to scroll at speed.

There are two E values included for users who wish to vary the offset value of both low and high E strings.

E displayed with an upward arrow refers to high E.

After all the required offsets have been entered, press the MENU button (SAVE MENU):

Press the SELECT button twice to save the new preset.

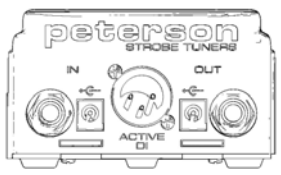
Toggle Feature

In tuning mode, pressing the SELECT button once will activate a second temperament.
The following temperaments are toggled together:

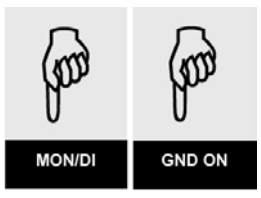
EQU toggled with EQU
GTR toggled with EQU
BAS toggled with EQU
12-↓ toggled with 12-↑
BFE toggled with EQU
BFA toggled with EQU
BFB toggled with EQU
BFT↓ toggled with BFT↑
P-1 toggled with P-2

Active DI

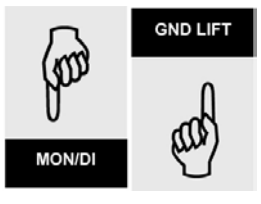
The Peterson StroboStomp features a built-in active DI. The DI runs on power supplied by the battery/power supply and does not accept phantom power from an external source.



To activate the DI, disconnect the tuner and remove the battery compartment cover and battery. Using your index finger, move both dip switches to the DOWN position. Connect a shielded XLR cable between the Active DI output and the device to be connected (recording/PA console). The StroboStomp is shipped with the DI activated.



In this position the balanced XLR DI output and the unbalanced ¼" jack output are both muted by pressing the stomp switch. The tuner will also track notes at all times and is no longer "True Bypass".
To lift the DI ground, disconnect the tuner from audio equipment and move the dip switch on the right to the UP position. Reconnect the tuner.



NOTE: The DI works only when the StroboStomp is in MON/DI operation. Disconnect XLR cable from DI output when the tuner is switched to True Bypass operation.

Reading the Virtual Strobe Display

Your new StroboStomp pedal tuner's display features 4 strobe bands which represent different groups of octaves. To the right of the strobe bands, the note name is displayed as a large letter along with the octave from which it is derived which is displayed as a number. To tune, carefully adjust the tuning peg of your instrument until the display is immobile or "caged". If the note you are tuning is too sharp, the bars will drift in an upward direction, if its too flat they will move in a downward direction. Because the strings of a guitar are tuned higher than those of a bass (assuming both are tuned to standard pitch), three of the bands will be visible (2,3 & 4) when tuning a guitar whereas all four bands are present when tuning a bass.
For guitars tuned to EADGBe, observe the following bars (tuning low to high):
E2 = Bar 2 (Bar 1 does not appear)
A2 = Bar 2 (Bar 1 does not appear)
D3 = Bar 2 (Bar 1 does not appear)
G3 = Bar 2 (Bar 1 does not appear)
B3 = Bar 2 (Bar 1 does not appear)
E4 = Bar 2 (Bar 1 does not appear)

For bass guitar tuned to (B)EADG, observe the following strobe bars (tuning low to high):
B0 = Bar 1
E1 = Bar 1
A1 = Bar 1
D2 = Bar 2 (Bar 1 disappears)
G2 = Bar 2 (Bar 1 disappears)

Strobe Newbie?

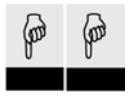
If you are new to strobe tuners, you will notice that they are much more sensitive and accurate than your previous tuner. This may mean that you'll need to adjust your "touch" when you pluck a string to tune.
Instead of a plectrum, use your finger or thumb to gently pluck the string.
You can also use this short cut – simply reduce the volume of your instrument, until you become accustomed to tuning accurately.

The StroboStomp - Other Uses

Besides being the world's most accurate pedal tuner, the StroboStomp's active DI offers top signal integrity over long cable runs, ideal for high-end basses and electro-acoustic instruments.
If you're an electric guitarist, the DI can also be used to connect to a recording device like a mixing console/tape machine or Digital Audio Workstation to record a dry guitar signal while playing through the ¼" output to your amp. Later you can reamplify the dry signal by sending it through your effects and amp while making tonal adjustments to them in a manner not possible while playing.
The StroboStomp is also the only pedal tuner which is accurate enough for professional intonation work.
The StroboStomp is also capable of power-sharing; using a power supply or Lithium battery you can use the StroboStomp's 9V output to power other pedals (check the voltage & polarity first).

Reamplifying using the StroboStomp

Ensure that the StroboStomp is in MON/DI mode (dipswitches down).



Connect the StroboStomp's DI output to your recorder or digital recording interface with a balanced XLR cable. Connect the StroboStomp's ¼" output to your amplifier or effects chain. Connect your instrument to the StroboStomp's input jack. Start the recording device and play as you normally would through your rig. After you've finished playing, connect the output of the recording device to your amp or effects chain. Start the recorder in playback mode, change and vary your amp and effects settings in real time to acheive tonal effects not usually available to you. The only limit is your imagination!

Using the StroboStomp as a DI

Ensure that the StroboStomp is in MON/DI mode.

(dipswitches down)

Electro-Acoustic Guitar
Connect the StroboStomp's DI output to your P.A. or live mixing console with a balanced XLR cable. Connect your instrument to the StroboStomp's input jack.
Electric Bass Guitar
Connect the StroboStomp's DI output to your P.A. or live mixing console with a balanced XLR cable. Connect the StroboStomp's ¼" output jack to the input of your bass amp. Connect your instrument to the StroboStomp's input jack.

The StroboStomp as an intonation tool

After deciding on string gauge, setting string height (nut & bridge), neck relief—factors that affect the instrument's intonation considerably—the individual string lengths need to be adjusted. For this task, use Equal temperament in the StroboStomp's TMPR menu (EQU).

- Lower the pickups away from the strings to avoid "doubling" and electromagnetic pull.
- Lay the guitar flat on a bench to adjust it, but always check the intonation with the instrument in the playing position, as the readings will be visibly (and later audibly) different. You should always aim to freeze or "cage" the image on the Strobe Tuner display; the less movement the more accurate the results.

Where setting the intonation is concerned, an often-used technique is the 12th fret & flageolet comparison method. In this method, the flageolet or "harmonic" of the 12th fret is compared to the fretted string at the 12th fret, and saddle position is adjusted as follows:

- If the fretted note is *flat* compared to the flageolet note, move the bridge saddle *forward* to shorten the string.
- If the fretted note is *sharp* compared to the flageolet note, move the bridge saddle *back* to lengthen the string.
- Adjust until both fretted note and flageolet are identical in pitch.

While this is a common system, it is not always the most satisfactory.
One popular alternative is to adjust each string so that it is in tune at *two* points an octave apart from each other on the fret board using a strobe tuner. Using the 5th and 17th fret as an example:

- Tune a string at the 5th fret.
- Check the string at the 17th. If sharp, move the saddle back, thus lengthening the string. If flat, shorten the string by moving the saddle forward. Remember to fret the string using the pressure that you would normally apply while playing.
- Keep repeating this process until each string is in tune as much as possible at both the 5th and 17th frets.

This method takes time, and has to be repeated if you change string gauges, but if properly executed, yields very satisfactory results.
Now, before you play music with a lot of 5ths on your guitar (e.g. power chords), tune the instrument using the GTR, BAS, P5TH or G5 setting , depending on which model of strobe tuner you own, otherwise use the EQU (default) setting to tune your guitar.
The methods above are within anybody's reach, all you need are your ears and your peterson strobe tuner!

Technical Specifications

Size:	5" x 3.875" x 2.25"
Weight:	1lb. including battery
Accuracy:	0.1 cent (1/10th of one cent)
Calibration:	A=433Hz to A=447Hz
Temperaments:	8 preset – 2 user-prog.
Input:	¼" jack
Outputs:	¼" jack (unbalanced) XLR (balanced)
Tuning Range:	8Hz to 1975Hz
Power:	9VDC 80mA (Nominal)

Recommended 9VDC Power Supplys:
Voodoo Labs Pedal Power
Boss PSA120T /PSA230T
Visual Sound 1-Spot
Godlyke PA9 Power All
Cioks Carl Martin Big John

Warranty

We warrant this product to be free of defects in materials or workmanship for a period of THREE years after delivery to the original purchaser. Our obligation under this warranty is limited to the replacement or repair of any part or parts which prove upon our examination to be defective.

This warranty does not apply to damage resulting from transportation, misuse, abuse, or alteration. The complete unit must be returned to our factory, transportation charges prepaid. In order to speed the return of the unit to you, it is recommended that for all repairs, other than those required as a result of shipping damage, you deal directly with our factory. In case of damage in shipment, a claim should be filed with the carrier. Be sure to include a brief description of the difficulty you are experiencing and your return address.
The above warranty is contingent upon registration within 10 days of the date of receipt of the product by the original purchaser. The warranty conveys specific legal rights to the purchaser, other rights vary from state to state and internationally.
Register on-line at:
http://www.petersontuners.com/support/register/index.cfm

Join the StroboStomp Users forum at:
http://www.strobostomp.com/forum/default.asp

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Buzz Feiten tuning system