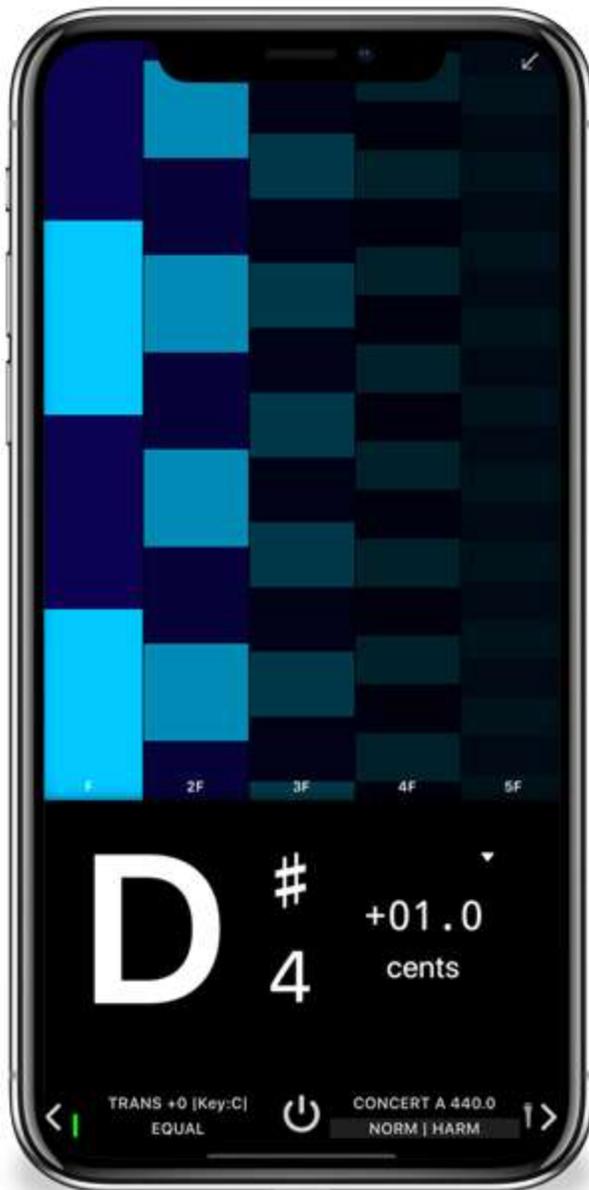

iStroboSoft™ Tuning App

In-app Purchased Content Options

(iOS Only)

peterson
STROBE TUNERS
The Sound of Precision.



Harmonic Tuning Screen (in-app upgrade)

The harmonics tuning option for iStroboSoft is a fantastic utility for viewing the fundamental frequency and tuning harmonics. View the fundamental frequency along with the first four overtones. Users can view tuning changes in real-time with rock-solid Peterson accuracy. The fundamental will always be displayed as the left-most band and the harmonic overtones will be displayed in order from left-to-right. The out-of-tune difference is displayed by the direction and speed of the strobe bands.

The harmonic upgrade provides an excellent utility for inspecting the quality of instrument strings as dead strings will not ring in upper harmonic content or provide erratically out-of-tune harmonics. Help isolate instrument intonation, neck issues or pickup problems as well by analyzing the harmonic tuning levels.

For tuning guitar, you can use this screen to tune until the brightest band stops (which may not be the fundamental note). This gives you a better "overall" tone as compared to just hearing the fundamental on its own as all

harmonics are taken into consideration using this method.

You can also use this screen to manually apply a stretch tuning, much like a piano. For example, on the E strings of the guitar, make sure the harmonics of the lower notes match the same tuning of the higher notes fundamental, i.e., E2 second harmonic matches the E4 fundamental.

Percussion instrument builders who need to know what is happening beyond the fundamental note can also use the harmonic upgrade to see which harmonic(s) need(s) to be adjusted during the building process.

The screen will display the fundamental as indicated by the (F), the 2nd harmonic (2F), third harmonic (3F), etc.



Spectrum Bar Graph

(Tuning Tools: In-app Upgrade)

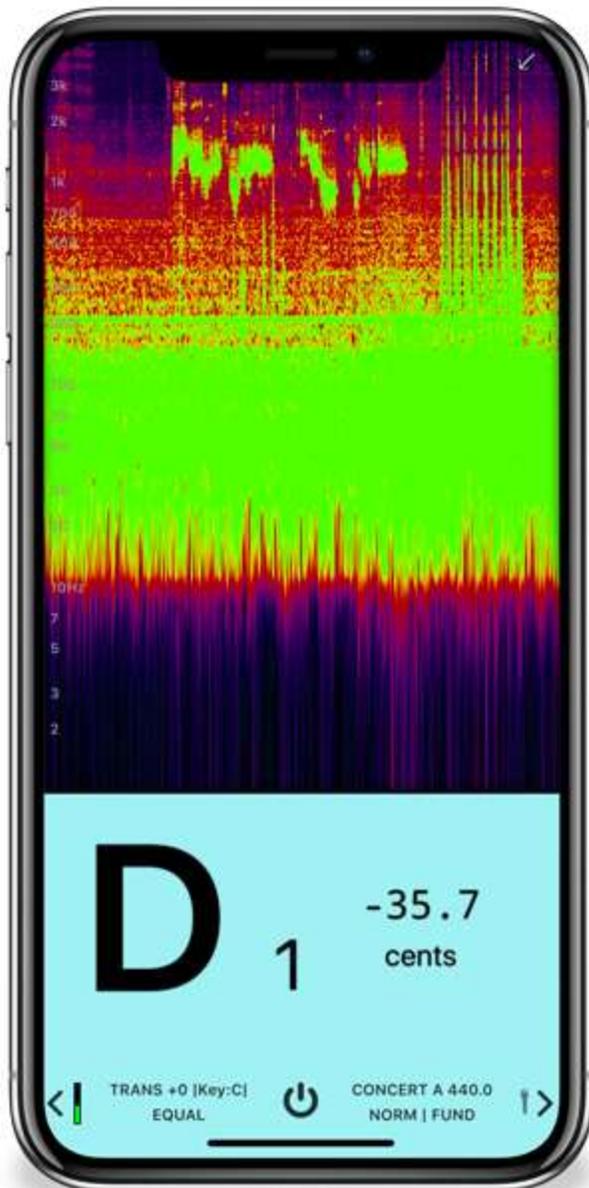
The extraordinary definition of the spectrum bar view enables users to analyze frequencies in real-time and view their harmonic relationships with unparalleled accuracy using a clean, easy-to-read interface. Watch frequency relations change as the input frequency varies to help identify problematic areas in sound or use it as a teaching tool for harmonics. Zooming the screen all the way out will allow full viewing of the frequency spectrum while zooming in will permit you to view frequency peaks with exacting precision.

With AUTOSCROLL enabled, use the spectrum bar graph to track changing frequencies up-and down the spectrum as they occur. Logarithmic and linear scaling on the frequency axis can be toggled as a viewing option or view the frequencies as to where they are located with note/octave labeling.

Variable damping (averaging) gives you a longer-term view of the signal, allowing you to see small signals that would otherwise be hidden in the background noise.

Features:

- Pinch and zoom display to view frequencies closely (double-tap to reset view).
- Manually swipe (left or right) across the spectrum or use AUTOSCROLL to have iStroboSoft constantly display the fundamental throughout the entire range.
- Dampen Control to adjust sensitivity.
- Log Scale option for viewing values with greater detail.
- View measurements in Hertz or their corresponding note/octave value.
- Capable of reading up to ~22kHz with **optional** extended frequency mode upgrade.



Spectrogram

(Tuning Tools: In-app Upgrade)

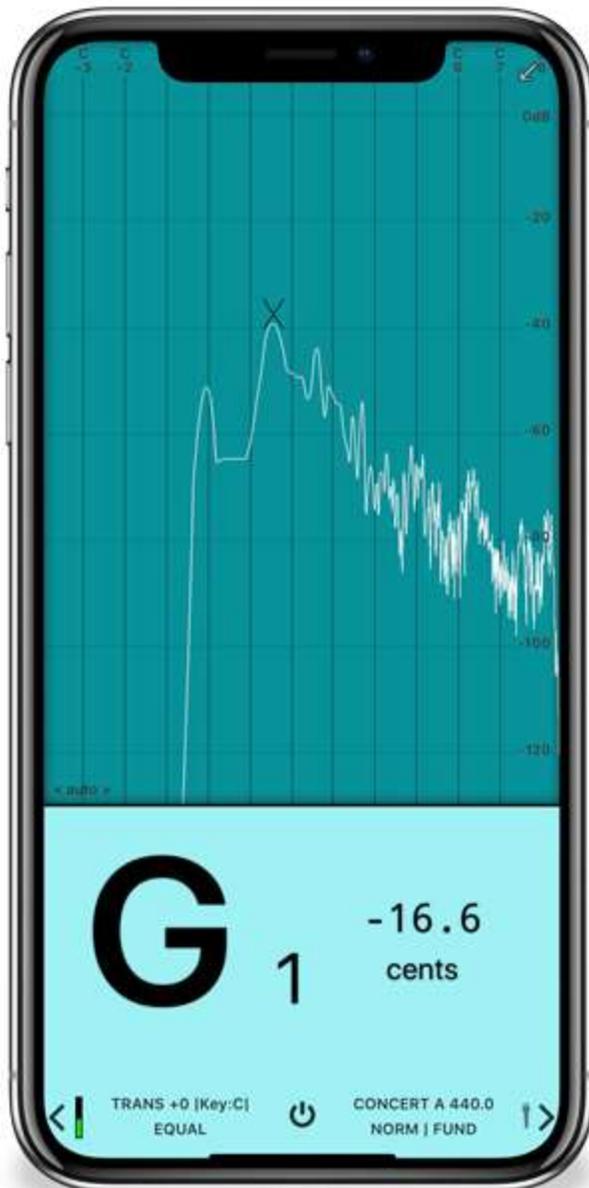
Like a musical score, a sound spectrogram is a visual representation of sound. A spectrogram provides more complete and precise information than a musical score because it is based on actual measurements of the changing frequency content of a sound over time. View frequencies changes with unparalleled accuracy as they happen complete with note attack and decay.

Four different color maps help isolate and aid in identification of even the subtlest frequencies. Adjustable gain and contrast options assist in dialing out unwanted frequency information or to intensify desired characteristics.

Choose up to a 4x speed to capture even the quickest sounds before they decay. Analyze them using the log scale option or remove the log scaling for closer analysis.

Features:

- Log scale option for viewing values with greater detail.
- Contrast and gain controls.
- Four different color map options to help isolate or view particular frequencies.
- Speed control (up to 4x) allows shorter signals to be viewed with more detail.
- Capable of reading up to ~22kHz with **optional** extended frequency mode upgrade.



Spectrum Analyzer

(Tuning Tools: In-app Upgrade)

The spectrum analyzer lets you see what is going on like never before. High-resolution zooming lets you analyze frequencies with unprecedented precision, all in real time. With AUTOSCROLL enabled, the zoomed spectrum will track your fundamental tone so it never goes off screen. Traditional logarithmic and linear scaling on the frequency axis can be chosen, but iStroboSoft goes further and even also allows frequencies to be displayed as notes so you can make sense of the signal in a musical context.

Variable damping (averaging) gives you a longer-term view of the signal, allowing you to see small signals that would otherwise be hidden in the background noise.

The 'X' indicates the fundamental note being identified by iStroboSoft. With the AUTOSCROLL mode engaged, the fundamental note will automatically change with the display.

The spectrum analyzer can be extremely useful in finding noise present in the incoming signal helping to identify reading difficulties.

Features:

- Pinch and zoom display to view frequencies closely (double-tap to reset view).
- Manually swipe (left or right) across the spectrum.
- AUTOSCROLL option constantly displays fundamental throughout the entire tuning range.
- Dampen Control to adjust sensitivity.
- Log Scale option for viewing values with greater detail.
- View measurements in Hertz or their corresponding note/octave value.
- Capable of reading up to ~22kHz with **optional** extended frequency mode upgrade.



Oscilloscope

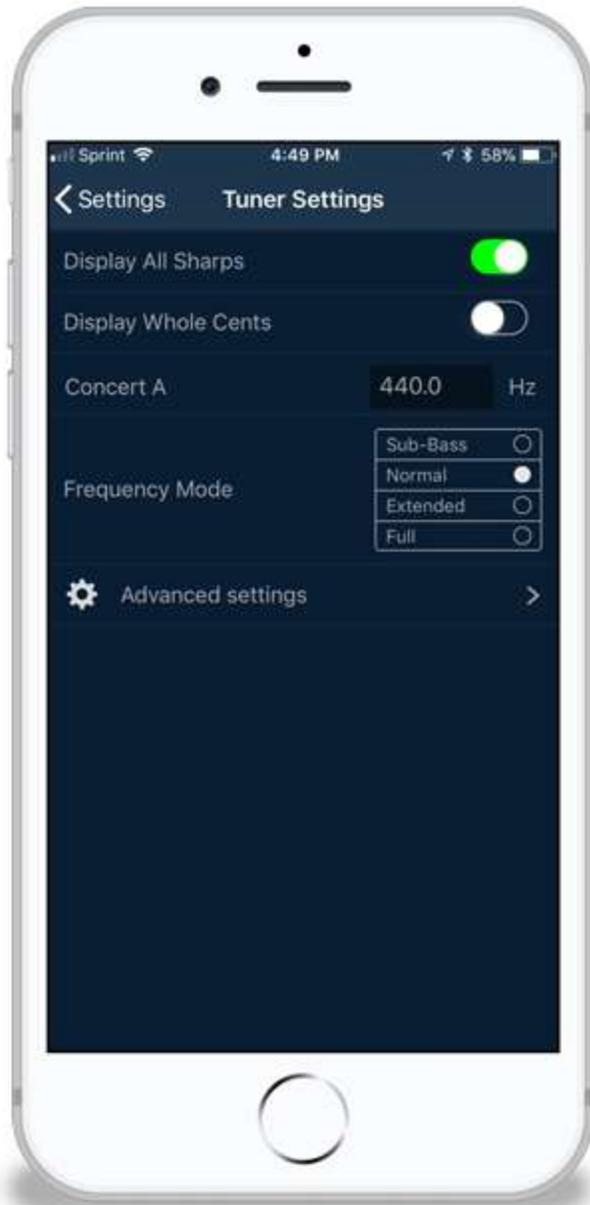
(Tuning Tools: In-app Upgrade)

The iStroboSoft oscilloscope allows the user to view the actual shape of the signal coming into iStroboSoft. Quickly find frequency anomalies that may be impeding successful tuning results by monitoring the incoming waveform and looking for spikes or jitter in the signal. iStroboSoft auto-scales the amplitude in the signal to fit it to the screen for easy viewing. You use it to see the shape of the signal more than the actual incoming amplitude level.

Some common uses for using the oscilloscope would be to find bad string windings, noisy pick-ups, and/or cable hum issues.

Features:

- User selectable zoom (2x, 4x, 8x, 16x)



Extended Frequency Modes (in-app upgrade)

iStroboSoft will measure up to 5.5kHz in its standard form (NORMALmode). This is an acceptable range for most stringed instruments. In cases where an extended tuning range may be desired (tuning piano, bells, singing bowls, e.g., instruments with frequency ranges above 5kHz), the optional frequency modes may be used.

These optional modes are also tied to your in-app scopes and will extend the ranges (where applicable).

Range Options:

- **Sub-bass: 0 - 5.5125kHz**
Best for <20hz. Updates at a slower rate and provides higher accuracy in the extreme low registers.
- **Normal: 0 - 5.5125kHz**
Default frequency range. This is the mode iStroboSoft ships with.
- **Extended: 0 - 11.025kHz**
Higher upper range with greater accuracy above 6kHz.
- **Full: 0 - 22.05kHz** Highest and widest range mode.



Unlike other tuners which offer no alternative to generic Equal Temperament, Peterson Tuners contain many choices of "Sweetness", in other words, several degrees of harmony or consonance in a tuning preset. The Sweetener feature is exclusive to Peterson Tuners and there is one for almost any musical instrument.

These additional "tweaks" allow the instrument to shimmer and cut through as only an expertly tuned instrument can. Some call it "voicing" or optimizing the quality of tone produced by the instrument. Using a Sweetener is simple – your Peterson tuner does the work for you.

iStroboSoft for iOS (Not available for Android) breaks these Sweetened settings into groups for easy management. These are sold in groups that address an instrument-type or genre of music. Prices will vary in your regional App Store.

Guitar & Bass Pack

GTR - Designed for use with guitars tuned to standard EADGBE. The strings are adjusted to allow for deflection by varying amounts according to the gauge of the string in each case. This improves and helps counter the often problematic "unwound 3rd string" problem on short scale electric guitars such as Les Pauls and the three saddle compromise on Telecasters.

ACU - Designed for use with acoustic guitars tuned to standard EADGBE. The strings are adjusted to allow for deflection by varying amounts according to the gauge of the string in each case. The guitar is sweetened in the same way as if tuned by the ear of an experienced musician such as James Taylor who uses these settings.

DAD - Peterson Sweetened tuning for acoustic guitar in modal DADGAD tuning with optimized fifths.

12S - Peterson Sweetened tuning for 12 string guitars with regard to the string courses.

BRT - Peterson Sweetened tuning for baritone guitars.

7ST - Peterson Sweetened tuning for seven string guitars.

BAS - Designed for use with basses tuned to standard EADG. The strings are adjusted to allow for deflection by varying amounts according to the gauge of the string in each case.

TH1 – Thidell Guitar Formula 1 Open Strings for 6-string guitar.

TH2 – Thidell Guitar Formula 1 Full Chromatic.

Buzz Feiten Pack

(Buzz Feiten Tuning System is a registered trademark of Buzz Feiten Design).

BFE - Tuning and intonation offsets for electric guitars equipped with the Buzz Feiten Tuning System.

BFB - Tuning and intonation offsets for electric bass guitars equipped with the Buzz Feiten Tuning System.

BF12 - Tuning offsets for 12 string guitars equipped with the Buzz Feiten Tuning System.

BFA - Tuning offsets for acoustic guitars equipped with the Buzz Feiten Tuning System. For Buzz Feiten Acoustic intonation work, a Peterson AutoStrobe 490 is recommended.

Steel Guitar Pack

SE9 - Peterson Pedal Steel Guitar Sweetened Tuning for 10 string pedal steel in E9 tuning. This is based on Jeff Newman's later system where the E strings are sharp of concert pitch.

SP9 - Peterson Pedal Steel Guitar Sweetened Tuning for lever and pedal settings in E9 tuning. Use in conjunction with SE9 preset for open strings.

SC6 - Peterson Pedal Steel Guitar Sweetened Tuning for 10 string pedal steel in C6 tuning. This is based on Jeff Newman's system (www.jefffran.com)

SP6 - Peterson Pedal Steel Guitar Sweetened Tuning for lever and pedal settings in C6 tuning. Use in conjunction with SC6 preset for open strings.

OE9 - Peterson Pedal Steel Guitar Sweetened Tuning for 10 String pedal steel in E9 tuning. This is based on Jeff Newman's earlier system where the E strings are at concert pitch.

OP9 - Peterson Pedal Steel Guitar Sweetened Tuning for lever and pedal settings in E9 tuning. Use in conjunction with OE9 preset for open strings based on Jeff Newman's system.

EM9 - Peterson Emmons Style E9 Sweetener for pedal steel guitar. This contains the offsets for the open strings for E9 tuning.

EP9 - Peterson Emmons Style E9 Sweetener for pedal steel guitar. This contains the pedal and lever offsets for E9 tuning

EM6 - Peterson Emmons Style C6 Sweetener for pedal steel guitar. This contains the offsets for the open strings for C6 tuning.

EP6 - Peterson Emmons Style C6 Sweetener for pedal steel guitar. This contains the pedal and lever offsets for C6 tuning

U12 - Peterson Pedal Steel Guitar Sweetened Tuning for 12 string universal pedal steel guitar in E9/B6 tuning. This contains the offsets for the open strings based on Jeff Newman's system.

P12 - Peterson Pedal Steel Guitar Sweetened Tuning for 12 string universal pedal steel guitar in E9/B6 tuning. This contains the offsets for the pedals and levers based on Jeff Newman's system, use in conjunction with U12 preset for open strings.

LA6 - A6 settings for lap steel guitar.

LC6 - C6 settings for lap steel guitar.

SH6 - Sid Hudson's Sweetened Tuning for 10 string pedal steel in C6 tuning.

SH9 - Sid Hudson's Sweetened Tuning for 10 string pedal steel in E9 tuning.

Bluegrass Pack

dbO - Compensates by making the thirds pure. This makes the sweetest sound, especially with long sustained chords where not using a Sweetener can grate on the ears due to an Equally Tempered third.

BJO - Counters the typical sharp B string which is encountered when tuning a 5-string banjo without compensation with an ordinary tuner. The B is sweetened in the same way as a banjo tuned by the ear of an experienced musician.

TBO - Compensates for string deflection taking into account the different scale length and lower pitched tuning for 4 string tenor banjo.

MAN - This sweetener was developed for the mandolin, mandola and mandocello. Using it will result in perfectly tuned and voiced unison string pairs. Detuning in instruments with multiple string courses, as opposed to single strings, is much less pleasing to even the most untrained ear because both chords and melody lines are affected. The MAN setting can be used for 8-string mandolins, including Gibson Styles A and F as well as the Weber A and F series.

dbH - Major thirds in all three tunings are lowered slightly from Equal temperament, but not entirely beatless. This Sweetener is useful in band settings where instruments with fixed intonation are present.

FDL - Perfect 5th intervals for 4 and 5 string fiddle.

ACG - Peterson Sweetened Tuning for Bluegrass acoustic guitar in standard tuning. Compensates for string deflection caused by fretting and capo use.

Misc. Stringed Pack

UKE - The UKE Sweetener is designed for use with Concert type ukulele. UKE uses cent offsets to allow for the typical string deflection which is encountered when playing the instrument and takes scale length and intervals into account.. The tuning is sweetened in the same way as a ukulele tuned by the ear of an experienced musician.

LUT - Lute & Viols (17 tone 1/6th Comma Meantone with all enharmonic notes).

Orchestral Pack

VLN - Open strings tuned in perfect fifth intervals. Both four (GDAE) and five string (CGDAE) violins are catered for within this one tuning preset.

VLA - Results in open strings tuned in perfect fifth intervals. Both four (CGDA) and five string (CGDAE) violas are catered for within the one tuning preset.

CLO - Results in open strings tuned in perfect fifth intervals. Both four (CGDA) and five string (CGDAE) cellos are catered for within the one tuning preset.

HRN - Brass & Woodwind, Just Intonation perfect fifth, fourth major and minor third intervals for every key.

Harp Pack

HP1 - Peterson Pedal Harp Stretch Sweetener for 47 string harp.

HP2 - Peterson Lever Harp Stretch Sweetener for 36 string harp.

HP3 - Peterson Pedal Harp Stretch Sweetener for 47 string harp. This is a milder stretch than HP1.

Keyboard Pack

MBA - Peterson Marimba Stretch Sweetener intended for monitoring the instrument's condition, for correct bar re-tuning and regulation, consult the instrument's manufacturer.

VIB - Peterson Xylophone Stretch Sweetener intended for monitoring the instrument's condition, for correct bar re-tuning and regulation, consult the instrument manufacturer.

RHO - Rhodes Electric Piano stretch tuning.

SMG - Acoustic Grand Piano (SMGD). Stretched tuning for acoustic grand piano.

UPR - Acoustic Upright Piano (UPRT). Stretched tuning for acoustic upright piano.

Harmonica Pack

OMB - Original Marine Band Tuning for Harmonica in C

MMB - Modern Marine Band Tuning for Harmonica in C

MSR - MS Richter Tuning for Harmonica in C

S20 - 1896 Marine Band/Special 20 Tuning for Harmonica in C.

MSM - MS Models Tuning for Harmonica in C.

CYT - Country Tuning for Harmonica in C.

NMT - Natural Minor Tuning for Harmonica in C.

HMT - Harmonic Minor Tuning for Harmonica in C

GMT - Golden Melody Tuning for Harmonica in C.

CMT - Chromatics Tuning for Harmonica.

Accordion Pack

AW+ /Accordion Tuning 'Wet' Sharp. This setting is for the sharp set of reeds in a 3 reed block situation. For best results, use in conjunction with AW0 and AW

AW- /Accordion Tuning 'Wet' Flat. This setting is for the flat set of reeds in a 3 reed block situation. For best results, use in conjunction with AW0 and AW+.

AM+ /Accordion Tuning 'Medium' Sharp. This setting is for the sharp set of reeds in a 3 reed block situation. For best results, use in conjunction with AM0 and AM-

AM- /Accordion Tuning 'Medium' Flat. This setting is for the flat set of reeds in a 3 reed block situation. For best results, use in conjunction with AM0 and AW+

AD+ /Accordion Tuning 'Dry' Sharp. This setting is for the sharp set of reeds in a 3 reed block situation. For best results, use in conjunction with AD0 and AD-.

AD- /Accordion Tuning 'Dry' Flat. This setting is for the flat set of reeds in a 3 reed block situation. For best results, use in conjunction with AD0 and AD+.

CAJ /Accordion Tuning Cajun style in C - optimized third & fifth intervals.

World Pack

SIT - Sitar (pure intervals). Just Intonation in the key of C and C#, to tune in C#, use a Transpose value of +1.

ODU - Oud (pure intervals).

GHB - Traditional tempered scale for chanter and drones with an A root for Great Highland bagpipe tuning.

UIL - Pure intervals with a D root for Uilleann pipe tuning.

RAS - Optimized Peterson settings for Maqam Rast traditional Arabic temperament.

SUZ - Optimized Peterson settings for Maqam Suznak traditional Arabic temperament.

NAI - Optimized Peterson settings for Maqam Nairuz traditional Arabic temperament.

AFP - African Pentatonic tuning (GABDF)

SDO - Slendro for Indonesian Gamelan tuning in altered C#, D#, F#, A#, B

PLG - Pelog for Indonesian Gamelan tuning in altered D#, E, F#, G#, A#, B, C