

StroboPLUS HDC™ Tuner

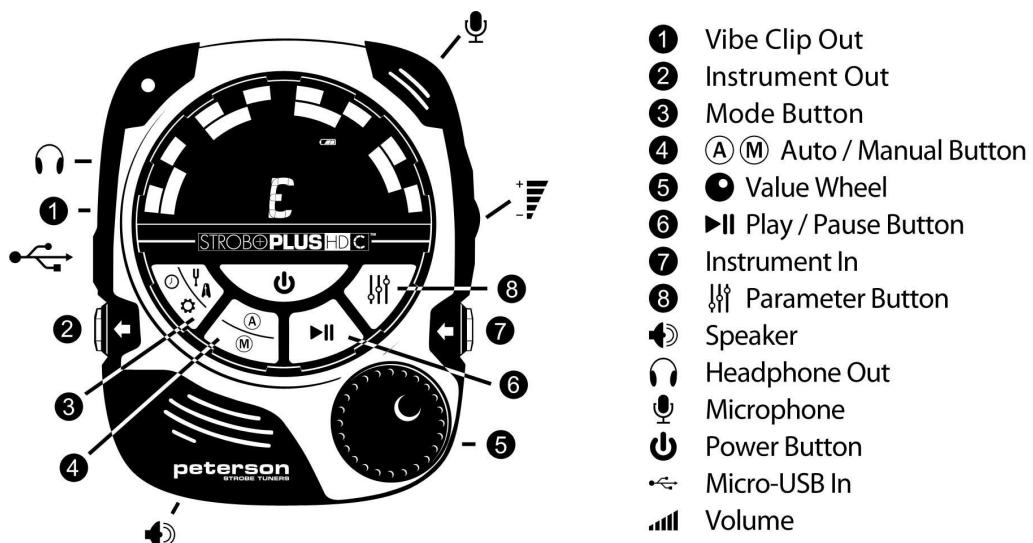
Congratulations on your purchase of the StroboPLUS HDC™. For instructions on general operation, please see the [StroboPLUS HDC Quick Start Manual](#). For instructions and guidance on the StroboPLUS HDC Metronome, please see the [StroboPLUS HDC Metronome Manual](#). Follow this link to learn about the [StroboPLUS HDC Timer mode](#), and this link to learn the details of the [General Settings Screen](#).

The Strobe Tuner Screen is the first screen you'll see when turning ON the StroboPLUS HDC. On the Strobe Tuner screen, the note being tuned (Note Name) appears in the center part of the screen. The strobe bands scroll counter-clockwise (left) if your instrument is flat of the displayed note and clockwise (right) to indicate sharp of the displayed note. When the image is stabilized your instrument is in tune to 0.1 cent accuracy (1/10th of one cent) of the displayed note.

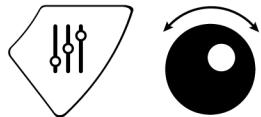
All adjustable parameters are hidden from the screen unless set to a non-default value.

The adjustable parameters of Strobe Tuner Mode include:

- Sweetener or Guided Tuning Preset
 - Transposition (-6 to +5)
 - Pitch Notation (Note Name or String Number if available)
 - Concert A Reference (390.0 Hz to 490.0 Hz)
 - Preset Display Color (10 Default Colors)
 - Cent Offset (-50.0 to +50.0)
- Auto / Manual Tuning Mode



In general, all parameters of the tuner can be easily adjusted by using a combination of the Parameter Button and the Value Wheel. Simply press the Parameter Button until the desired parameter flashes and then turn the Value Wheel to reach the value you would like. When you are done editing a parameter, you can either click IN on the Value Wheel or let the blinking parameter time-out. Switching Presets is done by adjusting the Sweetener / Preset Value.



Any time a parameter value has been changed and confirmed by clicking on the value wheel, that parameter becomes first in the list when the Parameter Button is pressed again later. For example, if you recently made a change to the Transposition Setting of your preset, the next press of the Parameter Button will begin at the Transposition Setting.

Any changes made to the adjustable parameters will save to the active Sweetener or Guided Tuning Preset. In Strobe Tuner Mode, pressing the Play/Pause Button toggles the Tone Generator ON/OFF, allowing you to hear the result of the current parameters.

You can also ‘lock’ a parameter to the Value Wheel, meaning it will remain active, flashing and will never time out. This is useful when you would like to audition and compare the effect of various values without needing to press the Parameter button each time you make a change. When the desired parameter is flashing, press and hold the parameter button for 2 seconds. When locked, the value will continue to flash and the Value Wheel can be used to adjust the value at any time *until* the Parameter Button is used to select a different parameter.

Any parameter can be set back to its default value by pressing and holding the Value Wheel for 2 seconds or until the red LED flashes once.

This general parameter adjustment process is the same for the Strobe Tuner, Metronome, Timer and General Settings screens.

Strobe Newbie?

If you are new to strobe tuners, you will notice that they are much more sensitive and accurate than your previous tuners. It's OK if the strobe image doesn't completely stop. It may shift slightly due to the ‘real-time’ feedback of a strobe tuner. For stringed instruments, it helps to use your finger or thumb to gently pluck the string instead of a plectrum. For more information on Strobe Tuning and why it's the best way to tune your instrument, we invite you to visit: petersontuners.com/whyPeterson

Sweetener™ & Guided Tuning Presets

Your StroboPLUS HDC contains over 220 built-in presets that cater to specific instruments. The majority of these presets are considered “Sweetener Presets” because they make an instrument

sound "sweeter" by slightly adjusting each note to compensate for common tuning problems specific to an instrument type. Many of these adjustments are so small that they can only be measured with the incredible 1/10th cent accuracy of your Peterson Strobe Tuner. When a preset contains a sweetener, the "Sweetener" label will show above the preset name.

Over 80 "Guided Tuning Presets" are also included. Guided Tuning Presets greatly simplify tuning for common stringed instruments like guitar and bass. Guided Tuning Presets ignore all other chromatic notes and only listen for the exact pitches to which your strings should be tuned. Guided Tuning Presets display String Numbers by default but can be adjusted to show Note Names.

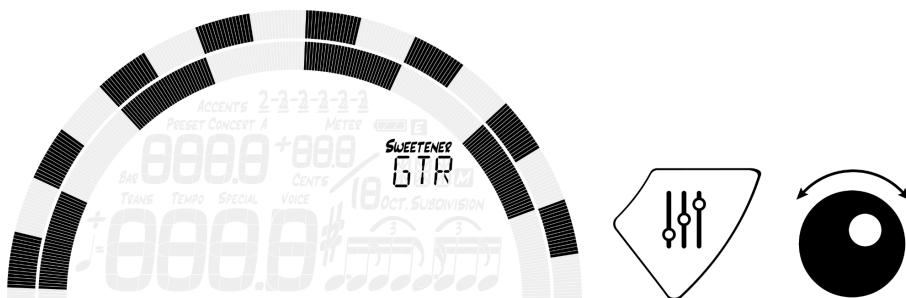
NOTE: Guided Tuning Presets and Microtonal Sweeteners are hidden by default but can be made visible in the Settings Screen (see Changing The Visibility of Presets in the [Settings Screen manual](#)).

Sweetener & Guided Tuning Presets also carry the other four adjustable parameters of the tune screen. When the Transposition, Concert A Reference, Preset Display Color or Cent Offset is changed, those parameters will save with the Sweetener or Guided Tuning Preset that is currently visible and active. Selecting another Preset will change your Concert A Transposition, Preset Display Color and Cent Offset to those specified by the newly selected Preset. You can specify and save a different Concert A Reference, Transposition, Preset Display Color or Cent Offset for each Sweetener or Guided Tuning Preset. When any of the parameters of a preset are set to their default value, the default value will NOT be displayed.

The default preset, EQU (Equal Temperament), is neither a Sweetener nor a Guided Tuning. It does not apply any tuning adjustments and should be used when you wish for your StroboPLUS HDC to operate as a non-instrument-specific, highly accurate chromatic tuner.

Visit here for a full list of [Sweetener and Guided Tuning Presets in your StroboPLUS HDC](#).

Selecting a Preset

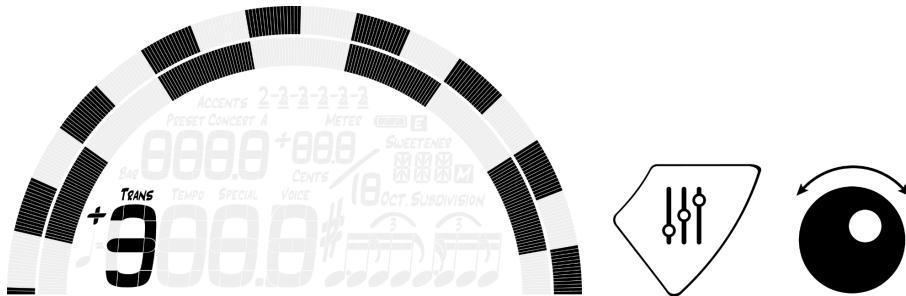


Press the Parameter Button until the 3-letter Preset name flashes. Use the Value Wheel to select one of over 200 built-in Presets. Click either the Value Wheel to exit or allow the active

parameter to time-out. To quickly set your selected Preset back to the default (EQU), press and hold the Value Wheel for 2 seconds.

By default, the Presets you use the most will re-position to the top of the Preset list, allowing you to access your most recently used presets with just a few button pushes.

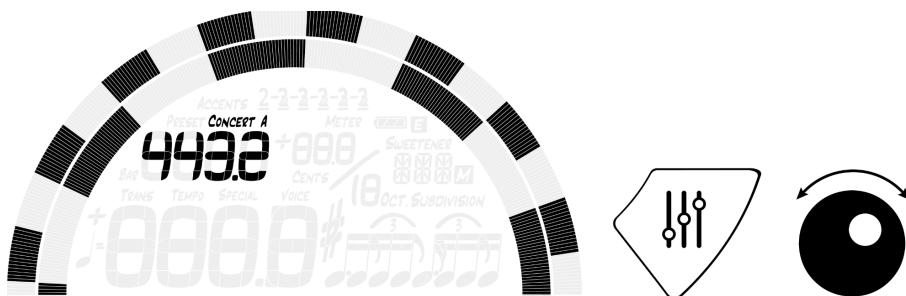
Changing Transposition



Press the Parameter Button until the Transposition (Trans) value flashes. Use the Value Wheel to select a value from -6 to +5. To quickly set your Transposition back to the default value of 0, press and hold the Value Wheel for 2 seconds.

Transposition settings change the note that is displayed on your tuner when tuning. This is useful for string players who wish to tune 'down' by a number of steps or raise the pitch of the instrument with the use of a capo or players of keyed wind instruments. Setting the transposition value allows you to tune using the standard concert pitch note name without needing to calculate the transposed note name.

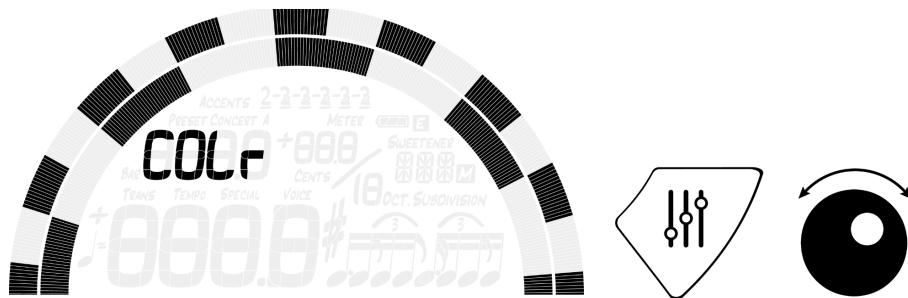
Changing The Concert A Reference



Press the Parameter Button until the Concert A Reference value flashes. Use the Value Wheel to select a value from 390-490Hz. Turning the Value Wheel normally increments or decrements the Concert A Reference by 1.0Hz. Pressing IN and turning the Value Wheel will increment or decrement the Concert A Reference by 0.1Hz respectively.

The Concert A Reference can be used to shift the entire tuning of your preset to match that of a desired historic tuning standard or a fixed-tuning instrument that cannot be adjusted. To quickly set your Concert A Reference back to the default of 440Hz, press the Parameter Button until the Concert A Reference value flashes. Then, press and hold the Value Wheel for 2 seconds.

Changing The Preset Display Color



Press the Parameter Button until the Color (COLr) label flashes. Use the Value Wheel to select 1 of 10 predefined colors. The Preset Display Color can be useful for quickly identifying your presets when the Preset name may be harder to see. To quickly set your Preset Display Color back to the default Orange color, Press the Parameter Button until the Color (COLr) label flashes. Then, press and hold the Value Wheel for 2 seconds.

NOTE: Changing the Preset Display Color only affects the display color of the ACTIVE or CURRENT Preset. To change the display color of all presets and settings, see Global Display Color in the [Settings Screen instruction manual](#).

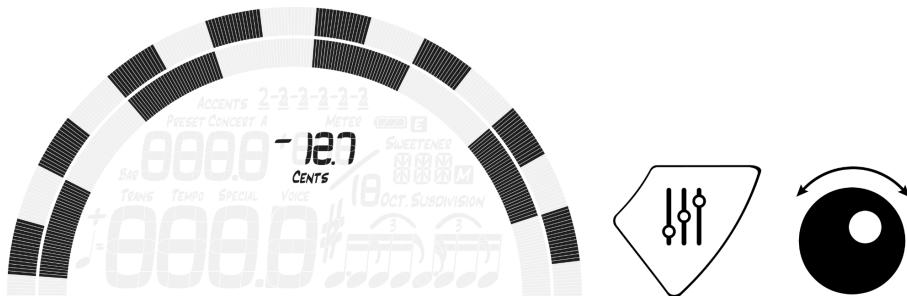
Changing The Tuning Pitch Notation (When Available)



If the active Preset contains String Number information, pressing the Parameter Button will reveal the Tuning Pitch Notation menu. Either "Note" or "Str" will appear in the upper-left corner of your display. Use the Value Wheel to select one of these options. For example, GTR (Peterson Sweetener for 6-String Guitar), contains String Number information and can be toggled from displaying E-A-D-G-B-E to string numbers 6-5-4-3-2-1.

NOTE: When “Str” is selected, your tuner will not function as a chromatic tuner. Instead, all input signal is considered either sharp or flat of the exact pitch to which the displayed string number should be tuned.

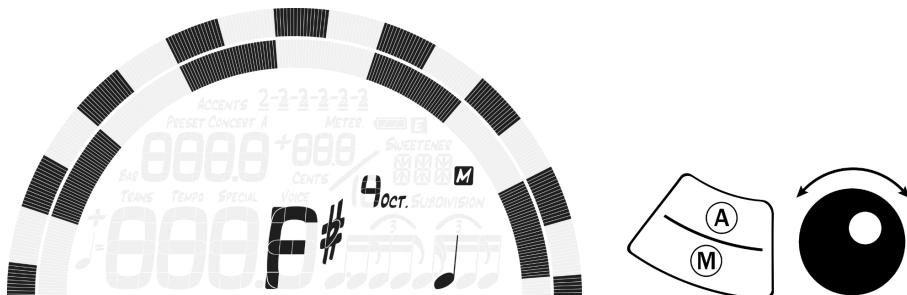
Changing The Cent Offset



Press the Parameter Button until the Cent Offset (Cents) value flashes. Use the Value Wheel to select a value from -50 to +50 cents. Turning the Value normally increments or decrements the Cent Offset by 1.0 cents. Pressing IN and turning the Value Wheel will increment or decrement the Cent Offset by 0.1 cents.

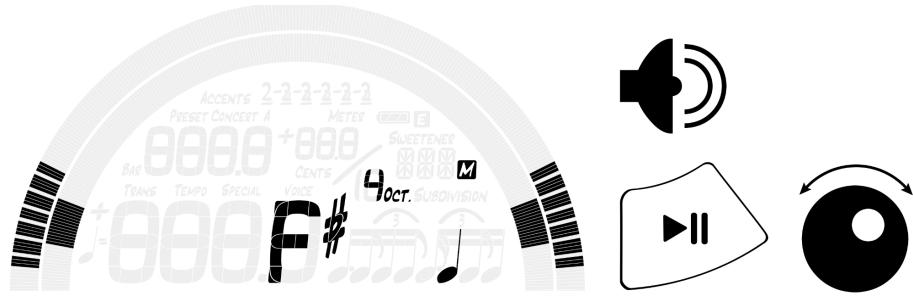
The Cent Offset can be used to shift the entire tuning of your preset to match that of a fixed-tuning instrument that cannot be adjusted, or to manually set the cent offset of each note in accordance with a cent offset chart. To quickly set your Cent Offset back to the default of 0 cents (none), press the Parameter Button until the ‘Cents’ value flashes. Then, press and hold the Value Wheel for 2 seconds.

Switching Between Auto / Manual Tuning Mode



Press the Auto / Manual Button to toggle between Auto Pitch-Detection or Manual Pitch Selection of tuning pitch while tuning. By default, the StroboPLUS HDC Tuner automatically detects and changes the targeted tuning pitch. When toggled to Manual Tuning Mode, a single pitch can be set to which the tuner will respond. This can be helpful when an instrument is producing loud overtones that the StroboPLUS HDC may perceive as the fundamental. A small dot will appear to the lower-left of the Tuning Pitch, an ‘M’ and a note symbol will appear when in Manual Tuning Mode (see image below). Use the Value Wheel to change the Tuning Pitch.

Tone Generator



Any pitch, either detected in Auto Pitch Detection Mode or selected via Manual Pitch Selection, can be immediately heard by pressing the Play / Pause Button to enter Tone Generator Mode. The active pitch will immediately begin to play through the on-board speaker and the tuner will automatically switch to Manual Tuning Mode in order to allow for the adjustment of the sounding pitch by use of the Value Wheel.

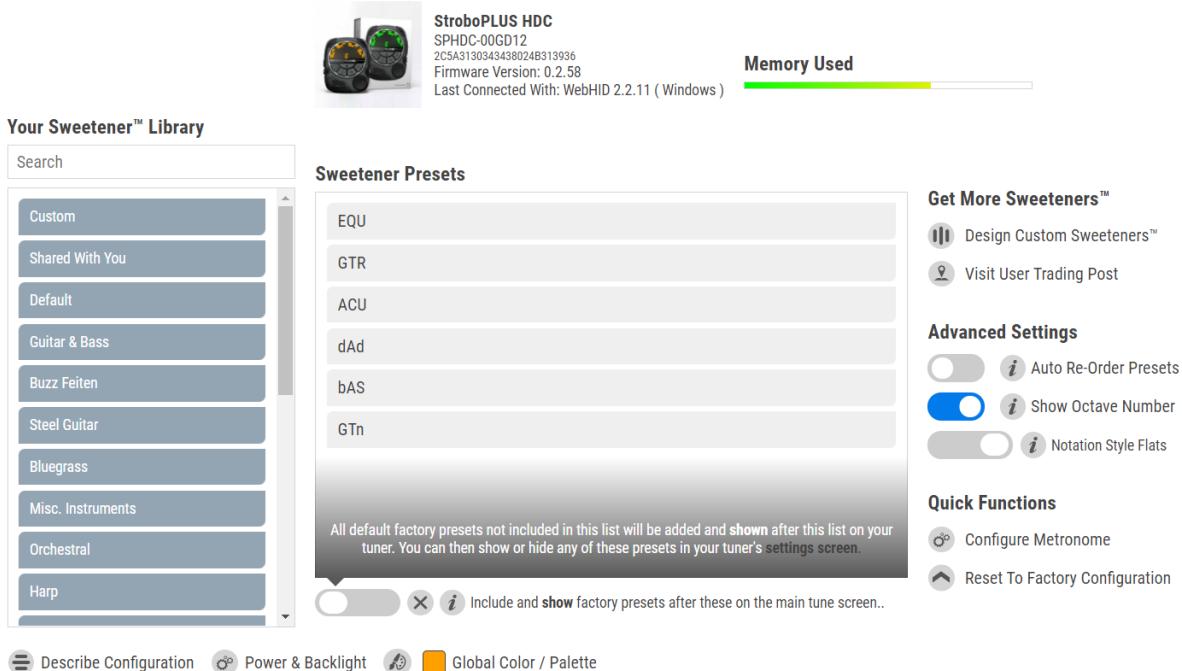
Online Tuner Configuration Tool

The Online Tuner Configuration Tool can be used to specify a virtually unlimited number of Sweetener or Guided Tuning presets that can then be downloaded to your device through the use of [Peterson Connect](#). These presets can be constructed using all of the same parameters offered on the hardware interface that are explained throughout this document. In addition, the online Tuner Configuration Tool allows:

- Drag-and-Drop organization of Presets
- Access to the full Peterson library of over 200 proprietary Sweetener / Guide Tunings
- Limiting the on-board Preset list to only your most used Presets.
- Customization of the color palette available to your StroboPLUS HDC presets
- Changing preferred Accidental Symbols (# or b) and Octave Number Display
- Adding custom Sweeteners and Guided Tunings of your own creation or from the [User Depot](#) public Sweetener sharing page.

The Tuner Configuration tool can only be accessed after registering the device and pairing the USB connection through the use of [Peterson Connect](#). After your product is registered, you can access the configuration utility here: [Configure Your Product](#)

CONFIGURE YOUR TUNER



The Tuner Configuration screen includes “Your Sweetener Library” which is a searchable list of up to 220 Peterson proprietary Sweeteners and Guided Tunings as well as any custom Sweeteners or Guided Tunings that you have created or have been shared with you by another user. These Sweeteners and Guided Tunings can be added to the “Sweetener Presets” list of your tuner (in this case StroboPLUS HDC) by rolling your mouse over the item in the library you wish to add and clicking the arrow. Hovering over the “i” (info) icon displays a short description of the Sweetener. Once the Sweetener or Guided Tuning has been moved from the library to your Sweetener Presets list, rolling the cursor over the preset reveals additional controls to adjust all of the preset parameters outlined above.

Presets in the Sweetener Presets list can be dragged and dropped into the preferred order. By default, the ‘Auto Re-Order Presets’ toggle switch on the right side of the screen is in the ‘on’ position. This allows the StroboPLUS HDC to keep track of your most-used presets and organize them near the top of the list so that your frequently used presets are always near the top of the list. Manually changing the order of presets by dragging and dropping will disable the ‘Auto Re-Order Presets’ feature because a preferred order has been specified. However, ‘Auto Re-Order Presets’ can be re-enabled at any time.

Below the Sweetener Presets list is a 3 position toggle switch to customize the way presets are stored and the memory they use. The options are:

- Include and **show** additional factory presets after what is specified in the Sweetener Presets list.

- Include but **hide** all factory presets other than what is specified in the Sweetener Presets list. This reduces the number of Sweeteners to navigate through on your StroboPLUS HDC. **Hidden** sweeteners can be changed to 'show' again in the settings screen.
- Do NOT include any additional presets other than what is specified in the Sweetener Presets list. This option greatly reduces the amount of memory used by Sweetener Presets.

Near the bottom of the Tuner Configuration page are the options to name and describe your custom tuner configuration and to specify up to 15 unique colors that the StroboPLUS HDC can use to assign to presets. Additional toggle switches on the right of the page under Advanced settings are:

- **Auto Re-Order Presets** (discussed above) allows the StroboPLUS HDC to keep track of your most-used presets and organize them near the top of the list so that your frequently used presets are always near the top of the list.
- **Show Octave Number** displays or hides the octave number of the pitch being tuned.
- **Notation Style** can be set to a mixture of common sharps and flats (C#, Eb, F#, Ab, Bb), all sharps (C#, D#, F#, G#, A#) or all flats (Db, Eb, Gb, Ab, Bb)

Online Custom Sweetener Designer

While the StroboPLUS HDC has over 220 factory Sweetened or Guided Tuning Presets, not every instrument is the same and you may find that your instrument needs a custom sweetener to achieve the sound you're looking for. Use the [Online Custom Sweetener Designer](#) to build an unlimited number of custom sweetened tunings which can be installed on all of your Peterson products or shared publicly to the Peterson website. In addition, the Custom Sweetener Designer allows you to:

- Name, categorize and describe your custom Sweetener
- Add up to 128 notes to each sweetener
- Specify different tuning cent offsets for each note
- Name the chosen pitches with String Numbers, Custom or Standard Names
- Toggle between chromatic tuning or 'Only Listed Notes'
- Specify preferred Accidentals, Strobe Image and Strobe Speed for each Sweetener
- Share your Sweetened Tuning directly with another user by email or publicly on the [User Trading Post](#)
- Add your custom Sweetener directly to your registered product.

To begin, click the '**New**' button at the upper left beneath the 'Design Custom Sweeteners' title. A dialog box will appear with the option to specify a category, name and description of your new Sweetener. Sweetener names must be 3 characters and cannot be named the same as an existing factory Sweetener or as one of your previously designed custom Sweeteners. Just beneath that is the option to begin with a template for common instruments. This will add all of the necessary notes (with 0 cent offset) when the Sweetener is created. If you've previously created custom Sweeteners, you also have the option to use one as a starting point. Click '**Create**' and the new Sweetener will save to your account allowing you to begin adding offsets.

Click the '**Add Note**' button and select a specific note, octave and cent offset or specify the desired pitch in Hz instead. You can audition the note by clicking '**Play Tone**' or click '**Use This Note**' to add it to your sweetener. The notes of your custom sweetener will always display in order of lowest to highest pitch. Up to 128 unique notes can be added. Use the slider and/or the plus and minus buttons to reach the desired cent offset for each entry. Keep in mind that by default, chromatic notes other than those specified will automatically have a 0 cent offset. In addition, notes that occur in octaves above the specified note will assume the same offset as the lowest entry of that note. For example, if a C3 is entered with a +3.3 cent offset, C4,C5,C6,C7,C8 will all carry the +3.3 offset unless another 'C' is entered higher than C3. C2, being lower, will remain at a 0 cent offset.

The checkbox beneath the '**Notes and Offsets**' window is used to toggle the Sweetener from behaving as a chromatic tuner (all chromatic notes) to ONLY detecting the notes that have been specified. For example, if this box is checked and only E-A-D-G-B-E are added, this sweetener will be unaware of a 'C'. It will register as very sharp of the B that is included in the sweetener. Checking this box also allows for duplicate notes to be entered. There could be an 'F4' set to -20 cents offset and another 'F4' set to +20 cents offset but named 'H4'. When this sweetener is active on your StroboPLUS HDC, these entries exist as two entirely different notes.

NOTE: Note entries that are very close together can be difficult to individually target when tuning.

Click the '**Display Preferences**' button to access 'Accidentals', 'Strobe Image' and 'Strobe Speed' settings. Changing the 'Accidentals' setting will alter how the default note names of your Sweetener appear. 'Accidentals' can be set to a mixture of common sharps and flats (C#, Eb, F#, Ab, Bb), all sharps (C#, D#, F#, G#, A#) or all flats (Db, Eb, Gb, Ab, Bb). This setting will override the Global Accidentals setting specified either on the StroboPLUS HDC directly or through the Online Configuration Tool.

Beneath the slider control for each note entry is a small circle containing the desired note name. By default, this will appear as the standard note name for the entered pitch / frequency. However, Sharp # and Flat b symbols may vary based on your selection in the '**Display Preferences**' dialog box. Clicking this circle will open up a '**Pitch Display**' dialog box. Select from a group of commonly used note names, build your own by specifying each element separately (Note Name, Accidental, Octave Number), or assign a String Number to this note.

NOTE: When a string number is selected for one note, all other notes of your sweetener will then only have the option to assign additional String Numbers when assigning a custom name.

When string numbers are assigned, your tuner will allow the sweetener to be toggled from String Numbers to standard note names. After assigning String Numbers, the function of the checkbox below the '**Notes and Offsets**' window changes to specify if String Numbers should be the default behavior of this sweetener.