Blue3 is a painstakingly modeled replication of the world-famous B-3, C-3, and A-100 tonewheel organs that changed the course of blues, jazz, and rock. If the "Blue3" name sounds familiar, it's because it was created and sold by GG Audio for years. To cut a long story short, the fine folks at GG Audio decided it was time to move on, and Cherry Audio has taken over development of this awesome organ powerhouse.

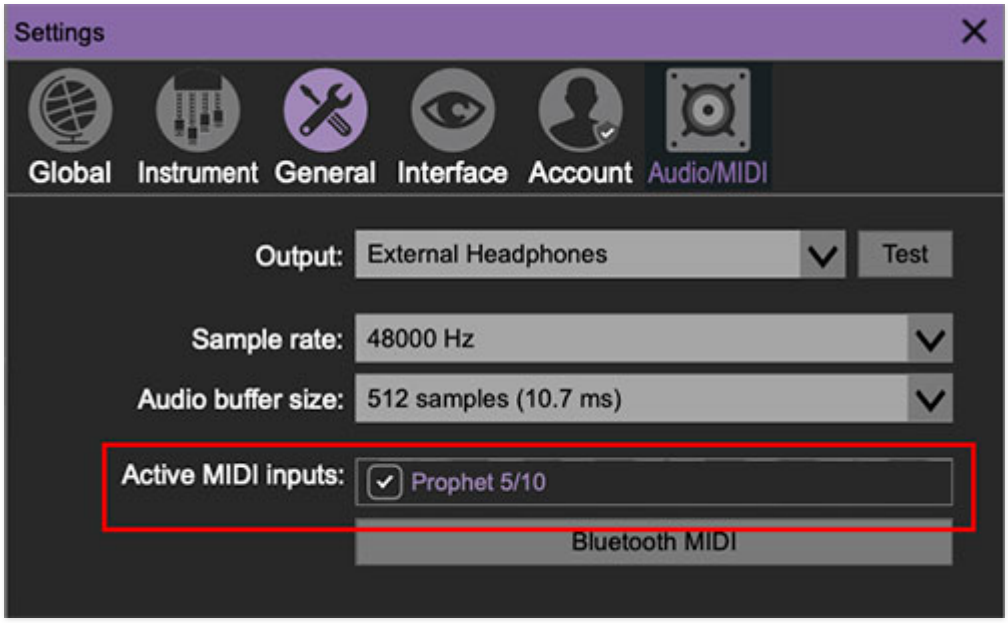
We couldn't resist giving Blue3 a thorough facelift, but other than removing a few really esoteric features and adding our really cool effects, the tone generation and rotary speaker modeling remains exactly the same under the hood - we didn't tinker with its awesome sound at all.

We were big fans of Blue3's majestic, warm, spot-on classic tonewheel sound prior to taking on its continued development and we're thrilled to have it to round out the Cherry Audio instrument line. We hope you'll dig Blue3 as much as we do!

Hey, I just fired up Blue3 in standalone mode and it doesn't work! What the hey?!?

If you just launched the standalone app version of Blue3 (i.e., not a plugin running in DAW software) and nothing happens when you play keys on your MIDI/USB controller, it's almost certainly because Blue3 needs to know what you're trying to play it with. The good news is that it's super easy to fix:

- Click the *Settings* gear icon in the purple menu strip at the top of the screen.



- Click the *Audio/MIDI tab* at the top. Now look for the name of your MIDI/USB controller next to *Active MIDI inputs* and check the box next to it. If you don't see the name of your controller here, check that the controller is properly plugged in and powered up. If that doesn't work feel free to contact our support below.

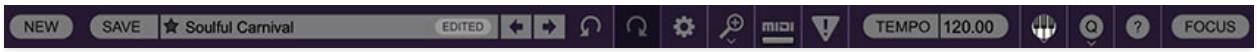
Technical Assistance

Cherry Audio's unique online store and automatic updating generally makes operation a smooth experience, but if you run into any issues or have questions, you can discuss issues online at the Cherry Audio forums at:

https://forums.cherryaudio.com/

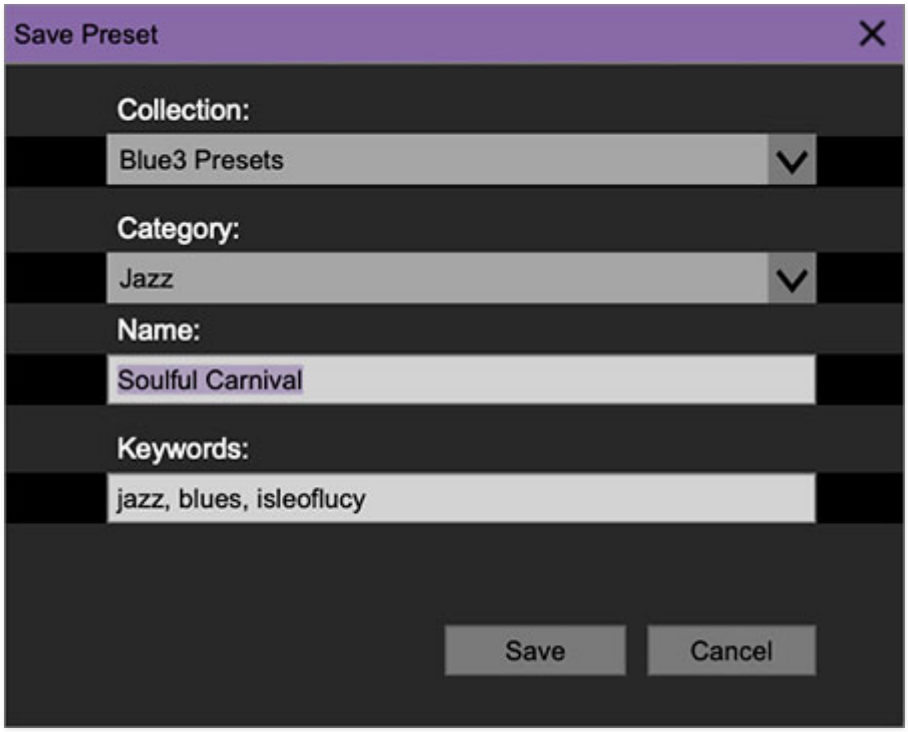
... or you can communicate directly with our friendly tech support staff at:

https://cherryaudio.kayako.com/



The purple strip at the top of the Blue3 interface is where you'll load, save, and create sound presets. It also contains utility functions such as undo/redo, UI zoom and *Focus* controls, under-the-hood settings, and more. Let's go over them:

New- Opens a new blank patch preset. If an unsaved patch is currently open or you've modified an existing saved patch, a dialog asks if you'd like to save the patch in its current state. This greatly reduces the possibility of losing an edited unsaved patch.

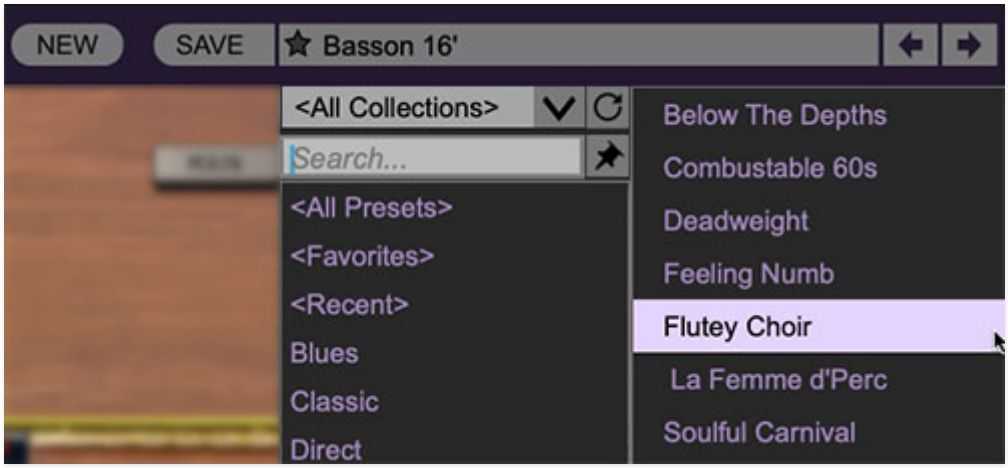


Save- Use this to save patches. There are a couple of levels of hierarchy:

- **Collection**- This is the top level of organization, and contains entire "sets" of presets. The *Blue3 Presets* are the main included collection. We also include a *User Presets Collection* for storing your own presets, but you're free to create your own collections. To create a new collections, click in the *Collection* text field (where it says *User Presets* above) and type a name. User-created sounds can be freely saved to any collection; we like to keep 'em separated for organizational purposes.
- **Categories**- Within each *Collection* are a number of sound categories. As with collections, you're free to create as many categories as you like. To

create a category, click in the *Category* text field of the *Save* dialog window and type a new category name.

- **Patch**- A patch is an individual sound. To save a patch, simply type the name in the *Name* field and click *Save*.
- **Keywords**- You can add descriptive words such as “cathedral,” “mellow,” or “bright,” etc., to patches to make them appear when terms are typed in the *Search* field. Use commas to separate multiple keyword entries.



Browsing Patches- Patches can be browsed by clicking the *<Select Preset>* field. To select a preset collection, click in the area that says *<All Collections>* or on the downward-facing arrow next to it.

Clicking on the left-side categories narrows down which patches are displayed.

- **<All Presets>** will show presets from all collections and categories.
- **<Recent>** displays recently used presets.
- **Refresh**- This is the circular arrow button to the right of the downward arrow; clicking this checks the Cherry Audio server for new or updated presets.

Pin- Clicking the push-pin icon locks the patch selection list open, allowing fast and easy browsing and auditioning of patches. Click the icon again to

disable pin mode. when in pin mode, the up and down arrow keys can be used to select patches.

Preset Step Back/Forward horizontal arrows- These step to the previous or next preset. macOS [⌘+left/right arrow key] or Windows [CTRL+left/right arrow key] will navigate through presets back and forth in the currently selected collection/category.

Undo/Redo circular arrows- These undo or redo the last action. It remembers many steps, so if you really mucked something up, keep on clickin'...

Settings- This is where user preferences for user interface, audio interfaces, user account, and more are configured. See the **Settings** section for full information.

Importing Presets with drag-and-drop

Presets can be imported singly or en masse (as a single compressed ZIP file) simply by dragging and dropping from the desktop anywhere on the user interface.

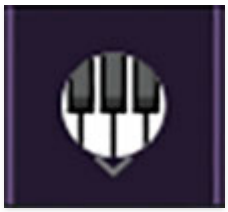
If a single .*preset file is dragged and dropped, the sound is immediately loaded and the standard Save Preset dialog appears; this lets you save the sound to the instrument's preset browser. Note that you don't have to save the sound to preset browser; if you just want to hear and play the sound, click the Cancel button in the Save Preset dialog - the sound will still be loaded.

Compressed zip files containing multiple sounds can also be drag and dropped onto the UI. This works the same as with single sounds, but instead of the Save Preset dialog, you'll see the Import Preset Collection dialog. The presets will be added as a new collection and available in the categories for which they were tagged.

Zoom Magnifying Glass- Click to resize the Blue3 interface. Selecting *100%* returns the user interface to native size.

MIDI Tab- Opens the MIDI controllers tab for configuring internal and hardware MIDI controls. See the **MIDI Controllers Setup and MIDI Tab** section for full information.

! (MIDI Panic) - Click to send an all-notes-off message in case of, "why won't this thing stop making noise?!?" stuck-note incidents.

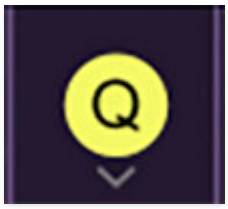


QWERTY Musical Typing Keyboard- Opens an onscreen keyboard allowing a standard QWERTY computer keyboard to be used for playing music notes. For more information, see **QWERTY Musical Typing Keyboard (MTK)** section.

Q Oversampling Quality - The Q button sets Blue3's internal oversampling rate; the higher the setting, the better audio fidelity will be, with the caveat that more computer processing power will be required.

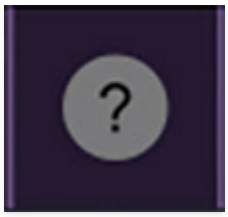
Internal processing can be set to *1x* (same rate as the current sample rate of the host DAW or in the *Settings>Audio/MIDI* window for the standalone version) or to *2x*, *3x*, or *4x* the current sample rate. The sample rate is downsampled at the instrument output stage to match the current host sample rate.

For example, if the current DAW/instrument sample rate setting is 48 kHz, and oversampling is set to 2x, Blue3's internal processing runs at 96 kHz, and is then reduced back to 48kHz at the output stage.



When oversampling is set to any multiple greater than *1x*, the *Q* button glows yellow.

Dependent on a number of factors (audio system D/A converter quality, monitor speakers, the nature of the current Blue3 patch, galaxial bodies alignment, etc.), you may not hear a big difference with higher settings.



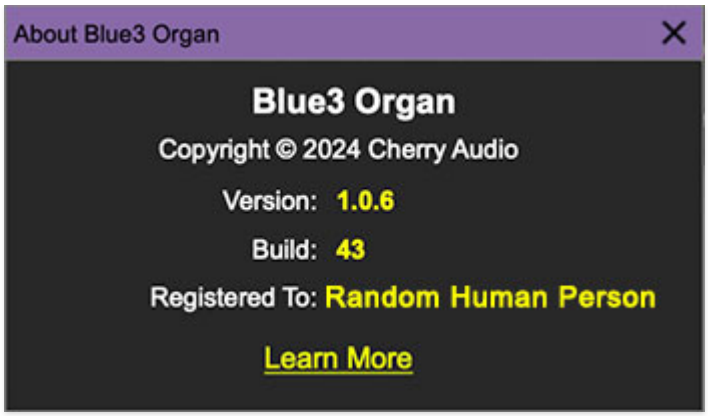
? (Help) - Clicking this launches your web browser and opens this very help document.

Focus Button

If you're using a tiny laptop, the user interface can potentially be hard to see. With this in mind, the *Focus* button conveniently blows up Blue3's view to roughly twice its normal size within the current window size. Unlike the *Zoom* "magnifying glass" function, *Focus* doesn't affect the current window size. By default, the patch panel section fills the current window, but the view can be scrolled vertically and horizontally with a mouse wheel, track pad, or Apple Mighty Mouse finger-scrolling. Or if you're the last person on earth still using a single-button mouse, scroll bars will appear at the window edges when in *Focus* mode. (also, YOU'VE GOT MAIL!)

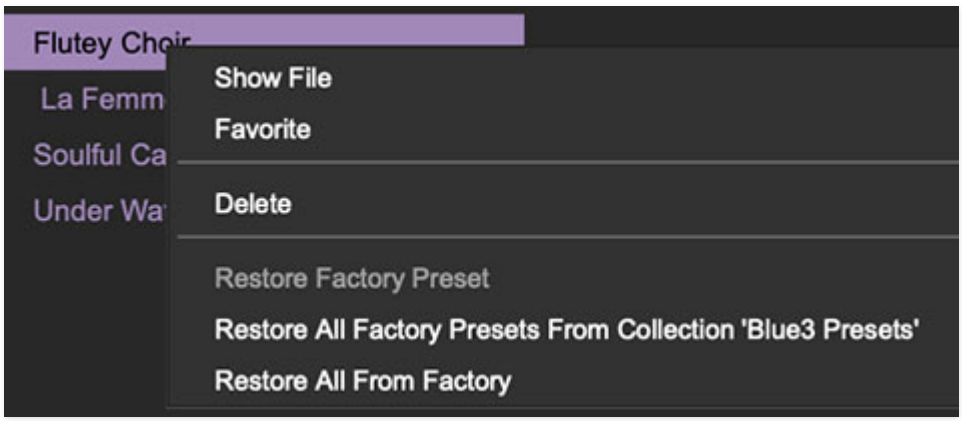
Using *Focus* mode couldn't be easier - just click the *Focus* button the top menu bar, and the recessed panel controls are enlarged and centered. To return to standard view, click *Reset*.

We included the *Focus* function because it's standard on all Cherry Audio instruments, but that said, **the *PERFORM* page** exists for pretty much the same reason - to make important controls fast and easy to use in small-screen situations. Just something to keep in mind!



Blue 3 and Cherry Audio logos- Clicking on the Blue 3 logo (next to the page select buttons), or the Cherry Audio logo next to the bottom manual displays “about” information, and shows the version number and current registered user ID.

Preset List Right-Click Functions



Show File- This displays the selected preset in the Mac or Windows folder containing it. This is useful for backing up or sending a preset file to another user.

Show In Original Category- Selects the preset within its category, i.e. the category will highlight in the left preset menu. The *Show In Original Category* command only displays if the preset was selected within the <*All Presets*>, <*Favorites*>, or <*Recent*> categories.

Favorites- Favorited presets will show in when the <*Favorites*> category is selected. A star will display next to the preset name. Right-click on the preset and reselect *Favorite* to un-favorite it.

Delete- Deletes the selected preset.

Restore Factory Preset - If one of the factory (i.e. not user) patches is edited and saved, selecting this command restores the patch to its unaltered "factory" setting. This menu will be grayed-out for user bank patches.

Restore All Factory Presets From 'Blue3 Presets' - If any patches from the "factory" Tortoise bank are edited and saved, selecting this command restores *all* of them to their unaltered "factory" setting.

Restore All From Factory - If any patches from the "factory" banks are edited and saved, selecting this command restores *all* of them to their unaltered "factory" setting. At the time of writing, the Blue3 bank mentioned above is the only factory bank, so this function and the *Restore All Factory Presets From 'Blue3 Presets'* above have the same effect.

Blue3 has four main screen "pages." These are selected by clicking the buttons at the top left of the user interface:

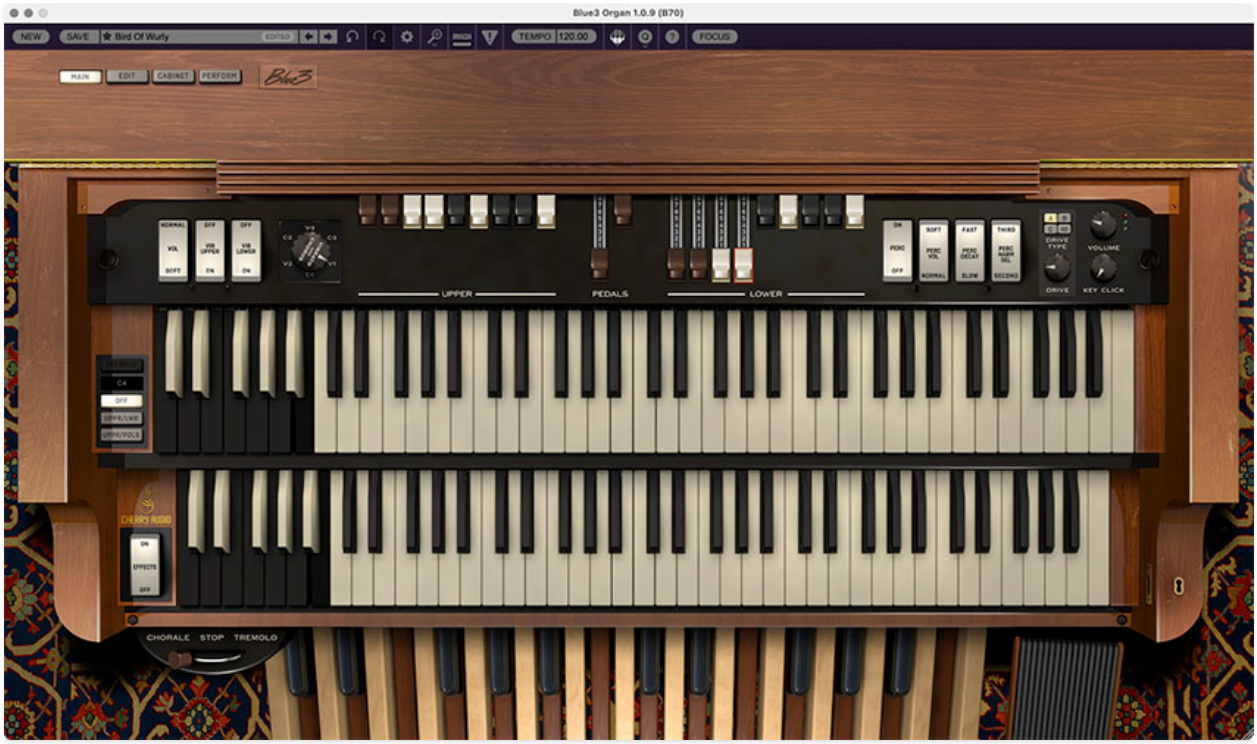
MAIN- This is the primary organ view. Here you'll be able to set registrations for the upper, lower, and pedal drawbars, as well as vibrato/chorus settings, percussion, key click, rotary speaker speed, overdrive, and keyboard split (for assigning a single USB/MIDI controller to play both manuals and pedals). The tape delay, reverb, and graphic EQ stomp boxes can also be shown/hidden and edited on the *MAIN* page.

EDIT- The *EDIT* page is very similar to *MAIN*, but the drawbars, vibrato/chorus, key click, and overdrive controls are replaced with "fine tuning" parameter controls for tonewheels, foldback, pedals, percussion, vibrato/chorus, condition and more.

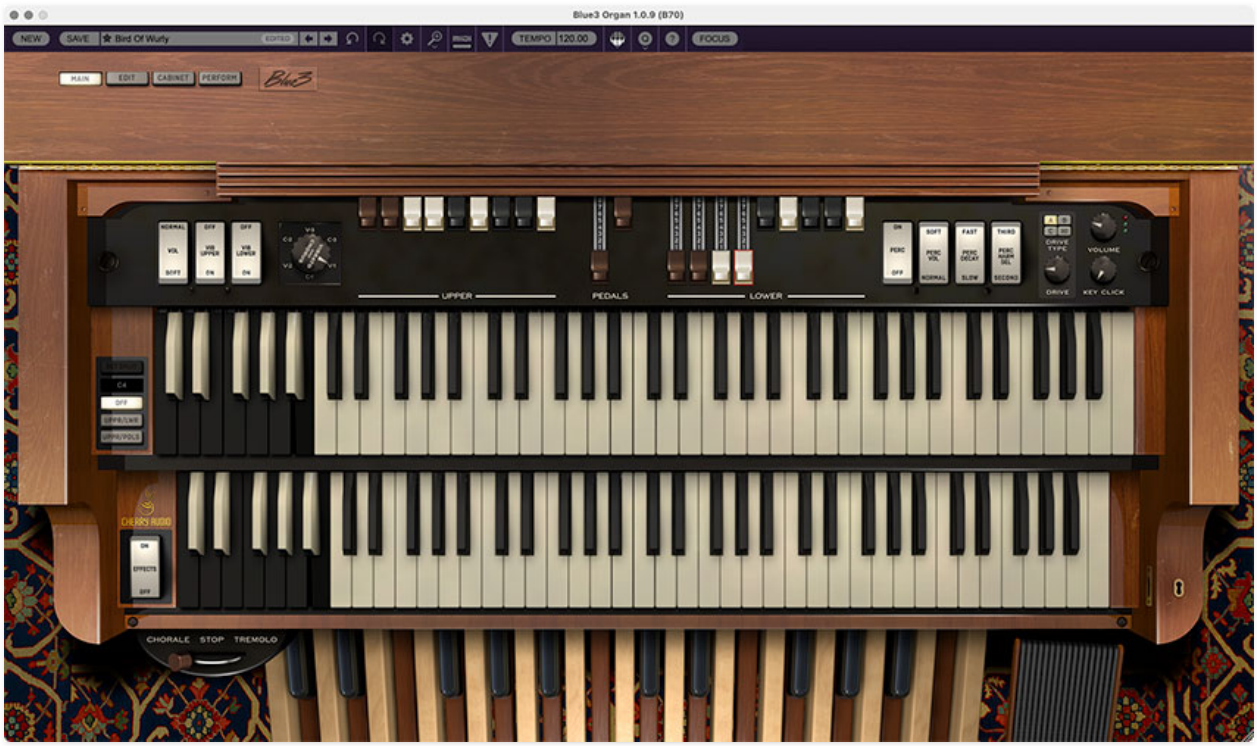
CABINET- Sets all parameters related to the rotary speaker cabinet emulations.

PERFORM- The *PERFORM* page dispenses with most of MAIN page's cool 3D eye candy, focusing on large versions of the most important controls you'll need in a studio or live performance environment. It's mainly intended for use with laptops, where screen real estate is small and valuable.

In the sections that follow, we'll go over each page in detail.



The *MAIN* page is where you'll likely spend most of your time. It includes just about all the controls you'd encounter on a real tonewheel organ. Click the *MAIN* button at the top left enter *MAIN* view. If the *Effects* tab at the left of the keyboard is disabled, it'll look like the image above. If the *Effects* tab is on, the three stomp box effects appear on top of the cabinet:



VOLUME

Volume- When set to the *Soft* position, this rocker switch cuts overall volume by roughly 50%. Obviously you could accomplish the same with the master *Volume* knob at the far right of the panel, but we kept this in for authenticity. Appropriate when playing Christmas carols at grandma's. Not appropriate for "Highway Star."

VIBRATO AND CHORUS

The Vibrato and Chorus in a vintage tonewheel organ is not like the vibrato or chorus effects in guitar amps or stomp boxes. Tonewheel organs included a unique and somewhat complex "scanner vibrato" circuit that's been super accurately simulated in Blue3.

Vibrato Lower- Enables and disables vibrato/chorus for the top manual (aka the *Swell* manual).

Vibrato Upper- Enables and disables vibrato/chorus for the bottom manual (aka the *Great* manual).

Vibrato and Chorus- Sets the type and depth of the scanner vibrato/chorus circuit, which adds pitch modulation. The vibrato and chorus are essentially the same; the difference is that vibrato is the pitch modulated signal only,

whereas chorus settings mix the "dry" (no pitch modulation) signal with the pitch-modulated signal.

DRAWBARS

Upper, Pedals, and Lower Drawbars- The drawbars set the relative volumes of nine harmonics, and are the heart of the tonewheel organ sound. The Upper and the Lower manuals each have nine drawbars, each controlling a single harmonic from one of the 91 tonewheels. They range in pitch from 16’ to 1' and get louder as they are pulled out. They get their names, in feet, from pipe organs, where the longest pipes produce the lowest pitches and the shortest pipes produce the highest pitches. The 8’ drawbar is the fundamental tone, while the 16’ and 5 1/3’ drawbars produce sub-harmonic tones.

It’s helpful to think of drawbars in groups of three - lows, mids and highs. If you want to add shimmer, pull out any of the top three. For more power, pull out the middle three, etc.

The pedals are far simpler with just two drawbars, 16’ and 8’ covering low frequencies.

The Upper and Lower manuals actually have two sets of drawbars each: the *A#* set and the *B* set. These correspond to the inverse keys at the left end of the keyboard and act like drawbar presets, or more precisely, registrations. This makes it easy to switch between, for example, a soft comping sound and a screaming solo sound very quickly.

Tonewheel balance can be fine-tuned, and alternate tonewheel sets may be selected in the *Tonewheels* section of the *EDIT* page. See the **Edit Page** section for more information.

DRAWBAR REGISTRATION PRESETS

The original B3, C3, and A100 featured a unique system for saving Upper and Lower drawbar settings (the two Pedal drawbars did not use the preset system). For each preset, individual drawbar settings were configured by turning a series of screws inside the organ. This didn't exactly lend itself to quick patch editing, but cut them some slack - this predated the microprocessor revolution by four decades!

The Presets are selected using the bottom octave of black keys. Unlike the original instruments, **presets can be saved by simply right-clicking one of the ten preset keys from C to A**. Keep in mind that each manual has its own independent set of inverted-keyboard presets; in other words, Upper manual inverted keys always control Upper manual drawbars, and Lower manual drawbars always control the Lower manual drawbars.

INVERTED KEYB NOTE	FUNCTION
C	programmable preset location (right-click)
Db	programmable preset location (right-click)

D	programmable preset location (right-click)
Eb	programmable preset location (right-click)
E	programmable preset location (right-click)
F	programmable preset location (right-click)
Gb	programmable preset location (right-click)
A	programmable preset location (right-click)
Bb	select "left" virtual drawbar settings
B	select "right" virtual drawbar settings

The programmable locations (Db - A keys) are global, that is, drawbar presets saved on the inverted keys stay the same, regardless of the currently selected sound in the main instrument patch browser (the big popup dealie in the top purple menu strip).

T**he Bb and B keys work a little differently**. On a real vintage tonewheel organ, there are *four* sets of nine drawbars plus two bass drawbars - the Upper and Lower manual each have two sets of nine drawbars, and the Bb and B inverted keys select whether the left or right set is currently active. This allowed a player to have fast access to two different sounds for each manual. Because most Blue3 users don't have a 42" inch-wide display, and we didn't want to make the drawbar controls teeny, Blue3 only displays a single set of drawbars for each manual, and the B and Bb inverted keys select a "virtual" set of drawbars. In other words, it behaves as if there are two separate sets of drawbars for each manual, we just don't show both sets.

Unlike the global C - A locations, both Bb and B inverted key "virtual" drawbar memories are separately stored with each saved sound preset.

And finally regarding the C key, on an original tonewheel organ, the bottom C always sets all drawbars of the manual to 0. That is, it shuts off sound for that manual. We didn't think that was super useful in a modern virtual instrument, so in Blue3, bottom C is a preset location just like the Db-A keys. If you'd like bottom C to reset all drawbars to 0, simply set all the drawbars for the manual to 0 and right-click the C key to save this configuration as its preset.

FACTORY DRAWBAR REGISTRATION PRESETS

Remember at the beginning section when we discussed how the inverted preset keys on original tonewheel organs were semi-permanently

"programmed" using set screws inside the organ? We've thoughtfully (we are SO thoughtful) included these factory presets. The table below shows the names and registrations of the factory presets:

UPPER MANUAL PRESETS

PRESET KEY	REGISTRATION	DESCRIPTION	LOUDNESS
C	none	Cancel	No sound
Db	00 5320 000	Stopped Flute	pp
D	00 4432 000	Dulciana	ppp
Eb	00 8740 000	French Horn	mf
E	00 4544 222	Salicional	pp
F	00 5403 000	Flutes 8' & 4'	p
Gb	00 4675 300	Oboe	mf
G	00 5644 320	Swell Diapason	mf
Ab	00 6876 540	Trumpet	f
A	32 7645 222	Full Swell	ff
Bb	Upper Left drawbars	No percussion	
B	Upper Right drawbars	With percussion	

LOWER MANUAL PRESETS

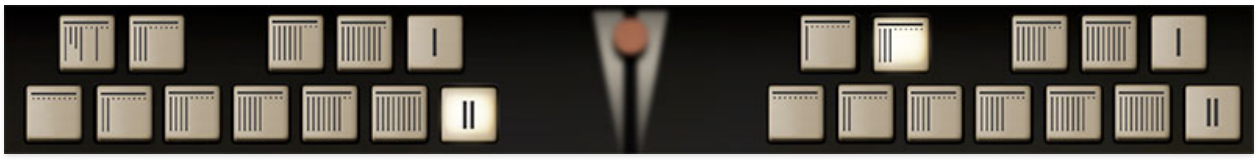
PRESET KEY	REGISTRATION	DESCRIPTION	LOUDNESS
C	none	Cancel	No sound
Db	00 4545 440	Cello	mp
D	00 4423 220	Flute & String	mp
Eb	00 7373 430	Clarinet	mf
E	00 4544 220	Diapason, Gamba & Flute	mf
F	00 6644 322	Great without reeds	f
Gb	00 5642 200	Open Diapason	f
G	00 6845 433	Full Great	fff
Ab	00 8030 000	Tibia Clausa	f
A	42 7866 244	Full Great with 16'	fff
Bb	Upper Left drawbars		
B	Upper Right drawbars		

Reset Factory Preset- If a preset key has been edited, (i.e., a drawbar registration has been saved via right-click), right-clicking the key and selecting Reset Factory Preset resets the key to the corresponding registration in the above table.

MAPPING MIDI CONTROLLERS TO DRAWBAR REGISTRATION PRESETS

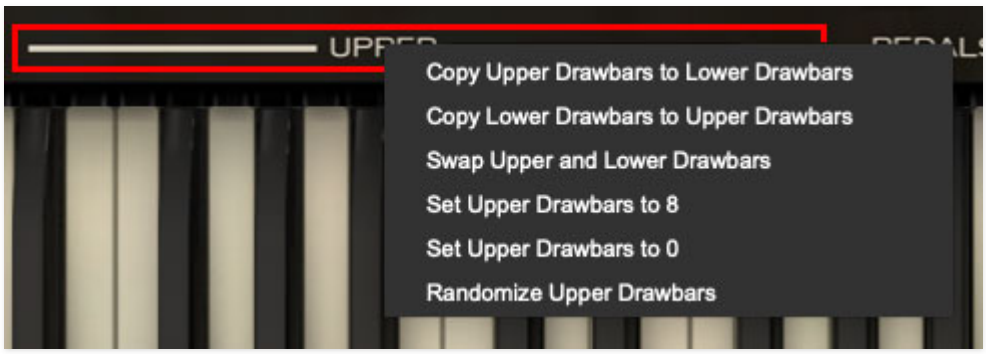
Obviously, the bottom octave of a MIDI controller can be used to select the registration presets, but what if you'd like to assign alternate buttons of a MIDI/USB controller to select preset keys C-A? Keyboard keys (inverted or

normal) don't allow the right-click *MIDI Learn* functionality of Blue3's other controls, but **there's an easy workaround.**



The drawbar registration preset buttons on the *PERFORM* page are standard control buttons. This means you can right-click and assign a MIDI/USB hardware control to them like any other button. You can even assign to them to respond to different keys on a keyboard controller (when in MIDI controller *Learn* mode, instead of pressing a button on your MIDI controller, whack a key instead).

SUPER-HANDY HIDDEN DRAWBAR UTILITIES MENU



Clicking on *Upper* or *Lower* or the adjacent horizontal lines beneath the drawbars opens a popup window with useful utilities for copying, reset, and more. (We generally try not to hide things in the UI, but we didn't want to ruin the vintage tonewheel organ vibe.) The utility menu options are as follows:

- **Copy Upper Drawbars to Lower Drawbars**- Duplicates the current Upper drawbar settings on the Lower Drawbars.
- **Copy Lower Drawbars to Upper Drawbars**- Duplicates the current Lower drawbar settings on the Upper Drawbars.
- **Swap Upper and Lower Drawbars**- Moves Lower drawbar settings to the Upper drawbars, and Upper drawbar settings to the Lower drawbars. You may need to relinquish your keys to the glass bowl on the coffee table with this option...

- **Set Upper/Lower Drawbars to 8**- Sets the Upper or Lower drawbars to "all-out" rock bombast.

- **Set Upper/Lower Drawbars to 0**- Sets the Upper or Lower drawbars to zero position, effectively disabling sound for the drawbar set.
- **Randomize Upper/Lower Drawbars**- Sets each of the drawbars of the set to a random value. Perfect for those, "I am overwhelmed by all these drawbar setting options" scenarios.

Note that Drawbar Utilities menus function the same way on the *PERFORM* page.

PERCUSSION

Percussion on a vintage organ isn't meant to imply a drummer or the 14 guys banging on stuff in Santana (*unless* one of those guys is Gregg Rolie). Just like the real thing, the percussion circuit creates a polyphonic but single-trigger short "ping" either a 2nd or 3rd harmonic above the original pitch, and only sounds for the Upper manual.

A couple of things to remember: Blue3 acts just like the real instrument, so when you select *Normal* volume, the percussion will be louder but the sound of the drawbars will be slightly lower as well. Also, the Percussion circuit “steals” the 1’ drawbar, so you won’t hear the 1’ drawbar when Percussion is on. The Percussion controls are as follow:

Percussion- Enables Percussion for the top manual.

Percussion Volume- Selects "normal" (loudish) or more subdued percussion volume.

Percussion Decay- Selects the rate at which percussion decays.

Percussion Harmonic Selector- Selects whether the percussion pitch is the second or third harmonic above the fundamental.

NOTE(S): On the real instrument, Percussion **only** triggers when using the *B* registration key. You can set Blue3 to work this way or have Percussion trigger in all registration keys. (To enable this, click the *Settings* gear icon in the top purple menu strip, select *Instrument*, and enable *Percussion On All Registrations*.)

Percussion settings can be fine-tuned in the *Percussion* section of the *EDIT* page. For more information, see the **Edit Page** section.

DRIVE

The combination of the organ's preamp and a rotary enclosure's amplifier create a wonderful growl than many players love. The Drive section offers a number of overdrive options. Controls are as follows:

Type - Four different tube simulations to choose from for just the right amount of character.

Types A, B, C are all simulations of the 40-watt amplifier in a 122/147, but each with a different tube set, with each adding progressively more dirt. *HI* (short for high gain), simulates a 100-watt British guitar amp for this Jon Lord moments.

NOTE: Drive type *C* is very nearly a direct match for overdrive included in earlier releases of the Blue3 instrument.

Drive - Sets the amount of saturation. Depending on the type selected, drive goes from a subtle warmth, to a nice grunge or all the way to screaming/melt your face off.

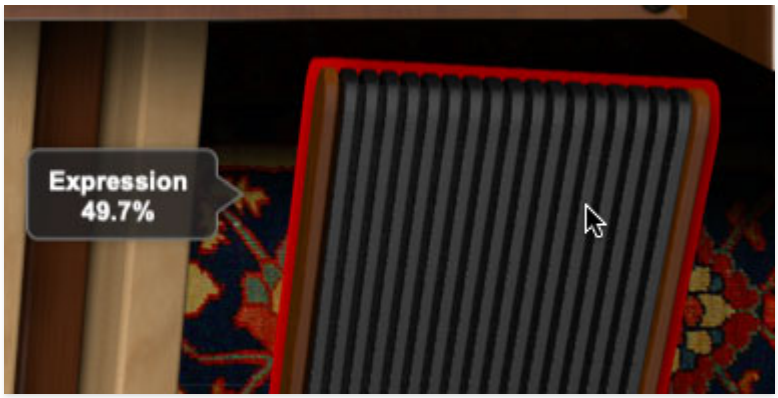
VOLUME/KEY CLICK

Volume - Master volume for the entire instrument. You'll want to keep the output meter in the green - unlike the adjacent drive controls, pushing the master into the red results in undesirable digital distortion.

Key Click - This sets the level of the inherent (and generally desirable) electronic "click" noise made when a key is played. Just like a real tonewheel organ, the click sound *only* occurs when the first note is played and isn't heard on following notes until all keys are released and a new note is struck.

Key click characteristics can be fine tuned in the Key Click section of the **Edit Page**.

EXPRESSION PEDAL



This is the rocker pedal immediately to the right of the foot pedals. On a real vintage organ, the expression pedal not only controls the volume, but also affects the overall brightness of the instrument as the pedal gets pushed further down. Blue3 responds the same way.

Blue 3's expression pedal can be operated either by clicking and dragging directly on the pedal, or preferably by assigning a hardware volume pedal controller. As with all hardware controls, assignment is super easy - once you have a volume pedal plugged into your controller, right-click the volume pedal, and select MIDI Learn, and move the volume pedal. That's all! Any other hardware controller (mod wheel, slider, etc.) can be assigned in the same way. For more information on assigning MIDI controllers, check out the **MIDI Controllers Setup and The MIDI Tab** section.

KEYBOARD SPLIT

Keyboard Split allows a USB/MIDI keyboard transmitting on a single MIDI channel to play a combination of either the lower manual or pedals with the

left hand, and the upper manual with the right hand. This lets you play both manuals or the pedals and upper manual using a single MIDI controller.

Set Split - To set the split the point, click the *Set Split* button. The button begins flashing; strike the key on the USB/MIDI controller where you'd like the split to be. The *Set Split* button will stop flashing and the split is set. The split note is shown in the display beneath the *Set Split* button. Split point can also be set by clicking the note display and choosing a note.

SPLIT MODE SELECT BUTTONS

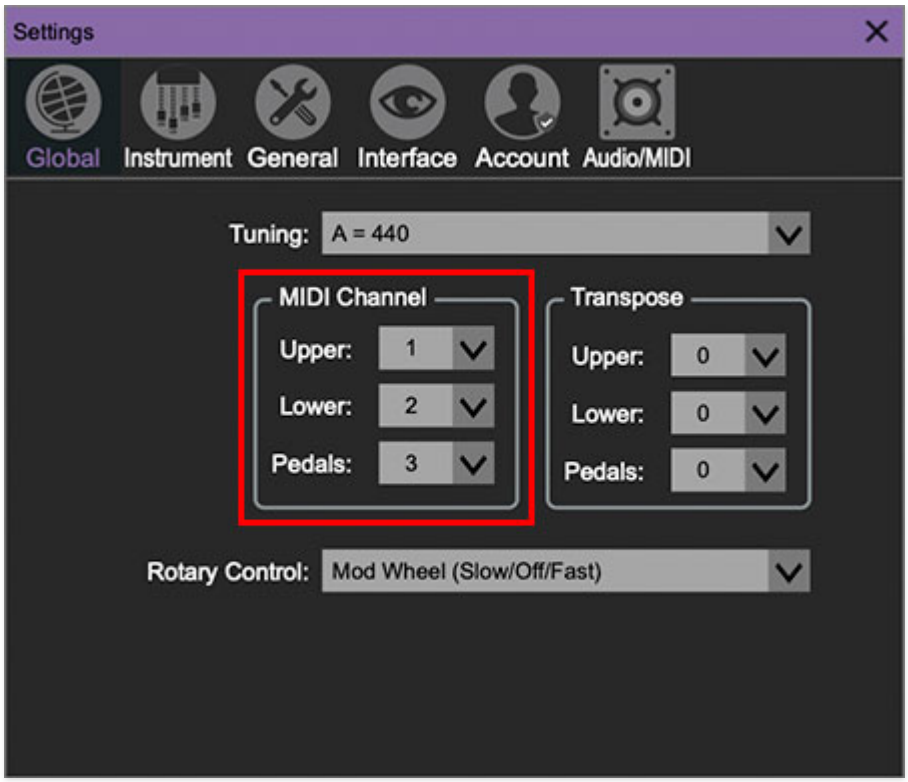
Split Off - Disables keyboard split.

Split Upper/Lower - Upper and Lower manuals will respond on the Upper manual's currently selected MIDI channel, with the Upper manual responding to keys above the split point and the Lower manual responding to keys below the split point.

Split Upper/Pedals - Upper and Pedal manuals will respond on the Upper manual's currently selected MIDI channel, with the Upper manual responding to keys above the split point and the Pedal manual responding to keys below the split point.

***NOTE:* Split is always controlled by the the Upper manual MIDI channe**l, as defined in the *Global* tab of the *Settings* page. This defaults to MIDI channel 1; if your USB/MIDI controller keyboard is set to output MIDI channel 1, you most like won't need to change anything. When split is set to the *Off* position, the manuals and pedals are controlled according to the MIDI channel settings in the *Global* tab of the *Settings* page.

The MIDI channel settings for the Lower manual and Pedals are unaffected by Split mode, that is, they will continue to be triggered by their respective MIDI channels regardless of whether Split mode is on or off.



For more information, please see the **Settings** section.

EFFECTS

Effects - The Effects tab hides and shows *and* enables and disables the Tape Echo, Reverb, and Graphic Equalizer effects. Read more about these in the **Stomp Box Effects** section.

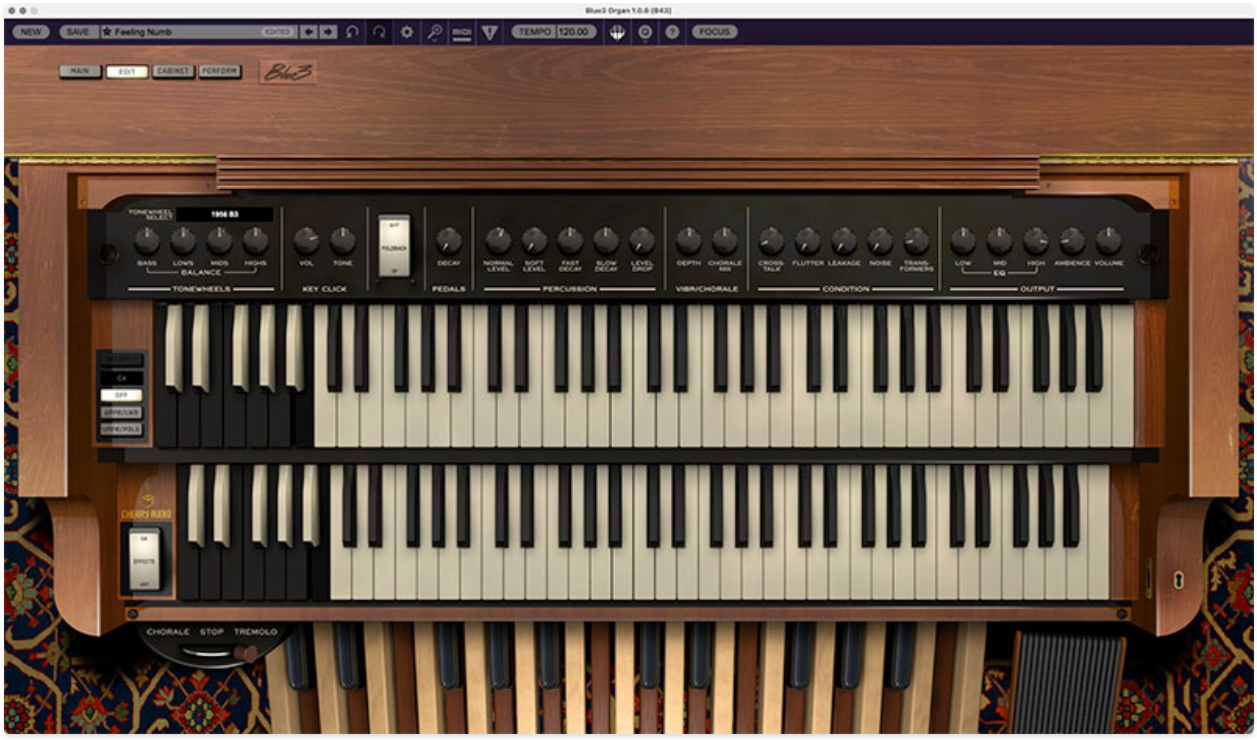
ROTARY SPEAKER CONTROLLER

Rotary Speaker Control- The "half-moon" three-position switch, as it's referred to, controls the famous rotary speaker effect. Its three settings are as follows:

- **Chorale**- Slow rotation effect.
- **Stop**- No rotation.
- **Tremolo**- Fast rotation effect.

Note that if the currently selected cabinet is *Direct* or *4x12*, the rotary speaker control won't do anything (because unless you know something we don't, nothing spins inside a direct box or 4x12 guitar cab).

Full controls for selecting rotary speaker models and parameters are available on the *CABINET* page. Read more about the rotary speaker modeling in the **Cabinet** section.



The *EDIT* page allows super-fine tweaking of almost every section of Blue3 for immense flexibility. To enter *EDIT* mode, simply click the *EDIT* button at the top left.

TONEWHEELS

Tonewheel Select- No two vintage tonewheel organs sound alike. They sound *similar*, but if you put any two organs side by side in a room, differences are noticeable. One of the main reasons for this are the tonewheels. Every tonewheel organ has 91 constantly spinning tonewheels that produce a *somewhat* pure tone and and every time a key is played, some combination of nine of them is heard, depending on the level of the

drawbars. However, the output of the tone generators degrades over time, affected by aging capacitors among other things.

The Blue3 includes 31 sets of tonewheels measured from many actual tonewheel organs of varying age, model and condition, including B-3, C-3, M-3, A-100, L-100, and CV models. Each has their own special character. Sets marked as *Wax* tend to be older instruments that haven't had their capacitors replaced, and tend to sound more mellow. The sets marked *Recapped* are either newer instruments or have had their capacitors replaced and therefore tend to sound brighter. If you're looking for a softer sound, try one of the wax variations. If you're looking for a screamer, choose one of the recapped or red mylar sets.

Tonewheel Balance- This adjusts the overall balance of sections of tonewheels, based on frequency. This is **not** the same as adjusting the EQ because each tonewheel is used in multiple key ranges. This adjusts the levels of the tonewheels smoothly in each range. **Note that the Bass control only affects the Pedal manual.**

KEY CLICK

When a key is pressed on a vintage tonewheel organ, nine separate key contacts close at *slightly* different times, making the connection to their respective tonewheels. Many factors go into the small noise or "click" that's created when the key is closed such as dirt, velocity, tonewheel phase and more.

Volume - Nothing, a little or a lot.

Tone - Adjusts the overall brightness and character of the click. Clockwise is brighter, while counter-clockwise introduces more DC into the signal and therefore presents more of a low end thump.

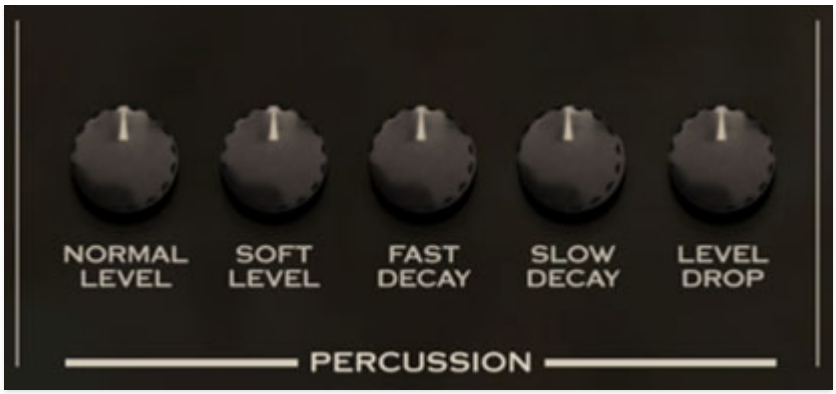
FOLDBACK

16’ - On a B-3/C-3/A-100, the lowest octave for the 16’ drawbar repeats the octave above so as not to use the pedal tonewheels. Disabling *Foldback* make will make Blue3 sound more like an M- or L-series organ.

PEDALS

Decay - The length of time that it takes for the bass pedals to fade out. A normal tonewheel organ does not have this ability, but many players like this to simulate a walking bass style of playing. (The default value is off.)

PERCUSSION



This allows the Percussion tonality to be tweaked to be a little louder or softer or faster or slower. These controls work in conjunction with the *Percussion* tab settings on the *MAIN* page.

Normal Level - Adjusts the volume of Percussion when the *MAIN* page *Percussion Volume* tab is set to *Normal*.

Soft Level - Adjusts the volume of Percussion when the *MAIN* page *Percussion Volume* tab is set to *Soft*.

Fast Decay - Adjusts the Percussion decay time when the *MAIN* page *Percussion Decay* tab is set to *Fast*.

Slow Decay - Adjusts the Percussion decay time when the *MAIN* page *Percussion Decay* tab is set to *Slow*.

Level Drop - Adjusts the amount the other tonewheels are lowered when i the *MAIN* page *Percussion Volume* tab is set to *Normal*.

VIBRATO and CHORALE

The Vibrato and Chorus in a vintage tonewheel organ is not like the vibrato or chorus effects in guitar amps or stomp boxes. Tonewheel organs included a unique and somewhat complex "scanner vibrato" circuit that's been super accurately simulated in Blue3.

Depth - How much the vibrato/chorus affects the sound.

Chorus Mix - How much of the non-vibrato sound is mixed with the vibrato sound in Chorus mode.

CONDITION

These controls allow adjustment of the age of the tonewheel organ simulation. These would be silent in an organ in absolutely pristine condition. Increasing the amount of these controls for a more authentically "aged" sounded organ.

Crosstalk - The amount of the neighboring tonewheels' signal leaking into the proper tonewheels.

Flutter - Dirt and grime can make the driveshaft slightly out of round, contributing to a slight vibrato at different frequencies and levels throughout the instrument.

Leakage - The amount of tonewheels signal leaking through the drawbars when no notes are played.

Noise - Some power supply hum, amplifier hiss and rotary motor noise.

Transformers - The B3, C3, and A100 models each have two matching transformers where the drawbar outputs are mixed, one for the upper manual and one combined for the lower and pedal manuals. This control

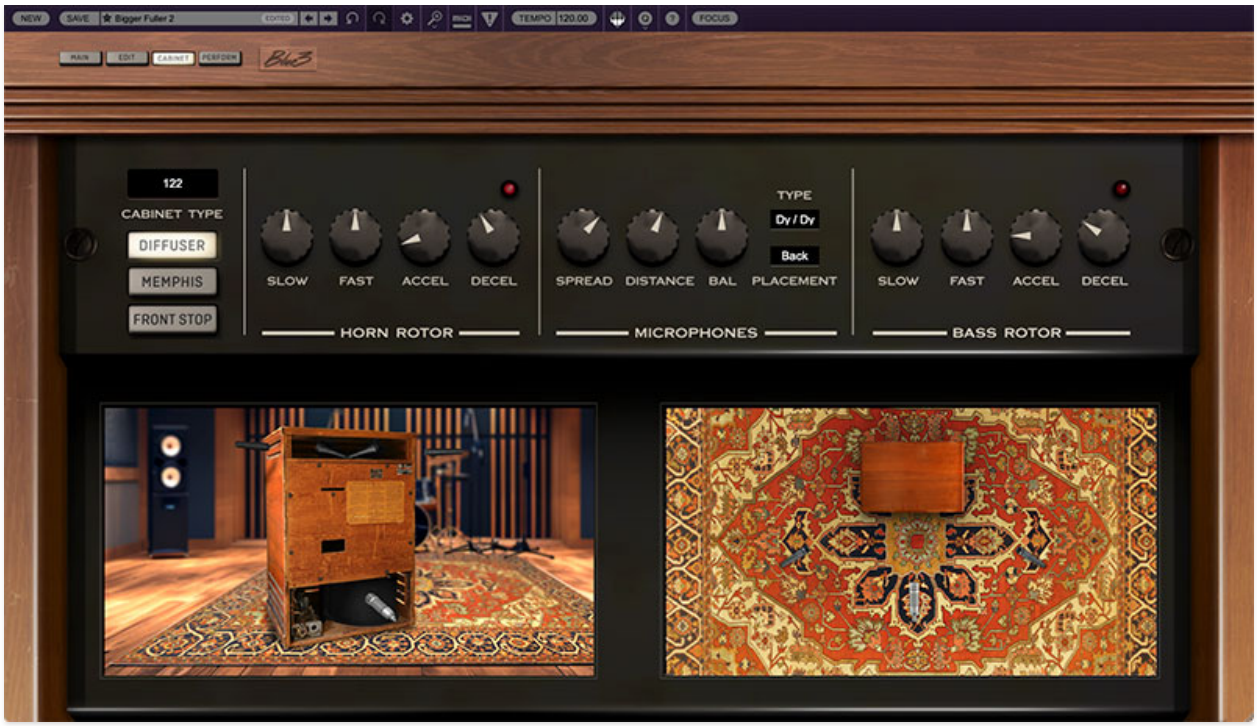
adds saturation/distortion and hysteresis to the signal for a bit of extra warmth.

OUTPUT

Ambience - Adds some room feel to the output. Not exactly a reverb, this simulates the energy of a live room.

EQ - Adjusts the lows, mids, and high frequencies of the entire instrument.

Volume - Final output volume.



The *CABINET* page allows you to choose and from five different cabs or "direct" mode. It includes extensive editing capabilities, and it allows selections of three microphones and their placement.

CABINET TYPE

Use the popup menu at the top to select the desired cab type.

- **Direct**- Turns off the cabinet simulation entirely, useful if you plan to send the organ signal through your own effects chain or amplifier. The output signal is taken AFTER the Drive circuit but before the Cabinet and as such is mono (because no stereo rotating cab).
- **122**- Simulates the warmth and character of a vintage 122 cabinet.
- **147**- Simulates a vintage 147 cabinet. Very similar to a 122 with a slightly different tone thanks to the unbalanced input circuitry.
- **Custom**- Simulates a customized rotary cabinet with high output drivers and amplifier. While similar to the classic 122/147 sound, you'll notice that it's a little smoother and has slightly extended low and high end.
- **RA200**- Simulates a rare guitar amplifier made by large Japanese company that also makes motocycles, and was made famous by David Gilmour (think "Shine On You Crazy Diamond"). It has three treble speakers rotating vertically in the top half of the cabinet and four 12" speakers in the bottom. It's not the first thing you think of when you say rotary speaker, but it's interesting and has a sound all it's own.
- **4x12**- Simulates a classic rock and roll guitar amp cab with four 12" speakers. (***NOTE***: no rotary effect with a 4x12 guitar cab. Duh!)

Diffuser- Classic rotary speakers have a diffuser at the mouth of the horn which smooths out the sound and makes it less directional. Turning off (removing) the diffuser makes it more directional along with harsher high end. Some 70s players removed the diffuser to cut through a wall of guitars better.

Front Stop- Forces the horn and bass rotor to face front when coming to a stop. Another feature that's not possible with a standard rotary cabinet.

Memphis - Disconnects the bass rotor from spinning and forces it to face front.

HORN and BASS ROTOR

Some players like their rotary speaker speeds a little slower or faster. Here's where you can make your adjustments to your liking.

Slow Speed - Adjusts the speed in slow or "chorale" mode.

Fast Speed - Adjusts the speed in fast or "tremolo" mode.

Acceleration - How fast the horn or bass rotor accelerate to fast mode from slow or stop.

Deceleration - How fast the horn or bass rotor decelerates from fast mode to slow or stop.

NOTE FOR RA200: The Bass Rotor section and Horn Slow are disabled (it has no bass rotors and its slow horn speed is fixed).

NOTE FOR DIRECT and 4x12: The Horn and Bass Rotor sections are disabled (for obvious reasons).

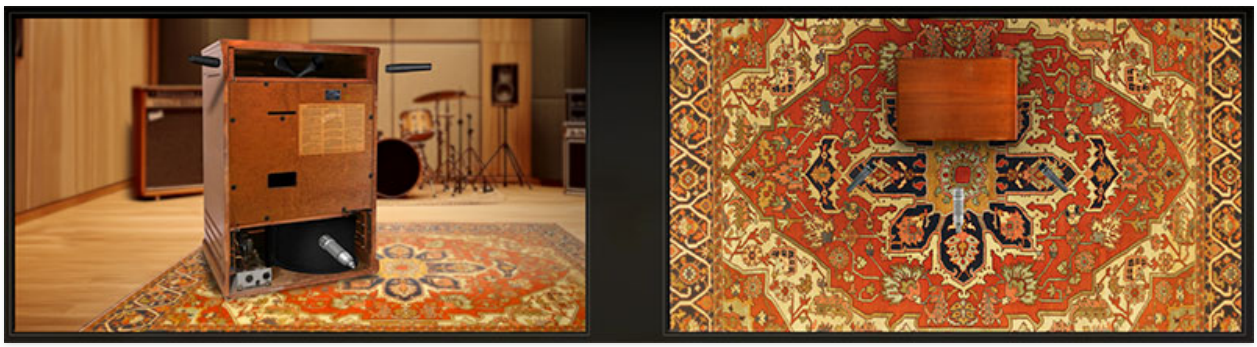
While every rotary speaker's rotor speeds are slightly different because of belt wear and other factors, we've found that the most realistic speed settings are with the knobs near center position.

	MINIMUM	DEFAULT	MAXIMUM
Horn Slow	0.25 Hz	0.75 Hz	1.25 Hz
Horn Fast	3.0 Hz	6.75 Hz	10.5 Hz
Bass Slow	0.25 Hz	0.73 Hz	1.21 Hz
Bass Fast	3.0 Hz	6.4 Hz	9.8 Hz
Horn Acceleration	0.25 secs	1.2 secs	2.15 secs
Horn Deceleration	0.25 secs	1.5 secs	2.75 secs
Bass Acceleration	1.0 secs	6.0 secs	11.0 secs
Bass Deceleration	1.0 secs	4.5 secs	8.0 secs

When in RA-200 mode, the horn speed ranges are as follows:

	MINIMUM	DEFAULT	MAXIMUM
Horn Slow		fixed at 0.85 Hz	
Horn Fast	1.75 Hz	4.625 Hz	7.5 Hz

MICROPHONES



These controls affect how we hear the rotary speaker by virtually moving the microphones. *Spread* and *Distance* both make a huge difference in the way we hear the rotary speaker so be sure to experiment with these.

Spread- Sets the spread of the horn mics in degrees. From 0 for a mono simulation to 45° for a standard micing technique, to 180° for a wide stereo spread. This adjustment only affects the horn. The bass rotor is miked from one microphone and is not affected by the *Spread* control. If you desire a mono output for any reason, set *Spread* to 0. **Mic spread can also be set by dragging horizontally in the front quarter-view cab image.**

Distance- Sets how far away the microphones are placed from the rotary cabinet. The closer they are, the more intense the throbbing is. Further away softens it. **Mic distance can also be set by dragging vertically in the top view cab image.**

Balance- Counterclockwise emphasizes the bass signal and clockwise increases the horn with straight up being an equal mix of both.

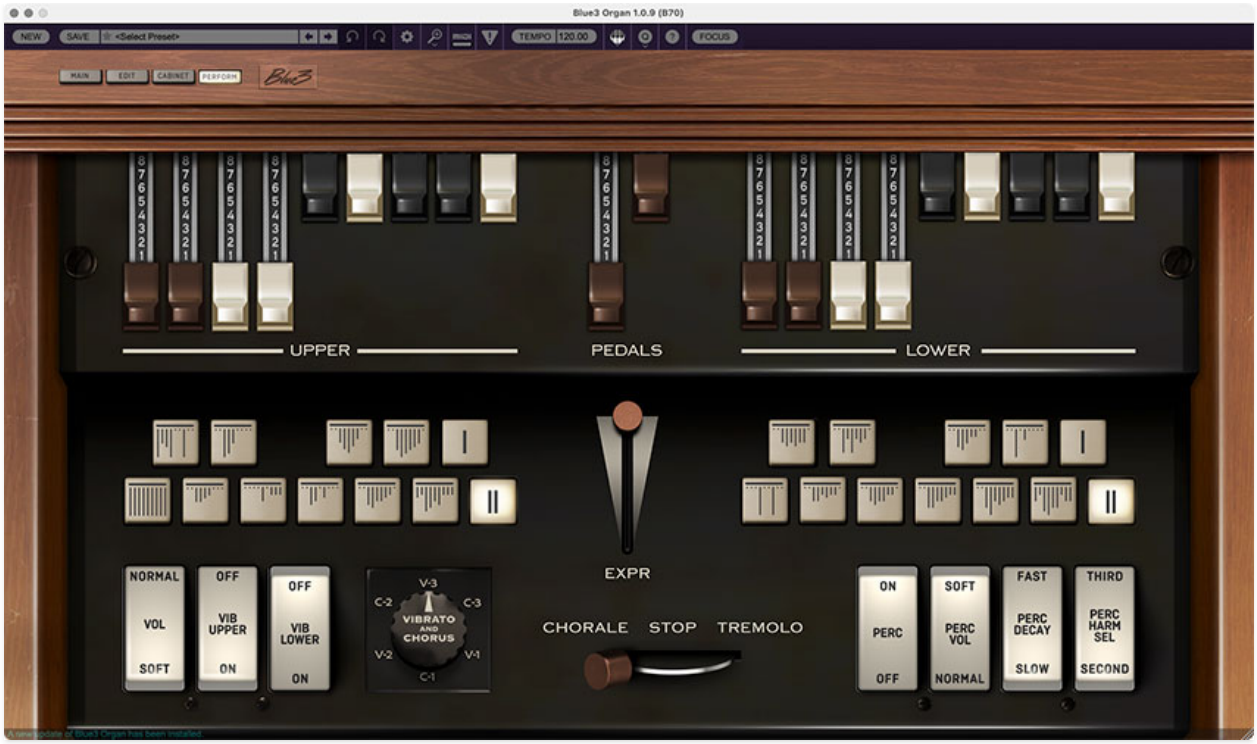
Placement- Controls whether the microphones are placed near the closed front or the open back of the rotary cabinet. The sound is a little mellower and woodier from the front, and a bit brighter from the back.

Type- You can choose the type of microphone for the horn and bass rotors separately to further refine the tone.

- **D/D** (Dynamic on horn, Dynamic on bass) - A fairly standard live sound arrangement. Strong highs and punchy lows.
- **C/D** (Condenser on horn, Dynamic on bass) - Less biting but extended highs.
- **D/C** (Dynamic on horn, Condenser on bass)- Extended low end response.

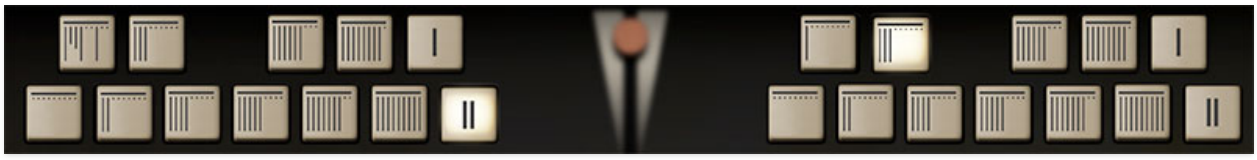
- **C/C** (Condenser on horn, Condenser on bass)- Extended low end and smoother, extended highs...more studio-like.

We can’t stress enough what a huge difference the *Spread* and *Distance* controls have on the sounds of the rotary speaker. For live, in-concert recordings, engineers typically place the mics very close to the rotary cabinet (in order to minimize bleed from other instruments), thus intensifying the strobing, particularly at fast speed. For studio recordings, mics are usually placed a little further back to smooth out the intensity.

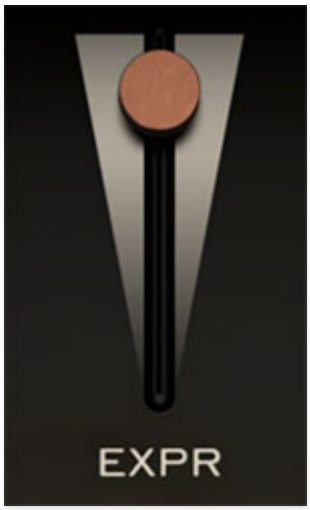


The *PERFORM* page dispenses with most of MAIN page's cool 3D eye candy, focusing on large versions of the most important controls you'll need in a studio or live performance situation. It's mainly intended for use with laptops, where screen real estate is small and valuable.

Other than size, almost all of the *PERFORM* page controls function identically to the *MAIN* page controls. They do not function independently, they're just a different (i.e. larger) view. The following controls have a different appearance:



- Instead of using inverted keys of the keyboard, the registration presets are simply square buttons, arranged in the pattern of one octave of chromatic notes. They also include handy line symbols indicating the relative positions of the nine drawbars for that particular preset. Please see the Drawbar Registration Presets section in the **Main Page** section for more info on how these work.



- The expression pedal is a slider in the middle of the page. It operates exactly the same as the pedal.

In addition to its integrated overdrive and rotary speaker effects, Blue3 also features three awesome stomp box-style effects including tape echo, reverb, and seven-band graphic EQ.

TAPE ECHO

Blue3's Tape Echo section reproduces the effect of a vintage "space echo" tape echo. Far from being super-pristine, vintage tape echoes have a lovely limited frequency response, and wow and flutter for a natural thickening effect. We've also replicated the multiple tape head configurations for rhythmic effects.

On/Off- Enables and disables the echo effect. Disabling the *Effects* On/Off tab next to the keyboard will disable all three stomp box effects, but their on/off status will be retained.

Sync- Engaging the *Sync* button locks the echo time to master tempo. When engaged, the *Repeat Rate* knob snaps to note values ranging from 1/64th note triplet to 8 beats. *Sync* mode locks to the tempo in the top toolbar when using the Blue3 standalone version or the current project tempo when the plug-in version is used in a DAW.

Repeat Rate- Sets echo time, from 1 to 2000 ms (for head 3, the longest one). If the *Sync* button is enabled, time settings snap to synchronized note values. Note that the tooltip (the popup value display you see when turning a knob) always shows the echo time for head 1. To determine the echo times for heads 2 and 3, you'll need to multiply that by the values shown in the

table above - easy! If you stink at math, just click the *Sync* button, and futz with the *Mode Selector* and *Repeat Rate* knobs and we promise something fun will happen.

The LED next to the knob flash at head 1's current repeat rate.

Mode Selector and Heads LEDs- Determines what combination of the three virtual "tape heads" are currently active; the LEDs illuminate to show the currently active heads. Head *1* is the shortest echo, head *3* is the longest. The time ratios of the heads are like a vintage Space Echo unit as follow:

HEAD NUMBER	TIME MULTIPLIER
1	base time
2	base time x 1.94
3	base time x 2.85

Intensity- Routes the output to the input for additional repeats, typically referred to as "feedback." We've carefully modeled the unique feedback tones that happen with a real tape echo - they sound awesome (try mapping hardware knob or slider controllers to the *Intensity* and *Repeat Rate* knobs for echo feedback madness).

Echo Volume- Sets the volume of the echo signal. The dry level is not affected (this is how the classic Space Echo units operate).

REVERB

On/Off- Enables and disables the reverb effect. Disabling the *Effects* On/Off tab next to the keyboard will disable all three stomp box effects, but their on/off status will be retained.

Decay- Sets the length of reverb release time/size of room.

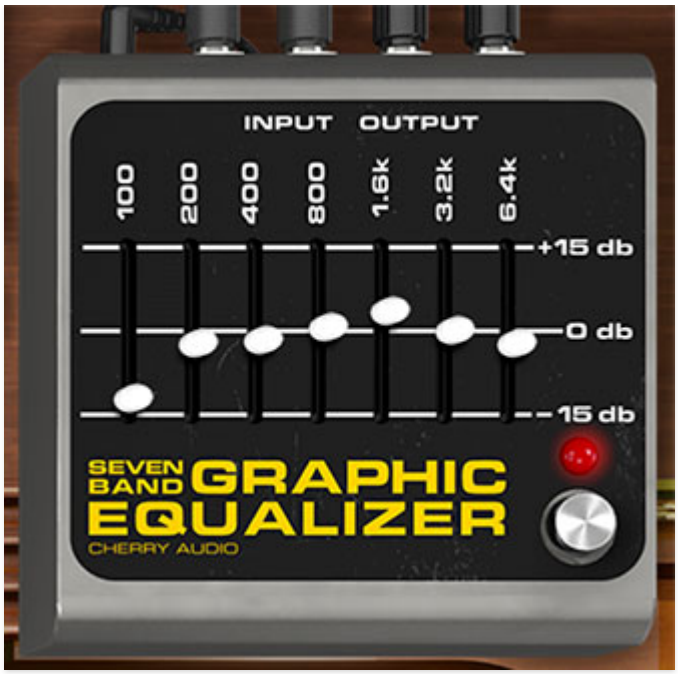
Damp- A lowpass filter affecting wet reverb signal only. High frequencies are increasingly attenuated as the setting is decreased.

Mix- Sets the ratio of clean to effected sound.

Mode switch- Allows selection of three different reverb algorithms:

- **Spring**- Recreates mechanical spring-reverb effect often seen (and kicked) in vintage guitar amps. We don't recommend kicking your computer.
- **Plate**- A medium-to-large studio plate-style algorithm.
- **Hall**- A flattering, large concert hall-style reverb.

SEVEN-BAND GRAPHIC EQ



On/Off- Enables and disables the EQ effect. Disabling the *Effects* On/Off tab next to the keyboard will disable all three stomp box effects, but their on/off status will be retained.

Boost/Cut sliders- Allows boosting or cutting up to 15 dB at 100, 200, 400, 1600, 3200, and 6400 Hz. The 100 Hz and 6400 Hz bands are shelving; the remaining bands are peaking with a one-octave bandwidth.

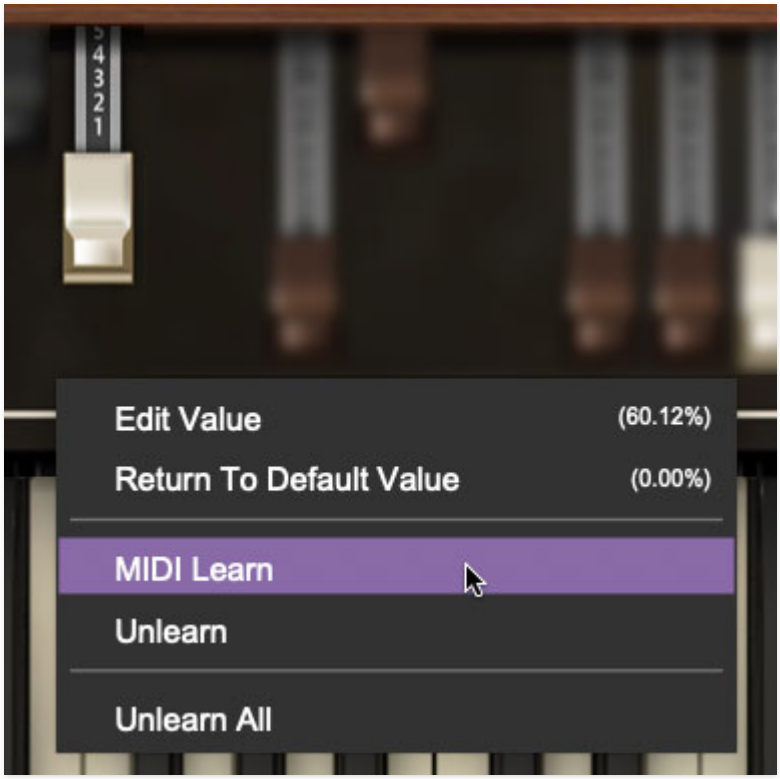
Assigning internal and external hardware controls adds a whole new dimension of control and musicality to Blue3 sounds, and it's really easy to do.

The MIDI Tab is where all controller assignments can be viewed and tweaked (click the MIDI icon in the purple menu strip at the top to view the MIDI tab). First we'll show how to assign an external hardware controller to a Blue3 control, then we'll go over all parameters in the MIDI Tab.

Assigning a Single External Hardware Control

This is the quick, "I just want to assign a hardware control right now!," section. We recommend reading this whole section to best take advantage of Blue3's MIDI control assignments.

The most likely thing you'll want to do is assign sliders from a USB/MIDI controller to Blue3's drawbars, so let's being by assigning a single one:



Begin by right-clicking on a drawbar and and selecting *MIDI Learn.*

A transparent purple overlay appears over the knob indicating that it's in learn mode. Now move the desired hardware control device. The blue overlay disappears and the hardware control will move the onscreen slider. If you get cold feet (or accidentally put the wrong control into learn mode), learn mode can be aborted by right-clicking and selecting *Stop Learning*.

This is the basic procedure for assigning hardware controllers to almost any Blue3 control.

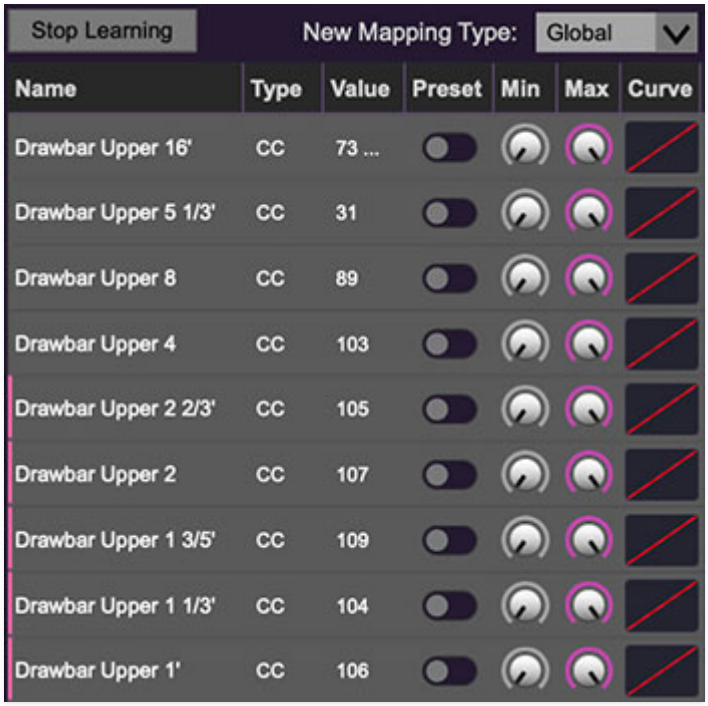
When in MIDI learn mode, previously assigned controller numbers appear in squares on top of the onscreen control. These indicate the MIDI continuous controller number of the assigned hardware control (these are also displayed in the *MIDI* library tab at left).

Once a MIDI controller has been assigned, in addition to real-time control of a Blue3 parameter, you'll also be able to record and play back controller data from a DAW.

The MIDI Tab

This is command central for all MIDI controller assignments. Here you'll be able to see information about all currently assigned controllers and adjust control ranges.

To view or hide the MIDI Tab, click the *MIDI* button in the top toolbar.



MIDI Learn button- This is almost exactly the same as enabling MIDI learn mode by right-clicking a control. Click the *MIDI Learn* button to enter learn mode (all controls turn purple). **Unlike right-clicking on specific knobs, where Blue3 automatically exits controller assignment mode, clicking the *MIDI Learn* knob "stays on" to enable assignment of multiple hardware controls.** This is particularly handy for quickly assigning a bunch of sliders to Blue3's drawbars.

To assign multiple controls, click *MIDI Learn*, click an onscreen control, move the desired hardware knob or slider, continue clicking and assigning on-screen controllers until all desired controls are assigned, then click *Stop*

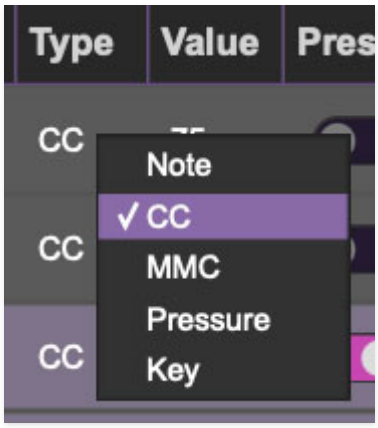
Learning to exit learn mode. (And remember, when we stop learning, we stop growing, and... oh forget it.)

Remember that a single hardware knob/slider/button isn't limited to controlling just one parameter - a single hardware controller can simultaneously operate as many controls as you'd like.

New Mapping Type- This popup menu selects whether newly assigned MIDI mappings will be global (affects all sounds and doesn't change when different presets are selected) or saved with individual presets.

MIDI Tab Columns

Name- Displays the name of the parameter being controlled.



Type- There are five possible types of controller automation in Blue3:

- **Note**- Notes played on a MIDI keyboard controller, expressed as C-1 to G9
- **CC (MIDI Continuous Controller)**- The standard 128 MIDI controller numbers as defined in the MIDI spec. More specifically, these are the controllers transmitted by hardware knob and slider controls. MIDI CC's can be used to control parameters in real-time or recorded and played back within DAW software.
- **MMC (MIDI Machine Control)**- The MIDI control protocol for tape machine-style transport controls. Back in the dark ages, this was used to control wonky old Tascam and Fostex reel-to-reel monsters, but it's useful if your MIDI controller has tape-style transport control buttons.
- **Pressure**- Most modern keyboard controllers transmit controller data when keys are pressed and released as they're held down. The vast majority of keyboard controllers with aftertouch transmit "mono" aftertouch only; in other words, aftertouch data is the sum of all keys to

one single data stream. Note that Blue3 only responds to mono aftertouch.

- **Key**- This allows keys of the computer QWERTY keyboard to at as button controls for Blue3's onscreen controls.

Value- Displays the specific automation controller. In the case of a *Note* this would show a MIDI note number (C-1 to G9, for a MIDI CC, this would be the MIDI CC controller number, etc. Clicking on the value opens a pop-up menu where all values are displayed and can be selected.

Preset- This slider works in conjunction with the *New Mapping Type* popup control. In the left position (gray background), the MIDI mapping is global (affects all sounds and doesn't change when different presets are selected), in the right position (lavender background), the MIDI mapping is saved with, and only affects the current sound preset.

The *Preset* switch is super nifty, because it means that MIDI mappings can easily be changed to global or per-preset status at any time. (A lot of folks have asked us for this feature.)

Min- Sets a limit on the lowest value any automation control can set a mapped controller to. This actually recalibrates the range of the automation controller to the remaining parameter range.

Max- Sets a limit on the highest value any automation control can set a mapped controller to. This actually recalibrates the range of the automation controller to the remaining parameter range.

- ***Super Tricky Min-Max Tricks***- Not only can parameter ranges be limited via the the *Min* and *Max* knobs, mapped control destinations can be completely inverted by setting the *Min* knob all the way up and the *Max* knob all the way down (or anywhere in between). **If drawbars controls are working backwards, inverting the control range will fix this.**

  Limiting and inverting parameter ranges with the *Min/Max* controls is particularly useful when multiplexing a single hardware control to operate multiple parameters. Along with the *Curve* control, the customization possibilities are super flexible.

Curve- These allow the customization of how incoming MIDI CC controls affect the movement of Blue3's onscreen controls, ranging from exponential to linear to logarithmic curves.

MIDI Tab Column Configuration Right-Click Menu

Right-clicking anywhere in the top row (*Name*, *Type*, *Value*, etc.) displays the column configuration menu. Checking/unchecking these allows hiding and display of each column. This has no effect on assignments.

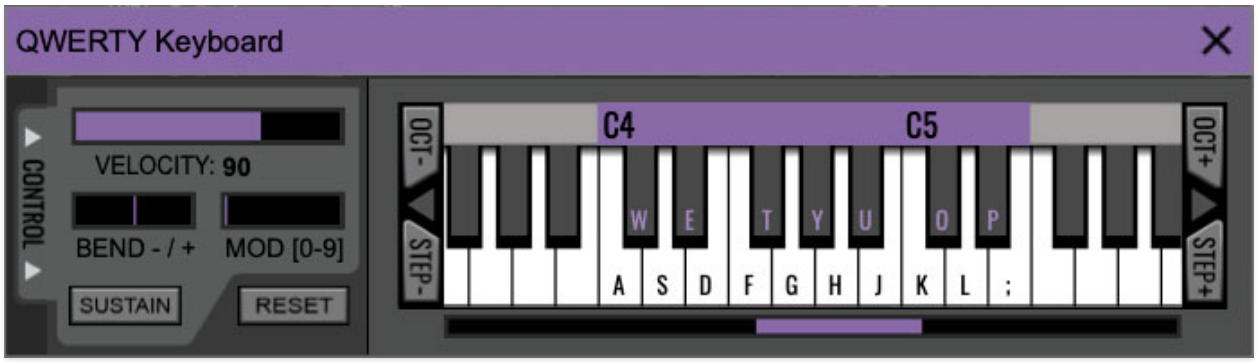
MIDI Tab Parameters Right-Click

Right-clicking on an assigned parameter opens the menu above.

MIDI Learn- This is used to change the controller assigned to a particular parameter.

Unlearn- Deletes the selected automation parameter.

Unlearn All- Deletes all controller assignments for the patch. Blue3 will display a warning dialog prior to deletion in order to thwart potential unlearn-related disasters.



If you don't have a MIDI keyboard attached to your computer, the standard QWERTY computer keyboard can be used to play notes - we're pretty sure you've got one of those!We'll refer to this as the "MTK." Following is a list of MTK keyboard modifiers and functions:

Opening and Closing the MTK - click the the circular keyboard icon in the top toolbar. To close the MTK, click the keyboard icon in the top toolbar, or click the *X* in the top right corner.

Play Notes- To trigger notes, simply press the corresponding computer keyboard key or mouse click the onscreen keys.

Adjust Currently Visible MTK Range- Slide the purple scroll bar horizontally to adjust the currently visible keyboard range.

Adjust Overall Visible Keyboard Range- Clicking and dragging the right edge of the MTK window allows the overall size of the window to be adjusted. This lets you view more or less of the onscreen keyboard. Note that the MTK window's borders cannot exceed the overall outside dimensions of the Wurlybird window.

Shift Range Up/Down Octave- Click the *Oct-* and *Oct+* buttons at the top left and right of the onscreen MTK. The current range is displayed above the keyboard.

Shift Range Up/Down Semitone- Click the *Step-* and *Step+* buttons at the bottom left and right of the onscreen MTK. The current range is displayed above the keyboard.

Hide/View Controllers- Clicking *Control* at the far left hides and displays velocity, bender, mod, and sustain control parameters. Hiding the control view makes more space available for the keyboard.

Set Note Velocity- Since your computer keys don't respond to velocity this sets a fixed velocity level for notes played, but not all that important, as the only Blue3 parameter that responds to velocity is *Key Contact Timing* (in *Settings>Instrument*)... which is a pretty subtle effect that you most likely won't mess with when thwacking away at notes on your computer keyboard.

Pitch Bend- Hitting the *+* or - keys while playing a note will bend according to the range set on the *Settings>Instrument* prefs page. (Settings can be accessed via the gear icon in the top purple menu strip.)

Mod Wheel- To add mod wheel modulation, press the number keys from *0-9* (above the character keys) while playing a note. The modulation amount will vary from none (*0*) to full modulation (*9*). Note that modulation will "stick" at the selected number; to disable modulation, click the *0* key. Mod can also be engaged by clicking the mouse in the mod bar area.

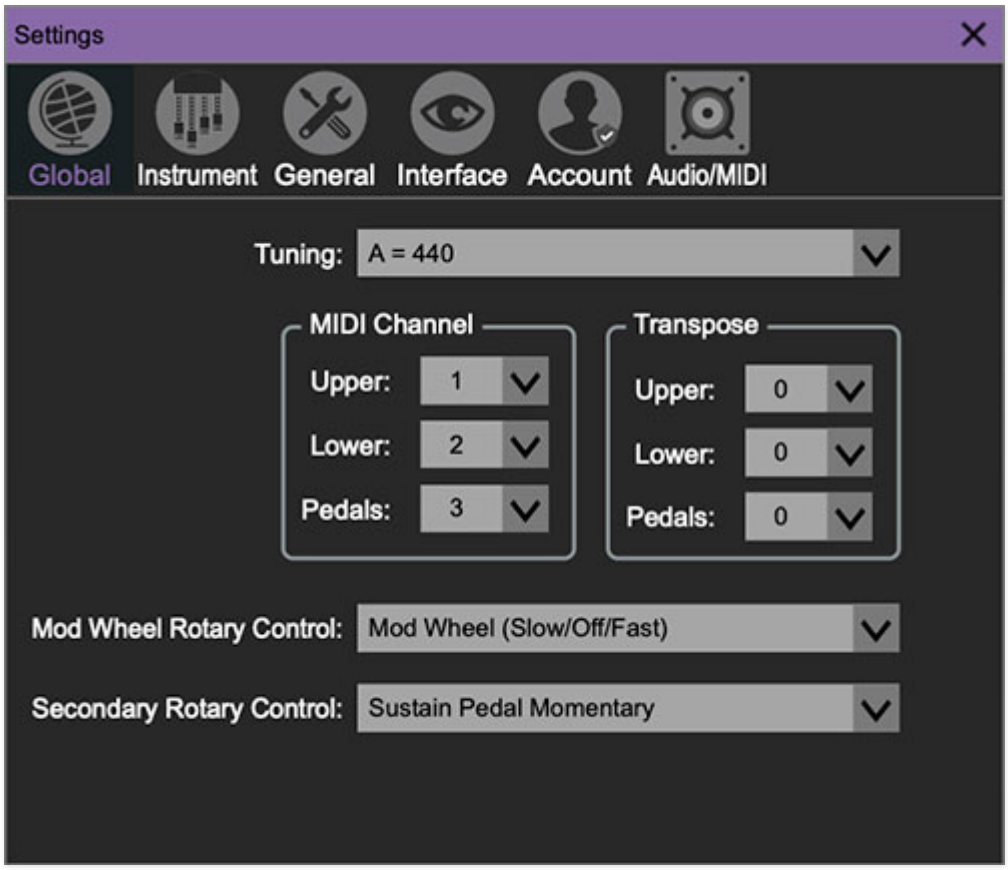
Keep in mind that by default, the mod wheel controller doesn't do anything. The usual procedure for assigning the mod wheel (or any other external hardware controller) is to right-click an onscreen control, selecting *MIDI Learn*, and moving the hardware control. If don't have a hardware USB/MIDI controller (and if you're using the MTK we'll assume you don't), you can assign the mod wheel by right-clicking an onscreen control, selecting *MIDI Learn*, and hitting one of the number keys from *0-9* (above the character keys).

Sustain- The *Sustain* button mimics the functionality of a standard sustain pedal. Click the [TAB] key to engage sustain, or [SHIFT]+[TAB] to lock it. The *Sustain* button can also be engaged by mouse clicking it. How the sustain pedal functions can be set on the *Settings>Instrument* prefs page (i.e. whether it's globally on or off, and which manuals it affects).

Reset- Initializes all MTK parameters including keyboard range and control parameters.

Clicking the settings gear opens a window with multiple tabs for configuring various "under-the-hood" settings. These are mostly set-and-forget kind of parameters; everything you'll usually use is in the main UI.

GLOBAL



Tuning- Allows global tuning of Blue3 from A=432 Hz to A=445Hz. Generally you'll want to leave this at its default concert tuning setting of A=440Hz. (Unless you're playing with a not-easily-tuned instrument such as a piano, xylophone, or one of your bandmates is one of those "music sounds better at A=437 Hz" nitwits.)

MIDI Channel- This lets you set reception MIDI channels for the Upper, Lower, and Pedal manuals. This is useful if you're using multiple USB/MIDI controllers. If you're using a single MIDI controller and would like access to both manuals, or the Upper manual + Pedal manual, we recommend using the Split function to the left of the Upper manual on the *MAIN* and *EDIT* pages. Split mode always uses the *Upper* MIDI channel; the Lower and Pedals manuals always respond to the MIDI channels set here regardless of whether Split is currently active.

For more info on using Split, please see *Keyboard Split* in the **Main Page** section.

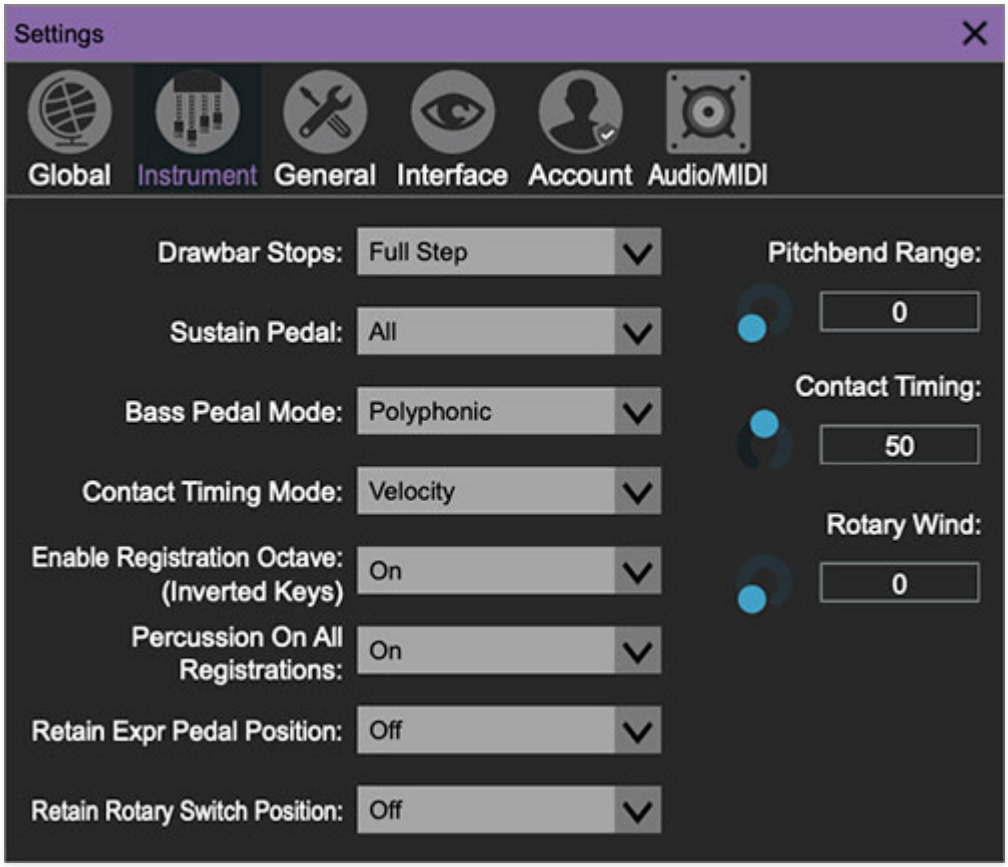
Transpose- Allows incoming MIDI data to be independently transposed up or down two octaves. This is useful for those of you who ~~got suckered into buying~~ own handy space-saving two-octave keyboard controllers.

Mod Wheel Rotary Control- Defines how the mod wheel controls the "half-moon" rotary speaker switch at the the bottom left of the keyboard.

Secondary Rotary Control- Defines an additional MIDI hardware controller for rotary speaker speed control. Take it from us, sustain pedal slow/fast is super handy in live performance applications (when your left hand has to be doing something else).

Note that the *Aftertouch Toggle* and *Aftertouch Momentary* selections can be used with mono or poly aftertouch.

INSTRUMENT



Drawbar Stops- Depending on the model, some vintage organ drawbars had definitive clicks at each number stop and some don't. Drawbar stops lets

you select whether the drawbars move in full number steps, half-number steps, or move continuously.

Pitchbend Range- Blue3 notes can be bent using a pitchbend wheel, just like a synthesizer. This sets the range from 0 to 12 steps (i.e. an octave).

Sustain Pedal- Allows a hardware sustain pedal to be used to hold notes. The popup allows assignment to any of the manuals, all three, or none. **Note that sustain pedal functionality is disabled if the sustain pedal is assigned to control rotary speaker speed** (set using the *Rotary Control* parameter in the *Global* tab).

Bass Pedal Mode- Allows the Pedal manual to play monophonically (one-note-at-a-time), polyphonically, or polyphonically with mono release. *Poly/Mono Release* means that only the earliest note played rings when Pedal manual notes are released - this sounds cleaner if multiple pedal notes are accidentally played. Keep in mind that Pedal manual release is really only a concern when the *Decay* knob in the *Pedals* section of the *EDIT* page is turned up.

Contact Timing Mode/Contact Timing- When set to *Velocity*, the timing between key contact closures is affected by how fast you play a key, just like the real thing. In *Fixed* mode, the timing between key contact closures is always the same. Both modes are scaled by the *Contact Timing* amount control directly to the right.

Contact Timing: Adjusts the maximum time delay between key contact closures when pressing a key. This is based on the the MIDI velocity and affects the sound of the key click.

Enable Registration Octave (Inverted Keys)- This allows you to disable the bottom-octave black key presets, in case you're a clumsy fool who unintentionally hits them during live performances (i.e., me).

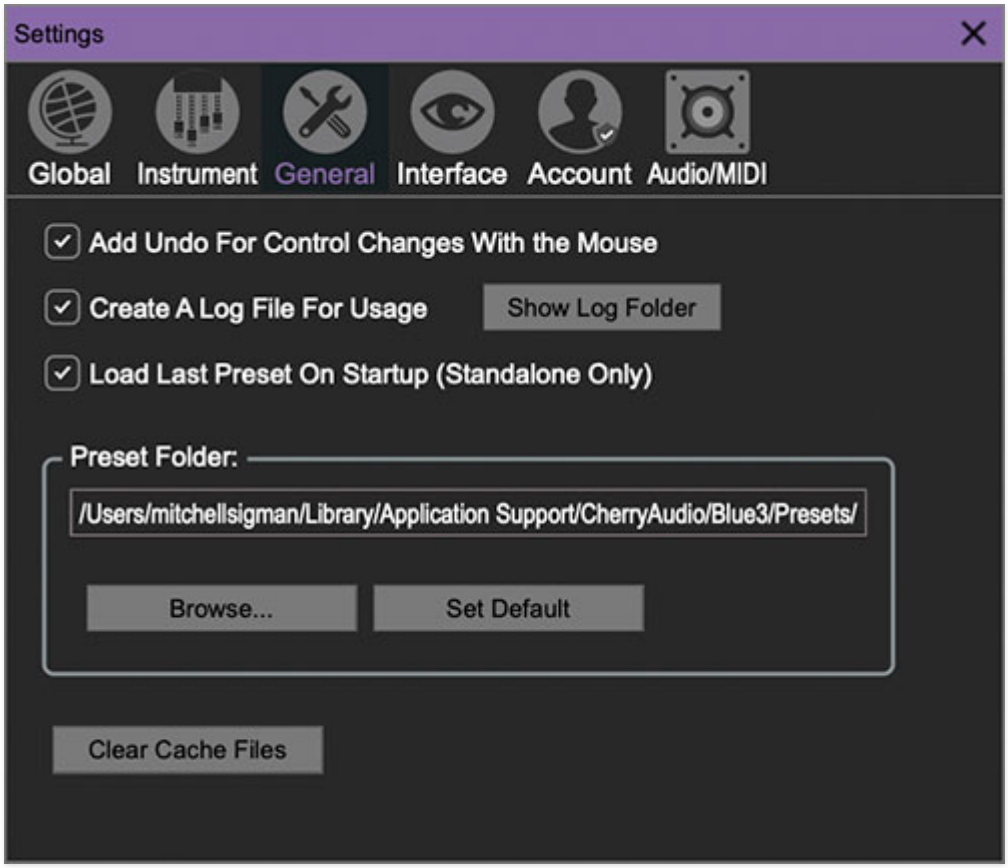
Rotary Wind Amount- Adjusts the level of wind noise created when the horn rotors go by the microphones. Fill in your own off-color joke here.

Percussion On All Registrations- A real B3 only plays Percussion when the B registration on the Upper manual is selected (i.e. percussion doesn't work if the inverted key B "left side" drawbars are selected). If this is on, Blue3 will play Percussion on both the Bb and B registrations.

Retain Expression Pedal Position- When turned on, the position of the expression stays the same when changing presets. In the *Off* setting, expression pedal position is stored with presets.

Retain Rotary Switch- When turned on, the position of the rotary speaker speed switch (at the bottom left of *MAIN* and *EDIT* pages) stays the same when changing presets. In the *Off* setting, rotary speaker speed switch setting is stored with presets.

GENERAL



Add Undo For Control Changes With the Mouse- Enabling this allows undo of knob/slider/button adjustments. You'll want this on if you want the ability to undo all aspects of patch editing and programming.

Create A Log File For Usage- This creates a text doc of all of Blue3's internal and routines during use. It is mainly intended for our tech staff should you experience any issues. Clicking *Show Log Folder* opens the folder containing Blue3 log file docs.

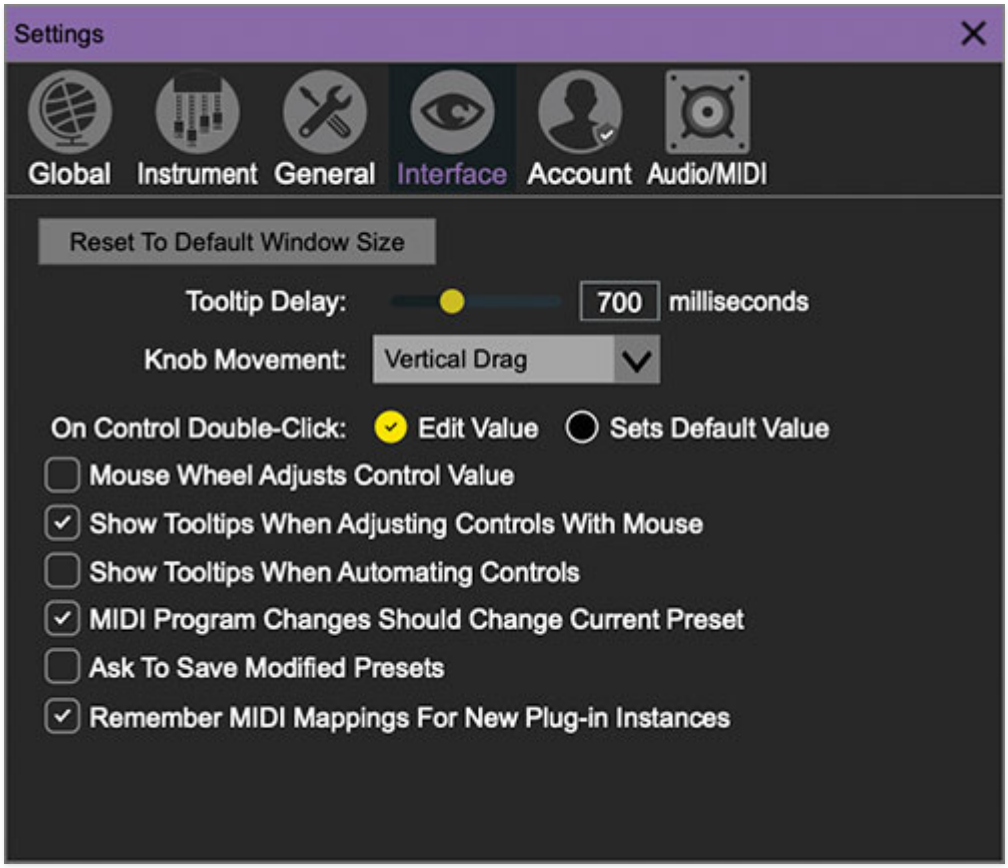
Load Last Preset On Startup (Standalone Only)- Automatically loads the last preset used when Blue3 standalone version is started.

- **Preset Folder-** Displays the current location of Blue3's sound presets. This can be changed by clicking and typing in the field.

- **Browse...** - Displays the current location of preset folder in the file manager.
- **Set Default-** Sets the current displayed *Preset Folder* path as the default location

Clear Cache Files- Deletes all log files, temporary sounds, and the image cache.

INTERFACE



Allows customization of Blue3's user interface settings.

Reset To Default Window Size- Resets the Blue3 workspace to default size. Use this to reset the window size if the window somehow becomes too large for your display and can't be resized.

Tooltip Delay- Tooltips are those informative bits of text that pop up when hovering over a control (go ahead and try it, we'll wait...). The *Tooltip Delay* setting defines how long you must hover before the tooltip pops up.

Knob Movement- Defines how mouse movements relate to turning onscreen knobs. It defaults to *Vertical Drag*, but can be changed to

Horizontal Drag, or *Rotary Drag* if you're one those folks that cut their teeth on the *Steinberg Model E* VST back in 2000.

On Control Double-Click- Defines what happens when the mouse is double-clicked on a control. If *Edit Value* is selected, an exact number can be entered by typing the number and hitting [ENTER] or [RETURN]. If *Sets Default Value* is selected, double-clicking a control resets it to its default value.

Mouse Wheel Adjusts Control Value- Enabling this lets you adjust knob, slider, and switch values by moving the mouse wheel. This works great with a standard mouse wheel, but you'll want to disable it if you're using an Apple Magic Mouse (which will move the control AND scroll the window).

Show Tooltips When Adjusting Controls With Mouse- Displays parameter tooltips/values when the mouse is hovered over a control or as a control is moved with mouse clicked.

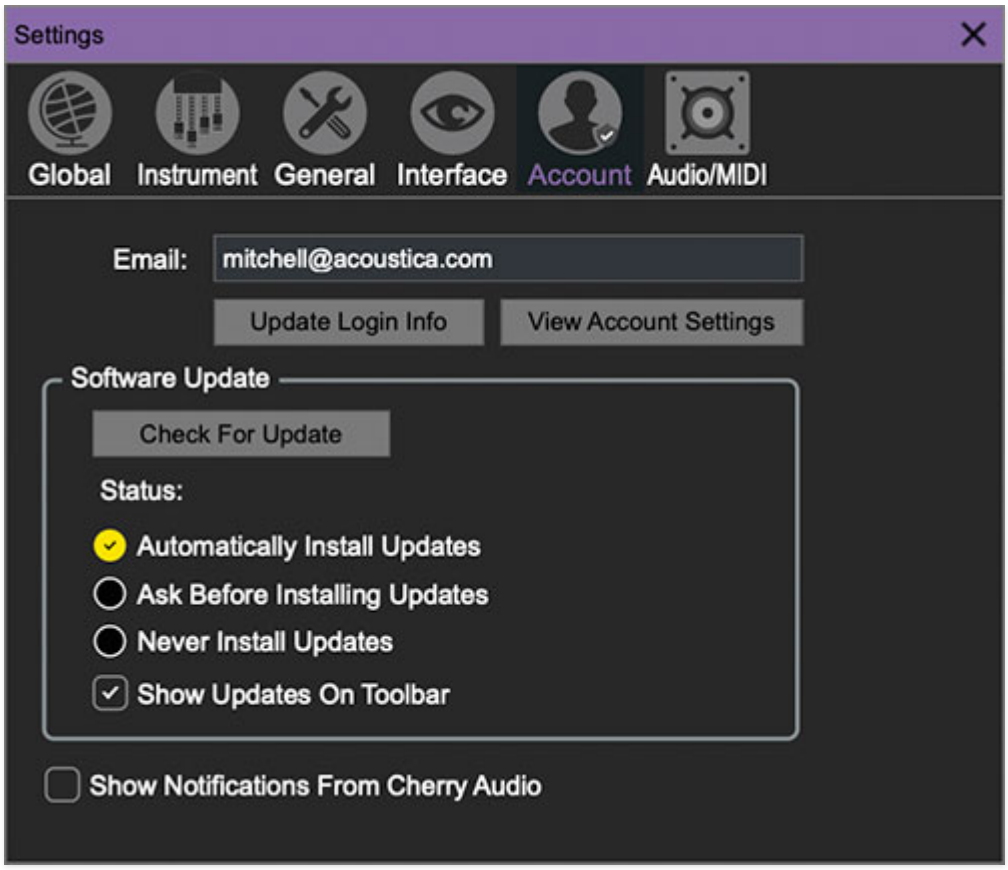
Show Tooltips When Automating Controls- Displays parameter tooltips/values next to controls any time a control is changed, i.e. if a control is moved via an assigned MIDI controller or a *Perform* panel knob, etc.

MIDI Program Changes Should Change Current Preset- Allows MIDI program change messages to change Blue3 patches.

Ask To Save Modified Presets- This opens a dialog window asking if you'd like to save changes if a patch has been edited and a new patch is selected. If you're the type that likes to click through presets and tweak a control here and there, it can be annoying to have a window pop-up asking if you'd like to save every time you switch presets - if you're that person, keep this off.

Remember MIDI Mappings For New Plug-in Instances- When enabled, Blue3 remembers all MIDI Tab controller settings.

ACCOUNT



Settings for your personal login information and account.

Email- Displays the email address of the current login.

Update Login Info- Clicking this opens the same email and password login screen you'll see when initially launching Blue3.

View Account Settings- This opens your personal account page on the Cherry Audio Store website containing information about modules purchased and more.

Software Update- We often fix bugs and make improvements; below are options defining how Blue3 handles updates.

- **Check For Update-** Click this to see if an updated version of Blue3 available.

  Status-

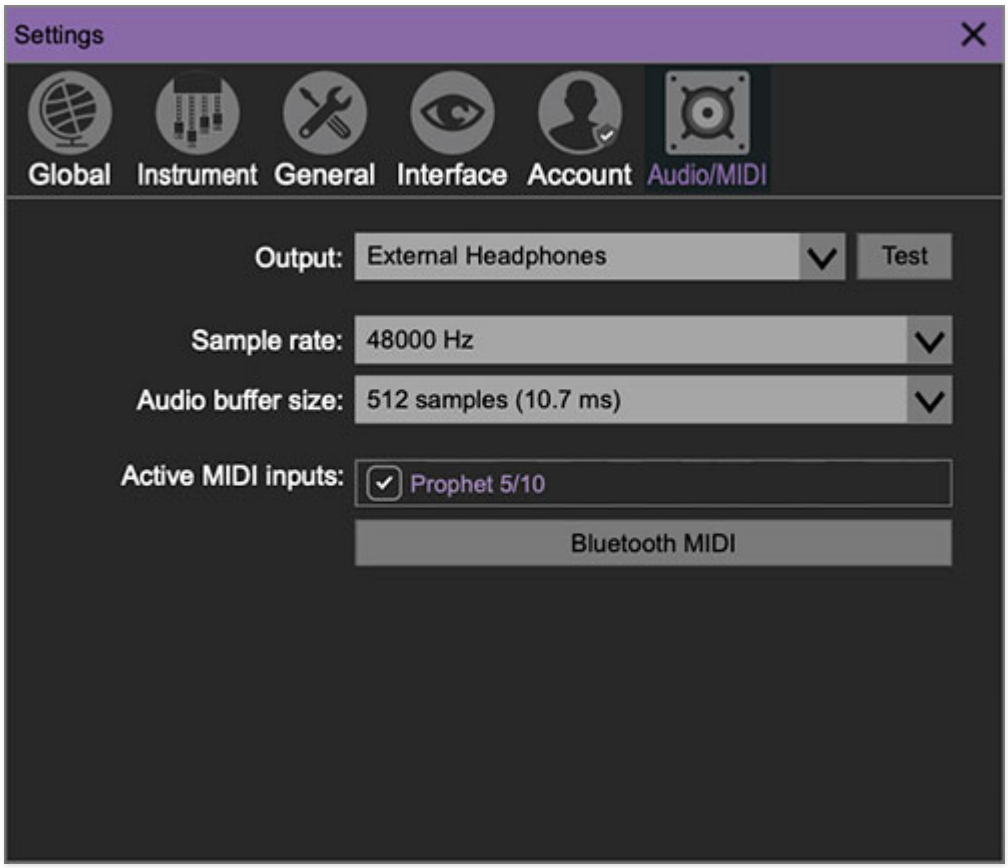
- **Automatically Install Updates**- Updates are automatically downloaded and installed.
- **Ask Before Installing Updates**- By default, Blue3 automatically downloads new versions of modules when available. Checking this box defeats automatic updates and will ask if you'd like to install updates when they become available.

We'll never make changes that can potentially "break" existing patches but we recommend enabling *Ask Before Installing Updates* if you're using Blue3 for live performances or other "mission critical" situations.

- **Never Install Updates**- Blue3 never automatically installs updates.
- **Show Updates On Toolbar**- Checking this will display an icon in the toolbar next to the logo letting you know there's an update available.

Show Notifications From Cherry Audio- We occasionally will fire off in-app advertisements; disabling this checkbox will hide them. We hate repetitive, annoying ads as much as you do, so we don't use this feature too often.

AUDIO/MIDI



Not to be confused with the extinct audiomidi.com where I unfortunately used to work, these are settings for audio and MIDI hardware input and output.

The Audio/MIDI tab is only visible in the standalone version of Blue3.

- **Output**- Use this drop-down menu to choose a physical audio output source. This defaults to *Built-In Line Output*, i.e. your computer's onboard system audio, but you'll get better fidelity with an external professional audio interface. The biggest audible difference is usually reduced background noise or hum.
- The *Test* button will produce a brief sine wave when clicked; this will help with troubleshooting, aka, "WHY THE HECK ISN'T THIS MAKING ANY NOISE?!?"
- **Sample Rate-** This sets Blue3's global sample rate. Lower sample rates offer better performance, but if you have a fast computer, high sample rates may offer slightly improved fidelity. (Translation: a fabulous opportunity to increase CPU overhead, because unlike every other human on earth, *your* rock and roll-destroyed ears are able to hear frequencies far beyond 20 kHz.)
- **Audio Buffer Size**- As with any digital audio app, this defines performance vs. note latency, and will largely depend upon computer CPU speed. A professional external audio interface will almost always exhibit better performance than "built-in" system audio. Lower settings will result in less latency (in the form of faster response to notes played), but will increase the chances of audio gapping or crackling noise.
- **Active MIDI Inputs**- Enable MIDI input sources, i.e. MIDI/USB keyboards, pad controls, MIDI knob/fader control surfaces, etc. Check boxes to enable one or more devices. **If a MIDI/USB controller isn't working, make sure the appropriate box is checked here.** We put this this piece of info *way* in the back of the manual, to make it extra challenging to find out why things aren't working (not really, just ended up here!).