Getting Started

Mercury-6 is a meticulous recreation of the Jupiter-6 analog polyphonic synthesizer, originally released in 1983. Sandwiched in Roland's product line between the earlier Jupiter-4 and Jupiter-8 polysynths, it suffered from "middle child syndrome," but has gone on to be one of the most coveted of the classic Roland poly synths. The original instrument was marketed as a slightly more affordable version of the flagship eight-voice Jupiter-8, whereas the Jupiter-6 had six voices.

Though similar in appearance and feature set, the Jupiter-6 sounded considerably different from the Jupiter-8. Most significantly, unlike earlier Roland poly synths with lowpass filters plus a simple non-resonant highpass filter, the Jupiter-6 featured a true multimode filter with a 24 dB/oct lowpass, 24 dB/oct highpass, or 12 dB/oct bandpass modes. Overall, this filter design had a more aggressive sound than earlier Roland polysynths, making the Jupiter-6 a natural for cutting-edge techno and electro styles (it also loves distortion when its resonance is cranked up!).

The original Jupiter-6 was one of the first analog polys with a fully independent split keyboard mode as well. We've expanded the split mode and added a layer mode for huge stacked sounds, and with polyphony extended up to 16-notes, Mercury-6 won't run out of voices like the original. We've added a flexible effects section with awesome sounding distortion, phaser, flanger/chorus, delay, and reverb sections, as well as extended LFO functionality, and more. If you've always pined for a Jupiter-6, you're gonna love Mercury-6!

Pre-Purchase Demo Mode

If you haven't purchased the full version of Mercury-6, it will run in demo mode. All functions will work, but inharmonic tones will occasionally sound (the LED next to *Demo* in the top toolbar will illuminate when the ugly tones are sounding). We've also added a handy button to make purchasing easy, so you've got no excuse! As you might expect, all the demo stuff disappears once Mercury-6 is purchased.

Technical Assistance

Cherry Audio's unique online store and automatic updating should make operation a smooth experience, but if you run into any issues or have questions, you can discuss issues online at the **Cherry Audio Forums**, or communicate directly with our ~~dour and irritable~~ outgoing and friendly tech support staff at **https://cherryaudio.kayako.com/.**

Top Toolbar and Preset Browser

The purple strip at the top of the Mercury-6 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 *Mercury-6 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 "huge," "noisy," "poly," etc., to patches to make them appear when terms are typed in the *Search* field. Use commas to separate multiple keywords entries.
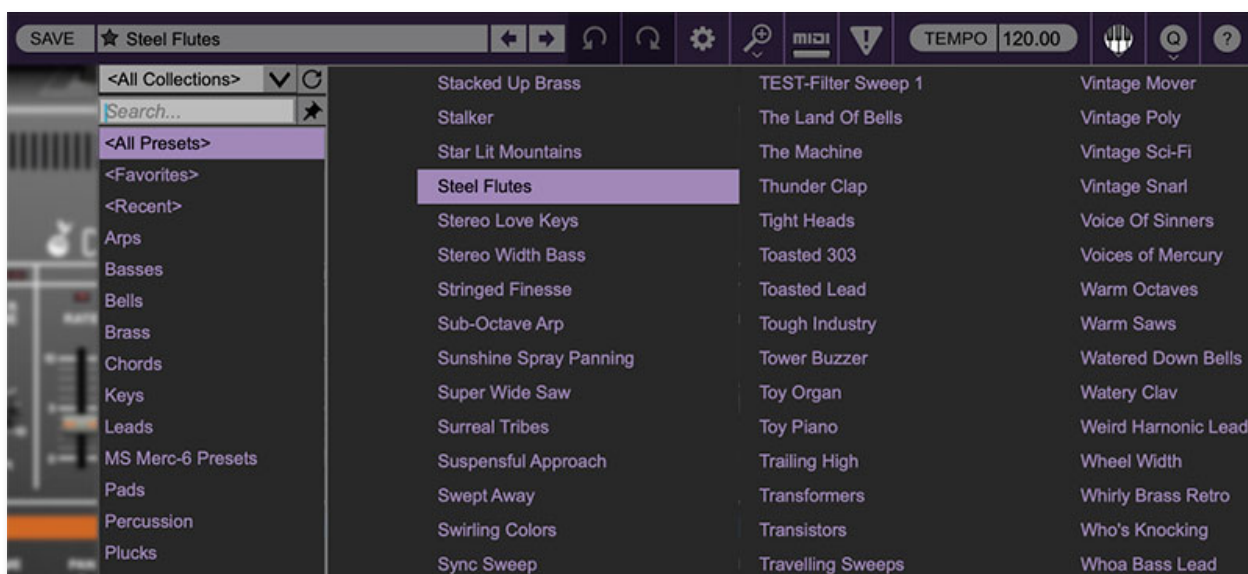
Browsing Patches- Patches can be browsed by clicking the *<Select Preset>* field. To select a preset collection, click in the area that says *<All Collections>* or on the downward-facing arrow next to it.

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.
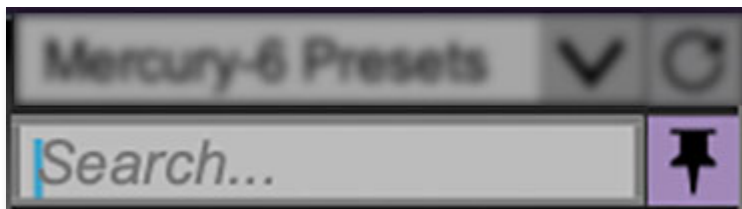
Pin - Clicking the push-pin icon locks the patch selection list open, allowing fast and easy browsing and auditioning of patches. Click the icon again to disable pin mode. when in pin mode, the up and down arrow keys can be used to select patches.

Preset - *Step Back/Forward 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 - These circular arrows will undo or redo the last action. It remembers many steps, so if you really loused 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.
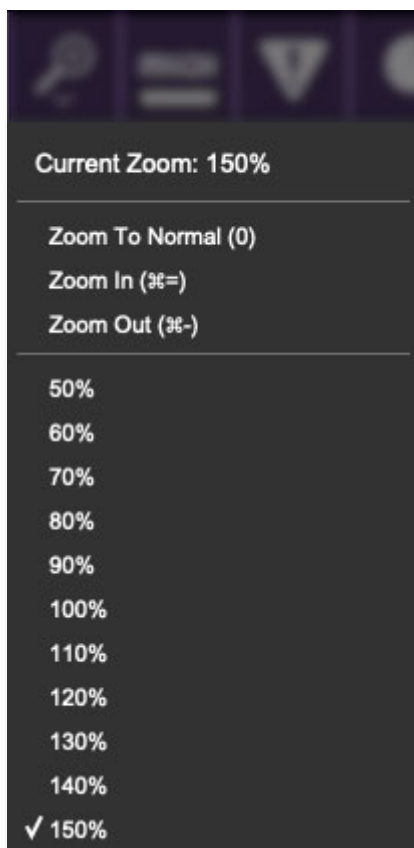
Zoom Magnifying Glass - Click to resize the Mercury-6 interface. Selecting *100%* returns the user interface to native size.

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.

Tempo (Standalone Version Only) - Displays Mercury-6's current internal tempo setting. Mercury-6's internal tempo affects LFO-1 and LFO-2 rates, arpeggio rate, and the delay effect's time when the corresponding *Sync* controls are toggled. The tempo setting can be changed by moving the mouse up and down anywhere in the tempo section, or by double-clicking the number and entering the desired BPM value.

The tempo display only appears in the standalone version of Mercury-6. VST, AU, and AAX plug-in versions receive tempo data from their host DAW app.
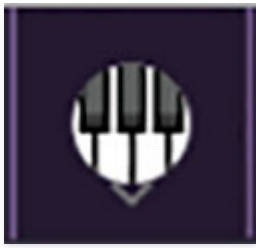
QWERTY Musical Typing Keyboard- Opens an onscreen keyboard allowing a standard QWERTY computer keyboard to be used for playing music notes. For more information, see **QWERTY Musical Typing Keyboard (MTK)** section.
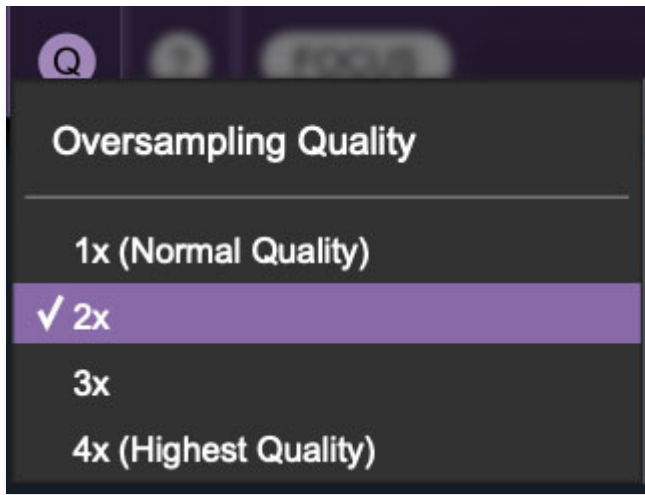
Oversampling Quality (Q)- The Q button sets Mercury 6's internal oversampling rate; the higher the setting, the better audio fidelity will be, with the caveat that more computer processing power will be required.

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, Mercury 6's internal processing runs at 96 kHz, and is then reduced back to 48kHz at the output stage.
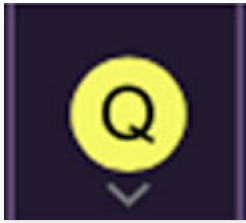
When oversampling is set to any multiple greater than *1x*, the *Q* button glows yellow.

Dependent on a number of factors (audio system D/A converter quality, monitor speakers, the nature of the current Mercury-6 patch, etc.), you may not hear a big difference with higher settings. Generally speaking, audible differences may be noticeable when using sounds with a great deal of high harmonics.

Help- Clicking this launches your web browser and opens the help document you're currently reading, which is a really meta concept.

Mercury-6 logo (upper-right corner)- Clicking this displays "about" information, and shows the version number and current registered user ID.

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 Mercury-6'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 using a single-button mouse, scroll bars will appear at the window edges when in *Focus* mode. (Drop us a line from your SBC Global email account, umkay?)

Using *Focus* mode couldn't be easier - just click the *Focus* button the top menu bar. To return to standard view, click *Reset*. **There's also a superfast key shortcut** - on Mac, hold the ⌘ [COMMAND] key and click the mouse; in Windows, hold the [OPTION] key and click the mouse. Focus can be reset with the same key shortcuts.

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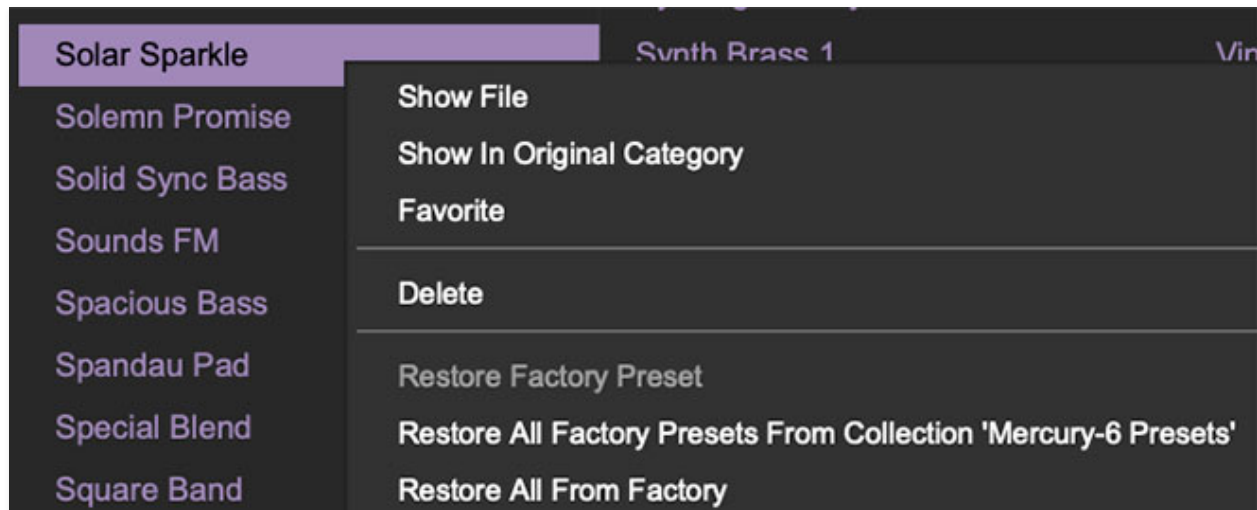
Show File - This displays the selected preset in the Mac or Windows folder containing it. This is useful for backing up or sending a preset file to another user.

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. (Or say something nasty about its mother.)

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 'Mercury-6 Presets' - If any patches from the "factory" Mercury-6 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 Mercury-6 bank mentioned above is the only factory bank, so this function and the *Restore All Factory Presets From 'Mercury-6 Presets'* above have the same effect.

VCO Section

VCO Mod
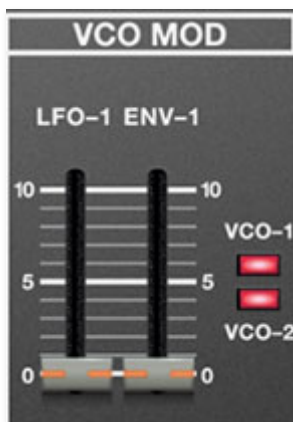
LFO-1 - Adds frequency modulation from the LFO (low-frequency oscillator) section immediately to the left of the VCO.

Env-1- Adds frequency modulation from envelope generator 1. This allows oscillator sync sweep sounds when oscillator sync is engaged.

VCO-1 / VCO-2 buttons- These determine which oscillator receives modulation when the *LFO* and *Env-1* sliders are turned up. Either or both buttons can be engaged.

PWM
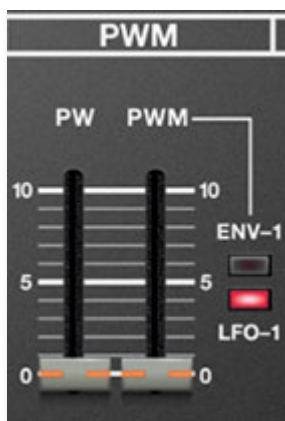
These controls determine the pulse wave width or "duty-cycle" when the pulse wave is selected (shown above) on one or both oscillators.

PW- Sets the initial amount of pulse width. Moving the slider upward narrows its pulse width as well as the thickness of sound until it almost disappears. Also Morgan Fairchild's nickname for PeeWee Herman in the cinematic masterpiece, "*Pee-Wee's Big Adventure*."

PWM- Sets the amount of modulation applied to pulse width.

Env-1 / LFO-1 buttons- These determine the mod source for the PWM slider above. Only one mod source can be selected.

VCO-1

Cross Mod

Cross Mod is essentially a fancy name for standard LFO pitch mod, but it differs from using one of the LFO's for a couple of reasons. LFO-1 and LFO-2 are monophonic mod sources, that is, there is only one of each LFO under the hood, so they apply mod equally to *all* voices. *Cross Mod* is what's referred to as a "poly mod" source (as seen on the Prophet-5 and Memorymoog) - each VCO-1 voice (up to 16) is modulated independently by

its own separate VCO-2. At slow mod speeds (VCO-2 *Range* set to *Low*), vibrato sweep phase and speed will be different for every note played; at audio rates (VCO-2 *Range* set to any of the footage settings or *High*), this also means mod effects will be consistent for all notes across the keyboard.

When using Cross Mod for low-frequency pitch mod (VCO-2 *Range* set to *Low*), use the VCO-2 *Tune* knob to fine-tune mod speed.

Manual (Man)- When turned up from zero, VCO-2's signal modulates the pitch of VCO-1.

Env-1- Enables modulation of the amount of cross mod via envelope 1. This effectively automates movements of the *Man* slider.

Range- Sets the basic pitch range of the oscillator, displayed in traditional organ footage from 32' to 2'. The snaps to each octave range, but moves in semitone intervals "between" the marker shapes (easier to understand by just twirling the knob).

Waveform- Selects the basic oscillator waveform. Triangle, ramp (aka inverted sawtooth), variable pulse, square wave can be selected. Multiple waveforms may be enabled simultaneously, but the pulse and square cannot both be on at once. When the pulse wave is selected, pulse width is determined by the *PW* and *PWM* controls in the PWM section.

Sync
This causes one of the oscillators to force reset the start of the other's waveform to the beginning of its cycle, resulting in the classic Cars "Let's Go" tearing harmonics sound (or No Doubt's "Just A Girl," for children of the 90s) when pitch is swept.

Sync 1>2 / Sync 2>1 buttons - Syncs oscillators as described above in either direction; sync can only operate in one direction (good name for a band) at a time.

VCO-2

Range- Sets the basic pitch range of the oscillator from *Low* (below audible range), through 32' to 2' footages, up to *High* (above audio range). The knob moves continuously, but discretely snaps to each range. The *Low* and *High* settings are intended for use with the Cross Mod functions described above (i.e., using VCO-2 as a mod source). When using VCO-2 for mod, we recommend disabling its audio output by dialing the adjacent Mixer knob all the way to *VCO-1*.

Tune- Allows fine-tuning of pitch or building intervals into multi-oscillator patches. It's also useful for fattening up multi-oscillator patches by detuning a small amount. Its range is just over a fifth, up or down.

Waveform- Selects the basic oscillator waveform. Triangle, ramp (aka inverted sawtooth), variable pulse, or noise can be selected. Multiple waveforms may be enabled simultaneously.

About selecting multiple oscillator waveforms: On the original instrument, selecting a waveform toggled the currently selected waveform off, but a sort of hidden feature was that multiple waves could be selected by holding down a one while pressing another (the exception being the square and pulse-width waves, which can't be simultaneously enabled).

We wanted to retain the ability to select multiple waveforms, but since there's no way to click on two things at once with a mouse, we made Mercury-6's waveform buttons toggle independently (with the exception of the aforementioned square and pulse-width waves).

The Mixer section simply blends the balance of VCO-1 and VCO-2.

Mix– Sets the relative balance of VCO-1 and VCO-2. Center position results in an equal mix of both oscillators.

VCF Section
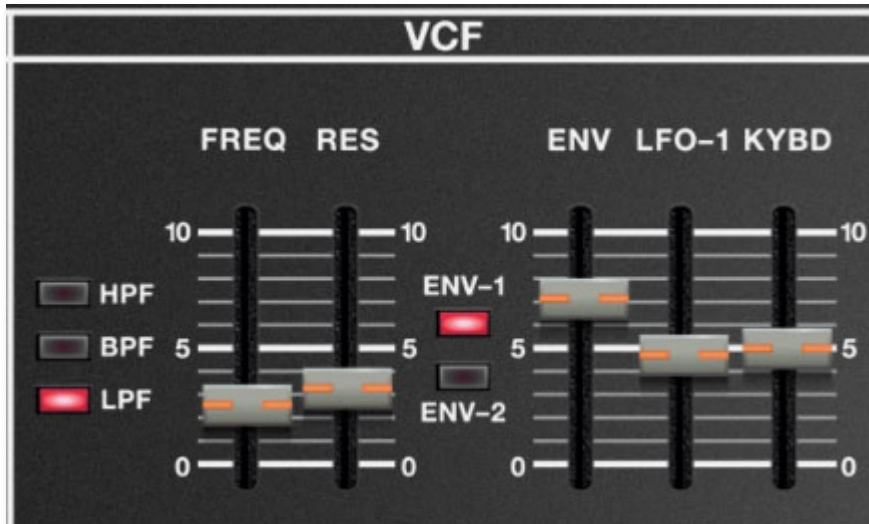
The VCF section consists of a multimode filter with a 24 dB/oct lowpass, 24 dB/oct highpass, or 12 dB/oct bandpass modes.

If you're not familiar with how voltage-controlled filters operate, a highpass filter (*HPF*) removes low frequencies as the slider its cutoff slider increased, while a lowpass filter (*LPF*) removes high frequencies as its cutoff frequency setting is decreased from max, resulting in a dulling of sound. A bandpass filter (*BPF*) combines both highpass and lowpass curves and allows frequencies "in the middle" to bass.

HPF / BPF/ LPF buttons- These select the current filter curve. Toggling LPF button to select lowpass mode, the HPF button to select highpass mode, or both to select bandpass mode. However, we cannot promise that "bandpass" mode will help your band to pass any auditions. (Cherry Audio: come for the synths, stay for the dad jokes.)

Freq (Frequency)- Sets the frequency where attenuation begins, dependent on currently selected mode.

Res (Resonance)- Emphasizes sound energy at and around the current cutoff frequency by adding feedback from the filter's output back to its input. At lower settings, this can be used to create mild resonances such as those heard in acoustic instruments. When combined with moving the *Freq* slider, higher *Res* settings will give the familiar analog synth "wah" sound that launched 1000 disco records.

Env-1 / Env-2 buttons- Allows Envelope 1 or Envelope 2 to modulate cutoff frequency. Use Envelope 1 if you'd like independent envelope control of

cutoff frequency; use Envelope 2 if you'd like a single envelope to simultaneously control cutoff frequency and note amplitude. Only one can be enabled at any time.

Env- Sets the amount of cutoff frequency mod via Envelope 1 or Envelope 2 dependent on selection of the buttons above.

LFO-1- Sets the amount of cutoff frequency mod via LFO-1 or Envelope 2 dependent on selection of the buttons above.

Kybd- Commonly known as "keyboard tracking," this causes the cutoff frequency to increase as ascending notes are played on a keyboard. The idea behind this is, because actual note frequencies rise as higher pitches are played, the *Kybd* slider adds a CV from the keyboard to the cutoff frequency in order to maintain the brightness of notes as higher pitches are played.
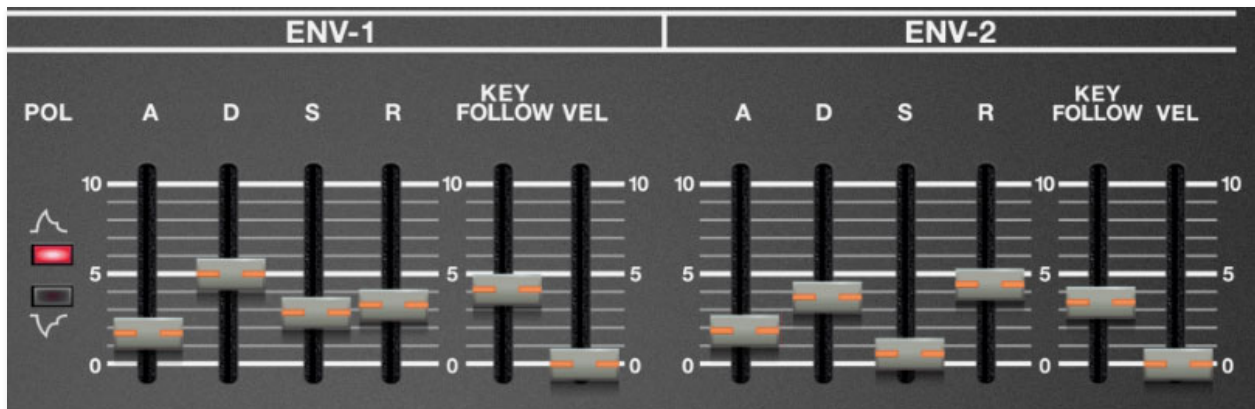
VCA Section

VCA is short for "voltage-controlled amplifier," and for all intents and purposes, you can think of it as an automated volume knob.

**Env-2**- Sets how much Env-2's shape affects the the overall amplitude of notes.

LFO-1- Adds amplitude modulation from the low-frequency oscillator. It's useful for tremolo effects.

Envelopes 1 and 2 Section

Like the original Jupiter-6, Mercury-6 includes two ADSR envelope generators. Envelope 2 is mostly dedicated to controlling note amplitude; Envelope 1 generally controls filter cutoff frequency, but both include few additional modulation routings. Before we get into their controls, let's review the operation of an ADSR envelope.

How An ADSR Envelope Generator Works
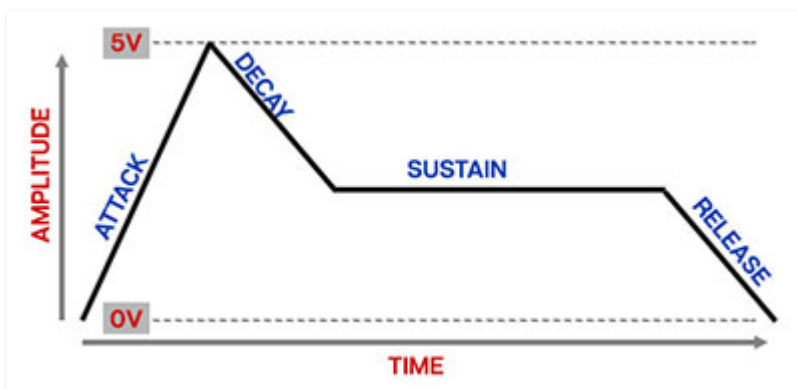
When Mercury-6 sees a gate voltage from a note, the envelope generator outputs a dynamically changing voltage, according to the settings of its four stages. The attack stage defines how long it takes for the output voltage to rise from zero to maximum. Once the attack stage reaches maximum level, it moves to the decay phase, which defines how long it takes to fall from max to the setting of the sustain phase. Unlike the attack, decay, and release phases, which define times, sustain simply sets the held voltage level following the attack and decay phases - this equates to the envelope output level while holding down a key. Finally, the release slider defines the the

length of time it takes for the voltage to fall back to zero when the gate input voltage is removed, i.e. when the key is released.

Envelope 1
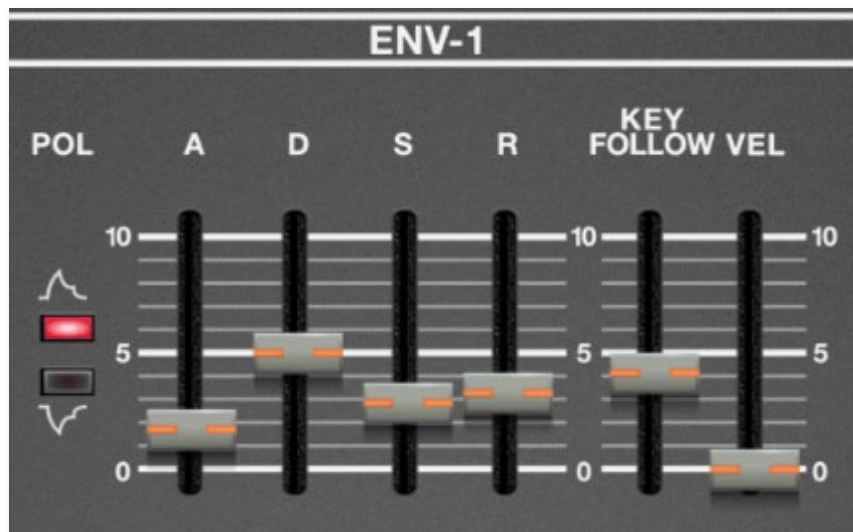
Envelope 1 is mainly intended to control filter cutoff frequency, but it also can be routed to control oscillator pulse-width modulation.

Pol (polarity) buttons- The top button puts Env-1 in positive mode, that is voltages will start at zero and move up to +5V internally. When used to modulate a parameter, this equates to moving a slider *upward*. When the bottom button is selected (i.e. inverted), voltages start at 0V and move toward -5V internally, which will have the effect of turning a slider *down* when a parameter is modulated.

Attack- Defines the length of time for voltage to rise from zero to maximum when a key is played.

Decay- Defines the length of time for voltage to fall from the attack stage peak to sustain stage setting.

Sustain- Sets the voltage level following attack and decay phases while a note is held.

Release- Defines the length of time for voltage to fall from sustain level to zero when a key is released.

Vel (Velocity)- Allows keyboard velocity to control the overall output level of the envelope generator. Increasing the amount adds sensitivity with lightly played notes outputting less voltage. This control wasn't present on the

original Jupiter-6, as it didn't have a velocity-sensitive keyboard, but since almost every modern controller transmits velocity, we added it.

Key Follow- Raising this slider shortens the overall envelope times as higher notes are played up the keyboard. This is intended to mimic the behavior of real acoustic instruments, such as pianos or guitars (or trumpets, where some sorry bastard blows their brains out to play super-high notes, which are only annoying everyone anyway).

Envelope 2
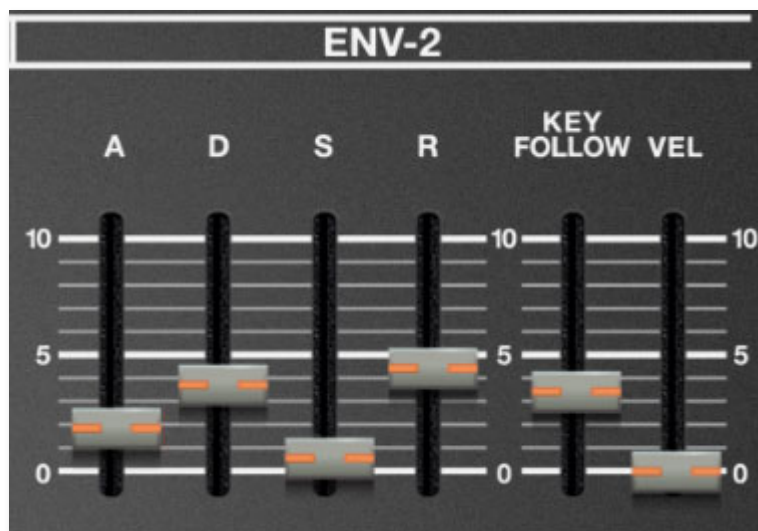
Envelope 2's controls are largely identical to Envelope 1, but it's hardwired to control note volume. As a result, the polarity buttons are removed, because you can't get quieter than silence, right? (There may be some sort of "none more black" philosophical argument to be had here...).

Attack- Defines the length of time for voltage to rise from zero to maximum when a key is played.

Decay- Defines the length of time for voltage to fall from the attack stage peak to sustain stage setting.

Sustain- Sets the voltage level following attack and decay phases while a note is held.

Release- Defines the length of time for voltage to fall from sustain level to zero when a key is released.

Vel (velocity)- Allows keyboard velocity to control the overall output level of the envelope generator. Increasing the amount adds sensitivity with lightly played notes outputting less voltage. This control wasn't present on the

original Jupiter-6, as it didn't have a velocity-sensitive keyboard, but since almost every modern controller transmits velocity, we added it.

Key Follow- Raising this slider shortens the overall envelope times as higher notes are played up the keyboard. This is intended to mimic the behavior of real acoustic instruments, such as pianos or guitars.

LFO Section

LFO 1 (low-frequency oscillator) generates sub-audio range signals intended for modulation purposes.

Rate- The *Rate* slider sets the speed of the LFO, from 0.03 to 100 Hz (with *Sync* button off) or from 8 beats up to 1/64th note triplets (*Sync* button on). The LED above the *Rate* slider flashes at the current modulation rate.

Delay- Moving this slider up gradually delays the onset of LFO depth. The delay time can be set from 0 to 5 seconds. Keep in mind that like the original, there's only one LFO per layer. This means LFO *Delay* is monophonic; that means *LFO onset delay occurs when you play one or more notes, and the LFO amount for additional notes played will not be delayed if other notes are currently held.* LFO delay resets when all notes are released.

We should also mention that the onset curve is a little funky, that is, it's not really linear. At higher *Delay* time settings, you won't hear any LFO mod for a while, then it fades in pretty quick. This is exactly how the original JP-6 worked, and if you think about it, it's probably musically useful.

Waveform- Selects the repeating pattern of the LFO. Available waveforms are triangle, sawtooth, square, and random (aka, sample & hold). Only one waveform can be selected at any time.

Sync- When the *Sync* button is enabled, LFO speed will lock to host tempo when using Mercury-6 within DAW software, or to the current tempo in the top menu bar when using the standalone version.

Retrig (Retrigger)- Enabling *Retrig* restarts the LFO cycle monophonically if no notes are currently on and a new note is struck. If additional keys are played, the LFO won't restart until all keys are released. This may seem counterintuitive, but it makes sense - imagine a polyphonic patch with square wave modulation applied to VCA amplitude (VCA section *LFO* fader up). If you played a chord, with each note struck at a (slightly) different time, the LFO mod would restart every time a note was played, which could be a rhythmic mess.

Master Volume Section

Output VU meter- Displays overall output level. Keep it out of the red and nobody gets hurt, capiche?

Master Volume- Sets overall volume for the entire instrument.

Limiter- The *Limiter* switch applies a transparent limiting effect to help prevent overloading.

Key Mode, Panel Mode, and Layer Sections

Mercury-6 can operate in as a single instrument, a stacked dual-sound instrument, or a dual-sound instrument with a keyboard split. In this section we'll explain Mercury-6's powerful *Whole*, *Layer*, and *Split* mode operation. We'll start in the middle of the panel:

# Key Mode

Globally sets keyboard voice triggering.

- **Whole**- This is the standard keyboard mode. The upper voice plays across the entire keyboard range, and the lower voice is disabled.

- **Layer**- Upper and lower voices are stacked and play across the entire keyboard range.

- **Split**- The keyboard is split with the lower voice playing in the keyboard range *below* the split point, and the upper voice playing in the keyboard range *above* the split point.

  To set the split point, first make sure *Split* mode is enabled, then click the *Split* button. The LED on the button will flash; now play the key of the desired split point either on the onscreen keyboard or a MIDI controller. The LED note display stops flashing and the split point is set. The white

split-point triangle above the keyboard will jump to the current split point (cool, huh?).

For you pragmatic numerical types, the split point can also be selected by clicking the LED note display and choosing a note from the popup note selection menu.

Panel Mode
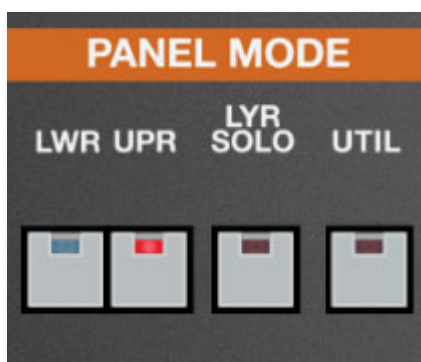
This innocuous little section is super important. As explained above, Mercury-6 can operate in three modes: *Whole,* where one sound plays across the entire keyboard range, *Layer*, where two separate sounds (layers) are stacked across the entire keyboard range, or *Split*, where two individual sounds are played above and below a user-specified split point.

With this in mind, the Panel Mode section allows selection of which control parameters are currently displayed when in *Layer* or *Split* mode. These two sounds are referred to as the **Lower** or **Upper** layers.

Lwr (Lower)/Upr (Upper)- Selects whether the onscreen controls show current settings for the lower or upper layer.

When *Upper* is selected, the LEDs for all controls will be red, and all relevant knob and slider marks indicator lines will be orange. When *Lower* is selected, the LEDs for all controls will be blue, and all relevant knob and slider marks indicator lines will also be turn blue. The rectangular Layer header on the left side of the panel will be orange when upper mode is active, and blue when when Lower mode is active.

Layer Solo- Solos the layer currently selected Lower or Upper layer for editing. This is really useful if you're editing a sound on a layer and don't want to hear the other layer. The *Layer Solo* button only works in *Layer* and

Split Key Modes. When toggled, the *Layer Solo* button flashes in the appropriate red or blue color so you won't forget you're in solo mode.

Utility- The Utility button popup menus allow upper and lower layer sounds to be moved back and forth, independently initialized, and more.

- **Swap Upper and Lower Layers-** Reverses the locations of the the upper and lower layer.

- **Copy Layers-** Duplicates one layer to the other.

- **Reset Layer**- Initializes all settings of the selected layer.

- **Copy Effects-** Duplicates the settings of all effects from one layer to the other. Keep in mind that if you'd like the same effects for both layers, effects can be set to Global mode by clicking the the blue *Global* effects tab and choosing *FX Mode / Global*.

- **Import/Export**- The Import/Export command allows layers to be moved between sound presets. Data from the source preset isn't affected.

  The process is simple - select the appropriate *Copy <Upper or Lower> to Memory* sub-menu to copy the data into Mercury 6's memory, then choose the destination preset, click the *Utility* button and select the appropriate *Paste to Layer* submenu.

The "You should really read this" Section

Following are some tips that should make this Lower and Upper business easier to understand, complete with bold text, so you know we mean business. (Don't push us, or we'll mash the CAPS key too and sound like one of those grammatically impaired unhinged internet weirdos.)

- **Switching between *Lower* and *Upper* parameter display has no effect whatsoever on sound**, it just alternates which layer's knob and button settings are currently displayed.

- ***Whole* Key Mode always uses the upper layer only.**

- **Panel Mode *Upper* and *Lower* selection only works in *Layer* and *Split* Key Modes.** When in *Whole* mode, *Upper* is automatically selected and the *Lower* and *Layer Solo* buttons are disabled and grayed out.

- **Lower and Upper layer sounds always save as one single sound patch.**

Almost all of Mercury 6's parameters are duplicated and independently settable for the Lower and Upper layers. The exceptions are *Master Volume* and its associated *Limiter*, and all effects tabs and associated controls if Global *FX Mode/Global* is active (more about this in the **Effects** section).

Layer Section

This functions as sort of a master settings for each layer. These are independent for each layer.

Volume- Sets the layer volume.

Pan- Sets the position of the layer in the stereo image. The *Pan* knob only affects dry signals - Flanger/Chorus, Delay, and Reverb effect wet signal panning isn't affected (because you don't want big, wide stereo chorus, for example, collapsing into one-speaker mono).

Tune- Sets the tuning of the layer, up or down by 100 cents. This control may seem like a "set and ignore" control, but it's useful in *Layer* mode, because VCO-1 doesn't have a fine-tuning control. Without the Layer *Tune* control, tuning for both layers of VCO-1 would be always be locked; Layer *Tune* allows some detuning for fatter sounds.

Drift- Applies a random amount of independent tuning drift to the synth oscillators and filter frequencies for a more authentic analog character. And note that unlike other Cherry instruments, the *Drift* knob is independent for each layer.

We generally recommend always leaving *Drift* turned up a bit, but there's one situation where we actually recommend setting *Drift* to zero: If you're using the Cross Mod *Manual* control to get in-tune note relationships. Since the *Manual* control is so touchy (as is the real thing), dialing *Drift* to zero makes it much more stable.

Glide Section

Glide delays the voltage change between notes for a sliding pitch effect.

Time- This sets the rate of pitch change with higher settings corresponding to longer times.

Portamento- Enables portamento mode; this is a standard glide effect where notes glide from one pitch to the next instead of discretely changing pitch.

Gliss- Enables glissando mode; this is similar to portamento, but instead of note patches smooth changing (like a trombone or slide whistle), the notes change in 1/2 steps (like running your finger down a guitar string on a fretboard).

Either *Portamento* or *Glide* mode can be selected, or both can be disabled. *Portamento* and *Glide* cannot both be selected at the same time, because to quote Steven Wright, you can't everything... where would you put it?

Arpeggio Section

An arpeggiator is basically a step sequencer that plays each note of a chord individually in an ascending or descending pattern across one or more octaves.

Important: Like the original instrument, **Mercury-6's arpeggio section does not have a dedicated on/off control**. Instead, arpeggio is considered a voice assign mode. With that in mind, the arpeggiator is enabled by clicking one of the pattern buttons (*Up*, *Down*, *U/D*, or *Random*). To disable the arpeggiator, select one of the assign modes in the adjacent Assign section (*Solo*, *Uni*, *Poly 1*, or *Poly 2*).

Rate- Sets the playback speed of arpeggiator sequences, from 1 to 22.5 Hz (with *Sync* disabled).

Sync- Engaging the *Sync* button locks arpeggio timing to master tempo. When engaged, the *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 Mercury-6 standalone version or the current project tempo when the plug-in version is used in a DAW.

Range buttons- Selects how many octaves the pattern will play before repeating. Only one button can be pressed at any time.

Pattern/Enable buttons- These buttons enable the arpeggiator *and* select the order in which the notes of chords are played.

- **Up**- Notes play in order from lowest to highest.

- **Down**- Notes play in order from highest to lower.

- ***U/D* (up and down)**- This is the up and down mode, but like the original, has some (slightly) hidden functionality. When the *U/D* button is clicked, its LED will glow solidly, and the *Up* button will flash, indicating that notes will play up and then down. If the U/D button is clicked a second time, the

LED still glows solidly, and the *Down* button will flash, indicating that notes will play down and then up.

- **Rnd (Random)**- Notes are played in a random order.

Assign Section
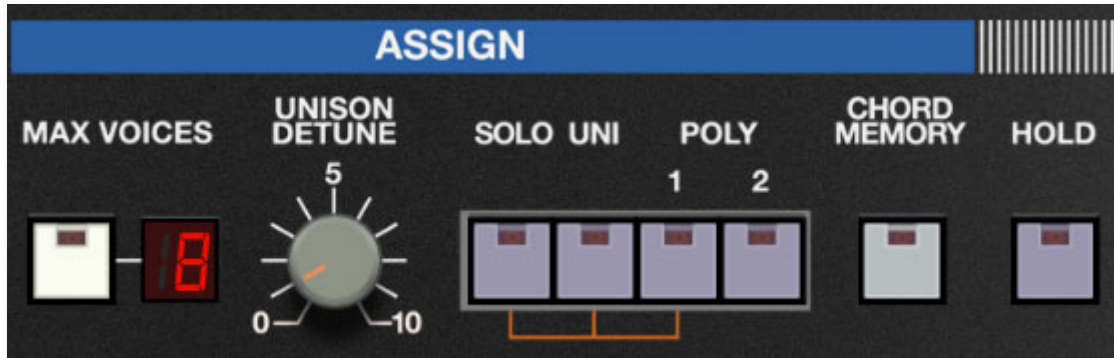
The Assign section determines how notes are assigned to the Mercury-6's on board voices.

Max Voices- Sets the maximum number of notes that can sound simultaneously, from 2 to 16. Remember that the *Max Voices* setting is independent for each layer.

Unison Detune- The *Unison Detune* knob is used in conjunction with the *Uni* assign button to "spread" the tuning of the oscillators for fat stacked mono sounds. It has no effect in *Solo*, *Poly 1*, or *Poly 2* modes. Note that by "mono," we mean only one note can be played at a time - turning up the *Unison Detune* knob indeed spreads Mercury 6's voices across the stereo field.

Voice Assign modes

- **Solo**- One note can be played a time with one voice sounding.

- **Uni (unison)**- Unison stacks multiple voices according to the current *Max Voices* setting. The *Uni* button is used in conjunction with the *Unison Detune* knob which spreads out the tuning of the oscillators for fat sounds. Like the original instrument, there are actually two "hidden" variations of Unison mode, indicated by the maroon connector lines beneath the buttons:

  - **Unison Share mode**- When the *Uni* button is initially pressed, its LED glows solid and the *Poly 1* button LED flashes, indicating Unison Share mode is engaged. Unison Share mode is a polyphonic mode that allocates available voices dependent upon the *Max Voices* setting and how many keys are currently being held. For example, if *Max Voices* is set to 6, and one note is played, all six stacked voices are heard. If two notes are played, three voices will sound for each key. If three or more notes are played, a single voice is allocated to each key. The math will of course vary dependent on the *Max Voices* setting.

The original idea behind Unison Share mode was to maximize fatness of sound vs. a limited number of voices. This isn't much of an issue given Mercury 6's 16-voices across two layers (for a maximum of 32), but Unison Share can have interesting results, particularly when *Max Voices* is set to lower values. For a nifty example of Unison Share mode, check out the main riff in The Human League track "Seconds," performed on a (four-voice) Roland Jupiter-4.

- **Unison Solo mode**- If the *Uni* button is pressed a second time, the *Uni* button remains illuminated and the *Solo* button LED flashes, indicating Unison Solo mode is engaged. In Unison Solo mode, only one note can be played at a time with the number of stacked oscillator voices set according to the *Max Voices* setting.

Poly 1- This is the standard polyphonic mode. If the number of notes played exceeds the current maximum setting, it uses a sophisticated allocation scheme to steal the most recently played notes. In use, this means if you're holding a bass note with your left hand, it won't disappear while playing chords and melodies with your right hand.

Poly 2- Poly 2's allocation is optimized for use with the glide functions. Generally speaking, implementing polyphonic glide can be a tricky proposition (because we don't know whatcher gonna play next), but *Poly 2* mode does a fine job of "knowing" which notes to glide from and to when holding notes while playing melodies (regardless of whether notes are played legato or separately). If possible, we recommend setting *Max Voices* to approximately the number of notes you'll by playing in a passage for optimal glide behavior.

Chord Memory- Allows chords to be memorized and played with a single key. To memorize a chord, click the *Chord Memory* button. The button flashes to indicate that it's in learn mode. Play a chord up to 16 notes (feel free to use your nose or any other appendages for *Chord Memory* setting, we won't tell); when the last note is released, the button illumination turns solid and the chord is memorized. To disable *Chord Memory* mode, click the button again.

Note that *Chord Memory* isn't just for "chords" per se; it can be used for octaves, fifths, or any desired combination of notes.

**Chord Memory only works in *Poly 1* and *Poly 2* modes**.

Hold- Notes play continuously. VCF and VCA envelopes operate as normal, with the caveat that their release phases are ignored. Held notes will stop

playing when keys are released and a new note (or notes) are played. *Hold* is especially useful in conjunction with the arpeggio section for those stoic 80's pose moments.

Effects

Mercury 6 includes five simultaneous effects: Distortion, Phaser, Flanger/Chorus, Delay, and Reverb. These can be used in any combination. When in *Layer* or *Split* mode, effects settings are independent for each layer, so it's like having... ten effects. There's also a Global tab for easy control over all effects.
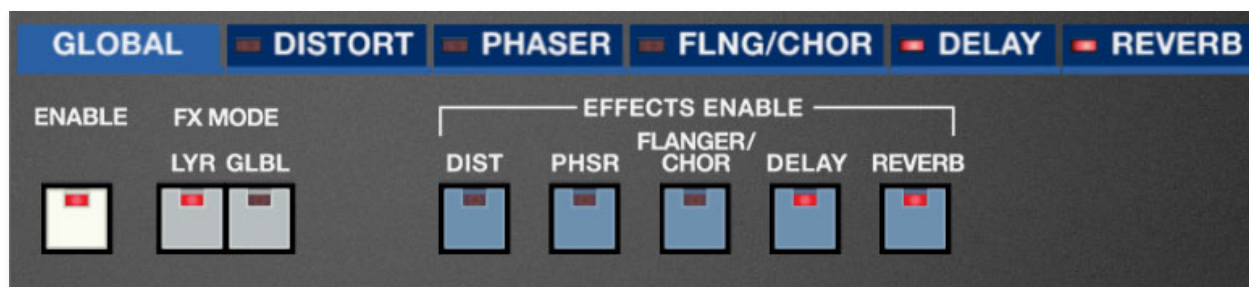
Tab Selection

Each of the four effects resides in its own tab. To select an effect for editing, click on the blue section with the effect name.

Global

Primarily, the Global tab allows all effects to be enabled or disabled at once, which is very useful when programming. It also contains a few other handy functions.

Enable- Enables or bypasses *all* effects for both layers.

Effects Mode- When set to the *Lyr (Layer)* position, an entirely independent effects section is available for the upper and lower layers. When set to the *Glbl (Global)* position, both layers run through a single set of effects. This is useful when creating patches that combine the upper and lower layers into one overall sound, or when creating a split sound and you'd like the same effects settings for both layers.

Distortion

Enable- Enables and disables distortion effect. The LED in the tab additionally indicates current enabled or disabled status.

Mode buttons-

- **Tube**- This is the mellowest distortion mode. Use it to add just little bit of vintage hair to sounds.

- **Fuzz**- Aggressive and raunchy vintage fuzz tone.

Drive- Amount of distortion.

Tone- Relative brightness of tone.

Level- Overall volume; this doesn't affect the amount of distortion. Increasing drive will cause an overall volume increase, *Level* can be used to balance things out.

Phaser

Enable- Enables and disables phaser effect. The LED in the tab additionally indicates current enabled or disabled status.

Stages- Mercury-6's phaser includes up to 12 all-pass filter stages. As a general rule, more stages = lusher phase, but there are plenty of interesting tones to be had using the 4- or 8-stage settings.

If all stages are disabled, the unaffected dry signal is fed through - the equivalent of a bypass button.

Rate- Sets the phaser's internal LFO speed. The LED will flash to indicate the current rate. The phaser LFO is independent of LFO-1 and LFO-2.

Mod Source- The phaser's sweep can be modulated from a few sources:

- **Int (Internal)**- The phaser includes its own independent mod source, with its speed set using the *Rate* knob.

- **LFO-1**- Uses Mercury-6's LFO-1. Some really unique effects can be achieved when the different mod waveforms are combined with the LFO *Sync* button.

- **LFO-2**- Just like above, but uses Mercury-6's LFO-2 instead of LFO-1.

Depth- Sets the effect depth - essentially an amount control.

Feedback- Increasing the amount of feedback intensifies the phasing effect.

Flanger/Chorus

We've included a thick and warm flanger/chorus effect. Flanging and Chorus are closely related - the general difference being that flangers use a shorter time range and some amount of feedback (this intensifies the "jet-flyby" whoosh), whereas choruses utilize a slightly longer delay time, and no feedback.

Enable- Enables and disables flanger/chorus effect. The LED in the tab additionally indicates current enabled or disabled status.

Flanger/Chorus buttons- Chooses between flanging and chorusing.

Rate- Sets the modulation from 0.01-8 Hz speed. The adjacent LED flashes at the current mod rate.

Depth- Sets effect depth, i.e. the amount of modulation.

Delay Time- Sets the amount of delay time when in Flanger mode, from 1-13ms.

Feedback- Sets the amount of internal feedback when in Flange mode.

The Delay Time and Feedback controls are disabled when in Chorus mode.

Mix- Sets the ratio of clean to effected sound. Flanging and chorusing is usually optimal at a 50/50 setting, but we've added the *Mix* control by popular demand to allow more subtle (or modulated) tones.

Delay

Enable- Enables and disables delay effect. The LED in the tab additionally indicates current enabled or disabled status.

Digital (Digi) / Tape / Ping-Pong mode buttons- Selects effect mode.

- **Digital**- A pristine sounding digital delay.
- **Tape**- Reproduces the effect of a vintage "space echo" tape delay.
- **Ping-Pong**- Echoes alternate between audio channels.

Sync- Engaging the *Sync* button locks the delay time to master tempo. When engaged, the *Time* 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 Mercury-6 standalone version or the current project tempo when the plug-in version is used in a DAW.

Time- Sets delay time, from 1 to 2000 ms. If the *Sync* button is enabled, time settings snap to synchronized note values.

Feedback- Routes the output to the input for additional repeats. Be careful at high settings as this can result in runaway feedback madness.

Damping- Attenuates high-frequencies as the knob amount is increased. Not only does this create more natural sounding decays, it also reduces the "stacking" effect that occurs with high feedback levels.

Spread- Alters the left and right channel delay times creating a stereoizing effect. Greater amounts of spread increase the delay time differential and thus the stereo separation.

Mix- Sets the ratio of clean to effected sound.

Reverb

Enable- Enables and disables reverb effect. The LED in the tab additionally indicates current enabled or disabled status.

Room / Plate (Plt) / Hall / Galactic (Glct) mode buttons- Selects the reverb type.

- **Room**- Recreates a vintage algorithmic-style medium room verb.
- **Plate**- A medium-to-large studio plate-style algorithm.
- **Hall**- A large, hall-style reverb.
- **Galactic (Glct)**- Cherry Audio's exclusive, giant, spacey reverb.

Decay- Sets the length of reverb release time/size of room.
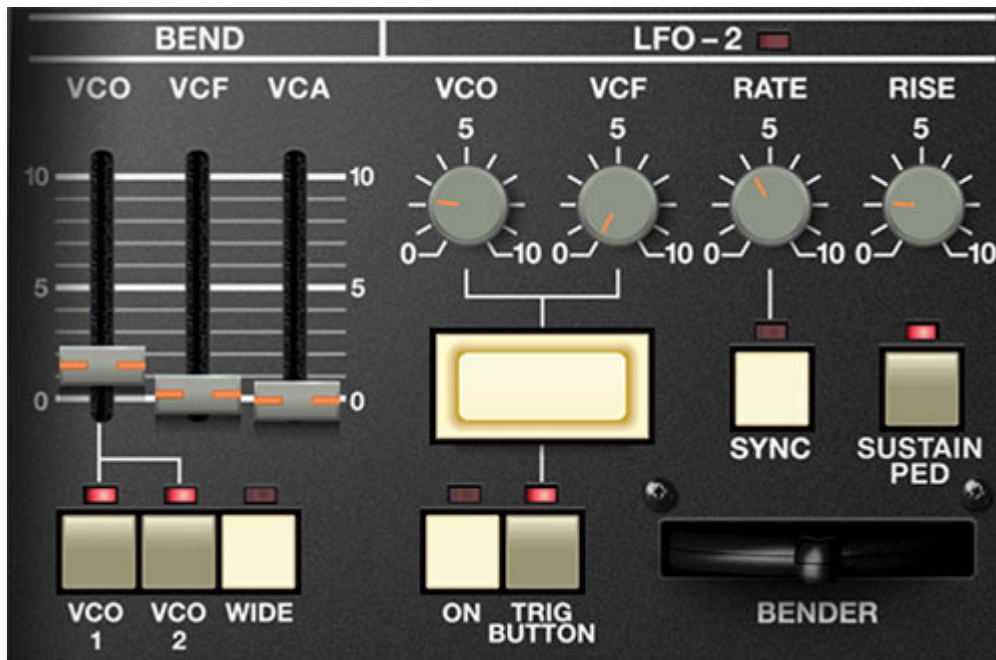
EQ- These allow tailoring of the wet reverb signal tone. They have no effect on dry signal.

- **HP**- A highpass filter. Low frequencies are increasingly attenuated as the knob setting is increased.
- **LP**- A lowpass filter. High frequencies are increasingly attenuated as the knob setting is decreased.

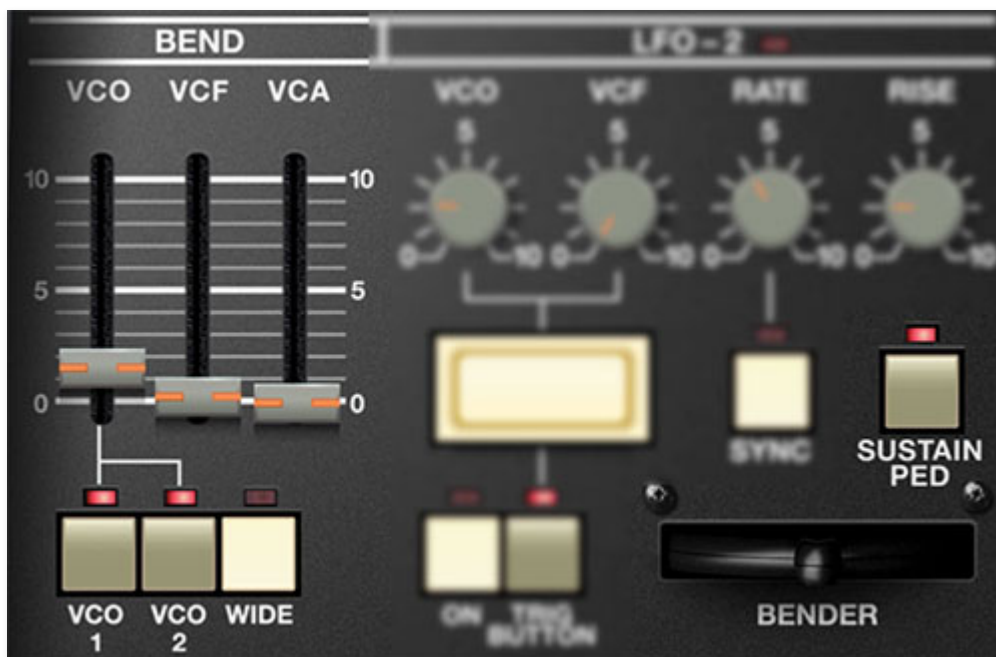**Mix**- Sets the ratio of clean to effected sound.

Left-Hand Controls

These are the controls to the left of the virtual keyboard. These affect how Mercury-6 responds to incoming pitch bend (the Jupiter-6's pitch bend joystick could affect more than just pitch) and sustain pedal control messages; it's also where LFO-2 lives.

Bend

The original instrument had a joystick bender control that moved on a horizontal axis, plus large on/off button for initiating modulation. Roland made up for the lack of a variable mod control with a clever joystick implementation that allowed the joystick to control VCO pitch, VCF cutoff, and VCA volume.

VCO- Sets maximum bend pitch bend depth for both oscillators.

VCO 1/VCO 2- Selects which oscillator receives pitch bend. This is nice if you'd like the bender to affect only one of the oscillators.

Wide- This overrides the VCO range slider setting and sets the bend range to 40 semitones (yes, I had to play the keyboard chromatically and count). We're not sure what the original designers had in mind with this feature, but you can make some serious bender racket by enabling the *VCO 1* destination button (but not *VCO 2*) and turning up the Cross Mod section *Manual* slider.

VCF- Sets maximum filter cutoff mod depth. Moving the pitch bender down reduces the cutoff frequency; moving it up increases cutoff frequency.

VCA- Sets maximum VCA mod depth. Moving the pitch bender down reduces VCA amplitude; moving it up increases VCA amplitude. In other words, it's like having volume control via the pitch bender.

(We're gonna scoot around a little here in order to keep all LFO-2-related controls together)

Bender- The onscreen pitch bender can be moved with a mouse and follows the movement of incoming pitch bend data. Mainly, it just looks cool.

Sustain Pedal- This toggles incoming sustain pedal control data. It's mainly useful for split or layered patches where you'd like one layer to respond to the sustain pedal and one layer to ignore it. Handy for sustained spooky low drone notes.

LFO-2

On the original instrument, LFO-2 was "performance only," that is, the only way to activate it was to press (and hold) the big button. We've increased LFO-2's usefulness by allowing user selection of standard trigger button activation or always-on mode.

On/Trigger Button-

- **On**- LFO-2 constantly runs, with its amount set by the *VCO* and VCF knobs.

- **Trig Button**- LFO-2 only runs when the rectangular momentary LFO-2 Mod Trigger button is pressed.

  If you're using *Trig Button* mode, remember that it's super easy to assign a hardware button controller by right-clicking and choosing *MIDI Learn* (more about this in the **MIDI Controllers Setup and The MIDI Tab** section).

LFO-2 Mod Trigger Button- This guy isn't labeled, but pressing it momentarily enables LFO-2 when *Trig Butto*n mode is enabled.

VCO- Sets LFO-2 mod depth for both oscillators.

VCF- Sets LFO-2 mod depth for filter cutoff.

Rate- The *Rate* knob sets the speed of the LFO, from 0.04 to 11.5 Hz (with *Sync* button off) or from 8 beats up to 1/64th note triplets (*Sync* button on). The LED above the *Rate* slider flashes at the current modulation rate.

Sync- When the *Sync* button is enabled, LFO-2 speed will lock to host tempo when using Mercury-6 within DAW software, or to the current tempo in the top menu bar when using the standalone version.

Rise- Turning the *Rise* knob up gradually delays the onset of LFO-2 depth. The delay time can be set from 50 to 1000 milliseconds - note that there's always a little bit of delay. Keep in mind that like the original, there's only one LFO-2 per layer, so LFO-2 always affects all voices equally.

MIDI Controllers Setup and The MIDI Tab

Assigning internal and external hardware controls adds a whole new dimension of control and musicality to patches, and it's really easy to do. The MIDI Tab is where all controller assignments can be viewed and tweaked. First we'll show how to assign an external hardware controller to a Mercury-6 control, then we'll go over all parameters in the MIDI Tab.

Basic External Hardware Control Assignment

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 Mercury-6's cool MIDI control assignments.

In this example, we'll assign a hardware slider control to the VCF section *Freq* slider.
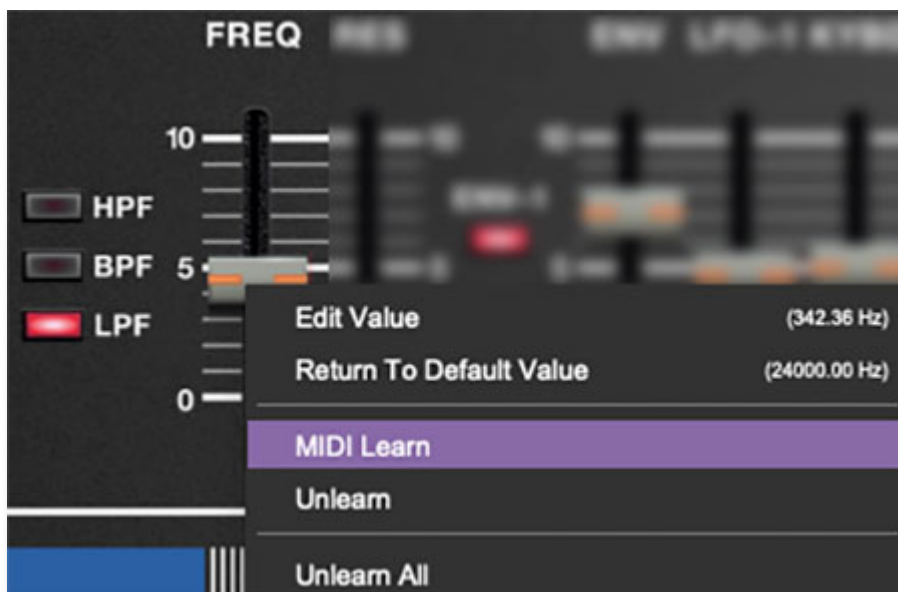
Begin by right-clicking on the *Freq* slider in the VCF section and selecting *MIDI Learn.* A transparent purple overlay appears over the entire slider indicating that it's in learn mode. Now move the desired hardware control device. The purple overlay disappears and the hardware control will move the onscreen knob. 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 Mercury-6 control.

Once a MIDI controller has been assigned, in addition to real-time control of a Mercury-6 parameter, you'll also be able to record and play back controller data from a DAW.
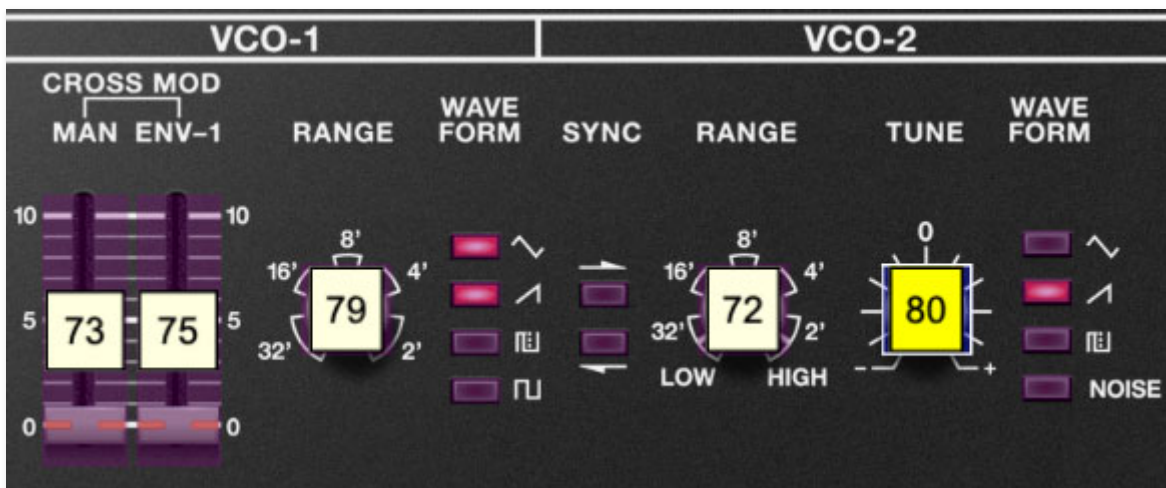
The MIDI Tab

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 Mercury-6 automatically exits controller assignment mode, clicking the *MIDI Learn* knob "stays on" to enable assignment of multiple hardware controls. This is handy for quickly assigning a bunch of continuous controls or the buttons of a grid-style controller.

When in MIDI Tab learn mode, any previously assigned controller numbers will show in squares. These indicate the MIDI continuous controller number of

the assigned hardware control (these are also displayed in the *MIDI* library tab at left).

To assign multiple controls, click *MIDI Learn*, click an on-screen 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.

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. (Feel free to impress friends by referring to this as "multiplexing," or if you REALLY want to lay it on thick, call it "mux'ing.")

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 Mercury-6:

- **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**- Some keyboard controllers transmit controller data when keys are pressed and released as they're held down; this is known as a "pressure" or "aftertouch." 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.

- **Key**- This allows keys of the computer QWERTY keyboard to act as button controls for Mercury-6'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* menu. 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 MIDI mappings can easily be changed to global or per-preset status at any time. (A lot of folks 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 *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).

  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 Mercury-6's onscreen controls, ranging from exponential to linear to logarithmic curves.

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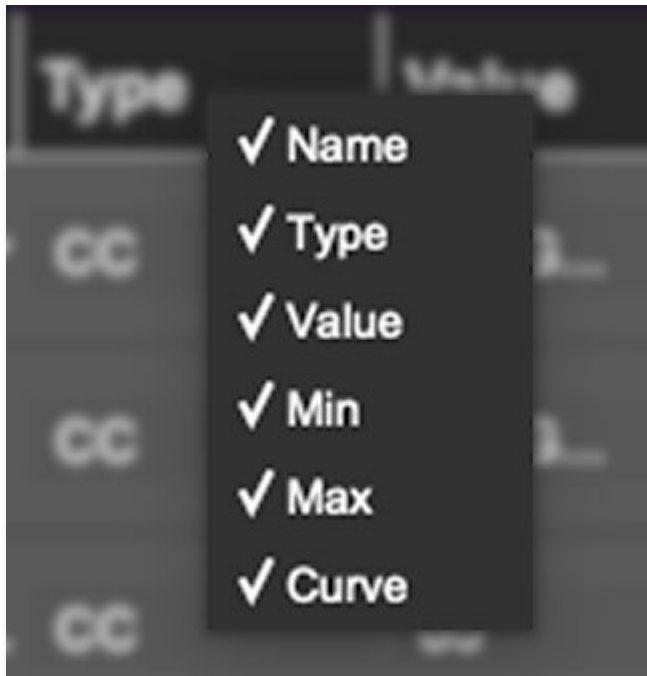
Right-clicking anywhere in the top row (*Name*, *Type*, *Value*, etc.) displays the column configuration menu. Checking/unchecking these allows hiding and display of each column. This has no effect on assignments.

MIDI Tab Parameters Right-Click
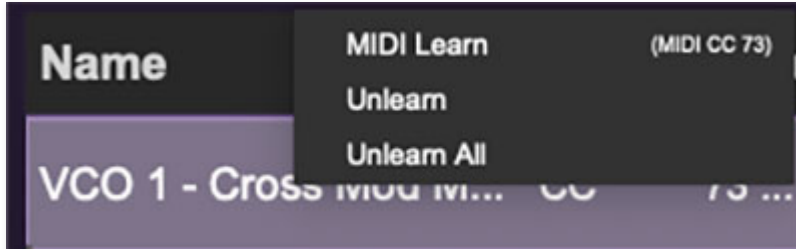
Right-clicking on an assigned parameter opens the menu above.

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. Mercury-6 will display a warning dialog prior to deletion in order to thwart potential unlearn-related disasters.

QWERTY Musical Typing Keyboard (MTK)
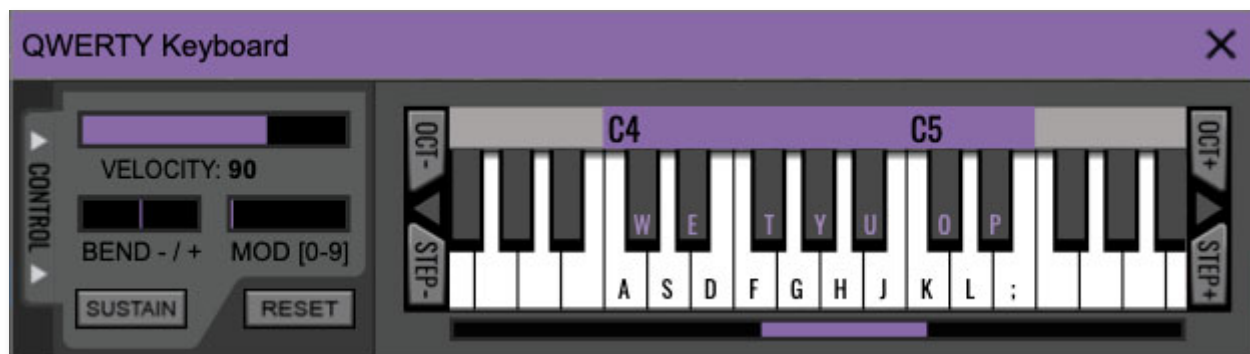
If you don't have a MIDI keyboard attached to your computer, the standard QWERTY computer keyboard can be used to play notes - we're pretty sure you've got one of those!We'll refer to this as the "MTK." Following is a list of MTK keyboard modifiers and functions:
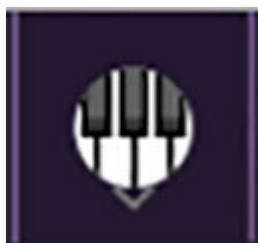
Opening and Closing the MTK - click the the circular keyboard icon in the top toolbar. To close the MTK, click the keyboard icon in the top toolbar, or click the *X* in the top right corner.

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 MTL 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 Mercury-4 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- Move the purple *Velocity* bar to adjust the output velocity of notes.

Pitch Bend- To pitch a note or notes, press the + or - computer keyboard keys while playing a note. Notes will bend up to an octave. Notes can also be pitchbent by clicking the mouse in the *Bend* area.

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.

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.

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

Settings

Clicking the settings gear icon in the top purple menu strip opens a window with multiple tabs for configuring various "under-the-hood" settings. These are mostly set-and-forget kind of parameters - all the stuff you'll want to tweak is on the front panel, as the heavens intended!

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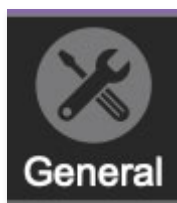
- **Add Undo For Control Changes With The Mouse**- Enabling this allows undo of knob/slider/button adjustments. You'll want this on if you want the ability to undo all aspects of patch editing and programming.

- **Load Last Preset On Startup (Standalone Only)**- Automatically loads the last preset used when Mercury-6 standalone version is started.

- **Create A Log File For Usage-** This creates a text doc of all of Mercury-6'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 Mercury-6 log file docs.

- **Preset Folder-** Displays the current location of Mercury-6'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 Mercury-6's user interface settings.

- **Reset To Default Window Size-** Resets the Mercury-6 workspace to 100%. Use this to reset the window size if Mercury-6's workspace 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 which how mouse movements related 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 button down.

- **Show Tooltips When Automating Controls-** Displays parameter tooltips/values next to controls a if a control is moved via an assigned MIDI controller or automation.

- **MIDI Program Changes Should Change Current Preset-** Allows MIDI program change messages to change Mercury-6 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, Mercury-6 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 Mercury-6. Click **here** for updates about yacht rock superstar, Kenny Loggins.

- **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 Mercury-6 handles updates.

- **Check For Update-** Click this to see if an updated version of Mercury-6 available.

Status-

- **Automatically Install Updates**- Updates are automatically downloaded and installed.

- **Ask Before Installing Updates**- By default, Mercury-6 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 Mercury-6 for live performances or other "mission critical" situations.

- **Never Install Updates**- Mercury-6 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, so we won't use this feature too often. When we do, it'll be for something super cool (like a killer sale), so we recommend leaving it on.

Audio/MIDI

Settings for audio and MIDI hardware input and output.

This tab is only visible in the standalone version of Mercury-6.

- **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, but external audio hardware also offers greater flexibility in terms of number of inputs and outputs and built-in mic or low-level instruments pres (i.e. electric guitars). These are especially useful if you're using Mercury-6's external inputs to process sound. The *Test* button will produce a sine wave when clicked; this will help with troubleshooting, aka, "WHY THE HECK ISN'T THIS MAKING ANY NOISE?!?"

- **Sample Rate-** This sets Mercury-6'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.

- **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**- Displays all available MIDI input sources, i.e. keyboards, pad controls, MIDI knob/fader control surfaces, etc. Check boxes to enable one or more devices. **If notes aren't playing when using Mercury-6 in standalone mode check to make sure your USB/MIDI controller is checked in this area.**