

Surreal MG-1 Plus



1 Getting Started

The Surrealistic MG-1 Plus is a loving recreation of an oddball collaboration between Moog Music and '70s/'80s consumer electronics giant, Radio Shack. The story goes that Radio Shack's marketing believed they could sell a synthesizer to budding musicians and hifi enthusiasts, leading to an OEM deal with Moog and resulting in the Realistic Concertmate MG-1. These sold for \$500, and depending on your perspective, this was either crazy cheap for a genuine Moog synth with a real ladder filter, or really expensive for a Radio Shack item.

Radio Shack association notwithstanding, the MG-1 was a great sounding little synth with a few dumb limitations, all of which have been addressed with Cherry Audio's Surrealistic MG-1 Plus. These limitations included a limited range two-and-a-half octave keyboard (MG-1 Plus responds to any keyboard range), limited octave switching (MG-1 Plus adds a three-position transpose switch), and very limited square-wave only polyphony section (MG-1 Plus adds a sawtooth, mod abilities, and a range switch). We'll get into the specifics in each section of this manual, but suffice to say, MG-1 Plus builds upon the original easy-to-use, great sounding MG-1, and adds to the fun with convenient, modern features.

1.1.1 Manual Layout

This manual will detail each section of MG-1; the order of the chapters follows the signal flow (as opposed to the physical layout of the front panel sections).

1.1.2 Technical Assistance

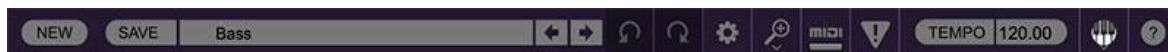
Cherry Audio's unique online store and automatic updating should make operation a smooth experience, but if you run into any issues or have questions, you can discuss issues online at the Cherry Audio forums at:

<https://forums.cherryaudio.com/>

... or you can communicate directly with one of our surly and grumpy, scratch that... outgoing and friendly tech support staff at:

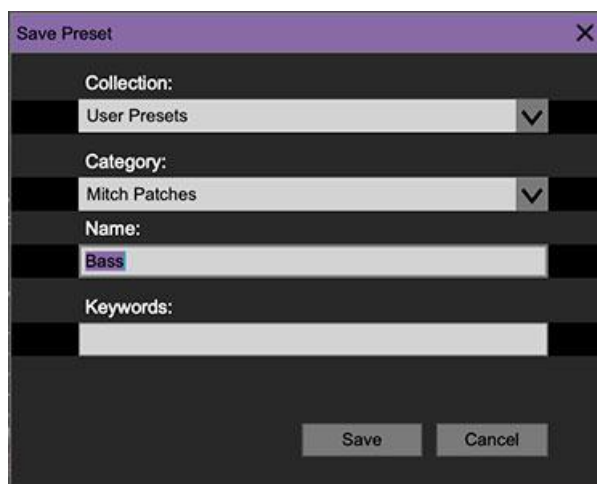
<https://cherryaudio.kayako.com/>

2 Top Toolbar and Preset Browser



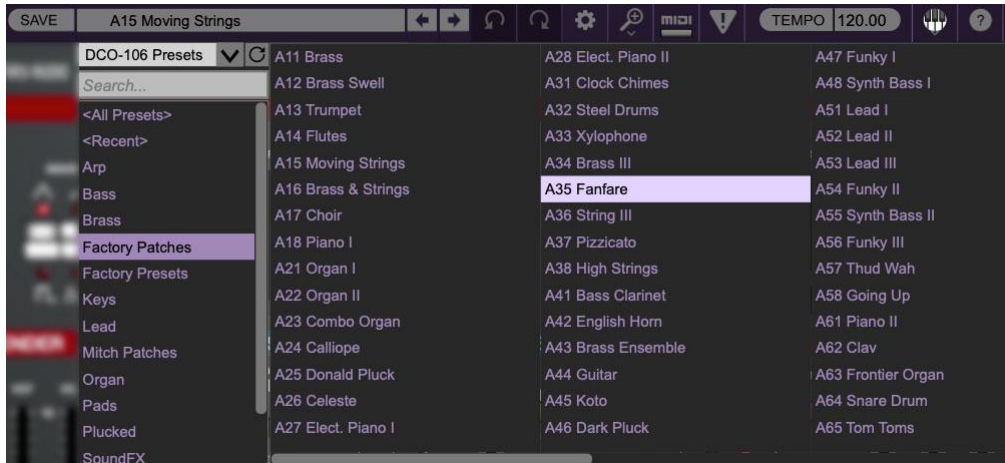
The purple strip at the top of the MG-1 Plus interface is where you'll load, save, and create sound presets. It contains utility functions such as undo/redo, UI zoom and *Focus* controls, under-the-hood settings, and more. Let's go over them:

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 *MG-1 Plus 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.

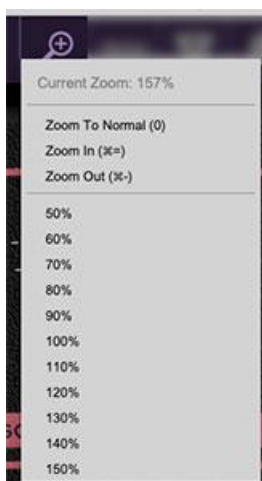
- **<All Presets>** will show presets from all collections and categories.
- **<Recent>** displays recently used presets.
- **Refresh-** This is the circular arrow button to the right of the downward arrow; clicking this checks the Cherry Audio server for new or updated presets.

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.

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.



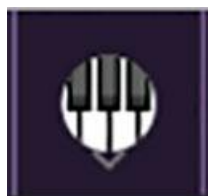
Zoom Magnifying Glass- Click to resize the MG-1 Plus interface. Selecting *100%* returns the user interface to native size.

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.

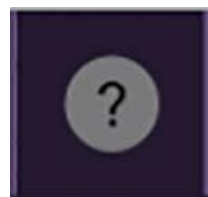
! (MIDI Panic) - Click to send an all-notes-off message in case of, "why won't this thing stop making noise?!?" stuck-note incidents.

Tempo (Standalone Version Only)- Displays MG-1 Plus's current internal tempo setting. MG-1 Plus's internal tempo affects the *LFO*, *Arpeggio*, and *Delay* sections when their corresponding *Sync* buttons 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 MG-1 Plus. VST, AU, and AAX plug-in versions receive tempo data from their host DAW app.



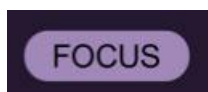
QWERTY Musical Typing Keyboard- Opens an onscreen keyboard allowing a standard QWERTY computer keyboard to be used for playing music notes. For more information, see [QWERTY Musical Typing Keyboard \(MTK\)](#) section.



Help - Clicking this launches your web browser and opens the help document you're currently reading. Which means you're already here...

Surrealistic MG-1 Plus (left side) and Synthesizer by Cherry Audio (right side) logos- Clicking either of these displays "about" information, and shows the version number and current registered user ID.

2.1 Focus Button



If you're using a wee laptop, the user interface can potentially be hard to see. With this in mind, the *Focus* button conveniently blows up MG-1'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.

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.

2.2 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 'MG-1 Plus Presets'- If any patches from the "factory" MG-1 Plus 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 MG-1 Plus bank mentioned above is the only factory bank, so this function and the *Restore All Factory Presets From 'MG-1 Plus Presets'* above have the same effect.

3 Tone Sources Section



As monophonic analog synths go, MG-1 Plus is unique in that it features two standard mono analog oscillators (i.e., capable of sounding one note at a time), as well as a poly section that can sound up to 32 notes simultaneously. In this section, we'll discuss the mono oscillators. Note that the MG-1 front panel refers to oscillators as "tone sources;" perhaps Radio Shack felt this would be less intimidating for consumers than, "oscillator."

Sync 2>1- This causes Tone Source One to force reset the start of Tone Source Two's waveform to the beginning of its cycle, resulting in a wide range of harmonic tones from Tone Source Two. The range of tones can be varied by adjusting Tone Source Two's *Detune* and *Octave* controls.

Octave- Sets the pitch range for each oscillator in octaves.

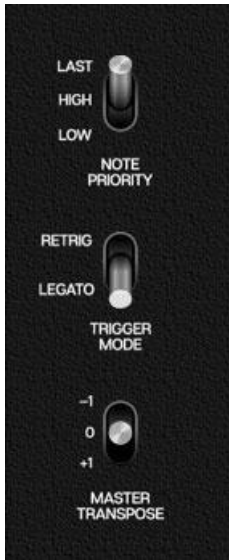
Fine Tune (Tone Source Two only)- This can be used to fatten up two oscillator patches by detuning a small amount, or for "building-in" a set interval. Its range is a smidge over a fifth, up or down (unless the *Sync 2>1* switch is on).

Wave Shape- These allow selection of sawtooth, square (*Tone Source One*), or pulse (*Tone Source Two*) waves.

3.1 Master Tuning and Note Priority/Trigger Controls



Tone Sources- The knob at the top left of the panel acts as a master tuning control for both Tone Sources, with a range of just over +/- 300 cents.



Note Priority- Since the Tone Generators are monophonic (i.e. they can only play one note at a time), this control determines which note will sound if more than one key is played simultaneously.

- **Last-** This is the default voice mode. If more than one key is pressed, the most recently struck note will always take priority.
- **High-** If more than key is pressed, the highest note will always sound. This how the original Realistic MG-1. Interestingly, this the opposite of how most vintage monophonic synths work - most are low-note priority.
- **Low-** If more than key is pressed, the lowest note will always sound.

Trigger Mode- Determines Contour Generator triggering behavior. In *Retrig* position, the Contour Generator will retrigger any time a new note is played; in *Legato* position, retriggering *only occurs if no other keys are currently held down* - this is how most vintage monophonic analog synthesizers operate. Generally speaking *Retrig* mode will have a more modern and responsive feel, and is good for insistent bass lines or percussive sounds. Conversely, legato is useful for singing leads where you'd only want to hear the attack portion of a sound when the first note is played - a good analogy would be plucking a guitar string a single time, then sliding the fretting finger around to change pitches.

Master Transpose- Due to the limited range of the original instrument, we've added a three-position transpose switch at the left of the keyboard. This affects both Tone Sources, as well as the Poly section.

4 Poly Section



The original MG-1 included a rudimentary poly section that operated independently of the Tone Sources. The good news is that it allowed chords to be played on an otherwise mono (one-note-at-a-time) synth. The bad news is that it was extremely limited - its only control was a single level slider in the mixer section. It could only produce a square wave, its octave range was fixed, and its pitch could not be modulated. As you might guess, this made for a pretty blah poly synth experience.

With that in mind, we expanded the Poly section's capabilities considerably with a few additions. We added a saw wave, a three-position range selector, and a modulation amount slider in the Modulation section. This may not seem like a much, but trust us, these simple additions make a huge difference in the Poly section's usability.

Note that the Poly section can sound a maximum of 32 simultaneous notes.

Octave- Sets the basic pitch range of the Poly section. Note that the *Master Transpose* switch at the left of the keyboard also affects the Poly section range.

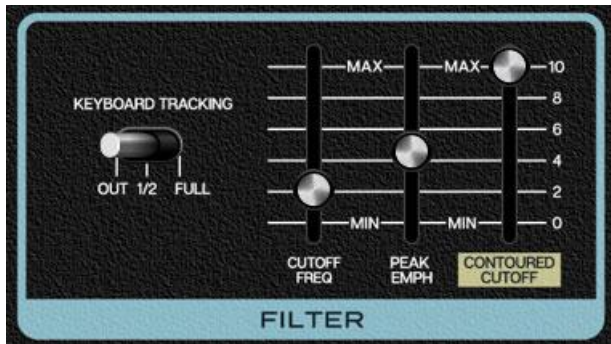
Wave Shape- Allows selection of sawtooth or square wave.

4.1 Master Tuning Control



Polyphony- The second knob over at the top left of the panel acts as a master tuning control for the Poly section with a range of just over +/- 300 cents. This is also useful for subtle chorusing/detuning of the Poly section against the Tone Sources.

5 Filter Section



The Filter section is a 24 db/oct lowpass filter that removes high frequencies as its cutoff frequency setting is decreased from max, resulting in a dulling of sound. This is a version of the classic transistor "ladder" filter, famously heard in the Moog Minimoog synthesizer, and renowned for its meaty, fat sound.

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 rising CV to the cutoff frequency in order to maintain the brightness of notes as higher pitches are played.

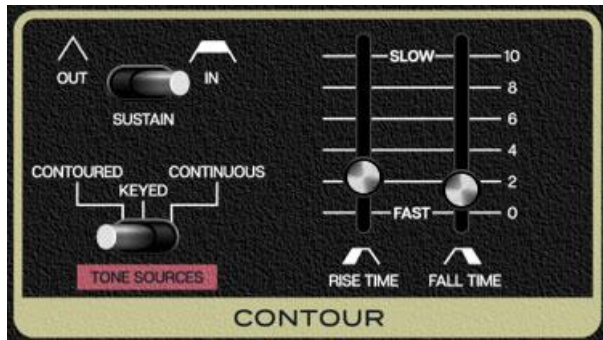
- **Out-** Cutoff frequency stays constant across the keyboard - i.e. no tracking.
- **1/2-** Cutoff frequency tracks at half the keyboard CV voltage - i.e. the cutoff frequency rises one octave for each two octaves played on the keyboard.
- **Full-** Cutoff frequency tracks the same as the keyboard CV voltage - i.e. the cutoff frequency rises one octave for each octave played on the keyboard.

Cutoff Freq- Sets the frequency where high-frequency attenuation begins, from 20 Hz up to 24,000 Hz. Though it seems odd to have a cutoff control that goes 4000 Hz above human hearing threshold, remember that all filters have a "slope" to their response, so that extra range guarantees you won't hear any filtering at maximum setting.

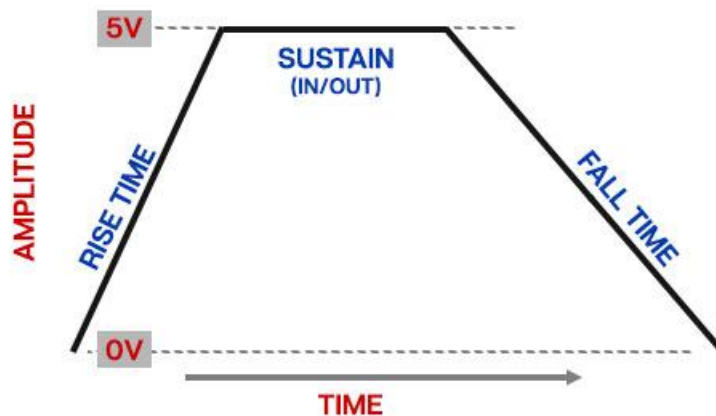
Peak Emph- The "emph" is short of for emphasis, commonly referred to as resonance. This emphasizes sound energy at and around the current cutoff frequency by adding feedback from the filter's output back to its input. At lower settings, this can be used to create mild resonances such as those heard in acoustic instruments. MG-1 Plus' implementation is fully self-oscillating - at extreme settings, it can be used as a sine wave generator, but be careful because high resonance settings can result in loud, screaming, dog-terrifying (and speaker blowing) occurrences.

Contoured Cutoff- The *Contoured Cutoff* slider applies *Contour* envelope (i.e. envelope generator) modulation to the cutoff frequency. This allows familiar auto filter sweeps. When raising the *Contoured Cutoff* control, you'll generally want to lower the *Cutoff Freq* control, as these work in conjunction with one another.

6 Contour Section



The envelope generator section is an envelope generator used to dynamically shape volume and and/or cutoff frequency. If you're not familiar with the operation of envelope generators, here's an overview:



When MG-1 Plus sees a gate voltage from a note, the contour generator outputs a dynamically changing voltage, according to the settings of its stages. The *Rise Time* (i.e. attack) stage defines how long it takes for the output voltage to rise from 0 to 5 volts. Once the *Rise Time* reaches 5V, it moves to the *Sustain* phase if the *Sustain* switch is set to the *In* position and the holds at 5V until the key is released. If the *Sustain* switch is set to *Out*, it immediately moves to the *Fall Time* stage. The *Fall Time* (i.e. decay and release) slider defines the the length of time it takes for the voltage to fall back to 0V when the gate input voltage is removed, i.e. when the key is released.

Rise Time slider- Defines the length of time for voltage to rise from 0V to 5V when a key is played.

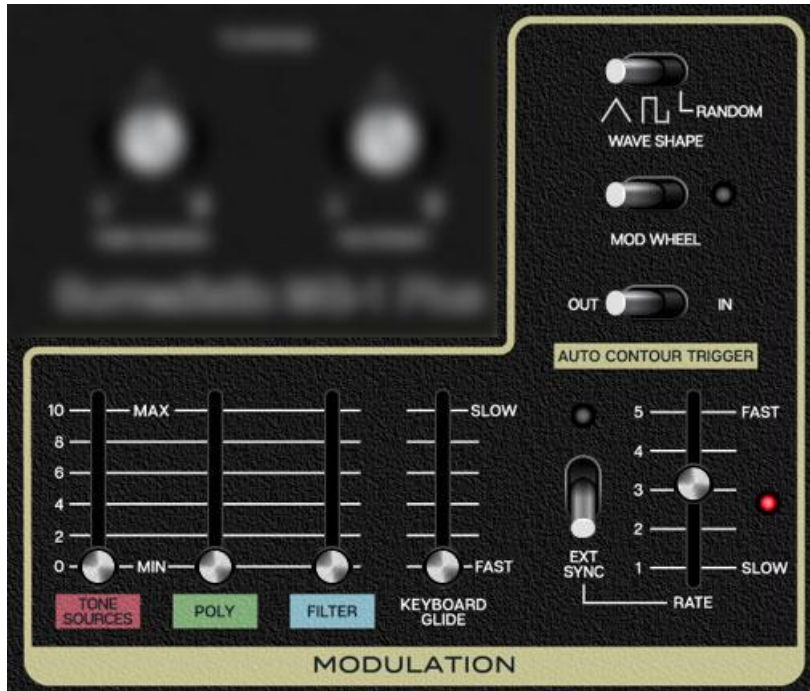
Sustain- When set to the *Out* position, following the *Rise* stage, the contour generator immediately moves to the *Fall* stage. When set to the *In* position, the envelope holds at 5V until as long as a key is held. When the key is released, it moves to the *Fall* stage.

Fall Time slider- Defines the length of time for voltage to fall from full sustain level to 0V when a key is released.

Tone Sources mode- This defines the behavior of the internal voltage-controlled amplifier, which acts as something of an automatic volume control and on/off switch for the final sound.

- **Contoured-** *Rise Time, Sustain, and Fall Time* parameters are applied to amplitude.
- **Keyed-** *Rise Time, Sustain, and Fall Time* parameters have no effect on amplitude - notes play in simple on/off fashion. This is useful when using using the Contour section for controlling filter envelope sweeps via the Filter *Contoured Cutoff* slider.
- **Continuous-** Notes sound continuously. This is useful for drones and exceptionally lazy keyboardists.

7 Modulation Section



The MG-1 Plus includes a low-frequency oscillator (LFO) that generates sub-audio range signals intended for modulation purposes.

Wave Shape- Selects the repeating pattern of the LFO. Available waveforms are triangle, square, and random. Only one waveform is available at any time.

Mod Wheel switch and LED- This is a really handy, but potentially confusing feature, so don't skim this section. If the switch is in the off position (left), the LFO is always "on." Its effects will be immediately audible by moving the *Tone Sources*, *Poly*, and *Filter* modulation amount sliders. Clicking to the on position (right, LED lit) enables control of modulation depth with an external keyboard controller mod wheel. If the mod wheel is all the way down, modulation depth is zero. This makes setting up a mod wheel to add vibrato or wah effects very easy. If it seems like the LFO isn't working, check if the *Mod Wheel* switch is engaged.

Auto Contour Trigger- When set to the *In* position, the Counter Generator repeatedly triggers at the current Modulation rate. This is particularly useful when used in a DAW and combined with the *Ext Sync* switch (more on this below).

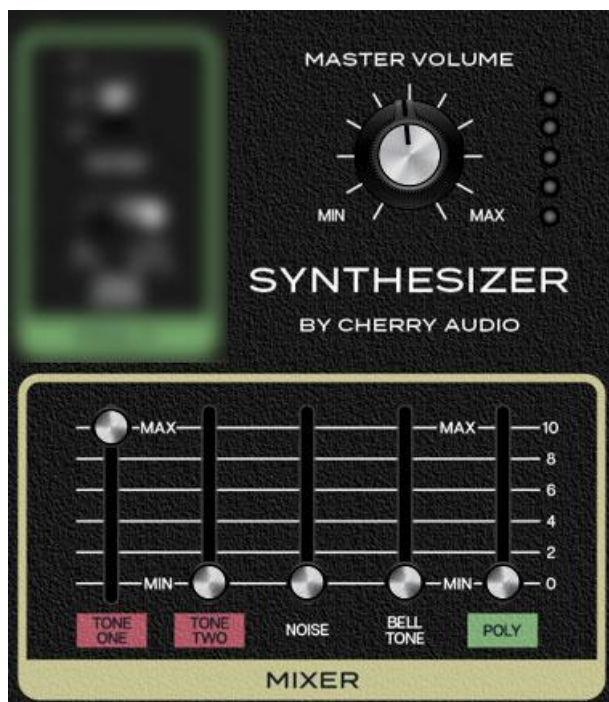
Rate and Ext Sync- When the *Ext Sync* switch is off, the *Rate* slider sets the modulation rate from 0.3 to 31 Hz.

Engaging the *Ext Sync* switch locks the modulation master tempo. When engaged, the *Rate* slider snaps to note values ranging from 8 beats up to 1/64th note triplets. *Ext Sync* mode locks to the tempo in the top toolbar when using the DCO-106 standalone version, or to the current project tempo when the plug-in version is used in a DAW.

Tone Sources, Poly, and Filter modulation amount sliders- These independently set the amount of modulation routed to the Tone Sources, Poly, and Filter sections respectively. Setting moderate but different amounts of modulation to the Tone Sources and Poly sections is particularly useful for creating naturally chorused sounds using both sections.

Keyboard Glide- Also known as "portamento," glide delays the voltage change between pitches for a sliding effect. Keyboard *Glide* only affects the Tone Sources - it does not affect pitches in the Poly section.

8 Mixer Section



The Mixer section is where all MG-1 Plus signals are mixed together before going to the *Master Volume* control and onto the output.

Tone One- Sets the level of Tone Source One.

Tone Two- Sets the level of Tone Source Two.

Noise- Sets the level of the Noise generator. We haven't mentioned the Noise generator up to this point, because it has no other controls, but it creates random noise containing all frequencies at relatively equal amplitude. Like the Tone Sources, the Noise generator is routed through the filter and amplifier.

Bell Tone- Sets the level of MG-1 Plus' pseudo ring mod section*. This multiplies the signals of Source One and Tone Source Two together, typically resulting in a metallic tone with inharmonic overtones often used to recreate pitched percussion instruments such as bells and chimes. Manipulate the Tone Source *Octave* controls and Tone Source Two's *Detune* knob to best hear its effects.

Poly- Sets the level of the Poly section. It does not want a cracker.

Master Volume and meter- This isn't in the Mixer section, but it sets MG-1 Plus's final volume. The meter is a five-LED affair and should be set like any other meter; it should nominally sit around the third and fourth LED from the bottom.

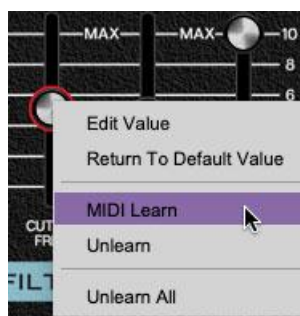
9 MIDI Controllers Setup and The MIDI Tab

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 an MG-1 Plus control, then we'll go over all parameters in the MIDI Tab.

9.1 Basic External Hardware Control Assignment

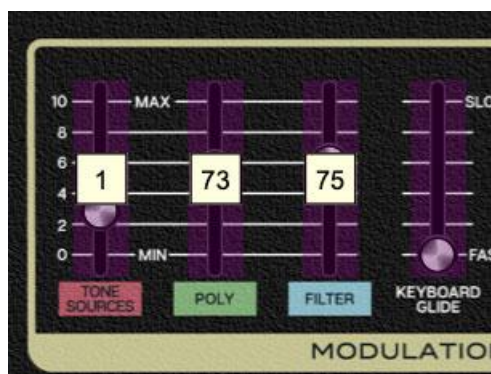
This is the quick, "I just want to assign a hardware control right now!," section. We recommend reading this whole section to best take advantage of MG-1 Plus' swift MIDI control assignments. We also recommend reading *"On A Clear Day You Can See General Motors"* by Patrick J. Wright, but that's not important right now.

In this example, we'll assign a hardware slider control to the filter cutoff frequency.



Begin by right-clicking on the *Freq* slider in the *VCF* section and selecting *MIDI Learn*. A transparent purple overlay appears over the 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 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 MG-1 Plus control.



When in MIDI 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).

Once a MIDI controller has been assigned, in addition to real-time control of a MG-1 Plus parameter, you'll also be able to record and play back controller data from a DAW.

9.2 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					
Name	Type	Value	Min	Max	Curve
Mod - Tone Sources A...	CC	1 (Mo...			
Mod - Poly Amount	CC	73 (S...			
Mod - Filter Amount	CC	75 (S...			

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 MG-1 Plus 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 sliders or the buttons of a grid-style controller.

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.

9.3 MIDI Tab Columns

Name- Displays the name of the parameter being controlled.

Type- There are five possible types of controller automation in MG-1 Plus:

- **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 MG-1 Plus only responds to mono aftertouch.
- **Key**- This allows keys of the computer QWERTY keyboard to act as button controls for MG-1 Plus' 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.

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.

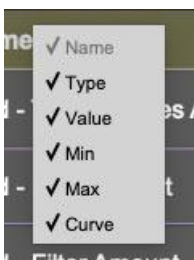
Max- Sets a limit on the highest value any automation control can set a mapped controller to. This actually recalibrates the range of the automation controller to the remaining parameter range.

- **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).

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 MG-1 Plus' onscreen controls, ranging from exponential to linear to logarithmic curves.

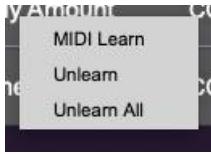
9.4 MIDI Tab Column Configuration Right-Click Menu



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.

9.5 MIDI Tab Parameters Right-Click

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

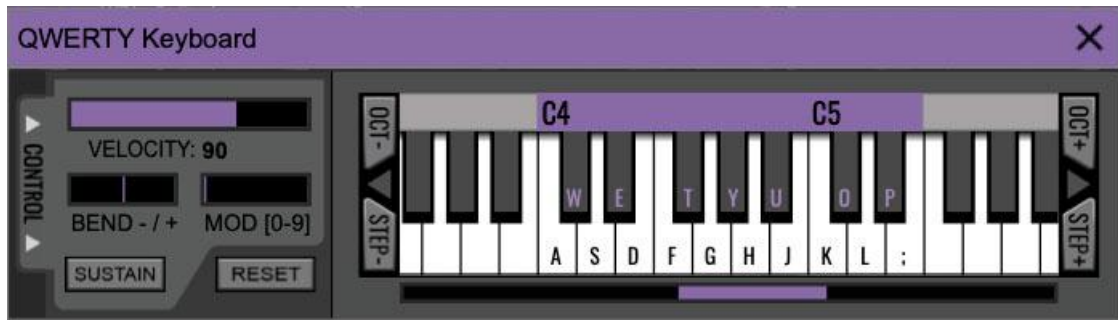


MIDI Learn- This is used to change the controller assigned to a particular parameter.

Unlearn- Deletes the selected automation parameter.

Unlearn All- Deletes all controller assignments for the patch. MG-1 Plus will display a warning dialog prior to deletion in order to thwart potential unlearn-related disasters.

10 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 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 MG-1 Plus 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. This will only be audible if the *VEL* sliders in the *VCF* or *VCA* sections are raised.

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.

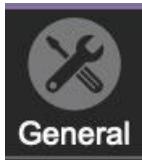
Sustain- The *Sustain* button mimics the functionality of a standard sustain pedal. Click the [TAB] key to engage sustain, or [SHIFT]+[TAB] to lock it. The *Sustain* button can also be engaged by mouse clicking it.

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

11 Settings

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 - all the stuff you'll want to tweak is on the front panel, as the heavens intended!

11.1 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 MG-1 Plus standalone version is started.
- **Create A Log File For Usage**- This creates a text doc of all of MG-1 Plus' 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 MG-1 Plus log file docs.
- **Preset Folder**- Displays the current location of MG-1 Plus' 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.

11.2 Interface



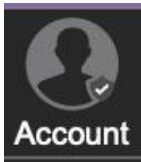
Allows customization of MG-1 Plus' user interface settings.

- **Reset To Default Window Size**- Resets the MG-1 Plus 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 (pretty sure we squashed that bug a while back though!).
- **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 On Any Control Change-** 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.
- **Show Control Tooltips Under Mouse-** Displays parameter tooltips/values when the mouse is hovered over a control or as a control is moved with mouse clicked.
- **MIDI Program Changes Should Change Current Preset-** Allows MIDI program change messages to change MG-1 Plus 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, MG-1 Plus remembers all MIDI Tab controller settings.

11.3 Account



Settings for your personal login information and account.

- **Email-** Displays the email address of the current login.
- **Update Login Info-** No, this isn't a place for news and tour dates for yacht rock superstar, Kenny Loggins. Clicking this opens the same email and password login screen you'll see when initially launching MG-1 Plus.
- **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 MG-1 Plus handles updates.
- **Check For Update-** Click this to see if an updated version of MG-1 Plus available.

Status-

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

- **Ask Before Installing Updates-** By default, MG-1 Plus 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 Downloading Updated Modules* if you're using MG-1 Plus for live performances or other "mission critical" situations.
- **Never Install Updates-** MG-1 Plus 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.

11.4 Audio/MIDI



Settings for audio and MIDI hardware input and output. **This tab is only visible in the standalone version of MG-1 Plus.**

- **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 MG-1 Plus' 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 MG-1 Plus' 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.