



12Step 2

Users Manual

v3.0.1

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Getting Started



Welcome

Hello, and welcome to the 12 Step manual. The purpose of this document is to provide a resource with helpful, detailed information regarding the use of the 12 Step2 and 12 Step Editor software.

Questions? Feedback? Contact Us!

Any questions or feedback that may come up regarding the 12 Step or its software can be directed to us here:

- Technical Support: www.keithcmillen.com/support
- General Questions: www.keithcmillen.com/company/contact

Where To Download

12 Step software can be downloaded on the KMI website at: <https://www.keithcmillen.com/downloads/>

What's In The 12 Step Package?

The following items are included in each 12 Step box:

- 12 Step 2
- USB A to USB C cable (3m)
- 12 Step protective sleeve

KMI Step Adapter Kit (sold separately)

The KMI Step Adapter Kit contains adapters to connect your 12Step2 to external CV and MIDI hardware.

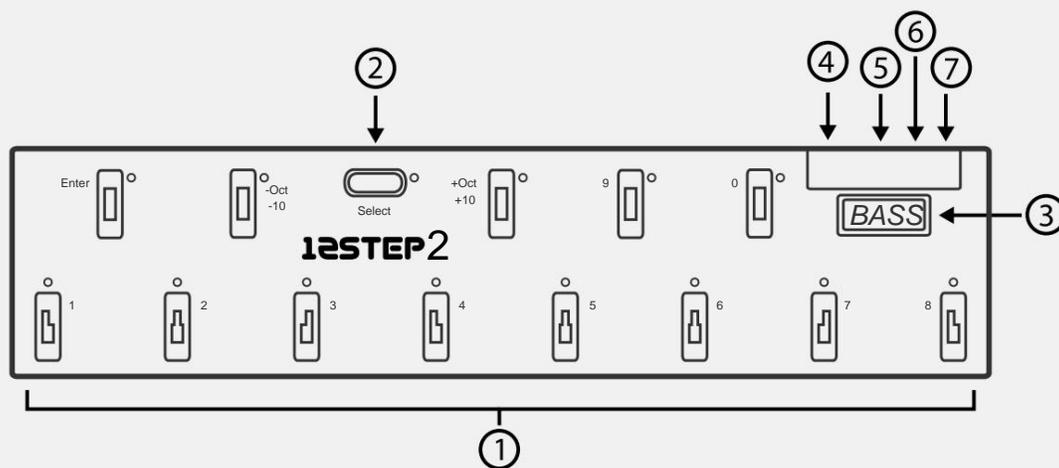
The following items are included in the KMI Step Adapter Kit:

- TRS MIDI Out adapter
- CV Pitch/Gate breakout adapter
- Expression Pedal in

12 Step2 Hardware



1.1 Hardware overview



(1) Keys

Step on the keys to output notes and other MIDI messages. Each key has an accompanying red LED for visual feedback.

(2) Select Button

The select key is a special, multi-function key used to change presets, shift octaves, and switch between note modes.

(3) Display

Used to show the currently loaded preset's display name.

(4) USB-C

Connect to a computer or tablet to send MIDI over USB, or connect to a power supply when using 12Step without a computer.

(5) TRS MIDI Out

Connect to hardware via TRS MIDI Out (Type A). A TRS-MIDI Adapter is available in the KMI Step Adapter Kit (sold separately).

(6) CV Out

Stereo jack sends 2 CV Outs. A 1/8" stereo to 2 mono jacks adapter is available in the KMI Step Adapter Kit (sold separately).

(7) Expression Pedal In

Used to connect an expression pedal to the 12 Step. All inputs should use a 3.5mm (1/8") TRS cable to work properly. An Expression Pedal Input Adapter is available in the KMI Step Adapter Kit (sold separately).

1.2 Connecting 12 Step2

12 Step2 features new options for connecting to your hardware. New to the 12 Step2 is a USB-C connection for sending USB MIDI, as well as TRS MIDI Out and CV Outputs for connecting to MIDI hardware and analog synthesizers.

USB MIDI

Connect the 12 Step2 to a computer or tablet with the included USB A-to-C cable. 12 Step2 will receive power from the computer or tablet.

Note: 12 Step2 can be used with a USB hub connected to a computer or tablet. It is highly recommended to use a powered USB hub, not a bus-powered hub. Bus-powered hubs may not be able to provide enough power to the 12 Step2 to function properly.

Use the USB-C jack to power the 12 Step2 when not using a computer.

TRS MIDI Out

Connect 12 Step2 to MIDI hardware via the TRS MIDI Out jack. Use a TRS-MIDI Adapter (Type A) to connect to 5 pin MIDI hardware.

CV Out 1/2

12 Step2 can control modular and analog synthesizers with Control Voltage signals. Use the Editor software to select Pitch, Gate or a Control Source to be sent to the CV Outs.

The CV Out is a TRS jack. CV1 is sent on the tip and CV2 is sent on the ring.

The default setting outputs Gate (CV Out 1) and Pitch (CV Out 2).

Expression Pedal Input

Plug an expression pedal into the 12 Step2 and use it as a MIDI control source. Use a 1/4" to 1/8" TRS adapter cable to connect the 12 Step2 to the expression pedal. The range of the expression pedal can be calibrated with the 12 Step Editor software.

Note: Volume pedals do not work with the 12 Step or any KMI controller with expression pedal input. Only expression pedals are compatible.

KMI Step Adapter Kit (sold separately)

The KMI Step Adapter Kit contains all the adapters you need to connect your 12Step2 to external devices. The Kit includes a TRS MIDI Out adapter, a CV 1/2 breakout adapter, and a 1/4" to 1/8" TRS expression pedal adapter.

1.3 Using 12 Step2

Playing Notes and Chords

To play notes on the 12 Step2, simply step on one of the keys (just not the special "Select" key). Typically, a note (or notes) will turn on when the key is pressed and turn off when the key is released — this behavior can be changed using the various Note Modes.

Changing Presets

The 12 Step2 hardware can store up to 64 presets.

To select a preset, press and hold the "Select" key. The 12 Step2 will begin to flash, indicating it is in "Select Mode". Press one of the numbered keys to fill in the one's digit, select the corresponding preset and exit "Select Mode".

By default, the decade of the preset you are selecting will be the same as the currently loaded preset. To change the decade, press "Enter" while in Select Mode, then press the "-10" or "+10" keys to the left and right of "Select" to scroll through the decades.

Changing Octaves

You can transpose the entire 12 Step2 keyboard up and down by octaves. Similar to changing presets, Octave shifting makes use of the Select button.

To change octaves first press and hold the "Select" key. The 12 Step2 will begin to flash, indicating it is in "Select Mode". Next press the "-Oct" key (Eb) to shift down an octave, or the "+Oct" key (F#) to shift up an octave and exit "Select Mode". You will need to press/hold "Select" again to transpose another octave.

1.4 External Control of 12 Step2

The 12 Step2 can control a wide variety of MIDI software and hardware, but it can also be controlled by the USB MIDI port.

Changing Presets With Program Changes

When in Standalone Mode, changing 12 Step2 presets via external software/hardware is possible using Program Change messages. Program Changes sent over USB MIDI will select the corresponding preset in the setlist — eg sending program change 23 will load the 23rd preset in the setlist.

Set which MIDI channel the 12 Step responds to with the “Program Change Preset Control” dropdown menu in the Settings tab of the 12 Step Editor software.

Controlling 12 Step LEDs

The 12 Step keys each have a red LED indicator that can be controlled by sending USB MIDI Control Changes (CCs), numbers 20 through 33, to the 12 Step2. Any non-zero value (1-127) will turn the LED on, and a zero value will turn it off. You can control all of the key LEDs simultaneously using CC42.

You can also control the brightness of the key backlight LEDs using CC 69, values 0-127 (this feature only works with 12 Step2 hardware, older 12 Step hardware cannot dim the backlight).

12 Step responds to LED control messages on the same channel as Program Change messages, which you can set in the Settings tab of the 12 Step Editor software.

Controlling 12 Step2 Display

In addition to the key LEDs, the four-character display on the 12 Step2 can also be controlled by sending CC messages to the USB MIDI Port.

The four characters on the display are addressed using four CC messages:

- CC 50 = first character
- CC 51 = second character
- CC 52 = third character
- CC 53 = fourth character

Each CC should be sent with a value between 48 and 90. These values correspond to the following:

- 48-57 = Numbers 0-9
- 65-90 = Letters AZ
- 58-64 = various symbols/characters (or blank spaces)

For example, to make the third character display the number “3”, send CC #52 with a value of 51.

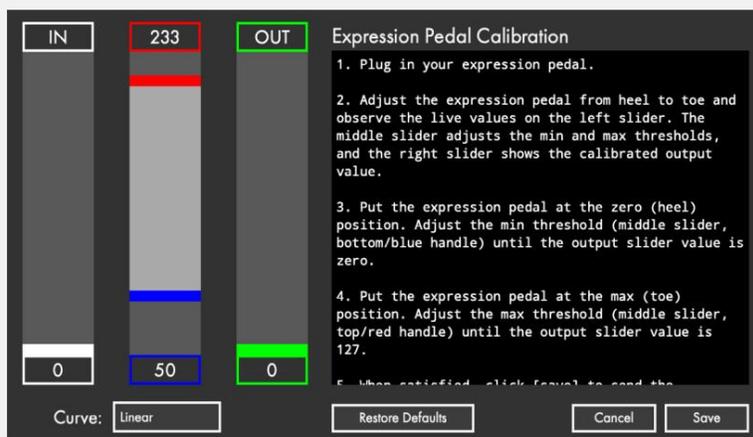
12 Step responds to display control messages on the same channel as Program Change messages, which you can set in the Settings tab of the 12 Step Editor software.

1.5 Calibrating Expression Pedal and CV Outs

You can calibrate the expression pedal range and CV voltage output with the 12 Step Editor software. Both calibration windows can be opened from the “Hardware” menu item.

Calibrating Expression Pedal

An expression pedal plugged into the 12 Step can be used as a source to control MIDI parameters. Please calibrate your expression pedal to ensure that you have access to the full range of values.



To calibrate the expression pedal:

1. Plug in your expression pedal. Make sure it is an expression pedal, a volume pedal will not work.
2. Adjust the expression pedal from heel to toe and observe the live values on the left slider. The middle slider adjusts the min and max thresholds, and the right slider shows the calibrated output value.
3. Put the expression pedal at the zero (heel) position. Adjust the min threshold (middle slider, bottom/blue handle) until the output slider value is zero.
4. Put the expression pedal at the maximum (toe) position. Adjust the max threshold (middle slider, top/red handle) until the output slider value is 127.
5. When satisfied, click [save] to send the calibration values to the device.

Calibrating CV Outs

The voltage sent from the CV Outs can be fine-tuned to accommodate drifting oscillators and non-western or experimental tonalities. Calibration happens by octave or by note with the help of the “Calibrate CV Outs” window.

The screenshot displays two calibration windows for CV Out 1 and CV Out 2. The top window is in 'Octaves' mode, and the bottom window is in 'Notes' mode.

CV Out 1 (Octaves Mode):

12bit Value	Voltage	Note
64	0.0833V	C#1
770	1V	C2
1548	2V	C3
2327	3V	C4
3107	4V	C5
3931	5V	C6

CV Out 2 (Octaves Mode):

12bit Value	Voltage	Note
61	0.0833V	C#1
770	1V	C2
1559	2V	C3
2343	3V	C4
3129	4V	C5
3942	5V	C6

CV 1 (Notes Mode):

Octave	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
0V	0	64	128	192	256	320	384	448	512	576	640	704
1V	770	834	898	962	1026	1090	1154	1218	1282	1346	1410	1474
2V	1548	1612	1676	1740	1804	1868	1932	1996	2060	2124	2188	2252
3V	2327	2391	2455	2519	2583	2647	2711	2775	2839	2903	2967	3031
4V	3107	3171	3235	3299	3363	3427	3491	3555	3619	3683	3747	3811
5V	3931											

CV 2 (Notes Mode):

Octave	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
0V	0	64	128	192	256	320	384	448	512	576	640	704
1V	770	834	898	962	1026	1090	1154	1218	1282	1346	1410	1474
2V	1548	1612	1676	1740	1804	1868	1932	1996	2060	2124	2188	2252
3V	2327	2391	2455	2519	2583	2647	2711	2775	2839	2903	2967	3031
4V	3107	3171	3235	3299	3363	3427	3491	3555	3619	3683	3747	3811
5V	3931											

Instructions: Each 12bit value (0-4095) is a scaling calibration value for the listed voltage. To calibrate a voltage value, measure the CV out with a precision voltmeter, or connect it to a trusted oscillator and measure the pitches with a tuner. When you adjust a value, the CV is immediately updated so that it can be measured in real time.

Buttons: Restore Factory Defaults, Calibration Mode: Octaves/Notes, Calculate From Octaves, Cancel, Save/Send.

Each 12bit value (0-4095) is a scaling calibration value for the listed voltage.

To calibrate a voltage value, measure the CV out with a precision voltmeter, or connect it to a trusted oscillator and measure the pitches with a tuner. When you adjust a value, the CV is immediately updated so that it can be measured in real time.

You can directly control the CVs with 12 bit values by using NRPN 1 for CV1, and NRPN2 for CV2.

12 Step Editor

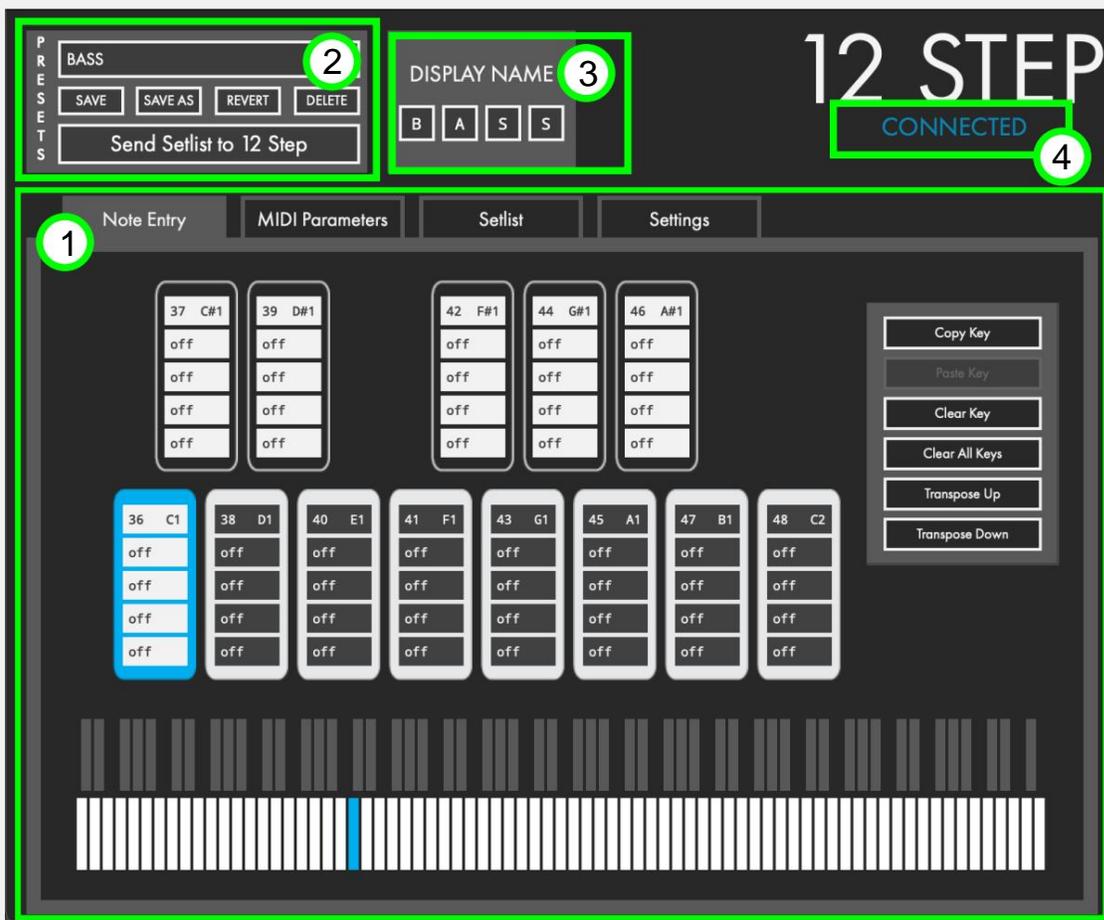


2.1 Editor Software Overview

The 12 Step Editor software allows for up to 64 fully customizable presets to be edited and loaded onto a connected 12 Step. MIDI notes, CC messages, program changes, preset ordering/management — all this and more can be customized using the editor.

Please note that changes made in the Editor do not update in realtime. Save the preset and send the setlist to the 12 Step to audition changes to a preset.

Upon first opening the 12 Step Editor the main window will be displayed. This is the gateway to everything — customizing the notes on each key, setting MIDI CCs, adjusting settings, and managing presets.



1) Editor Tabs: To keep everything tidy, the 12 Step Editor uses tabs in the Main Window. Note Entry, MIDI Parameters, Preset Setlist, and Settings windows can be accessed by clicking on the appropriate tab.

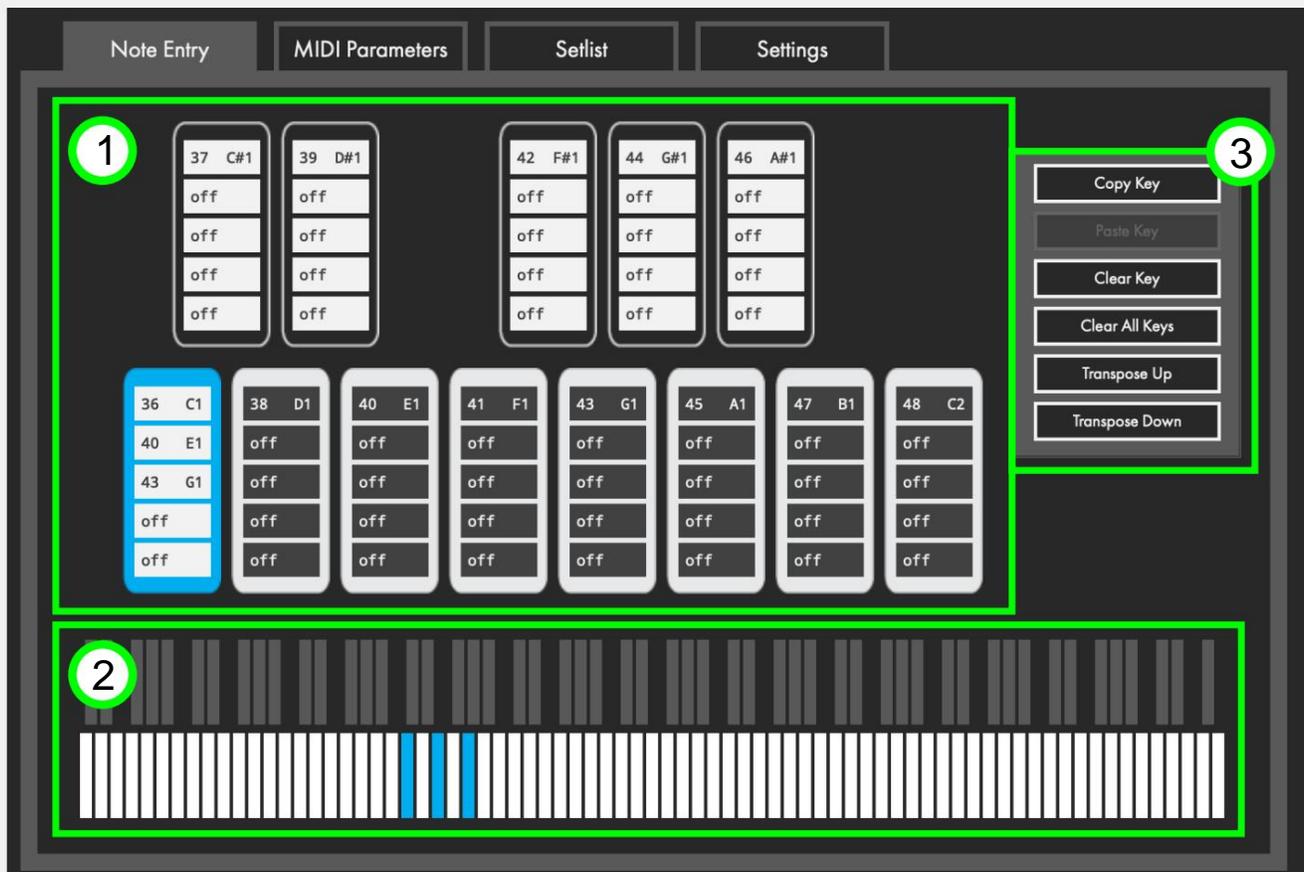
2) Presets Section: Select, Save, Revert or Delete presets, and customize the LED display.

3) Display Name: Select the characters to be displayed on the LED screen for the current preset.

4) Connection Indicator: Displays whether or not the editor has made a connection to an attached 12 Step controller. A connection is required to update firmware, send presets to the 12 Step, and alter the 12 Step's settings. A connection is not required to edit or manage presets.

2.2 Note Entry Tab

The Note Entry tab is where you choose which notes will be played by each key. Each key can play up to 5 notes.



1) Keys

Each key contains five slots. Each slot can hold a single MIDI note anywhere from 0 (C-2) to 127 (G8). To edit a key, do the following:

- 1) Click on the key to edit.
- 2) Select one of the five slots.
- 3) Type in the desired MIDI note number, or use the up and down arrows on the computer keyboard to increment/decrement to the desired note.

Alternatively, you can use the keyboard graphic at the bottom of the Note Entry tab to edit keys.

2) Note Entry Keyboard

The Note Entry Keyboard is a graphical representation of a keyboard that covers the entire MIDI range — from note 0 (C-2) to note 127 (G8). It is used for editing and displaying all active notes on the currently selected key. Each active note will light up blue. Click to toggle keys on the Note Entry Keyboard.

3) Edit Buttons

The Note Entry tab contains a number of helpful buttons that can be used to speed up the editing process.

Copy and Paste

Click "Copy Key" to copy the MIDI notes of the selected key to the clipboard. Click "Paste Key" to paste the MIDI notes from the clipboard onto the selected key.

Clear Key / Clear All Keys

"Clear Key" clears all MIDI notes from the currently selected key. "Clear All Keys" clears all MIDI notes from all keys.

Transpose Up / Transpose Down

Clicking "Transpose Up" or "Transpose Down" transposes the selected key's MIDI Notes up or down by a semitone. MIDI Notes outside the 0-127 range will be clipped

2.3 MIDI Parameters Tab

The MIDI Parameters tab is where more advanced/detailed MIDI parameters are set. The MIDI channel can be defined, program and bank changes can be set up, CC settings can be altered, and more.

	Voice A	Voice B	Control Surface	USB	Channel
MIDI Channel	1	off	CV Out 1: Default (Gate)	Gate	Ch 1
Program Change	off	off	CV Out 2: Default (Pitch)	Pitch	Ch 1
Bank MSB	off	off			
Bank LSB	off	off			
Transpose	0	0			
			Key Mode	Mono	
			Note Mode	Normal	

Message Type	Source: Voice A	Source: Voice B	Gain	Offset	Curve	Min	Max	
Note	Velocity	Off	1.00	0	Linear	0	127	
CC	7	Pedal	Off	1.00	0	Linear	0	127

+ -

Voice A and Voice B

12 Step is capable of outputting MIDI Notes simultaneously on two separate “voices”. Each voice has its own independent set of “Global Parameters”. This is useful for doubling up synths and controlling them with a single controller.

There are two columns for each of the MIDI-related options — one for Voice A and one for Voice B. Each voice can send on a separate MIDI channel, with different transpositions, bend ranges, program changes, bank select messages, and modlines.

2.3.1 Global Parameters

The top portion of the MIDI Parameters tab contains options related to the behavior of the 12 Step and some more general MIDI parameters (program changes, MIDI channel, etc.) that remain fixed per preset.

MIDI Channel

Sets the MIDI channel to output MIDI messages on.

Program Change

Sets a Program Change value to output whenever the preset is loaded. This is useful for loading specific presets/settings whenever a certain 12 Step preset is selected.

- Range: 0-127

Bank MSB/LSB

Sets a Bank Select message to output whenever the preset is loaded.

- Range: 0-127

Transpose

Sets a transposition amount (in semitones) for the entire preset.

Example: A Transpose value of "3" would transpose all of the preset's MIDI note output by a minor third interval.

- Range: ± 12

2.3.2 Modlines

The lower portion of the MIDI Parameters tab is where you will find the "modlines", a set of options/parameters that define what MIDI messages the 12 Step will output and how it will output them. Each preset can have up to six modlines.

Message Type	Source: Voice A	Source: Voice B	Gain	Offset	Curve	Min	Max
Note	Velocity	Off	1.00	0	Linear	0	127
CC 7	Pedal	Off	1.00	0	Linear	0	127

+ -

The modline section contains the following:

MIDI Message Types

Sets the type of MIDI message to output.

Note: Each message type can only be used on one modline per preset, with the "CC" message type being the exception. The CC message type can be used on two modlines.

The following message types are available in the 12 Step Editor:

Note - Outputs a MIDI note.

CC - Outputs values on a specified Control Change (CC) number.

Bend - Outputs values as MIDI pitch bend messages.

Channel Pressure - Outputs values as MIDI Channel Pressure messages.

Poly Aftertouch - Outputs values as MIDI Note Aftertouch messages.

Sensor Sources

Select the type of sensor data to use (eg pressure, velocity, tilt, key number).

Velocity

Outputs a value representing the amount of force a key is triggered with. Triggering a key with more force results in higher values, triggering a key with less force results in lower values.

Velocity (Inverted)

An inverted version of the Velocity source. Triggering a key with more force results in lower values, triggering a key with less force results in higher values.

Pressure

Outputs the amount of pressure currently being applied to a key. More pressure results in higher values, less pressure results in lower values. The value will drop to 0 when the key is released.

Pressure (Inverted)

An inverted version of the Pressure source. More pressure results in lower values, less pressure results in higher values. The value will go up to 127 when the key is released.

Tilt

Outputs the amount of bottom-to-top pressure (y-axis) currently being applied to a key. Pressure more towards the top of the key results in higher values, pressure towards the bottom of the key results in lower values. The value will return to center (63) when the key is released.

Tilt (Inverted)

An inverted version of the Tilt source. Pressure towards the top of the key results in lower values, pressure towards the bottom of the key results in higher values. The value will return to center (63) when the key is released.

KeyNum

Outputs the key number of the currently active key. Keys are numbered in order from left-to-right — they do not follow the actual labeling on the 12 Step board itself.

KeyNum (Inverted)

An inverted version of the KeyNum source. Instead of outputting an incrementing value from 1 to 13, the inverted version outputs a decrementing value from 127-115.

Pedal

If an expression pedal is connected, this source will output the current value coming from the pedal.

Rocking the pedal back (heel down, toe up) results in lower values, rocking the pedal forward (heel up, toe down) results in higher values.

Pedal (Inverted)

An inverted version of the Pedal source. Rocking the pedal back (heel down, toe up) results in higher values, rocking the pedal forward (heel up, toe down) results in lower values.

Gain

Multiplies incoming values by the specified amount. Negative numbers can be used to invert values. Defaults to a value of 1.

Offset

Adds the specified amount to incoming values. Use negative numbers for subtraction. Defaults to a value of 0

Curve

Sets the type of curve to apply to the incoming values. The available curves include Linear, Sine, Cosine, Exponential, Logarithmic, and DeadZone (similar to the Linear curve, but this curve has a "dead zone" in the center).

Min/Max

"Min" sets the minimum value that can be output. "Max" sets the maximum value that can be output.

All values outside the "Min" and "Max" values will be clipped, but they are not ignored. For example, setting the "Min" and "Max" both to a value of 60 will send 60 every time you press the key.

Add/Delete Modlines

The "plus" button adds a modline (maximum of 6 per preset) and the "minus" button deletes a modline (minimum of 2). Adding a modline will place a new one at the bottom of the list. Deleting a modline will remove the bottom modline from the list.

When deleting a modline, the Message Type and Sources will automatically be set to "Off". All other settings (Gain, Offset, Curve, Min, Max) will be preserved.

2.3.3 Control Voltage

12 Step2 has 2 programmable CV Outputs. Each output can be controlled locally by the 12 Step keys, or externally via USB MIDI. If a CV out receives signal from both local and external sources the most recent signal will take priority.

CV features are only available on 12 Step2, and are disabled if legacy hardware is connected.

Local 12 Step2 CV Control

You can control the CV outs with the 12 Step2 keys. If multiple notes are assigned to a 12 Step2 key, only the first note (the note at the top of the key in the Editor) controls CV.

The following sources are available to control the CV outputs from the 12 Step2 keys.

- GATE - the CV is set to 5V when a key is pressed, and 0V when the key is released.
- PITCH - the CV is set to a (1V/Oct) voltage that matches the most recent key that was pressed.
- PRESSURE - the CV is set to 0-5V corresponding to the current PRESSURE of the active key.
- TILT - the CV is set to 0-5V corresponding to the current TILT of the active key.
- PEDAL - the CV is set to 0-5V, controlled by the expression pedal input.
- DISABLED - the CV ignores local control from the 12 Step keys.

External USB-MIDI CV Control

You can control the CV outs with MIDI messages sent to the 12 Step2 CV Out port. The CV outs can respond to MIDI channels 1 and 2, which you can set in the Editor.

The following sources are available to control the CV outs via USB-MIDI.

- GATE - the CV is set to 5V when a MIDI Note On is received and 0V for Note Off. The Gate remains on until all active notes are turned off.
- PITCH - the CV is set to a (1V/Oct) voltage that matches the most recent MIDI Note On message.
- VELOCITY - the CV is set to a 0-5V voltage that matches the velocity of the most recent MIDI Note On message.
- BEND / MOD - the CV is set to a 0-5V voltage corresponding to 14 bit (pitch bend) or 7 bit (mod wheel CC1) MIDI messages.

2.3.4 Key Behavior

Key Mode defaults to playing monophonically - meaning only one key can be pressed at a time. Keys have 4 different Note Modes that determine how the notes are played and held. Select the Key Mode and Note Mode options to be saved with the preset.

Key Mode

"Key Mode", formerly "Key Safety", determines how many 12 Step2 keys can be pressed at once.

- Mono: Only one key can be activated at a time.
- Poly: Multiple keys can be activated at a time.

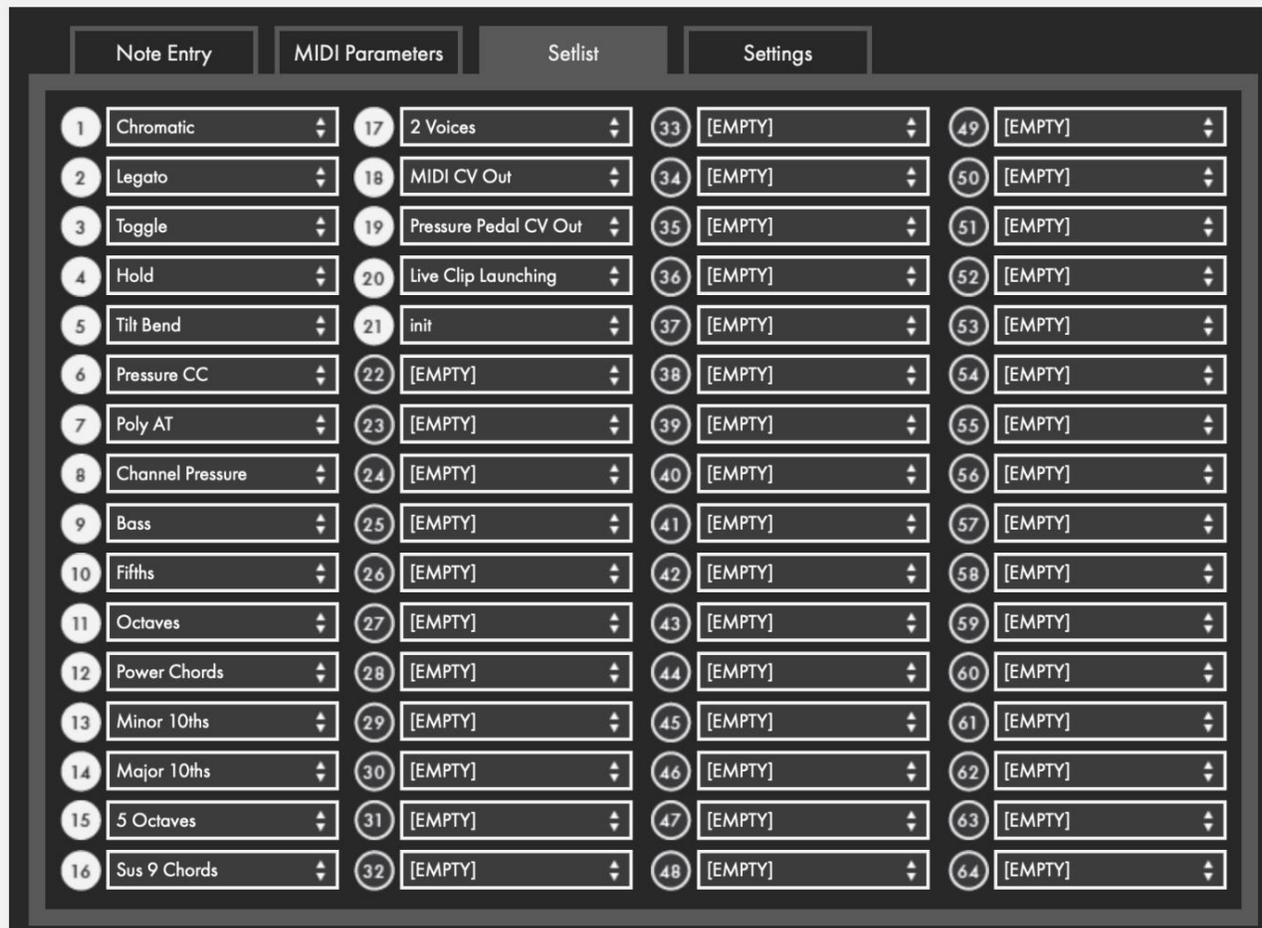
Note Mode

"Note Mode" lets you select how the 12 Step2 keys turn on and off.

- Normal: Notes will turn on when a key is pressed, and turn off when the key is released.
- Legato: Notes will turn on when a key is pressed, and continue playing until another key is pressed.
- Toggle: Notes will turn on when a key is pressed and stay on until the same key is pressed again.
- Hold: Allows toggling between "Normal" and "Legato" note modes using the Select key.

2.4 Setlist Tab

The “Setlist” is the selection of presets that will be sent to the 12Step2's internal memory when you press the “Send Setlist to 12 Step” button. The setlist allows up to 64 presets.



Selecting Presets for the Setlist

Use the drop down menu to select which preset to place in the Setlist slot.

Click the number to the left of the slot to remove a preset from the Setlist.

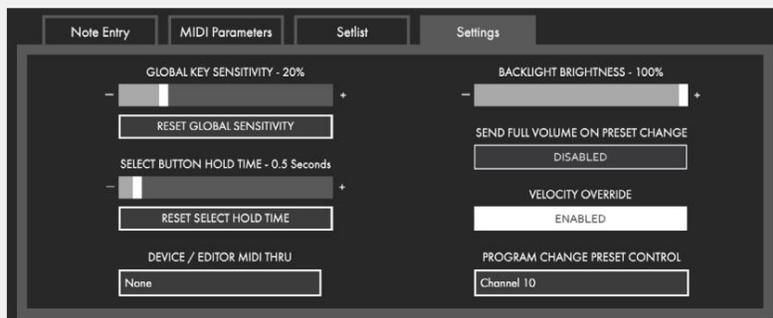
Tip: You can "auto-populate" or "clear all" presets in the Setlist from the "Edit" menu.

Sending the Setlist to 12 Step

Press the “Send Setlist to 12 Step” button to send the Setlist to the 12 Step's internal memory. Sending the Setlist will overwrite the current memory of the connected 12 Step controller.

2.5 Settings Tab

The Settings tab where you set the sensitivity and select hold times, MIDI Thru and other 12 Step settings. Changes made to the 12 Step settings are sent to the hardware in real time.



Global Key Sensitivity

Sets the overall sensitivity of the keys. The RESET GLOBAL SENSITIVITY button directly below the slider will set the global sensitivity to the default value when clicked.

Select Button Hold Time

Sets the time it takes to engage the Select button. The RESET SELECT HOLD TIME button directly below the slider will set the selected time to the default value when clicked.

Device/Editor MIDI Thru

Send incoming 12 Step2 MIDI data to the selected port. Useful for controlling devices without a DAW.

Note for Windows users: Windows cannot share MIDI drivers between multiple applications. Use this MIDI Thru to audition changes while editing 12 Step settings.

Backlight Brightness Control

Adjusts the brightness of the 12 Step2 key backlight LEDs. This feature is only available when using 12 Step2, and is disabled when legacy hardware is connected.

Send Full Volume On Preset Change Switch

Enables/Disables the CC 7 127 message the 12 Step outputs on preset changes.

Velocity Override

Enable to transmit all MIDI Notes at full velocity (127), ignoring all velocity-related settings in the modlines. When disabled, all presets will respond to velocity as normal.

Program Change Preset Control

Selects which MIDI channel the 12 Step responds to when receiving Program Change messages to change presets. LED CC and CV NRPN messages are also recognized on this channel.

2.6 Presets Section

The top-left area of the 12 Step Editor's main window is home to the presets section. This is where presets are selected and where all preset management is handled.



Preset Selection Dropdown Menu

Clicking this displays a list of all presets. Choosing one loads it as the currently active preset in the editor.

Save

Saves any changes made to the current preset when clicked. The save button will light up red if any unsaved changes have been made.

Save As

Saves the current Editor settings as a new Preset. A prompt will appear asking what the preset's name should be. The preset that was previously being edited will then revert to its last saved state.

Revert

Restores a preset to its last saved state. Any unsaved changes will be lost.

Delete

Deletes the currently selected preset. A confirmation dialogue will appear when clicked to prevent accidental deletions.

Send Setlist to 12 Step

Click to update a connected 12 Step with the presets currently in the Setlist editor. This action will overwrite the presets currently stored on the connected 12 Step.

If the currently selected preset is in the Setlist and has unsaved modifications, the preset will be automatically saved.

The setlist will be "cleaned up". Any empty slots in the setlist will be removed. All presets will shift up to fill in the spaces.

Display Name

Sets the current preset's Display Name. Anything entered here appears on the 12 Step alphanumeric display when the preset is selected. Limited to 4 characters. Some characters are not available because they cannot be expressed on a 7 segment LED display.

2.7 Menu Bar

A number of useful functions and settings can be accessed via the menu bar.

12 Step Editor

Note: Windows users can find these items in the Help menu.

About 12 Step Editor

Displays version information about the 12 Step Editor.

- Editor Version: Displays the version number of the editor.
- Expected FW: Displays the firmware version provided in this version of the editor. This is the version that will be loaded onto a connected 12 Step when a firmware update is initiated.
- Found FW: Displays the firmware version currently loaded on a connected 12 Step

File

Export Presets

Exports the currently selected preset to an external file on the hard disk. Good for sending presets to a friend, transferring presets to a new computer, or creating a preset backup. The resulting .twelvesteppreset file can be imported to the editor using the Import Preset function (also located in the File menu).

Import Presets

Imports a .twelvesteppreset file to the editor. Use this when restoring presets from backup, importing a preset from a friend, or importing presets from an older computer.

Open Editor Preset Directory

Opens the directory where the Preset, Setlist and Settings .json files are stored.

Edit

Clear Preset

Clears the current preset. All keys and modlines will be set to "Off".

Copy Preset

Copies the currently selected preset. Can be used later to paste over a preset or paste to a new preset.

Paste Preset

Pastes a copied preset to the currently selected preset. This option is only available if a preset has already been copied.

Paste Preset To New

Pastes a copied preset to a brand new preset. This option is only available if a preset has already been copied.

Clear Setlist

Completely clears the setlist. All slots will be disabled and set to [EMPTY].

Auto Populate Setlist

Automatically fills the setlist with presets, up to a maximum of 64 presets. Presets will be chosen in the order they appear in the preset drop-down menu.

Hardware

Calibrate Expression Pedal

Follow the instructions to calibrate an expression pedal. Calibration settings are saved to the 12Step hardware. For more information visit Section 1.5 Calibrating Expression Pedal and CV Outs.

Calibrate CV Outs

The voltage sent from the CV Outs can be calibrated for each note or by octave. For more information visit Section 1.5 Calibrating Expression Pedal and CV Outs.

Update/Reload Firmware

Manually initiates a firmware update/reinstallation.

Help

Documentation

Links to a downloadable version of this manual. The manual will open in a new browser window.

Hide/Show Tool Tips

Selecting this option will toggle between hiding and showing the tooltip pop ups displayed when hovering the mouse cursor over an object.

2.8 Factory Presets

The 12 Step Editor has 20 factory presets to get you started, and to demonstrate features. There is also an "init" preset to serve as a blank slate when you create your own presets.

The 12 Step factory presets are:

Chromatic

A basic, monophonic, chromatic preset with notes from C2-C3

Legato

Monophonic and chromatic from C2-C3 with Legato mode engaged

Toggle

Monophonic and chromatic from C2-C3 with Toggle mode engaged

Hold

Monophonic and chromatic from C2-C3 with Hold mode engaged

Tilt Bend

Monophonic and chromatic from C2-C3 with Pitch Bend mapped to key Tilt

Pressure CC

Monophonic and chromatic from C2-C3 with Pressure mapped to CC#7

Poly AT

Monophonic and chromatic from C2-C3 with Pressure mapped to Poly Aftertouch

Channel Pressure

Monophonic and chromatic from C2-C3 with Pressure mapped to Channel Pressure

Bass

A monophonic, chromatic preset with notes transposed down 2 octaves from C0-C1

Fifths

A preset with each key playing an interval of a fifth from C2-C3

Octaves

A preset with each key playing an interval of an octave from C2-C3

Power Chords

A preset with each key playing a power chord (root-fifth-octave) from C2-C3

Minor 10ths

A preset with each key playing an interval of a minor 10th from C2-C3

Major 10ths

A preset with each key playing an interval of a major 10th from C2-C3

5 Octaves

A preset with each key playing 5 octaves stacked with the root note from C2-C3

Sus9 Chords

A preset with each key playing Sus9 chords with the root note from C2-C3

2 Voices

A preset with 2 voices, the first on MIDI channel 1 and the second transposed down an octave on channel 2

MIDI CV Out

A preset with local CV control disabled and (1V/Oct) pitch sent out CV 1 and 2 from MIDI Channels 1 and 2

Pressure Pedal CV Out

A preset with Pressure modulating CV 1 and Expression Pedal modulating CV 2. Pitch Bend or Modwheel messages sent on Ch 1 will be sent on CV 1, Pitch Bend or Modwheel messages sent on Ch 2 will be sent on CV 2.

Live Clip Launching

A preset to use with the Ableton Live Clip Launching script, which you can find in the 12 Step Editor application's "Extras" folder.