

You can use any standard MIDI controller capable of sending *Program Change (PC)*, *Control Change (CC)* messages, and *MIDI Clock* to remotely change presets or controlling other functions or parameters in Synesthesia.

**CONTROL CHANGE**

The CC numbers listed in the tables below are the default values. You may assign arbitrary (0 to 99) to each CC functions using the SymmLab editor software (*Menu > MIDI Configuration*).

OPERATION	CC# (default)	Value Range
DSP-X	14	<i>Bypass = 0, Engage = 127</i>
DSP-Y	15	<i>Bypass = 0, Engage = 127</i>
Ramp-X	16	<i>Release = 0, Trigger = 127</i>
Ramp-Y	17	<i>Release = 0, Trigger = 127</i>
X Tap-Divide	18	0 - 7
Y Tap-Divide	19	0 - 7
X Algorithm	20	0 - 21
Y Algorithm	21	0 - 21
Bypass / Engage	22	<i>Bypass = 0, Engage = 127</i>
Tap Tempo	23	any
Pre / Post	24	<i>Pre = 0, Post = 127</i>
		<i>Cascade = 0</i>
DSP Routing	25	<i>Mixture = 1</i> <i>Split = 2</i>
Load Patch A	26	any
Load Patch B	27	any
Bank Up	28	any
Bank Down	29	any

**Tap-Divide**

- 0 = *Ignore Tap tempo / Midi Clock*
- 1 = *4 : 1 (4x slower)*
- 2 = *2 : 1 (2x slower)*
- 3 = *1 : 1*
- 4 = *1 : 2 (2x faster)*
- 5 = *1 : 3 (3x faster)*
- 6 = *1 : 4 (4x faster)*
- 7 = *3 : 4 (4/3x faster - dotted 8th)*

PARAMETERS	CC# (Default)	Value Range
X-Speed	30	0 - 127
X-Depth	31	0 - 127
X-Tweak	32	0 - 127
X-SP1	33	0 - <b>A</b>
X-SP2	34	0 - <b>B</b>
X-SP3	35	0 - <b>C</b>
Y-Speed	36	0 - 127
Y-Depth	37	0 - 127
Y-Tweak	38	0 - 127
Y-SP1	39	0 - <b>D</b>
Y-SP2	40	0 - <b>E</b>
Y-SP3	41	0 - <b>F</b>

**The values A, B, C, D, E, and F vary from one algorithm to the next.**

For example, the TREMOLO algorithm has 4 possible values for SP1 (*wave-shape*) :

- *Triangle* - 0
- *Sine* - 1
- *Sawtooth* - 2
- *Square* - 3

Therefore in this case the top value **A** or **D** is 3.

Note : SP1 = secondary parameter 1 (twisting the SPEED knob).  
 SP2 = secondary parameter 2 (twisting the DEPTH knob).  
 SP3 = secondary parameter 3 (twisting the TWEAK knob).

**PROGRAM CHANGE (PC)**

BANK	PATCH	PC #
1	A	0
	B	1
2	A	2
	B	3
3	A	4
	B	5
⋮	⋮	⋮
16	A	30
	B	31

**MIDI CHANNEL**

Synesthesia is pre-programmed to use MIDI channel 1. You can change the channel number to any number from 1 through 16 in **Global Settings** menu.

**MIDI CLOCK**

MIDI clock allows you to sync the tempo of Synesthesia to other gears via MIDI sync timing pulses. You have the freedom to decide which preset and which DSP should respond to midi clock and which should not. To configure a DSP to respond to midi clock simply set the Tap-Divide option for that DSP to any values other than “Ignore Tap/Clk”.

Example :

	Tap-Divide (Y)	Tap-Divide (X)	Result
Preset 1	Ignore Tap/Clk	Ignore Tap/Clk	Both DSPs will not respond to midi clock.
Preset 2	1:1	Ignore Tap/Clk	DSP-Y will respond to midi clock, DSP-X won't.
Preset 3	Ignore Tap/Clk	2:1	DSP-X will respond to midi clock, DSP-Y won't.
Preset 4	1:1	2:1	Both DSPs will respond to midi clock.

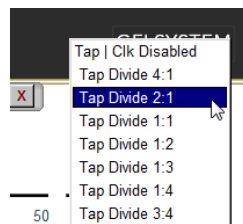


Tap-Division can be set in **Options** menu :



OR

via the editor software :



The tempo of the pedal will follow the tempo set by midi clock, subdivided as per selected Tap-Divide value.

Examples :

Tap Divide = 1:4  
 Midi Clock tempo = 60 BPM  
 Synesthesia's tempo = 4 x 60 BPPM  
 = 240 BPM.

Tap Divide = 2:1  
 Midi Clock tempo = 60 BPM  
 Synesthesia's tempo = 1/2 x 60 BPPM  
 = 30 BPM.