Circuit Mono Station MIDI Parameters

Note: Send messages for Osc 1 and 2 on their assigned MIDI channels (MIDI channels 1 and 2 by default)

Section	Parameter	CC / CC(8)	Control No.	Range	Default Value	Notes
Patch						
	Category	CC(8)	64:2	0 – 14	0	
Oscillator Common						
	OscSync	CC	110	0 – 1	0	
Oscillator 1						
	Keyboard Octave	CC	117	58 – 69 (-6 – 5)	64 (0)	
	Waveform Type	CC	80	0 – 3	2	(see table)
	Pulse Width	CC	39	0 – 127 (-64 – 63)	64 (0)	
	Tune Coarse	CC(8)	27:59	0 – 255 (-128 – 127)	128 (0)	
	Tune Fine	CC(8)	26:58	0 – 200 (-100 – 100)	100 (0)	
	Range	CC	70	0 – 3	1	(see table)
	Glide	CC	5	0 – 127	0	(see table)
Oscillator 2						
	Keyboard Octave	CC	76	58 – 69 (-6 – 5)	64 (0)	
	Waveform Type	CC	81	0 – 3	2	(see table)
	Pulse Width	CC	79	0 – 127 (-64 – 63)	64 (0)	
	Tune Coarse	CC(8)	30:62	0 – 255 (-128 – 127)	128 (0)	
	Tune Fine	CC(8)	29:61	0 – 200 (-100 – 100)	100 (0)	
	Range	CC	75	0 – 3	1	(see table)
	Glide	CC	37	0 – 127	0	(see table)
Mixer						
	Master	CC	7	0 – 127	100	
	Osc1 Level	CC(8)	20:52	0 – 255	255	
	Osc2 Level	CC(8)	21:53	0 – 255	0	
	Sub Osc Level	CC(8)	22:54	0 – 255	0	
	Noise Level	CC(8)	23:55	0 – 255	0	
	Audio In Level	CC(8)	25:57	0 – 255	0	
	Ring Mod Level	CC(8)	24:56	0 – 255	0	
Filter						
	Overdrive	CC	114	0 – 127	0	
	Resonance	CC	71	0 – 127	0	
	Frequency	CC(8)	16:48	0 – 255	255	
	Shape	CC	84	0 – 2	0	(see table)
	Slope	CC	40	0 – 1	1	(see table)
	Bypass	CC	83	0 – 3	0	(see table)
	Key Tracking	CC	69	0 – 7	7	Default value 7 (100% tracking) - (see table)
Envelope						
	Trigger	CC(8)	73:0	0 – 1	0	
	Attack	CC	90	0 – 127	2	
	Decay	CC	91	0 – 127	90	
	Sustain	CC	92	0 – 127	127	
	Release	CC	93	0 – 127	40	
LFO						
	Waveform Type	CC	88	0 – 3	0	(see table)
	Rate	CC(8)	18:50	0 – 255	68	
	Sync Rate	CC	87	0 – 34	0	(see table)
	Clock Sync	CC	86	0 – 1	0	
	Key Sync	CC	43	0 – 1	0	
Distortion						
	Level	CC	94	0 – 127	0	(see table)
	Type	CC	95	0 – 2	0	(see table)
Modulation Matrix						
	EnvToOsc1Pitch	CC(8)	12:44	0 – 255 (-128 – 127)	128 (0)	
	EnvToOsc1PWM	CC	41	0 – 127 (-64 – 63)	64 (0)	
	EnvToOsc2Pitch	CC(8)	13:45	0 – 255 (-128 – 127)	128 (0)	
	EnvToOsc2PWM	CC	33	0 – 127 (-64 – 63)	64 (0)	
	EnvToAmp	CC	42	0 – 1	1	
	EnvToFilterFreq	CC(8)	14:46	0 – 255 (-128 – 127)	128 (0)	
	EnvToDist	CC	103	0 – 127 (-64 – 63)	64 (0)	
	EnvToAuxCV	CC	104	0 – 127 (-64 – 63)	64 (0)	
	LFOToOsc1Pitch	CC(8)	28:60	0 – 255 (-128 – 127)	128 (0)	
	LFOToOsc1PWM	CC	73	0 – 127 (-64 – 63)	64 (0)	
	LFOToOsc2Pitch	CC(8)	3:35	0 – 255 (-128 – 127)	128 (0)	
	LFOToOsc2PWM	CC	34	0 – 127 (-64 – 63)	64 (0)	
	LFOToAmp	CC	78	0 – 127 (-64 – 63)	64 (0)	
	LFOToFilterFreq	CC(8)	17:49	0 – 255 (-128 – 127)	128 (0)	
	LFOToDist	CC	108	0 – 127 (-64 – 63)	64 (0)	

	LFOToAuxCV	CC	109	0 – 127 (-64 – 63)	64 (0)	
	ModSeqToOsc1Pitch	CC(8)	15:47	0 – 255 (-128 – 127)	128 (0)	
	ModSeqToOsc1PWM	CC	118	0 – 127 (-64 – 63)	64 (0)	
	ModSeqToOsc2Pitch	CC(8)	19:51	0 – 255 (-128 – 127)	128 (0)	
	ModSeqToOsc2PWM	CC	38	0 – 127 (-64 – 63)	64 (0)	
	ModSeqToAmp	CC	119	0 – 127 (-64 – 63)	64 (0)	
	ModSeqToFilterFreq	CC(8)	31:63	0 – 255 (-128 – 127)	128 (0)	
	ModSeqToDist	CC	111	0 – 127 (-64 – 63)	64 (0)	
	ModSeqToAuxCV	CC	116	0 – 127 (-64 – 63)	64 (0)	
	VelocityToOsc1Pitch	CC	115	0 – 127 (-64 – 63)	64 (0)	
	VelocityToOsc1PWM	CC	107	0 – 127 (-64 – 63)	64 (0)	
	VelocityToOsc2Pitch	CC	9	0 – 127 (-64 – 63)	64 (0)	
	VelocityToOsc2PWM	CC	36	0 – 127 (-64 – 63)	64 (0)	
	VelocityToAmp	CC	112	0 – 127 (-64 – 63)	64 (0)	
	VelocityToFilterFreq	CC	113	0 – 127 (-64 – 63)	64 (0)	
	VelocityToDist	CC	105	0 – 127 (-64 – 63)	64 (0)	
	VelocityToAuxCV	CC	89	0 – 127 (-64 – 63)	64 (0)	
	Selected Routing	CC	102	0 – 31	13	(see table)

Note: CC(8) denotes a CC pair where the second CC is used to create an 8-bit message for a 0-255 value range.

Global Supported Commands

Parameter	Supported	Notes
Sustain	not supported	
Expression	not supported	
Mod wheel	not supported	
Aftertouch	not supported	
Pitch bend	not supported	
Program change Osc 1	supported (rx only)	0-63 select synth patch
Program change ch. 16	supported (rx only)	0-31 select session (instant)
Program change ch. 16	supported (rx only)	64-95 select session (queued)

Oscillator Waveform Table

Value	Type
0	Sine
1	Triangle
2	Saw
3	Pulse

Oscillator Range Table

Value	Range
0	16’
1	8’
2	4’
3	2’

Oscillator Glide Table

Value	Amount
0	0%
1	25%
2	37.5%
3	50%
4	62.5%
5	75%
6	87.5%
7	100%
8	200%
9	300%
10	400%
11	500%
12	600%
13	700%
14	800%
15	900%

Filter Shape Table

Value	Shape
0	Low Pass
1	Band Pass
2	High Pass

Filter Slope Table

Value	Slope
0	Low Pass
1	Band Pass
2	High Pass

Filter Bypass Table

Value	Bypass
0	OFF
1	Noise
2	Osc 2
3	Noise and Osc 2

Distortion Type Table

Value	Type
0	Type I
1	Type II
2	Type III

Filter Tracking Table

Value	Amount
0	0%
1	15%
2	30%
3	45%
4	60%
5	75%
6	90%
7	100%

LFO Waveform Table

Value	Type
0	Triangle
1	Descending Saw
2	Square
3	Sample and hold

Selected Routing Table

Value	Type
0	EnvToOsc1Pitch_Depth
1	EnvToOsc1Shape_Depth
2	EnvToOsc2Pitch_Depth
3	EnvToOsc2Shape_Depth
4	EnvToAmp_Depth
5	EnvToFilterFreq_Depth
6	EnvToDistAmount_Depth
7	EnvToAuxCV_Depth
8	LFOToOsc1Pitch_Depth
9	LFOToOsc1Shape_Depth
10	LFOToOsc2Pitch_Depth
11	LFOToOsc2Shape_Depth
12	LFOToAmp_Depth
13	LFOToFilterFreq
14	LFOToDistAmount
15	LFOToAuxCV
16	ModSeqToOsc1Pitch
17	ModSeqToOsc1Shape
18	ModSeqToOsc2Pitch
19	ModSeqToOsc2Shape
20	ModSeqToAmp
21	ModSeqToFilterFreq
22	ModSeqToDistAmount
23	ModSeqToAuxCV
24	VelocityToOsc1Pitch
25	VelocityToOsc1Shape
26	VelocityToOsc2Pitch
27	VelocityToOsc2Shape
28	VelocityToAmp
29	VelocityToFilterFreq
30	VelocityToDistAmount
31	VelocityToAuxCV

Sync Rate Table

Value	Type
0	64 beats
1	48 beats
2	42 beats
3	36 beats
4	32 beats
5	30 beats
6	28 beats
7	24 beats
8	21 + 2/3 beats
9	20 beats
10	18 + 2/3 beats
11	18 beats
12	16 beats
13	13 + 1/3 beats
14	12 beats
15	10 + 2/3 beats
16	8 beats
17	6 beats
18	5 + 1/3 beats
19	4 beats
20	3 beats
21	2 + 2/3 beats
22	2nd
23	4th dotted
24	1 + 1/3 beats
25	4th
26	8th dotted
27	4th triplet
28	8th
29	16th dotted
30	8th triplet
31	16th
32	16th triplet
33	32nd
34	32nd triplet

Supported Realtime Messages

Message
start
stop
continue
timing clock

Supported System Common Messages

Message
song position pointer
song select