

11.3 MIDI CC Assignments

Controller Change Messages are used to alter sound parameters of a given channel. They allow more musical expressivity by adjusting the sound character while playing or allow the editing of the part parameters from an extended/remote MIDI interface or a computer software (sequencer or preset editor).

The messages consist of 3 bytes: the **status** byte, followed by the **control number** byte and then terminated by the **control value** byte. Here's the list of supported messages:

Section	Parameter	CC Number
General	Modwheel	1
Preset	Osc 1 Wave	70
	Osc 1 Coarse	21
	Osc 1 FM Amount	22
	Osc 1 Level	23
	Osc 1 Table	24
	Osc 1 Fine	25
	Osc 1 FM Rate	26
	Osc 1 Sync	27
	Osc 2 Wave	77
	Osc 2 Coarse	31
	Osc 2 FM Amount	32
	Osc 2 Level	33
	Osc 2 Table	34
	Osc 2 Fine	35
	Osc 2 FM Rate	36
	Osc 2 Sync	37
	Extra Noise	78
	Extra Ring	79
	Env A Attack	73
	Env A Decay	40
	Env A Sustain	41
	Env A Release	72
	Env A Velo	43
	Env A Hold	42
	Env A After	44
	Env A Trigger	45
	Env F Attack	46
	Env F Decay	47
	Env F Sustain	48
	Env F Release	49
	Env F Velo	51
	Env F Hold	50
	Env F After	52
	Env F Trigger	53

Section	Parameter	CC Number
Preset	Filter Resonance	71
	Filter Cutoff	74
	Filter Env F Amount	54
	Filter Track	55
	Filter After	56
	Filter LFO 1 Amount	57
	Shaper Cutoff	75
	Shaper Resonance	76
	Shaper Env A Amount	58
	Shaper Track	59
	Shaper Mode	60
	Shaper LFO 2 Amount	61
	LFO 1 Shape	102
	LFO 1 Speed	103
	LFO 1 Rise	104
	LFO 1 Phase	105
	LFO 2 Shape	106
	LFO 2 Speed	107
	LFO 2 Rise	108
	LFO 2 Phase	109
	Arp Mode	110
	Arp Grid	111
	Arp Tempo	112
	Arp Hold	113
	Amp Level	80
	Amp Pan	81
	Modulation Env F	17
	Modulation Env A	18
	Modulation LFO 1	19
	Modulation LFO 2	20
	Modulation Mod Wheel	87
	Modulation Pitch	88
	Modulation Velocity	89
	Modulation Aftertouch	90
	Bend Range	86
	Tune	85
Multi	Level	07
	Balance	10
	FX Mix	91
	FX Feedback	12
	FX Length	14
	FX Depth	93
	FX Mode	13
	FX Speed	15
System	All Sounds Off	120
	Reset All Controllers	121
	All Notes Off	123
	Omni Off	124
	Omni On	125
	Mono Mode	126
	Poly Mode	127