



G A M E C H A N G E R | A U D I O

MOTOR PEDAL MIDI TABLE & TECH SPECS

CC	NAME	MSB value range	MSB and LSB val range (CC_msb+32 is CC_lsb)
1 (MODWHEEL)	MOD	[0...127] = [min MOD...max MOD]	[0...16383] = [min MOD...max MOD]
8	SHIFT	[0...17] = [-Oct], [18...35] = [-5th], [36...53] = [-4th], [54...72] = [0], [73...90] = [+4th], [91...108] = [+5th], [109...127] = [+Oct]	[0...2340] = [-Oct], [2341...4680] = [-5th], [4681...7021] = [-4th], [7022...9361] = [0], [9362...11702] = [+4th], [11703...14042] = [+5th], [14043...16383] = [+Oct]
9	RELEASE	[0...127] = [min RELEASE...max RELEASE]	[0...16383] = [min RELEASE...max RELEASE]
10	VIBR/GLIDE	[0...63] = [max VIBR...min VIBR], [64...127] = [min ACCEL...max ACCEL]	[0...8192] = [max VIBR...min VIBR], [8193...16383] = [min ACCEL...max ACCEL]
11	MOD	[0...127] = [min MOD...max MOD]	[0...16383] = [min MOD...max MOD]
12	ENGINE	[0...25] = [ENGINE 1: MOTOR], [26...51] = [ENGINE 2: MxD], [52...76] = [ENGINE 3: MWAVE], [77...102] = [ENGINE 4: COIL], [103...127] = [ENGINE 5: VOCODER]	[0...3276] = [ENGINE 1: MOTOR], [3277...6553] = [ENGINE 2: MxD], [6554...9829] = [ENGINE 3: MWAVE], [9830...13106] = [ENGINE 4: COIL], [13107...16383] = [ENGINE 5: VOCODER]
13	PEDAL	[0...25] = [PEDAL MODE 1: ACCEL], [26...51] = [PEDAL MODE 2: BRAKE], [52...76] = [PEDAL MODE 3: CLUTCH], [77...102] = [PEDAL MODE 4: DRIFT], [103...127] = [PEDAL MODE 5: VOLUME]	[0...3276] = [PEDAL MODE 1: ACCEL], [3277...6553] = [PEDAL MODE 2: BRAKE], [6554...9829] = [PEDAL MODE 3: CLUTCH], [9830...13106] = [PEDAL MODE 4: DRIFT], [13107...16383] = [PEDAL MODE 5: VOLUME]
14	EFFECT ON (FSW)	[0...63] = OFF, [64...127] = ON	[0...8191] = OFF, [8192...16383] = ON
15	PEDAL VALUE	[0...127] = [off ... fully pressed (normal range)]	[0...16383] = [off ... fully pressed (normal range)]
16	FLOOR-IT VALUE	[0...127] = [pressed...max pressure (floor-it)]	[0...16383] = [pressed...max pressure (floor-it)]
17	MIDI NOTE ONLY MODE (disable instrument input pitchtracker e.g. for vocoding)	[0...63] = OFF, [64...127] = ON	[0...8191] = OFF, [8192...16383] = ON
18	PEDAL + PRESSURE VALUE	[0...90] = [off...fully pressed (normal range)], [91...102] = [deadzone], [103...127] = [pressed...max pressure (floor-it)]	[0...11469] = [off...fully pressed (normal range)], [11470...13106] = [deadzone], [13107...16383] = [pressed...max pressure (floor-it)]

PC	1	2	3	4	5	11	12	13	14	15
	ENGINE 1: MOTOR	ENGINE 2: MxD	ENGINE 3: MWAVE	ENGINE 4: COIL	ENGINE 5: VOCODER	PEDAL MODE 1: ACCEL	PEDAL MODE 2: BRAKE	PEDAL MODE 3: CLUTCH	PEDAL MODE 4: DRIFT	PEDAL MODE 5: VOLUME

Connections		
Inputs	IN MONO	6.35mm(1/4")TS socket
	TRACK IN	6.35mm(1/4")TS socket
	MIDI IN	MIDI 5 PIN DIN cable input
Outputs	OUT MONO	6.35mm(1/4")TS socket
	TRACK OUT	6.35mm(1/4")TS socket
Data	USB-C	MIDI & Firmware update
SOUND		
Built-in analog signal multiplier (X-mod) and 5 MOTOR synthesis modes		
	ENGINE	MOTOR, MxD, MWAVE, COIL, VOCODER
	MOD	Waveshaping, timbre and analog signal multiplier depth
	SHIFT	-OCT, -5th, -4th, 0, +4th, +5th, +Oct
	VIBR / GLIDE	Max vibrato: +/-100c, max glide: 5
	RELEASE	200ms to infinite
	DRIVE	Analog hard-clipping drive circuit
	tone	Analog tilt boost/cut EQ, Fc=300Hz, +/-6dB
	CLEAN	Analog CLEAN channel volume mixer
	MOTOR	Analog MOTOR channel volume mixer
Built-in spring-loaded expression "accelerator" pedal		
	PEDAL	ACCEL, BRAKE, CLUTCH, DRIFT, VOLUME
Indication		
Dashboard	MOTOR DISC LED	Red LED shining on disc indicating effect on/off
	ENGINE LED bar	Indicates selected ENGINE
	REV LED bar	Indicates current motor RPM (in COIL mode: pitch)
	PEDAL MODE LED bar	Indicates built-in expression pedal mode
	X-MOD LED	Green when MOD knob is on the right side. White when receiving signal
	ENGINE LED	Motor module health status
	IN LED	Green when receiving input signal. Blue when receiving MIDI input
Signal specification		
Signal level	IN / OUT / TRACK IN / TRACK OUT	4Vpp max
Impedance	Audio Input impedance	500 kOhm
	Audio Output impedance	100 Ohm
Motor System		
	Motor Module Assembly	Type 030 brushed DC motor, encoder and pickup assembly - GCA partname: MMB1
	Min speed:	400 rpm (20Hz)
	Max speed:	Range 26000 ... 42000 rpm (1300Hz ... 2100Hz) depending on power supply (9V 500mA ... 9V 1A)
Power		
	DC Power input	Center negative 9-12 V, Minimum 500 mA, 2.1 x 5.5 mm plug
Weight & Dimensions		
	Dimensions	18 x 10 x 8 (cm) / 7.1" x 4" x3.2" (L x W x H)
	Weight	1.07kg / 2.4lbs