

Waldorf Microwave 2/XT Controller Number Assignment
 Software release 2.09

Contr. No.	Range	Parameter	Value Range
1	0..127	Modulation wheel MSB	0..127
2	0..127	Breath control MSB	0..127
4	0..127	Foot controller MSB	0..127
5	0..127	Glide Time	0..127
7	0..127	Channel Volume	0..127
10	0..127	Panning left	64..center..right 63
12	0..1	Chorus 0:off 1:on	
14	0..127	Filter Env Attack	0..127
15	0..127	Filter Env Decay	0..127
16	0..127	Filter Env Sustain	0..127
17	0..127	Filter Env Release	0..127
18	0..127	Amp Env Attack	0..127
19	0..127	Amp Env Decay	0..127
20	0..127	Amp Env Sustain	0..127
21	0..127	Amp Env Release	0..127
22	0..3	Glide Type	0:portamento 1:fingered port. 2:glissando 3:fingered gliss.
23	0..1	Glide Mode	0:exp. 1:linear
24	0..127	LFO1 Rate	0..127
25	0..5	LFO1 Shape	0:sin 1:tri 2:square 3:saw 4:random 5:S&H
26	0..127	LFO2 Rate	0..127
27	0..127	LFO2 Delay	0:off 1:retrigger 2..127:1..126
28	0..5	LFO2 Shape	0:sin 1:tri 2:square 3:saw 4:random 5:S&H
29	0..2	Filter Env Trigger	0:normal 1:single 2:retrigger
30	0..127	LFO1 Delay	0:off 1:retrigger 2..127:1..126
31	0..2	Amp Env Trigger	0:normal 1:single 2:retrigger
32	0..1	Bank Select	0:Bank A 1:Bank B
33	16..112	Osc 1 Octave	-4..+4 (in steps of 12)
34	56..76	Osc 1 Semitone	-12..+12
35	0..127	Osc 1 Detune	-64..+63
36	0..121	Osc 1 Pitchbend Scale	0..120:semitones 121:harmonic 122:global
37	0..127	Osc 1 Keytrack	-100%..+200%
38	16..112	Osc 2 Octave	-4..+4 (in steps of 12)
39	56..76	Osc 2 Semitone	-12..+12
40	0..127	Osc 2 Detune	-64..+63
41	0..1	Osc 2 Sync	0:off 1:on
42	0..121	Osc 2 Pitchbend Scale	0..120:semitones 121:harmonic 122:global
43	0..127	Osc 2 Keytrack	-100%..+200%
44	0..1	Osc 2 Link	0:off 1:on
45	0..127	Wave 1 Level	0..127
46	0..127	Wave 2 Level	0..127
47	0..127	RingMod Level	0..127

48	0..127	Noise Level	0..127
50	0..127	Filter 1 Cutoff	0..127
51	0..127	Filter 1 Keytrack	-200%..+197%
52	0..127	Filter 1 Env Amount	-64..+63
53	0..127	Filter 1 Env Velocity	-64..+63
54	0..9	Filter 1 Type	0:24dB LP 1:12dB LP 2:24dB BP 3:12dB BP 4:12dB HP 5:sinX>12L 6:Waveshaper 7:Dual 8:FM-
Filter			
55	0..127	Amp Keytrack	9:S&H->L12dB -200%..+197%
56	0..127	Filter 1 Resonance	0..127
57	0..127	Amp Volume	0..127
58	0..127	Amp Env Velocity	-64..+63
60	0..127	Filter 2 Cutoff	0..127
61	0..1	Filter 2 Type	0:6dB LP 1:6dB HP
62	0..127	Filter 2 Keytrack	-200%..+197%
64	0..127	Sustain Switch	0..127
65	0..127	Portamento Switch	0..127
66	0..127	Sostenuto Switch	0..127
70	0..127	Wavetable	Wavetable 001..128
71	0..63	Wave 1 Startwave	00..60 61:triangle 62:square 63:saw
72	0..127	Wave 1 Phase	0:free 1..127:3..357 degree
73	0..127	Wave 1 Env Amnt.	-64..+63
74	0..127	Wave 1 Env Vel. Amnt.	-64..+63
75	0..127	Wave 1 Keytrack	-200%..+197%
76	0..1	Wave 1 Limit	0:off 1:on
77	0..63	Wave 2 Startwave	00..60 61:triangle 62:square 63:saw
78	0..127	Wave 2 Phase	0:free 1..127:3..357 degree
79	0..127	Wave 2 Env Amnt.	-64..+63
80	0..127	Wave 2 Env Vel. Amnt.	-64..+63
81	0..127	Wave 2 Keytrack	-200%..+197%
82	0..1	Wave 2 Limit	0:off 1:on
83	0..1	Wave 2 Link	0:off 1:on
85	0..127	Free Env Time 1	0..127
86	0..127	Free Env Level 1	-64..+63
87	0..127	Free Env Time 2	0..127
88	0..127	Free Env Level 2	-64..+63
89	0..127	Free Env Time 3	0..127
90	0..127	Free Env Level 3	-64..+63
91	0..127	Free Env Release Time	0..127
92	0..127	Free Env Release Level	-64..+63
93	0..2	Free Env Trigger	0:normal 1:single 2:retrigger
102	0..2	Arp Active	0:off 1:on 2:hold
103	0..9	Arp Range	1..10 Octaves
104	0..15	Arp Clock	1/1..1/32
105	0..127	Arp Tempo	0:external 1..127:50..300BPM
106	0..3	Arp Direction	0:up 1:down 2:alternate 3:random
107	0..16	Arp Pattern	0:off 1:user 2..16:Pattern 1..15
108	0..3	Arp Note Order	0:by note 1:note rev 2:as played 3:reversed
109	0..1	Arp Velocity	0:root note 1:last note
110	0..1	Arp Reset	0:off 1:on
111	0..15	Arp Pattern Length	1..16

112	0..1	LFO 1 Sync	0:off 1:on
113	0..127	LFO 1 Symmetry	-64..+63
114	0..127	LFO 1 Humanize	0..127
115	0..1	LFO 2 Sync	0:off 1:on
116	0..127	LFO 2 Symmetry	-64..+63
117	0..127	LFO 2 Humanize	0..127
118	0..127	LFO 2 Phase	0:free 1..127:3..357 degree
120	0	All Sound Off	
121	0	Reset All Controllers	
123	0	All notes off	