

**PYRAMID**  
MIDI CC FX Reference

**QUANTISER**

ENABLE	
Off	0-63
On	64-127

GRID	
¼	0-15
1/8	16-31
1/12	32-47
1/16	48-63
1/24	64-79
1/32	80-95
1/48	96-111
1/64	112-126
1/96	127

HUMAN +/-	
0%	0-12
10%	13-25
20%	26-38
30%	39-50
40%	51-63
50%	64-76
60%	77-88
70%	89-101
80%	102-114
90%	115-126
100%	127

LEGATO	
Off	0-63
On	64-127

# PYRAMID

## MIDI CC FX Reference

### ARPEGGIATOR

ENABLE	
Off	0-63
On	64-127

STYLE	
Up	0-7
Down	8-14
Up/Dn	15-22
Rand	23-29
Assign	30-37
Double	38-44
Octave Up	45-52
Octave Down	53-59
Drunk	60-67
Fifths	68-74
One-Two	75-82
Silence	83-89
Runner	90-97
Disco	98-104
Marble	105-112
Rhythm 1	113-119
Rhythm 2	120-126
Rhythm 3	127

GATE							
1	0	51	32	101	64	151	96
2	1	52	33	103	65	153	97
4	2	54	34	104	66	154	98
5	3	55	35	106	67	156	99
6	4	57	36	107	68	157	100
8	5	59	37	109	69	159	101
10	6	60	38	110	70	161	102
11	7	62	39	112	71	162	103
13	8	63	40	114	72	164	104
15	9	65	41	115	73	165	105
16	10	66	42	117	74	167	106
18	11	68	43	118	75	168	107
19	12	70	44	120	76	170	108
21	13	71	45	121	77	172	109
22	14	73	46	123	78	173	110
24	15	74	47	125	79	175	111
26	16	76	48	126	80	176	112
27	17	77	49	128	81	178	113
29	18	79	50	129	82	179	114
30	19	81	51	131	83	181	115
32	20	82	52	132	84	183	116
33	21	84	53	134	85	184	117
35	22	85	54	136	86	186	118
37	23	87	55	137	87	187	119
38	24	88	56	139	88	189	120
40	25	90	57	140	89	190	121
41	26	92	58	142	90	192	122
43	27	93	59	143	91	194	123
44	28	95	60	145	92	195	124
46	29	96	61	143	93	197	125
48	30	98	62	148	94	198	126
49	31	99	63	150	95	200	127

RATE	
1/4	0-18
1/8	19-36
1/12	37-54
1/16	55-72
1/24	73-90
1/32	91-108
1/48	109-126
1/64	127

OCTAVE	
-5	0-12
-4	13-25
-3	26-38
-2	39-50
-1	51-63
0	64-76
+1	77-88
+2	89-101
+3	102-114
+4	115-126
+5	127

**PYRAMID**  
MIDI CC FX Reference

**HARMONIZER**

ENABLE	
Off	0-63
On	64-127

HARMO							
-24	0-2	-12	32-34	+1	67-68	+13	98-100
-23	3-5	-11	35-37	+2	69-71	+14	101-103
-22	6-7	-10	38-39	+3	72-74	+15	104-105
-21	8-10	-9	40-42	+4	75-76	+16	106-108
-20	11-13	-8	43-44	+5	77-79	+17	109-111
-19	14-15	-7	45-47	+6	80-82	+18	112-113
-18	16-18	-6	48-50	+7	83-84	+19	114-116
-17	19-21	-5	51-52	+8	85-87	+20	117-119
-16	22-23	-4	53-55	+9	88-89	+21	120-121
-15	24-26	-3	56-58	+10	90-92	+22	122-124
-14	27-29	-2	59-60	+11	93-95	+23	125-126
-13	30-31	-1	61-63	+12	96-97	+24	127
		0	64-66				

# PYRAMID

## MIDI CC FX Reference

### SWING

ENABLE	
Off	0-63
On	64-127

GRID			
1/1	0-14	1/8	71-84
1/2	15-28	1/12	85-98
1/3	29-42	1/16	99-112
1/4	43-56	1/24	113-126
1/6	57-70	1/32	127

PERCENT			
50%	0	62%	32
50%	1	62%	33
50%	2	63%	34
51%	3	63%	35
51%	4	63%	36
51%	5	64%	37
52%	6	64%	38
52%	7	65%	39
53%	8	65%	40
53%	9	65%	41
53%	10	66%	42
54%	11	66%	43
54%	12	66%	44
55%	13	67%	45
55%	14	67%	46
55%	15	68%	47
56%	16	68%	48
56%	17	68%	49
56%	18	69%	50
57%	19	69%	51
57%	20	70%	52
58%	21	70%	53
58%	22	70%	54
58%	23	71%	55
59%	24	71%	56
59%	25	71%	57
60%	26	72%	58
60%	27	72%	59
60%	28	73%	60
61%	29	73%	61
61%	30	73%	62
61%	31	74%	63
		74%	64
		75%	65
		75%	66
		75%	67
		76%	68
		76%	69
		77%	70
		77%	71
		77%	72
		78%	73
		78%	74
		78%	75
		79%	76
		79%	77
		80%	78
		80%	79
		80%	80
		81%	81
		81%	82
		82%	83
		82%	84
		82%	85
		83%	86
		83%	87
		83%	88
		84%	89
		84%	90
		85%	91
		85%	92
		85%	93
		86%	94
		86%	95
		87%	96
		87%	97
		87%	98
		88%	99
		88%	100
		88%	101
		89%	102
		89%	103
		90%	104
		90%	105
		90%	106
		91%	107
		91%	108
		91%	109
		92%	110
		92%	111
		93%	112
		93%	113
		93%	114
		94%	115
		94%	116
		94%	117
		95%	118
		95%	119
		96%	120
		96%	121
		97%	122
		97%	123
		97%	124
		98%	125
		98%	126
		98%	127

VELOCITY %			
0%	0	25%	32
0%	1	25%	33
1%	2	26%	34
2%	3	27%	35
3%	4	28%	36
3%	5	29%	37
4%	6	29%	38
5%	7	30%	39
6%	8	31%	40
7%	9	32%	41
7%	10	33%	42
8%	11	33%	43
9%	12	34%	44
10%	13	35%	45
11%	14	36%	46
11%	15	37%	47
12%	16	37%	48
13%	17	38%	49
14%	18	39%	50
14%	19	40%	51
15%	20	40%	52
16%	21	41%	53
17%	22	42%	54
18%	23	43%	55
18%	24	44%	56
19%	25	44%	57
20%	26	45%	58
21%	27	46%	59
22%	28	47%	60
22%	29	48%	61
23%	30	48%	62
24%	31	49%	63
		50%	64
		51%	65
		51%	66
		52%	67
		53%	68
		54%	69
		55%	70
		55%	71
		56%	72
		57%	73
		58%	74
		59%	75
		59%	76
		60%	77
		61%	78
		62%	79
		62%	80
		63%	81
		64%	82
		65%	83
		66%	84
		66%	85
		67%	86
		68%	87
		69%	88
		70%	89
		70%	90
		71%	91
		72%	92
		73%	93
		74%	94
		74%	95
		75%	96
		76%	97
		77%	98
		77%	99
		78%	100
		79%	101
		80%	102
		81%	103
		81%	104
		82%	105
		83%	106
		84%	107
		85%	108
		85%	109
		86%	110
		87%	111
		88%	112
		88%	113
		89%	114
		90%	115
		91%	116
		92%	117
		92%	118
		93%	119
		94%	120
		95%	121
		96%	122
		96%	123
		97%	124
		98%	125
		99%	126
		99%	127

# PYRAMID

## MIDI CC FX Reference

### RANDOMIZER

ENABLE	
Off	0-63
On	64-127

PARAMETER	
VELOCITY	0-42
PITCH	43-84
OCTAVE	85-126
NOTE LEN	127

RANDOM +/-					
0%	0	25%	32	50%	64
0%	1	25%	33	51%	65
1%	2	26%	34	51%	66
2%	3	27%	35	52%	67
3%	4	28%	36	53%	68
3%	5	29%	37	54%	69
4%	6	29%	38	55%	70
5%	7	30%	39	55%	71
6%	8	31%	40	56%	72
7%	9	32%	41	57%	73
7%	10	33%	42	58%	74
8%	11	33%	43	59%	75
9%	12	34%	44	59%	76
10%	13	35%	45	60%	77
11%	14	36%	46	61%	78
11%	15	37%	47	62%	79
12%	16	37%	48	62%	80
13%	17	38%	49	63%	81
14%	18	39%	50	64%	82
14%	19	40%	51	65%	83
15%	20	40%	52	66%	84
16%	21	41%	53	66%	85
17%	22	42%	54	67%	86
18%	23	43%	55	68%	87
18%	24	44%	56	69%	88
19%	25	44%	57	70%	89
20%	26	45%	58	70%	90
21%	27	46%	59	71%	91
22%	28	47%	60	72%	92
22%	29	48%	61	73%	93
23%	30	48%	62	74%	94
24%	31	49%	63	74%	95
				75%	96
				76%	97
				77%	98
				77%	99
				78%	100
				79%	101
				80%	102
				81%	103
				81%	104
				82%	105
				83%	106
				84%	107
				85%	108
				85%	109
				86%	110
				87%	111
				88%	112
				88%	113
				89%	114
				90%	115
				91%	116
				92%	117
				93%	118
				94%	119
				94%	120
				95%	121
				96%	122
				97%	123
				97%	124
				98%	125
				99%	126
				100%	127

CHANCE	
100	0-6
95	7-12
90	13-19
85	20-25
80	26-31
75	32-38
70	39-44
65	45-50
60	51-57
55	58-63
50	64-69
45	70-76
40	77-82
35	83-88
30	89-95
25	96-101
20	102-107
15	108-114
10	115-120
5	121-126
0	127

GRID	
1/32	0-6
1/24	7-12
1/16	13-19
1/12	20-25
1/8	26-31
1/6	32-38
1/4	39-44
1/2	45-50
1	51-57
2	58-63
3	64-69
4	70-76
5	77-82
6	83-88
7	89-95
8	96-101
9	102-107
10	108-114
11	115-120
12	121-126
13	127

# PYRAMID

## MIDI CC FX Reference

### DELAY

ENABLE	
Off	0-63
On	64-127

TIME	
1/4	0-18
1/8	19-36
1/12	37-54
1/16	55-72
1/24	73-90
1/32	91-108
1/48	109-126
1/64	127

REPEAT	
1-128	0-127

GAIN							
0%	0	50%	32	100%	64	151%	96
1%	1	51%	33	102%	65	152%	97
3%	2	53%	34	103%	66	154%	98
4%	3	55%	35	105%	67	155%	99
6%	4	56%	36	107%	68	157%	100
7%	5	58%	37	108%	69	159%	101
9%	6	59%	38	110%	70	160%	102
11%	7	61%	39	111%	71	162%	103
12%	8	62%	40	113%	72	163%	104
14%	9	64%	41	114%	73	165%	105
15%	10	66%	42	116%	74	166%	106
17%	11	67%	43	118%	75	168%	107
18%	12	69%	44	119%	76	170%	108
20%	13	70%	45	121%	77	171%	109
22%	14	72%	46	122%	78	173%	110
23%	15	74%	47	124%	79	174%	111
25%	16	75%	48	125%	80	176%	112
26%	17	77%	49	127%	81	177%	113
28%	18	78%	50	129%	82	179%	114
29%	19	80%	51	130%	83	181%	115
31%	20	81%	52	132%	84	182%	116
33%	21	83%	53	133%	85	184%	117
34%	22	85%	54	135%	86	185%	118
36%	23	86%	55	137%	87	187%	119
37%	24	88%	56	138%	88	188%	120
39%	25	89%	57	140%	89	190%	121
40%	26	91%	58	141%	90	192%	122
42%	27	92%	59	143%	91	193%	123
44%	28	94%	60	144%	92	195%	124
45%	29	96%	61	146%	93	196%	125
47%	30	97%	62	148%	94	198%	126
48%	31	99%	63	149%	95	200%	127

DRY/WET											
0%	0	25%	32	50%	64	75%	96				
0%	1	25%	33	51%	65	76%	97				
1%	2	26%	34	51%	66	77%	98				
2%	3	27%	35	52%	67	77%	99				
3%	4	28%	36	53%	68	78%	100				
3%	5	29%	37	54%	69	79%	101				
4%	6	29%	38	55%	70	80%	102				
5%	7	30%	39	55%	71	81%	103				
6%	8	31%	40	56%	72	81%	104				
7%	9	32%	41	57%	73	82%	105				
7%	10	33%	42	58%	74	83%	106				
8%	11	33%	43	59%	75	84%	107				
9%	12	34%	44	59%	76	85%	108				
10%	13	35%	45	60%	77	85%	109				
11%	14	36%	46	61%	78	86%	110				
11%	15	37%	47	62%	79	87%	111				
12%	16	37%	48	62%	80	88%	112				
13%	17	38%	49	63%	81	88%	113				
14%	18	39%	50	64%	82	89%	114				
14%	19	40%	51	65%	83	90%	115				
15%	20	40%	52	66%	84	91%	116				
16%	21	41%	53	66%	85	92%	117				
17%	22	42%	54	67%	86	92%	118				
18%	23	43%	55	68%	87	93%	119				
18%	24	44%	56	69%	88	94%	120				
19%	25	44%	57	70%	89	95%	121				
20%	26	45%	58	70%	90	96%	122				
21%	27	46%	59	71%	91	96%	123				
22%	28	47%	60	72%	92	97%	124				
22%	29	48%	61	73%	93	98%	125				
23%	30	48%	62	74%	94	99%	126				
24%	31	49%	63	74%	95	100%	127				

# PYRAMID

## MIDI CC FX Reference

### EQUALISER

ENABLE	
Off	0-63
On	64-127

BASENOTE					
C# -1	0-1	G# 1	32	E 4	65
D -1	2	A 1	33	F 4	66
D# -1	3	A# 1	34	F# 4	67
E -1	4	B 1	35	G 4	68
F -1	5	C 2	36	G# 4	69
F# -1	6	C# 2	37	A 4	70
G -1	7	D 2	38	A# 4	71
G# -1	8	D# 2	39	B 4	72
A -1	9	E 2	40	C 5	73
A# -1	10	F 2	41	C# 5	74
B -1	11	F# 2	42	D 5	75
C 0	12	G 2	43	D# 5	76
C# 0	13	G# 2	44	E 5	77
D 0	14	A 2	45	F 5	78
D# 0	15	A# 2	46	F# 5	79
E 0	16	B 2	47	G 5	80
F 0	17	C 3	48	G# 5	81
F# 0	18	C# 3	49	A 5	82
G 0	19	D 3	50	A# 5	83
G# 0	20	D# 3	51	B 5	84
A 0	21	E 3	52	C 6	85
A# 0	22	F 3	53	C# 6	86
B 0	23	F# 3	54	D 6	87
C 1	24	G 3	55	D# 6	88
C# 1	25	G# 3	56	E 6	89
D 1	26	A 3	57	F 6	90
D# 1	27	A# 3	58	F# 6	91
E 1	28	B 3	59	G 6	92
F 1	29	C 4	60	G# 6	93
F# 1	30	C# 4	61	A 6	94
G 1	31	D 4	62	A# 6	95
		D# 4	63-64		
				F# 9	127

GAIN					
0%	0	50%	32	100%	64
1%	1	51%	33	102%	65
3%	2	53%	34	103%	66
4%	3	55%	35	105%	67
6%	4	56%	36	107%	68
7%	5	58%	37	108%	69
9%	6	59%	38	110%	70
11%	7	61%	39	111%	71
12%	8	62%	40	113%	72
14%	9	64%	41	114%	73
15%	10	66%	42	116%	74
17%	11	67%	43	118%	75
18%	12	69%	44	119%	76
20%	13	70%	45	121%	77
22%	14	72%	46	122%	78
23%	15	74%	47	124%	79
25%	16	75%	48	125%	80
26%	17	77%	49	127%	81
28%	18	78%	50	129%	82
29%	19	80%	51	130%	83
31%	20	81%	52	132%	84
33%	21	83%	53	133%	85
34%	22	85%	54	135%	86
36%	23	86%	55	137%	87
37%	24	88%	56	138%	88
39%	25	89%	57	140%	89
40%	26	91%	58	141%	90
42%	27	92%	59	143%	91
44%	28	94%	60	144%	92
45%	29	96%	61	146%	93
47%	30	97%	62	148%	94
48%	31	99%	63	149%	95
				151%	96
				152%	97
				154%	98
				155%	99
				157%	100
				159%	101
				160%	102
				162%	103
				163%	104
				165%	105
				166%	106
				168%	107
				170%	108
				171%	109
				173%	110
				174%	111
				176%	112
				177%	113
				179%	114
				181%	115
				182%	116
				184%	117
				185%	118
				187%	119
				188%	120
				190%	121
				192%	122
				193%	123
				195%	124
				196%	125
				198%	126
				200%	127

# PYRAMID

## MIDI CC FX Reference

### SCALE

ENABLE	
Off	0-63
On	64-127

SCALE	
MAJOR	0-5
MINOR	6-10
H. MINOR	11-15
BLUES MIN	16-20
BLUES MAJ	21-25
ROM MIN	26-30
TUNISIAN	31-35
DOM 7	36-40
SPANISH	41-45
GYPSY	46-50
ARABIAN	51-55
EGYPTIAN	56-60
HAWAIIAN	61-66
JAPANESE	67-71
MINOR3	72-75
FOURTH	77-81
FIFTH	82-86
OCTAVE	87-91
IONIAN	92-96
DORIAN	97-101
PHRYGIAN	102-106
LYDIAN	107-111
MIXOLYDIAN	112-116
AEOLIAN	117-121
LOCRIAN	122-126
CHROMATIC	127

KEY	
C	0-11
C#	12-23
D	24-34
D#	35-46
E	47-57
F	58-69
F#	70-80
G	81-92
G#	93-103
A	104-115
A#	116-126
B	127

STICK	
UP	0-31
DOWN	32-63
FILTER	64-95
A1	96-126
A2	127

TRANSCOPE	
-12	0-5
-11	6-10
-10	11-15
-9	16-21
-8	22-26
-7	27-31
-6	32-37
-5	38-42
-4	43-47
-3	48-52
-2	53-58
-1	59-63
0	64-68
1	69-74
2	75-79
3	80-84
4	85-89
5	90-95
6	96-100
7	101-105
8	106-111
9	112-116
10	117-121
11	122-126
12	127



# PYRAMID

## MIDI CC FX Reference

### NOTE to CC

ENABLE	
Off	0-63
On	64-127

PARAMETER	
NOTE ON	0-63
VELOCITY	64-126
NOTE ON/OFF	127

		TO CC	
0	0-1	61	64
1	2	62	65
2	3	63	66
3	4	64	67
4	5	65	68
5	6	66	69
6	7	67	70
7	8	68	71
8	9	69	72
9	10	70	73
10	11	71	74
11	12	72	75
12	13	73	76-77
13	14	74	78
14	15	75	79
15	16	76	80
16	17	77	81
17	18	78	82
18	19	79	83
19	20	80	84
20	21	81	85
21	22	82	86
22	23	83	87
23	24	84	88
24	25-26	85	89
25	27	86	90
26	28	87	91
27	29	88	92
28	30	89	93
29	31	90	94
30	32	91	95
31	33	92	96
32	34	93	97
33	35	94	98
34	36	95	99
35	37	96	100
36	38	97	101-102
37	39	98	103
38	40	99	104
39	41	100	105
40	42	101	106
41	43	102	107
42	44	103	108
43	45	104	109
44	46	105	110
45	47	106	111
46	48	107	112
47	49	108	113
48	50-51	109	114
49	52	110	115
50	53	111	116
51	54	112	117
52	55	113	118
53	56	114	119
54	57	115	120
55	58	116	121
56	59	117	122
57	60	118	123
58	61	119	124
59	62	PITCH BEND	125
60	63	PRESSURE	126
		PGM CHG	127

PLAY NOTE	
Off	0-63
On	64-127

# PYRAMID

## MIDI CC FX Reference

### BPM

ENABLE	
Off	0-63
On	64-127

BPM							
10	0	70	32	131	64	191	96
12	1	72	33	133	65	193	97
14	2	74	34	135	66	195	98
16	3	76	35	137	67	197	99
18	4	78	36	139	68	198	100
19	5	80	37	140	69	200	101
21	6	82	38	142	70	202	102
23	7	84	39	144	71	204	103
25	8	86	40	146	72	206	104
27	9	87	41	148	73	208	105
29	10	89	42	150	74	210	106
31	11	91	43	152	75	212	107
33	12	93	44	154	76	214	108
35	13	95	45	155	77	215	109
36	14	97	46	157	78	217	110
38	15	99	47	159	79	219	111
40	16	101	48	161	80	221	112
42	17	103	49	163	81	223	113
44	18	104	50	164	82	225	114
46	19	106	51	166	83	227	115
48	20	108	52	168	84	229	116
50	21	110	53	170	85	231	117
52	22	112	54	172	86	232	118
53	23	114	55	174	87	234	119
55	24	116	56	176	88	236	120
57	25	118	57	178	89	238	121
59	26	120	58	180	90	240	122
61	27	121	59	181	91	242	123
63	28	123	60	183	92	244	124
65	29	125	61	185	93	246	125
67	30	127	62	187	94	248	126
69	31	129	63	189	95	250	127

# PYRAMID

## MIDI CC FX Reference

### CHANCE

ENABLE	
Off	0-63
On	64-127

SYNC	
OFF	0-42
1/4	43-84
1/8	85-126
1/16	127

APPLY	
PER PPQN	0-63
PER NOTE	64-127

CHANCE							
0%	0	25%	32	50%	64	76%	96
0%	1	26%	33	51%	65	76%	97
1%	2	26%	34	52%	66	77%	98
2%	3	27%	35	53%	67	78%	99
3%	4	28%	36	53%	68	79%	100
3%	5	29%	37	54%	69	80%	101
4%	6	30%	38	55%	70	80%	102
5%	7	30%	39	56%	71	81%	103
6%	8	31%	40	57%	72	82%	104
7%	9	32%	41	57%	73	83%	105
7%	10	33%	42	58%	74	84%	106
8%	11	34%	43	59%	75	84%	107
9%	12	34%	44	60%	76	85%	108
10%	13	35%	45	61%	77	86%	109
11%	14	36%	46	61%	78	87%	110
11%	15	37%	47	62%	79	88%	111
12%	16	38%	48	63%	80	88%	112
13%	17	38%	49	64%	81	89%	113
14%	18	39%	50	65%	82	90%	114
15%	19	40%	51	65%	83	91%	115
15%	20	41%	52	66%	84	92%	116
16%	21	42%	53	67%	85	92%	117
17%	22	42%	54	68%	86	93%	118
18%	23	43%	55	69%	87	94%	119
19%	24	44%	56	69%	88	95%	120
19%	25	45%	57	70%	89	96%	121
20%	26	46%	58	71%	90	96%	122
21%	27	46%	59	72%	91	97%	123
22%	28	47%	60	73%	92	98%	124
23%	29	48%	61	73%	93	99%	125
23%	30	49%	62	74%	94	100%	126
24%	31	49%	63	75%	95	VELOCITY	127

SYNC CHANCE							
0%	0	25%	32	50%	64	75%	96
0%	1	25%	33	51%	65	76%	97
1%	2	26%	34	51%	66	77%	98
2%	3	27%	35	52%	67	77%	99
3%	4	28%	36	53%	68	78%	100
3%	5	29%	37	54%	69	79%	101
4%	6	29%	38	55%	70	80%	102
5%	7	30%	39	55%	71	81%	103
6%	8	31%	40	56%	72	81%	104
7%	9	32%	41	57%	73	82%	105
7%	10	33%	42	58%	74	83%	106
8%	11	33%	43	59%	75	84%	107
9%	12	34%	44	59%	76	85%	108
10%	13	35%	45	60%	77	85%	109
11%	14	36%	46	61%	78	86%	110
11%	15	37%	47	62%	79	87%	111
12%	16	37%	48	62%	80	88%	112
13%	17	38%	49	63%	81	88%	113
14%	18	39%	50	64%	82	89%	114
14%	19	40%	51	65%	83	90%	115
15%	20	40%	52	66%	84	91%	116
16%	21	41%	53	66%	85	92%	117
17%	22	42%	54	67%	86	92%	118
18%	23	43%	55	68%	87	93%	119
18%	24	44%	56	69%	88	94%	120
19%	25	44%	57	70%	89	95%	121
20%	26	45%	58	70%	90	96%	122
21%	27	46%	59	71%	91	96%	123
22%	28	47%	60	72%	92	97%	124
22%	29	48%	61	73%	93	98%	125
23%	30	48%	62	74%	94	99%	126
24%	31	49%	63	74%	95	100%	127

# PYRAMID

## MIDI CC FX Reference

### LFO

WAVEFORM		PHASE										RANGE									
OFF	0-25	0	0	44	32	90	64	136	96	-127	0	-63	32	1	64	65	96				
SINE	26-50	0	1	46	33	92	65	136	97	-125	1	-61	33	3	65	67	97				
TRI	51-76	2	2	48	34	92	66	138	98	-123	2	-59	34	5	66	69	98				
SQUARE	77-101	4	3	48	35	94	67	140	99	-121	3	-57	35	7	67	71	99				
RAMP	102-126	4	4	50	36	96	68	140	100	-119	4	-55	36	9	68	73	100				
S&H	127	6	5	52	37	96	69	142	101	-117	5	-53	37	11	69	75	101				
		8	6	52	38	98	70	144	102	-115	6	-51	38	13	70	77	102				
		8	7	54	39	100	71	144	103	-113	7	-49	39	15	71	79	103				
		10	8	56	40	102	72	146	104	-111	8	-47	40	17	72	81	104				
		12	9	58	41	102	73	148	105	-109	9	-45	41	19	73	83	105				
		14	10	58	42	104	74	150	106	-107	10	-43	42	21	74	85	106				
		14	11	60	43	106	75	150	107	-105	11	-41	43	23	75	87	107				
		16	12	62	44	106	76	152	108	-103	12	-39	44	25	76	89	108				
		18	13	62	45	108	77	154	109	-101	13	-37	45	27	77	91	109				
		18	14	64	46	110	78	154	110	-99	14	-35	46	29	78	93	110				
		20	15	66	47	110	79	156	111	-97	15	-33	47	31	79	95	111				
		22	16	68	48	112	80	158	112	-95	16	-31	48	33	80	97	112				
		24	17	68	49	114	81	160	113	-93	17	-29	49	35	81	99	113				
		24	18	70	50	116	82	160	114	-91	18	-27	50	37	82	101	114				
		26	19	72	51	116	83	162	115	-89	19	-25	51	39	83	103	115				
		28	20	72	52	118	84	164	116	-87	20	-23	52	41	84	105	116				
		28	21	74	53	120	85	164	117	-85	21	-21	53	43	85	107	117				
		30	22	76	54	120	86	166	118	-83	22	-19	54	45	86	109	118				
		32	23	76	55	122	87	168	119	-81	23	-17	55	47	87	111	119				
		34	24	78	56	124	88	170	120	-79	24	-15	56	49	88	113	120				
		34	25	80	57	126	89	170	121	-77	25	-13	57	51	89	115	121				
		36	26	82	58	126	90	172	122	-75	26	-11	58	53	90	117	122				
		38	27	82	59	128	91	174	123	-73	27	-9	59	55	91	119	123				
		38	28	84	60	130	92	174	124	-71	28	-7	60	57	92	121	124				
		40	29	86	61	130	93	176	125	-69	29	-5	61	59	93	123	125				
		42	30	86	62	132	94	178	126	-67	30	-3	62	61	94	125	126				
		42	31	88	63	134	95	180	127	-65	31	-1	63	63	95	127	127				

RATE	
1/16	0-6
1/12	7-13
1/8	14-20
3/16	21-26
1/4	27-33
3/8	34-40
1/2	41-46
3/4	47-53
1	54-60
5/4	61-66
3/2	67-73
2	74-80
3	81-86
4	87-93
6	94-100
8	101-106
12	107-113
16	114-120
32	121-126
64	127

TO CC									
0	0-1	30	32	61	64	92	96		
1	2	31	33	62	65	93	97		
2	3	32	34	63	66	94	98		
3	4	33	35	64	67	95	99		
4	5	34	36	65	68	96	100		
5	6	35	37	66	69	97	101-102		
6	7	36	38	67	70	98	103		
7	8	37	39	68	71	99	104		
8	9	38	40	69	72	100	105		
9	10	39	41	70	73	101	106		
10	11	40	42	71	74	102	107		
11	12	41	43	72	75	103	108		
12	13	42	44	73	76-77	104	109		
13	14	43	45	74	78	105	110		
14	15	44	46	75	79	106	111		
15	16	45	47	76	80	107	112		
16	17	46	48	77	81	108	113		
17	18	47	49	78	82	109	114		
18	19	48	50-51	79	83	110	115		
19	20	49	52	80	84	111	116		
20	21	50	53	81	85	112	117		
21	22	51	54	82	86	113	118		
22	23	52	55	83	87	114	119		
23	24	53	56	84	88	115	120		
24	25-26	54	57	85	89	116	121		
25	27	55	58	86	90	117	122		
26	28	56	59	87	91	118	123		
27	29	57	60	88	92	119	124		
28	30	58	61	89	93	PITCH BEND	125		
29	31	59	62	90	94	PRESSURE	126		
		60	63	91	95	PGM CHG	127		