

(Category)	Parameter	CC	NRPN MSB	NRPN LSB	Input Range	Mapped Range	Remarks
(Patch)	Category		2	64	(0 - 14)	(0 - 14)	Used in save menu 0=None, 1=Arp, 2=Bass, 3=Bell, 4=Classic, 5=Drum, 6=Keyboard, 7=Lead, 8=Movement, 9=Pad, 10=Poly, 11=SFX, 12=String, 13=ExtInput, 14=Voc/Tune
(Patch)	Genre		2	65	(0 - 9)	(0 - 9)	Used in save menu 0=None, 1=Classic, 2=D&B/Brks, 3=House, 4=Industri, 5=Jazz, 6=R&B/HHop, 7=Rock/Pop, 8=Techno, 9=Dubstep
(MIDI)	Modulation	1			(0 - 127)	(0 - 127)	
(MIDI)	Breath Controlller	2			(0 - 127)	(0 - 127)	Only received, routed to expression pedal.
(Voice)	PolyphonyMode	3			(0 - 4)	(0 - 4)	0=Mono, 1=Mono AG, 2=Poly 1, 3=Poly 2, 4=Mono 2
(Voice)	PortamentoRate	5			(0 - 127)	(0 - 127)	
(MIDI)	Data Entry MSB	6			(0 - 127)	(0 - 127)	
(Mixer)	WetLevel	8			(0 - 127)	(0 - 127)	
(Voice)	PreGlide	9			(52 - 76)	(-12 - 12)	
(FX)	PanPosition	10			(0 - 127)	(-64 - 63)	
(MIDI)	Expression Controller	11			(0 - 127)	(0 - 127)	Expression Pedal
(Voice)	PortamentoMode	12			(0 - 1)	(0 - 1)	0=Expo, 1=Linear
(Voice)	KeyboardOctave	13			(124 - 4)	(-4 - +4)	124=-4 octaves, 125=-3 octaves, 126=-2 octaves, 127=-1 octaves, 0=0 octave, 1 = +1 octave, 2=+2 octaves, 3=+3 octaves, 4=+4 octaves
(Voice)	Unison	14			(0 - 4)	(0 - 4)	0=Off, 1, 2, 3, 4
(Voice)	UnisonDetune	15			(0 - 127)	(0 - 127)	
(Osc123)	Drift	16			(0 - 127)	(0 - 127)	
(Osc123)	Phase	17			(0 - 120)	(0 - 120)	(0-119=0° - 357°, 120=Free) in steps of 3°
(Osc123)	FixedTranspose	18			(0 - 127)	(0 - 127)	
(Osc1)	Wave	19			(0 - 71)	(0 - 71)	See Table 1: Waveforms
(Osc1)	WaveInterpolate	20			(0 - 127)	(0 - 127)	
(Osc1)	PulseWidthIndex	21			(0 - 127)	(-64 - 63)	
(Osc1)	VirtualSyncDepth	22			(0 - 127)	(0 - 127)	
(Osc1)	Hardness	23			(0 - 127)	(0 - 127)	
(Osc1)	Density	24			(0 - 127)	(0 - 127)	
(Osc1)	DensityDetune	25			(0 - 127)	(0 - 127)	
(Osc1)	Semitones	26			(0 - 127)	(-64 - 63)	
(Osc1)	Cents	27			(0 - 127)	(-64 - 63)	
(Osc1)	PitchBend	28			(52 - 76)	(-12 - 12)	
(Osc2)	Wave	29			(0 - 71)	(0 - 71)	See Table 1: Waveforms
(Osc2)	WaveInterpolate	30			(0 - 127)	(0 - 127)	
(Osc2)	PulseWidthIndex	31			(0 - 127)	(-64 - 63)	
(MIDI)	Bank LSB	32			(0 - 127)	(0 - 127)	Only banks 1-3 are implimented for banks 1=A, 2=B, 3=C
(Osc2)	VirtualSyncDepth	33			(0 - 127)	(0 - 127)	
(Osc2)	Hardness	34			(0 - 127)	(0 - 127)	
(Osc2)	Density	35			(0 - 127)	(0 - 127)	
(Osc2)	DensityDetune	36			(0 - 127)	(0 - 127)	
(Osc2)	Semitones	37			(0 - 127)	(-64 - 63)	
(MIDI)	Data Entry LSB	38			(0 - 127)	(0 - 127)	
(Osc2)	Cents	39			(0 - 127)	(-64 - 63)	
(Osc2)	PitchBend	40			(52 - 76)	(-12 - 12)	
(Osc3)	Wave	41			(0 - 71)	(0 - 71)	See Table 1: Waveforms
(Osc3)	WaveInterpolate	42			(0 - 127)	(0 - 127)	
(Osc3)	PulseWidthIndex	43			(0 - 127)	(-64 - 63)	
(Osc3)	VirtualSyncDepth	44			(0 - 127)	(0 - 127)	
(Osc3)	Hardness	45			(0 - 127)	(0 - 127)	
(Osc3)	Density	46			(0 - 127)	(0 - 127)	
(Osc3)	DensityDetune	47			(0 - 127)	(0 - 127)	
(Osc3)	Semitones	48			(0 - 127)	(-64 - 63)	
(Osc3)	Cents	49			(0 - 127)	(-64 - 63)	
(Osc3)	PitchBend	50			(52 - 76)	(-12 - 12)	
(Mixer)	Osc1Level	51			(0 - 127)	(0 - 127)	
(Mixer)	Osc2Level	52			(0 - 127)	(0 - 127)	
(Mixer)	Osc3Level	53			(0 - 127)	(0 - 127)	
(Mixer)	RingModLevel13	54			(0 - 127)	(0 - 127)	
(Mixer)	RingModLevel23	55			(0 - 127)	(0 - 127)	
(Mixer)	NoiseLevel	56			(0 - 127)	(0 - 127)	
(Mixer)	NoiseColour	57			(0 - 3)	(0 - 3)	0=White, 1=High, 2=Band, 3=HiBand
(Mixer)	PreFXLevel	58			(52 - 82)	(-12 - 18)	-12 - +18dB
(Mixer)	PostFXLevel	59			(52 - 82)	(-12 - 18)	-12 - +18dB
(Filter)	Routing	60			(0 - 5)	(0 - 5)	0=Bypass, 1=Single, 2=Series, 3=Parallel, 4=Parall 2, 5=Drum
(Filter)	Balance	61			(0 - 127)	(-64 - 63)	
(Filter1)	Drive	63			(0 - 127)	(0 - 127)	
(MIDI)	Sustain Pedal	64			(0 - 127)	(0 - 127)	0-63=Off, 64-127=On
(Filter)	FreqLink		0	122	(42 - 43)	(42 - 43)	42=FreqLink Off, 43=FreqLink On
(Filter)	ResLink		0	122	(44 - 45)	(44 - 45)	44=Off, 45=On
(Filter1)	DriveType	65			(0 - 6)	(0 - 6)	0=Diode, 1=Valve, 2=Clipper, 3=XOver, 4=Rectify, 5=BitsDown, 6=RateDown
(Filter1)	Type	68			(0 - 13)	(0 - 13)	0=LP6NoRes, 1=LP12, 2=LP18, 3=LP24, 4=BP6/6, 5=BP12/12, 6=BP6/12, 7=BP12/6, 8=BP6/18, 9=BP18/6, 10=HP6NoRes, 11=HP12, 12=HP18, 13=HP24
(Filter1)	Track	69			(0 - 127)	(0 - 127)	
(Envelope1)	Sustain	70			(0 - 127)	(0 - 127)	
(Filter1)	Resonance	71			(0 - 127)	(0 - 127)	
(Envelope1)	Release	72			(0 - 127)	(0 - 127)	
(Envelope1)	Attack	73			(0 - 127)	(0 - 127)	
(Filter1)	Frequency	74			(0 - 127)	(0 - 127)	
(Envelope1)	Decay	75			(0 - 127)	(0 - 127)	
(Osc)	VibratoSpeed	76			(0 - 127)	(0 - 127)	

(Osc)	VibratoDepth	77			(0 - 127)	(0 - 127)	
(Filter1)	QNormalise	78			(0 - 127)	(0 - 127)	
(Filter1)	Env2ToFreq	79			(0 - 127)	(-64 - 63)	
(Filter2)	Drive	80			(0 - 127)	(0 - 127)	
(Filter2)	DriveType	81			(0 - 6)	(0 - 6)	See Filter1 Drive Type
(Filter2)	Type	82			(0 - 13)	(0 - 13)	See Filter1 Type
(Filter2)	Frequency	83			(0 - 127)	(0 - 127)	
(Filter2)	Track	84			(0 - 127)	(0 - 127)	
(Filter2)	Resonance	85			(0 - 127)	(0 - 127)	
(Filter2)	QNormalise	86			(0 - 127)	(0 - 127)	
(Animate1)	Hold		60	0	(0 , 127)	(0 , 127)	
(Animate2)	Hold		60	1	(0 , 127)	(0 , 127)	
(Animate3)	Hold		60	2	(0 , 127)	(0 , 127)	
(Animate4)	Hold		60	3	(0 , 127)	(0 , 127)	
(Animate5)	Hold		60	4	(0 , 127)	(0 , 127)	
(Animate6)	Hold		60	5	(0 , 127)	(0 , 127)	
(Animate7)	Hold		60	6	(0 , 127)	(0 , 127)	
(Animate8)	Hold		60	7	(0 , 127)	(0 , 127)	
(Animate)	Hold Button On		60	16	(0 - 1)	(0 - 1)	0=Animate Hold Off, 1=Animate Hold On
(Envelope1)	Trigger		0	122	(0 - 1)	(0 - 1)	0=Single, 1=Multi
(Envelope2)	Trigger		0	122	(2 - 3)	(2 - 3)	2=Single, 3=Multi
(Envelope3)	Trigger		0	122	(4 - 5)	(4 - 5)	4=Single, 5=Multi
(Envelope4)	Trigger		0	122	(6 - 7)	(6 - 7)	6=Single, 7=Multi
(Envelope5)	Trigger		0	122	(8 - 9)	(8 - 9)	8=Single, 9=Multi
(Envelope6)	Trigger		0	122	(10 - 11)	(10 - 11)	10=Single, 11=Multi
(Filter2)	Env2ToFreq	87			(0 - 127)	(-64 - 63)	
(FX)	PanRate	88			(0 - 127)	(0 - 127)	
(FX)	PanSync	89			(0 - 35)	(0 - 35)	See Table 3: Sync
(FX)	PanModDepth	90			(0 - 127)	(0 - 127)	
(FX1)	Level	91			(0 - 127)	(0 - 127)	
(FX2)	Level	92			(0 - 127)	(0 - 127)	
(FX3)	Level	93			(0 - 127)	(0 - 127)	
(FX4)	Level	94			(0 - 127)	(0 - 127)	
(FX5)	Level	95			(0 - 127)	(0 - 127)	
(MIDI)	Data Increment	96			(0 - 127)	(0 - 127)	
(MIDI)	Data Decrement	97			(0 - 127)	(0 - 127)	
(MIDI)	NPRN LSB	98			(0 - 127)	(0 - 127)	
(MIDI)	NPRN MSB	99			(0 - 127)	(0 - 127)	
(Envelope)	TrackCentre	106			(0 - 127)	(0 - 127)	
(Envelope1)	Velocity	108			(0 - 127)	(-64 - 63)	
(Envelope1)	SustainRate	109			(0 - 127)	(-64 - 63)	
(Envelope1)	SustainTime	110			(0 - 127)	(0 - 127)	
(Envelope1)	ADRepeats	111			(0 - 127)	(0 - 127)	
(Envelope1)	AttackTrack	112			(0 - 127)	(-64 - 63)	
(Envelope2)	Velocity		0	0	(0 - 127)	(-64 - 63)	
(Envelope2)	Attack		0	1	(0 - 127)	(0 - 127)	
(Envelope2)	Decay		0	2	(0 - 127)	(0 - 127)	
(Envelope2)	Sustain		0	3	(0 - 127)	(0 - 127)	
(Envelope2)	Release		0	4	(0 - 127)	(0 - 127)	
(Envelope2)	SustainRate		0	5	(0 - 127)	(-64 - 63)	
(Envelope2)	SustainTime		0	6	(0 - 127)	(0 - 127)	
(Envelope2)	ADRepeats		0	7	(0 - 127)	(0 - 127)	
(Envelope2)	AttackTrack		0	8	(0 - 127)	(-64 - 63)	
(Envelope2)	DecayTrack		0	9	(0 - 127)	(-64 - 63)	
(Envelope2)	LevelTrack		0	10	(0 - 127)	(-64 - 63)	
(Envelope2)	AttackSlope		0	11	(0 - 127)	(0 - 127)	
(Envelope2)	DecaySlope		0	12	(0 - 127)	(0 - 127)	
(Envelope2)	AnimTrigger		0	13	(0 - 24)	(0 - 24)	0=Off, 1=A1ReTrig, 2=A2ReTrig, 3=A3ReTrig, 4=A4ReTrig, 5=A5ReTrig, 6=A6ReTrig, 7=A7ReTrig, 8=A8ReTrig, 9=A1Triggr, 10=A2Triggr, 11=A3Triggr, 12=A4Triggr, 13=A5Triggr, 14=A6Triggr, 15=A7Triggr, 16=A8Triggr, 17=A1Enable, 18=A2Enable, 19=A3Enable, 20=A4Enable, 21=A5Enable, 22=A6Enable, 23=A7Enable, 24=A8Enable
(Envelope3)	Delay		0	14	(0 - 127)	(0 - 127)	
(Envelope3)	Attack		0	15	(0 - 127)	(0 - 127)	
(Envelope3)	Decay		0	16	(0 - 127)	(0 - 127)	
(Envelope3)	Sustain		0	17	(0 - 127)	(0 - 127)	
(Envelope3)	Release		0	18	(0 - 127)	(0 - 127)	
(Envelope3)	SustainRate		0	19	(0 - 127)	(-64 - 63)	
(Envelope3)	SustainTime		0	20	(0 - 127)	(0 - 127)	

(Envelope3)	ADRepeats		0	21	(0 - 127)	(0 - 127)	
(Envelope3)	AttackTrack		0	22	(0 - 127)	(-64 - 63)	
(Envelope3)	DecayTrack		0	23	(0 - 127)	(-64 - 63)	
(Envelope3)	LevelTrack		0	24	(0 - 127)	(-64 - 63)	
(Envelope3)	AttackSlope		0	25	(0 - 127)	(0 - 127)	
(Envelope3)	DecaySlope		0	26	(0 - 127)	(0 - 127)	
(Envelope3)	AnimTrigger		0	27	(0 - 24)	(0 - 24)	See Env2 AnimTrigger
(Envelope4)	Delay		0	28	(0 - 127)	(0 - 127)	
(Envelope4)	Attack		0	29	(0 - 127)	(0 - 127)	
(Envelope4)	Decay		0	30	(0 - 127)	(0 - 127)	
(Envelope4)	Sustain		0	31	(0 - 127)	(0 - 127)	
(Envelope4)	Release		0	32	(0 - 127)	(0 - 127)	
(Envelope4)	SustainRate		0	33	(0 - 127)	(-64 - 63)	
(Envelope4)	SustainTime		0	34	(0 - 127)	(0 - 127)	
(Envelope4)	ADRepeats		0	35	(0 - 127)	(0 - 127)	
(Envelope4)	AttackTrack		0	36	(0 - 127)	(-64 - 63)	
(Envelope4)	DecayTrack		0	37	(0 - 127)	(-64 - 63)	
(Envelope4)	LevelTrack		0	38	(0 - 127)	(-64 - 63)	
(Envelope4)	AttackSlope		0	39	(0 - 127)	(0 - 127)	
(Envelope4)	DecaySlope		0	40	(0 - 127)	(0 - 127)	
(Envelope4)	AnimTrigger		0	41	(0 - 24)	(0 - 24)	See Env2 AnimTrigger
(Envelope5)	Delay		0	42	(0 - 127)	(0 - 127)	
(Envelope5)	Attack		0	43	(0 - 127)	(0 - 127)	
(Envelope5)	Decay		0	44	(0 - 127)	(0 - 127)	
(Envelope5)	Sustain		0	45	(0 - 127)	(0 - 127)	
(Envelope5)	Release		0	46	(0 - 127)	(0 - 127)	
(Envelope5)	SustainRate		0	47	(0 - 127)	(-64 - 63)	
(Envelope5)	SustainTime		0	48	(0 - 127)	(0 - 127)	
(Envelope5)	ADRepeats		0	49	(0 - 127)	(0 - 127)	
(Envelope5)	AttackTrack		0	50	(0 - 127)	(-64 - 63)	
(Envelope5)	DecayTrack		0	51	(0 - 127)	(-64 - 63)	
(Envelope5)	LevelTrack		0	52	(0 - 127)	(-64 - 63)	
(Envelope5)	AttackSlope		0	53	(0 - 127)	(0 - 127)	
(Envelope5)	DecaySlope		0	54	(0 - 127)	(0 - 127)	
(Envelope5)	AnimTrigger		0	55	(0 - 24)	(0 - 24)	See Env2 AnimTrigger
(Envelope6)	Delay		0	56	(0 - 127)	(0 - 127)	
(Envelope6)	Attack		0	57	(0 - 127)	(0 - 127)	
(Envelope6)	Decay		0	58	(0 - 127)	(0 - 127)	
(Envelope6)	Sustain		0	59	(0 - 127)	(0 - 127)	
(Envelope6)	Release		0	60	(0 - 127)	(0 - 127)	
(Envelope6)	SustainRate		0	61	(0 - 127)	(-64 - 63)	
(Envelope6)	SustainTime		0	62	(0 - 127)	(0 - 127)	
(Envelope6)	ADRepeats		0	63	(0 - 127)	(0 - 127)	
(Envelope6)	AttackTrack		0	64	(0 - 127)	(-64 - 63)	
(Envelope6)	DecayTrack		0	65	(0 - 127)	(-64 - 63)	
(Envelope6)	LevelTrack		0	66	(0 - 127)	(-64 - 63)	
(Envelope6)	AttackSlope		0	67	(0 - 127)	(0 - 127)	
(Envelope6)	DecaySlope		0	68	(0 - 127)	(0 - 127)	
(Envelope6)	AnimTrigger		0	69	(0 - 24)	(0 - 24)	See Env2 AnimTrigger
(LFO1)	Waveform		0	70	(0 - 37)	(0 - 37)	
(LFO1)	PhaseOffset		0	71	(0 - 119)	(0 - 119)	
(LFO1)	SlewRate		0	72	(0 - 127)	(0 - 127)	
(LFO1)	Delay		0	74	(0 - 127)	(0 - 127)	
(LFO1)	DelaySync		0	75	(0 - 35)	(0 - 35)	See Table 3: Sync
(LFO1)	Rate		0	76	(0 - 127)	(0 - 127)	
(LFO1)	RateSync		0	77	(0 - 35)	(0 - 35)	See Table 3: Sync
(LFO1)	OneShot		0	122	(12 - 13)	(12 - 13)	12=Normal, 13=OneShot
(LFO1)	KeySync		0	122	(14 - 15)	(14 - 15)	14=FreeRun, 15=KeySync
(LFO1)	CommonSync		0	122	(16 - 17)	(16 - 17)	16=Normal, 17=Common
(LFO1)	DelayTrigger		0	122	(18 - 19)	(18 - 19)	18=Single, 19=Multi
(LFO1)	FadeMode		1	123	(0 - 3)	(0 - 3)	0=Fade In, 1=Fade Out, 2=Gate In, 3=Gate Out
(LFO2)	Waveform		0	79	(0 - 37)	(0 - 37)	0=Sine,1=Triangle,2=Sawtooth,3=Square,4=Rand S/H,5=Time S/H,6=PianoEnv,7=Seq 1,8=Seq 2,9=Seq 3,10=Seq 4,11=Seq 5,12=Seq 6,13=Seq 7,14=Altern 1,15=Altern 2,16=Altern 3,17=Altern 4,18=Altern 5,19=Altern 6,20=Altern 7,21=Altern 8,22=Chromat,23=Chrom 16,24=Major,25=Major 7,26=Minor7,27=MinArp1,28=MinArp2,29=Diminish,30=DecMinor,31=Minor3rd,32=Pedal,33=4ths,34=4ths x12,35=1625 Maj,36=1625 Min,37=2511
(LFO2)	PhaseOffset		0	80	(0 - 119)	(0 - 119)	(0° - 357°) in steps of 3°
(LFO2)	SlewRate		0	81	(0 - 127)	(0 - 127)	
(LFO2)	Delay		0	83	(0 - 127)	(0 - 127)	
(LFO2)	DelaySync		0	84	(0 - 35)	(0 - 35)	See Table 3: Sync
(LFO2)	Rate		0	85	(0 - 127)	(0 - 127)	
(LFO2)	RateSync		0	86	(0 - 35)	(0 - 35)	See Table 3: Sync
(LFO2)	OneShot		0	122	(22 - 23)	(22 - 23)	See LFO1 OneShot
(LFO2)	KeySync		0	122	(24 - 25)	(24 - 25)	See LFO1 KeySync
(LFO2)	CommonSync		0	122	(26 - 27)	(26 - 27)	See LFO1 CommonSync
(LFO2)	DelayTrigger		0	122	(28 - 29)	(28 - 29)	See LFO1 DelayTrigger
(LFO2)	FadeMode		1	123	(4 - 7)	(0 - 3)	See LFO1 FadeMode
(LFO3)	Waveform		0	88	(0 - 37)	(0 - 37)	
(LFO3)	PhaseOffset		0	89	(0 - 119)	(0 - 119)	
(LFO3)	SlewRate		0	90	(0 - 127)	(0 - 127)	
(LFO3)	Delay		0	92	(0 - 127)	(0 - 127)	
(LFO3)	DelaySync		0	93	(0 - 35)	(0 - 35)	See Table 3: Sync
(LFO3)	Rate		0	94	(0 - 127)	(0 - 127)	
(LFO3)	RateSync		0	95	(0 - 35)	(0 - 35)	See Table 3: Sync
(LFO3)	OneShot		0	122	(32 - 33)	(32 - 33)	See LFO1 OneShot
(LFO3)	KeySync		0	122	(34 - 35)	(34 - 35)	See LFO1 KeySync

(LFO3)	CommonSync	0	122	(36 - 37)	(36 - 37)	See LFO1 CommonSync
(LFO3)	DelayTrigger	0	122	(38 - 39)	(38 - 39)	See LFO1 DelayTrigger
(LFO3)	FadeMode	1	123	(4 - 7)	(0 - 3)	See LFO1 FadeMode
(FX)	Routing	0	97	(0 - 7)	(0 - 7)	See User Manual for FX Routing Options
(FX)	Feedback	0	98	(0 - 127)	(0 - 127)	
(FX1)	Select	0	99	(0 - 14)	(0 - 14)	0=Bypass, 1=EQ, 2=Compres1, 3=Compres2, 4=Distort1, 5=Distort2, 6=Delay 1, 7=Delay 2, 8=Reverb 1, 9=Reverb 2, 10=Chorus 1, 11=Chorus 2, 12=Chorus 3, 13=Chorus 4, 14=Gator
(FX2)	Select	0	100	(0 - 14)	(0 - 14)	See FX1 Select
(FX3)	Select	0	101	(0 - 14)	(0 - 14)	See FX1 Select
(FX4)	Select	0	102	(0 - 14)	(0 - 14)	See FX1 Select
(FX5)	Select	0	103	(0 - 14)	(0 - 14)	See FX1 Select
(Envelope1)	DecayTrack	113		(0 - 127)	(-64 - 63)	
(Envelope1)	LevelTrack	114		(0 - 127)	(-64 - 63)	
(Envelope1)	AttackSlope	115		(0 - 127)	(0 - 127)	
(Envelope1)	DecaySlope	116		(0 - 127)	(0 - 127)	
(Envelope1)	AnimTrigger	117		(0 - 8)	(0 - 8)	0=Off, 1=A1ReTrig, 2=A2ReTrig, 3=A3ReTrig, 4=A4ReTrig, 5=A5ReTrig, 6=A6ReTrig, 7=A7ReTrig, 8=A8ReTrig
(Equaliser)	BassFrequency	0	104	(0 - 127)	(0 - 127)	
(Equaliser)	BassLevel	0	105	(0 - 127)	(-64 - 63)	
(Equaliser)	MidFrequency	0	106	(0 - 127)	(0 - 127)	
(Equaliser)	MidLevel	0	107	(0 - 127)	(-64 - 63)	
(Equaliser)	TrebleFrequency	0	108	(0 - 127)	(0 - 127)	
(Equaliser)	TrebleLevel	0	109	(0 - 127)	(-64 - 63)	
(Compressor1)	Ratio	0	110	(0 - 127)	(0 - 127)	
(Compressor1)	Threshold	0	111	(0 - 60)	(-60 - 0)	
(Compressor1)	Attack	0	112	(0 - 127)	(0 - 127)	
(Compressor1)	Release	0	113	(0 - 127)	(0 - 127)	
(Compressor1)	Hold	0	114	(0 - 127)	(0 - 127)	
(Compressor1)	Gain	0	115	(0 - 127)	(0 - 127)	
(Compressor2)	Ratio	0	116	(0 - 127)	(0 - 127)	
(Compressor2)	Threshold	0	117	(0 - 60)	(-60 - 0)	
(Compressor2)	Attack	0	118	(0 - 127)	(0 - 127)	
(Compressor2)	Release	0	119	(0 - 127)	(0 - 127)	
(Compressor2)	Hold	0	120	(0 - 127)	(0 - 127)	
(Compressor2)	Gain	0	121	(0 - 127)	(0 - 127)	
(Distortion1)	Type	1	0	(0 - 6)	(0 - 6)	0=Diode, 1=Valve, 2=Clipper, 3=XOver, 4=Rectify, 5=BitsDown, 6=RateDown
(Distortion1)	Compensation	1	1	(0 - 127)	(0 - 127)	
(Distortion1)	Level	1	2	(52 - 82)	(-12 - 18)	-12 - +18dB
(Distortion2)	Type	1	3	(0 - 6)	(0 - 6)	See Distortion 1 Type
(Distortion2)	Compensation	1	4	(0 - 127)	(0 - 127)	
(Distortion2)	Level	1	5	(52 - 82)	(-12 - 18)	See Distortion 1 Level
(Delay1)	Time	1	6	(0 - 127)	(0 - 127)	
(Delay1)	TimeSync	1	7	(0 - 35)	(0 - 35)	See Table 3: Sync
(Delay1)	Feedback	1	8	(0 - 127)	(0 - 127)	
(Delay1)	Width	1	9	(0 - 127)	(0 - 127)	
(Delay1)	LRRatio	1	10	(0 - 12)	(0 - 12)	0=L 1:1 R, 1=L 4:3 R, 2=L 3:4 R, 3=L 3:2 R, 4=L 2:3 R, 5=L 2:1 R, 6=L 1:2 R, 7=L 3:1 R, 8=L 1:3 R, 9=L 4:1 R, 10=L 1:4 R, 11=L 1:Off, 12=Off:1 R
(Delay1)	SlewRate	1	11	(0 - 127)	(0 - 127)	
(Delay2)	Time	1	12	(0 - 127)	(0 - 127)	
(Delay2)	TimeSync	1	13	(0 - 35)	(0 - 35)	See Table 3: Sync
(Delay2)	Feedback	1	14	(0 - 127)	(0 - 127)	
(Delay2)	Width	1	15	(0 - 127)	(0 - 127)	
(Delay2)	LRRatio	1	16	(0 - 12)	(0 - 12)	See Delay1 LR Ratio
(Delay2)	SlewRate	1	17	(0 - 127)	(0 - 127)	
(Reverb1)	Type	1	18	(0 - 5)	(0 - 5)	0=Chamber, 1=SmlRoom, 2=Lrgroom, 3=SmlHall, 4=LrgHall, 5=GrtHall
(Reverb1)	Decay	1	19	(0 - 127)	(0 - 127)	
(Reverb1)	Damping	1	20	(0 - 127)	(0 - 127)	
(Reverb2)	Type	1	21	(0 - 5)	(0 - 5)	0=Chamber, 1=SmlRoom, 2=Lrgroom, 3=SmlHall, 4=LrgHall, 5=GrtHall
(Reverb2)	Decay	1	22	(0 - 127)	(0 - 127)	
(Reverb2)	Damping	1	23	(0 - 127)	(0 - 127)	
(Chorus1)	Type	1	24	(0 - 1)	(0 - 1)	0=Phaser, 1=Chorus
(Chorus1)	Rate	1	25	(0 - 127)	(0 - 127)	
(Chorus1)	RateSync	1	26	(0 - 35)	(0 - 35)	See Table 3: Sync
(Chorus1)	Feedback	1	27	(0 - 127)	(-64 - 63)	
(Chorus1)	ModDepth	1	28	(0 - 127)	(0 - 127)	
(Chorus1)	Delay	1	29	(0 - 127)	(0 - 127)	
(Chorus2)	Type	1	30	(0 - 1)	(0 - 1)	See Chorus 1 Type
(Chorus2)	Rate	1	31	(0 - 127)	(0 - 127)	
(Chorus2)	RateSync	1	32	(0 - 35)	(0 - 35)	See Table 3: Sync
(Chorus2)	Feedback	1	33	(0 - 127)	(-64 - 63)	
(Chorus2)	ModDepth	1	34	(0 - 127)	(0 - 127)	
(Chorus2)	Delay	1	35	(0 - 127)	(0 - 127)	
(Chorus3)	Type	1	36	(0 - 1)	(0 - 1)	See Chorus 1 Type
(Chorus3)	Rate	1	37	(0 - 127)	(0 - 127)	
(Chorus3)	RateSync	1	38	(0 - 35)	(0 - 35)	See Table 3: Sync
(Chorus3)	Feedback	1	39	(0 - 127)	(-64 - 63)	
(Chorus3)	ModDepth	1	40	(0 - 127)	(0 - 127)	
(Chorus3)	Delay	1	41	(0 - 127)	(0 - 127)	
(Chorus4)	Type	1	42	(0 - 1)	(0 - 1)	See Chorus 1 Type
(Chorus4)	Rate	1	43	(0 - 127)	(0 - 127)	
(Chorus4)	RateSync	1	44	(0 - 35)	(0 - 35)	See Table 3: Sync
(Chorus4)	Feedback	1	45	(0 - 127)	(-64 - 63)	
(Chorus4)	ModDepth	1	46	(0 - 127)	(0 - 127)	
(Chorus4)	Delay	1	47	(0 - 127)	(0 - 127)	
(Gator)	On	0	122	(52 - 53)	(52 - 53)	52=Off, 53=On
(Gator)	KeySync	0	122	(54 - 55)	(54 - 55)	54=FreeRun, 55=KeySync
(Gator)	KeyLatch	0	122	(56 - 57)	(56 - 57)	56=LatchOff, 57=LatchOn
(Gator)	RateSync	1	49	(0 - 35)	(0 - 35)	See Table 3: Sync

(Gator)	Mode	1	50	(0 - 5)	(0 - 5)	0=Mono16, 1=MonoAlt1, 2=MonoAlt2, 3=Stereo16, 4=SterAlt1, 5=SterAlt2
(Gator)	EdgeSlew	1	52	(0 - 127)	(0 - 127)	
(Gator)	Hold	1	53	(0 - 127)	(0 - 127)	
(Gator)	LRDelay	1	54	(0 - 127)	(-64 - 63)	
(Gator)	Levels	5	0-31	(0-7)	(0-7)	0-31 for Steps 1 to 32, 0-7 for respective Gator step level.
(Vocoder)	On	0	122	(58 - 59)	(58 - 59)	58=Off, 59=On
(Vocoder)	SibilanceType	0	122	(60 - 61)	(60 - 61)	60=HiPass, 61=Noise
(Vocoder)	Freeze	0	122	(62 - 63)	(62 - 63)	62=UnFreeze, 63=Freeze
(Vocoder)	AllMax	0	122	(64 - 65)	(64 - 65)	64=AllMax Off, 65=AllMax On
(Vocoder)	VocoderInput	0	122	(66 - 67)	(66 - 67)	66=Audio In, 67=VTOOutput
(Vocoder)	Width	1	57	(0 - 127)	(0 - 127)	
(Vocoder)	Sibilance	1	58	(0 - 127)	(0 - 127)	
(Vocoder)	SpecShift	1	59	(0 - 127)	(-64 - 63)	
(Vocoder)	SpecSpread	1	60	(0 - 127)	(-64 - 63)	
(Arp)	On	0	122	(46 - 47)	(46 - 47)	46=Off, 47=On
(Arp)	KeyLatch	0	122	(50 - 51)	(50 - 51)	50=Latch Off, 51=Latch On
(Arp)	Octaves	1	62	(0 - 3)	(1 - 4)	
(Arp)	RateSync	1	63	(0 - 18)	(0 - 18)	
(Arp)	Gate	1	64	(1 - 127)	(1 - 127)	
(Arp)	Mode	1	65	(0 - 6)	(0 - 6)	0=Up, 1=Down, 2=UpDown, 3=UpDown2, 4=Played, 5=Random, 6=Chord
(Arp)	Pattern	1	66	(0 - 32)	(0 - 32)	Only 0-18 are implemented 0=32ndT, 1=32nd, 2=16thT, 3=16th, 4=8thT, 5=16thD, 6=8th, 7=4thT, 8=8thD, 9=4th, 10=1+1/3, 11=4thD, 12=2nd, 13=2+2/3, 14=3beats, 15=4beats, 16=5+1/3, 17=6beats, 18=8beats,
(Arp)	Swing	1	68	(1 - 99)	(1 - 99)	
(Arp)	Mininova	127	127	(0 - 1)	(0 - 1)	Managed parameter for UltraNova compatibility
(Arp)	Length	60	40	(2 - 8)	(2 - 8)	Sets the Arp Length
(Arp1)	Step	60	32	(0, 127)	(0, 127)	0=Arp Step 1 Off, 1=Arp Step 1 On
(Arp2)	Step	60	33	(0, 127)	(0, 127)	See Arp1 Step
(Arp3)	Step	60	34	(0, 127)	(0, 127)	See Arp1 Step
(Arp4)	Step	60	35	(0, 127)	(0, 127)	See Arp1 Step
(Arp5)	Step	60	36	(0, 127)	(0, 127)	See Arp1 Step
(Arp6)	Step	60	37	(0, 127)	(0, 127)	See Arp1 Step
(Arp7)	Step	60	38	(0, 127)	(0, 127)	See Arp1 Step
(Arp8)	Step	60	39	(0, 127)	(0, 127)	See Arp1 Step
(Vocoder)	Level	1	71	(0 - 127)	(0 - 127)	
(Vocoder)	CarrierLevel	1	72	(0 - 127)	(0 - 127)	
(Vocoder)	ModulatorLevel	1	73	(0 - 127)	(0 - 127)	
(Vocoder)	Resonance	1	74	(0 - 127)	(0 - 127)	
(Vocoder)	Decay	1	75	(0 - 127)	(0 - 127)	
(Vocoder)	GateThreshold	1	76	(0 - 96)	(-96 - 0)	
(Vocoder)	GateRelease	1	77	(0 - 127)	(0 - 127)	
(Vocoder)	SpectrumLevels	6	0-31	(0-127)	(0-127)	Vocal Tune Spectrum Levels for Spectra 0-31
(Vocoder)	SpectrumResample	6	32	(1)	(1)	Command to resample spectrum from mic input
(Chorder)	Transpose	1	78	(53 - 75)	(-11 - 11)	
(Chorder)	On	1	79	(0, 1)	(0, 1)	0=Off, 1=On
(Chorder)	Chorder Count	7	16	(0-10)	(0-10)	Sets the number of keys used in the Chorder
(Chorder)	Chorder Keys	7	17-25	(0-127)	(0-127)	NRPNLow: 17=Key 2 .. 25=Key 10, Value=Number of semitones from the root
(VocalTune)	Shift	1	80	(40 - 88)	(-24 - 24)	
(VocalTune)	Bend	1	81	(40 - 88)	(-24 - 24)	
(ModMatrix1)	Source1	1	83	(0 - 18)	(0 - 18)	0=Direct, 1=ModWheel, 2=AftTouch, 3=Express, 4=Velocity, 5=Keyboard, 6=LFO1 +, 7=LFO1 +/-, 8=LFO2 +, 9=LFO2 +/-, 10=LFO3 +, 11=LFO3 +/-, 12=Env Amp, 13=Env Filt, 14=Env 3, 15=Env 4, 16=Env 5, 17=Env 6, 18=AudInEnv
(ModMatrix1)	Source2	1	84	(0 - 18)	(0 - 18)	See ModMatrix1 Source1

(ModMatrix1)	AnimTrigger		1	85	(0 - 8)	(0 - 8)	0=Off, 1=A1ReTrig, 2=A2ReTrig, 3=A3ReTrig, 4=A4ReTrig, 5=A5ReTrig, 6=A6ReTrig, 7=A7ReTrig, 8=A8ReTrig,
(ModMatrix1)	Depth		1	86	(0 - 127)	(-64 - 63)	
(ModMatrix1)	Destination		1	87	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix2)	Source1		1	88	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix2)	Source2		1	89	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix2)	AnimTrigger		1	90	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix2)	Depth		1	91	(0 - 127)	(-64 - 63)	
(ModMatrix2)	Destination		1	92	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix3)	Source1		1	93	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix3)	Source2		1	94	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix3)	AnimTrigger		1	95	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix3)	Depth		1	96	(0 - 127)	(-64 - 63)	
(ModMatrix3)	Destination		1	97	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix4)	Source1		1	98	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix4)	Source2		1	99	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix4)	AnimTrigger		1	100	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix4)	Depth		1	101	(0 - 127)	(-64 - 63)	
(ModMatrix4)	Destination		1	102	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix5)	Source1		1	103	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix5)	Source2		1	104	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix5)	AnimTrigger		1	105	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix5)	Depth		1	106	(0 - 127)	(-64 - 63)	
(ModMatrix5)	Destination		1	107	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix6)	Source1		1	108	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix6)	Source2		1	109	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix6)	AnimTrigger		1	110	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix6)	Depth		1	111	(0 - 127)	(-64 - 63)	
(ModMatrix6)	Destination		1	112	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix7)	Source1		1	113	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix7)	Source2		1	114	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix7)	AnimTrigger		1	115	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix7)	Depth		1	116	(0 - 127)	(-64 - 63)	
(ModMatrix7)	Destination		1	117	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix8)	Source1		1	118	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix8)	Source2		1	119	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix8)	AnimTrigger		1	120	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix8)	Depth		1	121	(0 - 127)	(-64 - 63)	
(ModMatrix8)	Destination		1	122	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix9)	Source1		1	123	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix9)	Source2		1	124	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix9)	AnimTrigger		1	125	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix9)	Depth		1	126	(0 - 127)	(-64 - 63)	
(ModMatrix9)	Destination		1	127	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix10)	Source1		2	0	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix10)	Source2		2	1	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix10)	AnimTrigger		2	2	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix10)	Depth		2	3	(0 - 127)	(-64 - 63)	
(ModMatrix10)	Destination		2	4	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix11)	Source1		2	5	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix11)	Source2		2	6	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix11)	AnimTrigger		2	7	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix11)	Depth		2	8	(0 - 127)	(-64 - 63)	
(ModMatrix11)	Destination		2	9	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix12)	Source1		2	10	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix12)	Source2		2	11	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix12)	AnimTrigger		2	12	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix12)	Depth		2	13	(0 - 127)	(-64 - 63)	
(ModMatrix12)	Destination		2	14	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix13)	Source1		2	15	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix13)	Source2		2	16	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix13)	AnimTrigger		2	17	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix13)	Depth		2	18	(0 - 127)	(-64 - 63)	
(ModMatrix13)	Destination		2	19	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix14)	Source1		2	20	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix14)	Source2		2	21	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix14)	AnimTrigger		2	22	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix14)	Depth		2	23	(0 - 127)	(-64 - 63)	
(ModMatrix14)	Destination		2	24	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix15)	Source1		2	25	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix15)	Source2		2	26	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix15)	AnimTrigger		2	27	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix15)	Depth		2	28	(0 - 127)	(-64 - 63)	
(ModMatrix15)	Destination		2	29	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix16)	Source1		2	30	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix16)	Source2		2	31	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix16)	AnimTrigger		2	32	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix16)	Depth		2	33	(0 - 127)	(-64 - 63)	
(ModMatrix16)	Destination		2	34	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix17)	Source1		2	35	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix17)	Source2		2	36	(0 - 18)	(0 - 18)	See ModMatrix1 Source1

(ModMatrix17)	AnimTrigger	2	37	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix17)	Depth	2	38	(0 - 127)	(-64 - 63)	
(ModMatrix17)	Destination	2	39	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix18)	Source1	2	40	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix18)	Source2	2	41	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix18)	AnimTrigger	2	42	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix18)	Depth	2	43	(0 - 127)	(-64 - 63)	
(ModMatrix18)	Destination	2	44	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix19)	Source1	2	45	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix19)	Source2	2	46	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix19)	AnimTrigger	2	47	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix19)	Depth	2	48	(0 - 127)	(-64 - 63)	
(ModMatrix19)	Destination	2	49	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(ModMatrix20)	Source1	2	50	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix20)	Source2	2	51	(0 - 18)	(0 - 18)	See ModMatrix1 Source1
(ModMatrix20)	AnimTrigger	2	52	(0 - 8)	(0 - 8)	See ModMatrix1 AnimTrigger
(ModMatrix20)	Depth	2	53	(0 - 127)	(-64 - 63)	
(ModMatrix20)	Destination	2	54	(0 - 69)	(0 - 69)	See Table 2: Modulation Destinations
(VocalTune)	Mode	1	123	(16 - 19)	(16 - 19)	16=Off, 17=Scale Correction, 18=KBCtrl, 19=Pitch
(VocalTune)	Insert	1	123	(25 - 27)	(20 - 22)	20=PreFilter, 21=PostFilter, 22=PreFx
(VocalTune)	ScaleType	2	56	(0 - 5)	(0 - 5)	0=Played, 1=Chromatic, 2=Major, 3=NatMinor, 4=HarMinor, 5=MelMinor
(VocalTune)	ScaleKey	2	57	(0 - 11)	(0 - 11)	0=C,1=C#,2=D,3=D#,4=E,5=F,6=F#,7=G,8=G#,9=A,10=A#,11=B
(VocalTune)	CorrectionTime	2	58	(0 - 127)	(0 - 127)	
(VocalTune)	Level	2	59	(0 - 127)	(0 - 127)	
(VocalTune)	Vibrato	2	60	(0 - 127)	(0 - 127)	
(VocalTune)	VibratoModWheel	2	61	(0 - 127)	(0 - 127)	
(VocalTune)	VibratoRate	2	62	(0 - 127)	(0 - 127)	
(Tweaks)	Assignment	4	0	(0 - 125)	(0 - 125)	See Table 4: Tweak Assignments
(Tweaks)	Assignment	4	1	(0 - 125)	(0 - 125)	See Table 4: Tweak Assignments
(Tweaks)	Assignment	4	2	(0 - 125)	(0 - 125)	See Table 4: Tweak Assignments
(Tweaks)	Assignment	4	3	(0 - 125)	(0 - 125)	See Table 4: Tweak Assignments
(Tweaks)	Assignment	4	4	(0 - 125)	(0 - 125)	See Table 4: Tweak Assignments
(Tweaks)	Assignment	4	5	(0 - 125)	(0 - 125)	See Table 4: Tweak Assignments
(Tweaks)	Assignment	4	6	(0 - 125)	(0 - 125)	See Table 4: Tweak Assignments
(Tweaks)	Assignment	4	7	(0 - 125)	(0 - 125)	See Table 4: Tweak Assignments
(MIDI)	Tempo Rate	2	63	(40 - 240)	(40 - 240)	Tempo in BPM
(MIDI)	All Sounds Off	120		(0)	(0)	0=All Sounds Off
(MIDI)	Local Off/On	122		(33 , 99)	(33 , 99)	33=Local Off, 99=Local On
(MIDI)	All Notes Off	123		(0)	(0)	0=All Notes Off
(Patch)	Patch Select	63	0	(0 , 1 , 2)	(0 , 1 , 2)	0=Decrement Patch, 1=Get Program Change, 2=Increment Patch (*1)
(Patch)	Bank Select	63	1	(1, 2, 3)	(1, 2, 3)	1=Bank A, 2=Bank B, 3=Bank C
(Global)	Global Protect	64	0	(0, 1)	(0, 1)	0=Protect Off, 1=Protect On (*1)
(Global)	Global MIDIChannel	64	4	(0, 15)	(0, 15)	(*1)
(Global)	Global TuningCents	64	6	(15 - 114)	(-50 - +50)	(*1)
(Global)	Global Transpose	64	7	(40 - 88)	(-24 - +24)	(*1)
(Global)	Global VelocityCurve	64	9	(0 - 127)	(0 - 127)	0=Low, 1=Medium, 2=High, 3=Switch, 4-127=Fixed Velocity (*1)
(Global)	Global ClockSource	64	11	(0 - 3)	(0 - 3)	0=Internal, 1=USB, 2=DIN, 3=Auto (*1)
(Global)	Global SustainPedal	64	14	(0 - 2)	(0 - 2)	0=Auto, 1=N.Open, 2=N.Closed (*1)
(Global)	Global WheelLights	64	20	(0, 1)	(0, 1)	0=Off, 1=On (*1)
(Global)	Global PotPickup	64	21	(0, 1)	(0, 1)	0=Off, 1=On (*1)
(Global)	Global StandbyMode	64	22	(0 - 2)	(0 - 2)	0=Off, 1=On, 2=10 mins (*1)
(Global)	Global ArpMIDI	64	23	(0, 1)	(0, 1)	0=MIDI->Arp, 1=Arp->MIDI (*1)
(Global)	Audio InputGain	64	28	(21 - 97)	(21 - 97)	21=Off, 22-97=-10dB - 65dB in 1dB steps (*1)
(Global)	Audio InputFX	64	30	(0 - 127)	(0 - 127)	(*1)

Table 1: Waveform Table

Waveform Index	Waveform Name
0	Sine
1	Triangle
2	Sawtooth
3	Saw9:1PW
4	Saw8:2PW
5	Saw7:3PW
6	Saw6:4PW
7	Saw5:5PW
8	Saw4:6PW
9	Saw3:7PW
10	Saw2:8PW
11	Saw1:9PW
12	PW
13	Square
14	BassCamp
15	Bass_FM
16	EP_Dull
17	EP_Bell
18	Clav
19	DoubReed
20	Retro
21	StrnMch1
22	StrnMch2
23	Organ_1
24	Organ_2
25	EvilOrg
26	HiStuff
27	Bell_FM1
28	Bell_FM2
29	DigBell1
30	DigBell2
31	DigBell3
32	DigBell4
33	DigiPad
34	Wtable 1
35	Wtable 2
36	Wtable 3
37	Wtable 4
38	Wtable 5
39	Wtable 6
40	Wtable 7
41	Wtable 8
42	Wtable 9
43	Wtable10
44	Wtable11
45	Wtable12
46	Wtable13
47	Wtable14
48	Wtable15
49	Wtable16
50	Wtable17
51	Wtable18
52	Wtable19
53	Wtable20
54	Wtable21
55	Wtable22
56	Wtable23
57	Wtable24
58	Wtable25
59	Wtable26
60	Wtable27
61	Wtable28
62	Wtable29
63	Wtable30
64	Wtable31
65	Wtable32
66	Wtable33
67	Wtable34
68	Wtable35
69	Wtable36
70	AudiInL/M
71	AudiInR

Table 2: List of Modulation Destinations

Destination Index	Destination Name
0	O123Ptch
1	O1 Pitch
2	O2 Pitch
3	O3 Pitch
4	O1 VSync
5	O2 VSync
6	O3 VSync
7	O1PW/Idx
8	O2PW/Idx
9	O3PW/Idx
10	O1 Hard
11	O2 Hard
12	O3 Hard
13	O1 Level
14	O2 Level
15	O3 Level
16	NoiseLvl
17	RM1*3Lvl
18	RM2*3Lvl
19	F1 DAmnt
20	F2 DAmnt
21	F1 Freq
22	F2 Freq
23	F1 Res
24	F2 Res
25	FBalance
26	L1 Rate
27	L2 Rate
28	L3 Rate
29	AEnv Dec
30	FEnv Dec
31	FX1 Amnt
32	FX2 Amnt
33	FX3 Amnt
34	FX4 Amnt
35	FX5 Amnt
36	FXFeedbk
37	FXWetLvl
38	Ch1 Rate
39	Ch1Depth
40	Ch1Delay
41	Ch1Fback
42	Ch2 Rate
43	Ch2Depth
44	Ch2Delay
45	Ch2Fback
46	Ch3 Rate
47	Ch3Depth
48	Ch3Delay
49	Ch3Fback
50	Ch4 Rate
51	Ch4Depth
52	Ch4Delay
53	Ch4Fback
54	Dly1Time
55	Dly1Fdbk
56	Dly2Time
57	Dly2Fdbk
58	EQBasLvl
59	EQBasFrq
60	EQMidLvl
61	EQMidFrq
62	EQTrbLvl
63	EQTrbFrq
64	Pan Posn
65	VocShift
66	VocSpred
67	VocRes
68	PreFXLvl
69	PtchShft

Table 3: Sync Values

Sync Index	Sync Names
0	Off
1	32nd T
2	32nd
3	16th T
4	16th
5	8th T
6	16th D
7	8th
8	4th T
9	8th D
10	4th
11	1 + 1/3
12	4th D
13	2nd
14	2 + 2/3
15	3 beats
16	4 beats
17	5 + 1/3
18	6 beats
19	8 beats
20	10 + 2/3
21	12 beats
22	13 + 1/3
23	16 beats
24	18 beats
25	18 + 2/3
26	20 beats
27	21 + 1/3
28	24 beats
29	28 beats
30	30 beats
31	32 beats
32	36 beats
33	42 beats
34	48 beats
35	64 beats



**Table 4: Tweak Assignments**

Tweak Index	Tweak ShortName	Tweak LongName
0	---	No Assign
1	PortTime	VoicePortamentoRate
2	FXWetLvl	MixerWetLevel
3	PstFxlvl	MixerPostFXLevel
4	PanPosn	FXPanPosition
5	UniDtune	VoiceUnisonDetune
6	O1WTInt	Osc1WaveInterpolate
7	O1Pw/Idx	Osc1PulseWidthIndex
8	O1VSync	Osc1VirtualSyncDepth
9	O1Hard	Osc1Hardness
10	O1Dense	Osc1Density
11	O1DnsDtn	Osc1DensityDetune
12	O1Semi	Osc1Semitones
13	O1Cents	Osc1Cents
14	O2WTInt	Osc2WaveInterpolate
15	O2PW/Idx	Osc2PulseWidthIndex
16	O2VSync	Osc2VirtualSyncDepth
17	O2Hard	Osc2Hardness
18	O2Dense	Osc2Density
19	O2DnsDtn	Osc2DensityDetune
20	O2Semi	Osc2Semitones
21	O2Cents	Osc2Cents
22	O3WTInt	Osc3WaveInterpolate
23	O3PW/Idx	Osc3PulseWidthIndex
24	O3VSync	Osc3VirtualSyncDepth
25	O3Hard	Osc3Hardness
26	O3Dense	Osc3Density
27	O3DnsDtn	Osc3DensityDetune
28	O3Semi	Osc3Semitones
29	O3Cents	Osc3Cents
30	O1Level	MixerOsc1Level
31	O2Level	MixerOsc2Level
32	O3Level	MixerOsc3Level
33	RM1*3Lvl	MixerRingModLevel13
34	RM2*3Lvl	MixerRingModLevel23
35	NoiseLvl	MixerNoiseLevel
36	FBalance	FilterBalance
37	F1Freq	Filter1Frequency
38	F1Res	Filter1Resonance
39	F1DAmnt	Filter1Drive
40	F1Track	Filter1Track
41	F2Freq	Filter2Frequency
42	F2Res	Filter2Resonance
43	F2DAmnt	Filter2Drive
44	F2Track	Filter2Track
45	F1Env2	Filter1Env2ToFreq
46	F2Env2	Filter2Env2ToFreq
47	AmpAttck	Envelope1Attack
48	AmpDecay	Envelope1Decay
49	AmpSustn	Envelope1Sustain
50	AmpRelse	Envelope1Release
51	F1tAttck	Envelope2Attack
52	F1tDecay	Envelope2Decay
53	F1tSustn	Envelope2Sustain
54	F1tRelse	Envelope2Release
55	E3Delay	Envelope3Delay
56	E3Attck	Envelope3Attack
57	E3Decay	Envelope3Decay
58	E3Sustn	Envelope3Sustain
59	E3Relse	Envelope3Release
60	L1Rate	LFO1Rate
61	L1RSync	LFO1RateSync
62	L1Slew	LFO1SlewRate

Tweak Index	Tweak ShortName	Tweak LongName
63	L2Rate	LFO2Rate
64	L2RSync	LFO2RateSync
65	L2Slew	LFO2SlewRate
66	L3Rate	LFO3Rate
67	L3RSync	LFO3RateSync
68	L3Slew	LFO3SlewRate
69	FX1Amnt	FX1Level
70	FX2Amnt	FX2Level
71	FX3Amnt	FX3Level
72	FX4Amnt	FX4Level
73	FX5Amnt	FX5Level
74	FXFedbck	FXFeedback
75	Reserved	
76	Reserved	
77	Dly1Time	Delay1Time
78	Dly1Sync	Delay1TimeSync
79	Dly1Fbck	Delay1Feedback
80	Dly1Slew	Delay1SlewRate
81	Dly2Time	Delay2Time
82	Dly2Sync	Delay2TimeSync
83	Dly2Fbck	Delay2Feedback
84	Dly2Slew	Delay2SlewRate
85	Ch1Rate	Chorus1Rate
86	Ch1Fbck	Chorus1Feedback
87	Ch1Depth	Chorus1ModDepth
88	Ch1Delay	Chorus1Delay
89	Ch2Rate	Chorus2Rate
90	Ch2Fbck	Chorus2Feedback
91	Ch2Depth	Chorus2ModDepth
92	Ch2Delay	Chorus2Delay
93	Ch3Rate	Chorus3Rate
94	Ch3Fbck	Chorus3Feedback
95	Ch3Depth	Chorus3ModDepth
96	Ch3Delay	Chorus3Delay
97	Ch4Rate	Chorus4Rate
98	Ch4Fbck	Chorus4Feedback
99	Ch4Depth	Chorus4ModDepth
100	Ch4Delay	Chorus4Delay
101	GtSlew	GatorEdgeSlew
102	GtHold	GatorHold
103	GtL/RDel	GatorLRDelay
104	ArpGate	ArpGate
105	ArpSwing	ArpSwing
106	M1Depth	ModMatrix1Depth
107	M2Depth	ModMatrix2Depth
108	M3Depth	ModMatrix3Depth
109	M4Depth	ModMatrix4Depth
110	M5Depth	ModMatrix5Depth
111	M6Depth	ModMatrix6Depth
112	M7Depth	ModMatrix7Depth
113	M8Depth	ModMatrix8Depth
114	M9Depth	ModMatrix9Depth
115	M10Depth	ModMatrix10Depth
116	M11Depth	ModMatrix11Depth
117	M12Depth	ModMatrix12Depth
118	M13Depth	ModMatrix13Depth
119	M14Depth	ModMatrix14Depth
120	M15Depth	ModMatrix15Depth
121	M16Depth	ModMatrix16Depth
122	M17Depth	ModMatrix17Depth
123	M18Depth	ModMatrix18Depth
124	M19Depth	ModMatrix19Depth
125	M20Depth	ModMatrix20Depth