

# CS80

**MUSIC SYNTHESIZER**

**DATA LIST**  
**DATEN-LISTE**  
**LISTE DE DONNÉES**





# S80

## DATA LIST

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# S80 Voice List

## Preset 1 (MSB=63, LSB=0)

No.	Voice Name	Category	Reverb Type	Chorus Type	Insertion1 Type	Insertion2 Type	MW	PB	AT	FC	BC	FS	Kn1	Kn2
1(A01)	StereoGrnd	Pf	Hall 1	Chorus 1	3band EQ	Thru	ChoSend	off	off	off	off	off	ChoSend	RevSend
2(A02)	StereoGnd2	Pf	Hall 1	Chorus 1	3band EQ	Thru	ChoSend	off	off	off	off	off	FLT-Frq	RevSend
3(A03)	CF Grand M	Pf	Hall 1	Chorus 1	3band EQ	Thru	ChoSend	off	off	off	off	off	ChoSend	RevSend
4(A04)	Dark Grand	Pf	Hall 1	Chorus 1	Thru	Thru	ChoSend	off	off	off	off	off	FLT-Frq	RevSend
5(A05)	Difference	Pf	Hall 1	Chorus 1	3band EQ	Thru	ChoSend	off	off	off	off	off	FLT-Frq	RevSend
6(A06)	Piano/Ep	Pf	Hall 1	Chorus 1	Chorus 1	3Band EQ	ChoSend, Volume	off	off	off	off	off	FLT-Frq	ELM-Lvl, ELM-Lvl
7(A07)	Piano/Strg	Co	Hall 1	Chorus 1	3band EQ	Thru	ELM-Lvl	off	off	off	off	off	FLT-Frq	RevSend
8(A08)	Piano/Oohs	Pf	Hall 1	Chorus 1	3band EQ	Thru	ELM-Lvl	off	off	off	off	off	FLT-Frq	RevSend
9(A09)	CP2000	Pf	Hall 1	Flanger 3	3band EQ	Thru	ChoSend	off	off	off	off	off	ELM-Lvl	FLT-Frq
10(A10)	Piano/DX	Pf	Hall 1	Chorus 1	3band EQ	Chorus 5	CLFO-D1	off	off	off	off	off	ChoSend, Volume	RevSend
11(A11)	Wurltrm	Pf	Room 1	Celeste 1	Thru	Tremolo	InsL_prm2, Volume	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
12(A12)	DF EP IV	Pf	Hall 1	Chorus 1	3band EQ	Pitch Change 1	InsS_prm2	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
13(A13)	DF EP III	Pf	Hall 2	Chorus 1	Compressor	Celeste 1	InsL_prm3, InsL_prm1	off	off	off	off	off	InsL_prm10	RevSend
14(A14)	Herb Roadz	Pf	Hall 2	Chorus 1	Auto Pan	Comp Distortion	InsS_prm1	off	off	off	off	off	InsS_prm2	RevSend
15(A15)	BasicRoadz	Pf	Hall 2	Chorus 1	3band EQ	Auto Pan	InsL_prm1	off	off	off	off	off	InsL_prm2	ChoSend, RevSend
16(A16)	19 Roadz	Pf	Stage 2	Chorus 1	Compressor	Phaser 1	InsL_prm2	off	off	off	off	off	InsL_prm4	RevSend
17(B01)	Vic'sRoadz	Pf	Hall 1	Celeste 2	3band EQ	Auto Pan	InsL_prm2, InsL_prm1	off	off	off	off	off	ChoSend	RevSend
18(B02)	ErlYFusion	Pf	Hall 1	Phaser	Touch Wah	3Band EQ	CLFO-D1	off	off	off	off	off	RevSend	ChoSend
19(B03)	Grapevine	Pf	Room 2	Chorus 1	Auto Pan	V-Distortion	ELFO-PM	off	off	off	off	off	AEG-D1	RevSend
20(B04)	VintgCond	Pf	Hall 1	Chorus 1	3band EQ	Auto Pan	InsL_prm1, InsL_prm2, InsL_prm3	off	off	off	off	off	RevSend	ChoSend
21(B05)	DXAtacky	Pf	Hall 1	Celeste 1	Chorus 3	Thru	CLFO-D1	off	off	off	off	off	RevSend	ChoSend
22(B06)	DigIX Wave	Pf	Hall 1	Chorus 5	3band EQ	Thru	CLFO-D1	off	off	off	off	off	RevSend	ChoSend
23(B07)	Dark DX	Pf	Hall 1	Chorus 1	Thru	Thru	CLFO-D1	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
24(B08)	Ice Piano	Pf	Hall 1	Chorus 1	Thru	Thru	CLFO-D1	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
25(B09)	ChorusBel	Pf	Stage 1	Delay LR	3band EQ	Ensemble Detune	InsL_prm10	off	off	off	off	off	RevSend	ChoSend
26(B10)	Bel Roadz	Pf	Hall 1	Chorus 4	Thru	Thru	ELFO-AM	off	off	off	off	off	RevSend	ELFOSpd
27(B11)	Glass EP	Pf	Hall 1	Chorus 1	Thru	Thru	ELFO-AM	off	off	off	off	off	RevSend	ChoSend
28(B12)	SuperDyno	Pf	Hall 1	Chorus 1	Compressor	Pitch Change 1	InsL_prm11, InsL_prm13	off	off	off	off	off	InsS_prm4, InsS_prm3	RevSend
29(B13)	PowerKeys	Sc	Room 1	Chorus 1	3band EQ	Phaser 2	InsL_prm2, InsL_prm4, InsL_prm10	off	off	off	off	off	InsL_prm1	RevSend
30(B14)	Harpicorde	Pf	Room 3	Celeste 1	Thru	Thru	ChoSend, Volume	off	off	off	off	off	FLT-Frq	FEQ-D1
31(B15)	Clav	Pf	Stage 2	Celeste 1	Thru	Thru	ChoSend, Volume	off	off	off	off	off	FLT-Frq	AEG-D1, AEG-D2
32(B16)	Clav Wah	Pf	Stage 2	Phaser	Touch Wah	Thru	ChoSend, Volume	RevSend	off	off	off	off	FLT-Frq	FEQ-D1
33(C01)	Perc Org	Or	Hall 1	Chorus 1	3band EQ	2Way Rotary Speaker 3	InsL_prm16, ChoSend, ELM-Lvl	off	off	off	off	off	InsL_prm9	RevSend
34(C02)	Cool	Or	Room 1	Chorus 1	Thru	2Way Rotary Speaker 3	InsL_prm16	off	off	off	off	off	InsL_prm9	InsL_prm1
35(C03)	ClickOrgan	Or	Hall 1	Chorus 1	Overdrive	Rotary Speaker 1	InsL_prm1	off	off	off	off	off	ELM-Lvl	ELM-Lvl
36(C04)	Jazz	Or	Room 1	Chorus 1	Overdrive	Rotary Speaker 1	InsL_prm1	off	off	off	off	off	InsL_prm9	InsL_prm1
37(C05)	Soft Rock	Or	Hall 1	Chorus 1	Overdrive	Rotary Speaker 1	InsL_prm1, ChoSend, ELM-Lvl	off	off	off	off	off	InsS_prm10	ChoSend
38(C06)	Tube	Or	Hall 1	Chorus 3	AMP Simulator	2Way Rotary Speaker 3	InsL_prm16, InsL_prm9	off	off	off	off	off	InsS_prm1, Volume	InsL_prm9, FLT-Frq
39(C07)	Continental	Or	Stage 1	Chorus 1	3band EQ	2Way Rotary Speaker	InsL_prm1	off	off	off	off	off	FLT-Frq	RevSend
40(C08)	Swish	Or	Room 1	Chorus 1	Thru	Thru	ChoSend, Volume	off	off	off	off	off	FLT-Frq	RevSend
41(C09)	4 Bars	Or	Hall 1	Chorus 1	Overdrive	Rotary Speaker 1	InsL_prm1	off	off	off	off	off	RevSend	ELM-Lvl
42(C10)	Full	Or	Hall 1	Chorus 1	3band EQ	2Way Rotary Speaker 3	InsL_prm16, ChoSend, ELM-Lvl	off	off	off	off	off	ELM-Lvl	ELM-Lvl
43(C11)	GiantDrbr	Or	Room 1	Chorus 1	Thru	2Way Rotary Speaker 3	InsL_prm16	InsL_prm2, InsL_prm3	off	off	off	off	InsL_prm14	InsL_prm5, InsL_prm6
44(C12)	Sunday	Or	Hall 2	Chorus 3	2band EQ	Thru	FLT-Frq	off	off	off	off	off	ELM-Lvl	RevSend
45(C13)	Pipes	Or	Hall 2	Chorus 3	Thru	Thru	ChoSend	off	off	off	off	off	RevSend	ELFO-PM
46(C14)	New Nylon	Gt	Hall 1	Chorus 1	3band EQ	Thru	CLFO-D1	off	off	off	off	off	ELM-Lvl, FLT-Frq	ChoSend
47(C15)	JazzGtmelo	Gt	Hall 1	Chorus 1	3band EQ	3Band EQ	CLFO-D1	off	off	off	off	off	InsS_prm4	ChoSend
48(C16)	Melo Trmlo	Gt	Hall 1	Delay LR	Tremolo	Comp Distortion	FLT-Frq	off	off	off	off	off	InsS_prm1	InsS_prm2
49(D01)	Strat Chor	Gt	Hall 1	Delay LR	Chorus 1	Comp Distortion	ELFO-PM	off	off	off	off	off	InsL_prm1, InsL_prm4, Volume, InsL_prm14	InsS_prm10
50(D02)	StratChor2	Gt	Hall 1	Chorus 4	3band EQ	AMP Simulator	ELFO-PM	off	off	off	off	off	ChoSend, Volume	RevSend
51(D03)	18 String	Gt	Hall 2	Chorus 1	3band EQ	2Band EQ	CLFO-D1	off	off	off	off	off	ChoSend	FLT-Frq
52(D04)	Acoustic	Gt	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FEQ-D1	ChoSend
53(D05)	MuteGr	Gt	Room 3	Phaser	Thru	Compressor	ELFO-PM, ChoSend	off	off	off	off	off	RevSend	FLT-Frq, FLT-Rez
54(D06)	DirtyTwn	Gt	Room 3	Chorus 4	3band EQ	V-Distortion	ELFO-PM	off	off	off	off	off	InsL_prm1	InsL_prm11, RevSend
55(D07)	Feedback	Gt	Room 3	Chorus 4	3band EQ	V-Distortion	ELFO-PM	off	off	off	off	off	InsL_prm1	InsL_prm11, RevSend
56(D08)	VOODOO MAN	Gt	Room 3	Phaser	Touch Wah	V-Distortion	ELFO-PM, InsS_prm4	off	InsS_prm2	off	off	off	InsL_prm1	InsL_prm11
57(D09)	Rockabilly	Gt	Room 3	Chorus 4	3band EQ	V-Distortion	ELFO-PM	off	off	off	off	off	InsL_prm1, Volume	InsL_prm11, RevSend
58(D10)	Funk It!	Gt	Room 3	Delay LR	Compressor	Auto WAH Overdrive	FLT-Frq	off	off	off	off	off	InsS_prm3, Volume	ChoSend
59(D11)	Upright	Ba	Room 1	Chorus 1	3band EQ	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq, FLT-Frq	ELM-Lvl
60(D12)	Finger	Ba	Room 3	Chorus 4	Compressor	Thru	CLFO-D1	off	off	off	off	off	InsS_prm3, Volume	ChoSend
61(D13)	PickBass	Ba	Room 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
62(D14)	Fretless	Ba	Hall 1	Chorus 1	3band EQ	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
63(D15)	Slap	Ba	Room 1	Chorus 1	Compressor	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
64(D16)	Fngr & RW	Ba	Room 1	Chorus 1	Thru	Thru	ELFO-PM	off	ELFO-PM	off	off	off	FLT-Frq, FLT-Frq	ChoSend, RevSend

No.	Voice Name	Category	Reverb Type	Chorus Type	Insertion1 Type	Insertion2 Type	MW	PB	AT	FC	BC	FS	Kn1	Kn2
65(E01)	Background	St	Hall 2	Chorus 1	3band EQ	3Band EQ	CLFO-D1	off	off	off	off	off	ChoSend, RevSend	AEG-Atk, AEG-Rel
66(E02)	Big String	St	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	RevSend	FLT-Frq, FLT-Rez
67(E03)	Cello Big	St	Hall 1	Chorus 1	Thru	Thru	FLT-Frq	off	off	off	off	off	AEG-Rel, AEG-Atk	ChoSend, RevSend
68(E04)	Chamberz	St	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	RevSend	FLT-Frq, FLT-Rez
69(E05)	SmallSect	St	Hall 1	Chorus 1	3band EQ	Thru	ChoSend, Volume	off	off	off	off	off	FLT-Frq	AEG-Atk, AEG-Rel
70(E06)	CelloSmall	St	Hall 1	Chorus 1	Thru	Thru	FLT-Frq	off	off	off	off	off	AEG-Rel, AEG-Atk	ChoSend, RevSend, Volume
71(E07)	Pizz	St	Hall 1	Chorus 3	Thru	Thru	ChoSend	off	off	off	off	off	FLT-Frq	AEG-D1
72(E08)	Harp	St	Hall 1	Celeste 2	Thru	Thru	ELFO-PM	off	off	off	off	off	RevSend	ChoSend
73(E09)	Oboe	Rd	Hall 1	Chorus 1	Thru	Thru	ELFO-PM, ELFO-AM	off	off	off	off	off	RevSend	FLT-Frq
74(E10)	Bsoon	Rd	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	ELFO-AM	off	off	off	off	RevSend	FLT-Frq
75(E11)	Clarnet	Rd	Hall 1	Chorus 1	3band EQ	Thru	ELFO-PM, ELFO-AM	off	off	off	off	off	RevSend	FLT-Frq, FLT-Rez
76(E12)	Wind Orch	Co	Hall 1	Ensemble	3band EQ	Thru	CLFO-D1, CLFO-D2, ELFO-PM, ELFO-FM	off	off	off	off	off	FLT-Frq	ELM-Lvl
77(E13)	SynthStrgs	St	Hall 1	Chorus 1	3band EQ	Cross Delay	FLT-Frq	off	off	off	off	off	ChoSend, Volume	RevSend
78(E14)	ObiStrings	St	Hall 2	Chorus 5	Exciter	Cross Delay	FLT-Frq, FLT-Rez	off	off	off	off	off	InsS prm1	ChoSend
79(E15)	Fanfare	Br	Hall 1	Chorus 1	3band EQ	Thru	CLFO-D1	off	off	off	off	off	ChoSend, Volume	RevSend
80(E16)	MediumBrss	Br	Hall 1	Chorus 1	3band EQ	Thru	CLFO-D1	off	off	off	off	off	ChoSend, Volume	RevSend
81(F01)	Two Brass	Br	Hall 1	Chorus 1	Thru	Thru	ELFO-FM, ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume
82(F02)	Brass&Sax	Br	Hall 1	Chorus 1	Thru	Thru	ELFO-FM, ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume
83(F03)	Dark Class	Br	Hall 1	Chorus 1	Thru	Thru	ELFO-FM, ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume
84(F04)	Stereo Brs	Br	Hall 1	Chorus 1	Thru	Thru	ELFO-FM, ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume
85(F05)	Trumpet	Br	Hall 1	Ensemble	Thru	Delay LCR	ELFO-PM, ELFO-FM	off	off	off	off	off	RevSend	ChoSend, FLT-Rez
86(F06)	Mute Trpt	Br	Hall 1	Chorus 1	3band EQ	Thru	ELFO-PM	ELFO-AM	off	off	off	off	RevSend	HPF-Frq
87(F07)	Tenor Sax	Rd	Hall 1	Chorus 1	3band EQ	Thru	ELFO-PM, ELFO-AM	off	off	off	off	off	FLT-Frq	ChoSend
88(F08)	Alto Sax	Rd	Hall 1	Chorus 1	3band EQ	Thru	ELFO-PM, ELFO-AM	off	off	off	off	off	FLT-Frq	ChoSend
89(F09)	Bari Sax	Rd	Hall 1	Chorus 1	3band EQ	Thru	ELFO-PM, ELFO-FM	off	off	off	off	off	FLT-Frq	ChoSend
90(F10)	Soprano	Rd	Hall 1	Delay LR	3band EQ	Thru	ELFO-PM	off	off	off	off	off	RevSend	ChoSend
91(F11)	ObrBrass	Br	Hall 1	Chorus 4	3band EQ	Chorus 4	CLFO-D1	off	off	off	off	off	RevSend	FLT-Frq, FLT-Rez
92(F12)	PowerSynth	Br	Hall 1	Chorus 1	3band EQ	Harmonic Enhancer	CLFO-D1	off	off	off	off	off	InsL prm3	RevSend
93(F13)	Synth Horn	Br	Hall 2	Chorus 1	Thru	Tempo Cross Delay	FLT-Frq, ChoSend, RevSend	off	off	off	off	off	InsL prm10	FLT-Rez
94(F14)	M Brass	Br	Hall 1	Delay LR	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq, FLT-Rez	PEG-Dpt, PEG-Atk
95(F15)	Moon AT	Br	Hall 1	Chorus 1	3band EQ	Harmonic Enhancer	CLFO-D1	off	FLT-Frq, Volume	off	off	off	PCH-Crs	RevSend
96(F16)	SquishBrs	Br	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Rez	RevSend, ChoSend
97(G01)	Ooh Choir	Vo	Hall 2	Delay LR	Exciter	3Band EQ	CLFO-D1	off	off	off	off	off	AEG-Atk, AEG-Rel	RevSend, ChoSend
98(G02)	Ahh Choir	Vo	Hall 2	Delay LR	3band EQ	Talking Modulator	CLFO-D1	off	off	off	off	off	AEG-Atk, AEG-Rel	RevSend, ChoSend
99(G03)	Panmonks	Vo	Plate	Delay LR	Tremolo	Ensemble Detune	InsS prm2	off	off	off	off	off	AEG-Rel	RevSend, ChoSend
100(G04)	Pad Ooh	En	Hall 1	Ensemble	Chorus 1	Thru	InsS prm10, ChoSend	off	off	off	off	off	FLT-Frq	AEG-Atk, AEG-Rel
101(G05)	Soft Pad	Pd	Hall 1	Chorus 1	Thru	V-Flanger	InsL prm14	off	off	off	off	off	ELM-Lvl	ChoSend
102(G06)	FatSweep	Pd	Hall 2	Symphonic	Chorus 4	Cross Delay	ELFO-PM	off	off	off	off	off	ChoSend	InsL prm10
103(G07)	Cumulus	Pd	Hall 1	Delay LR	Celeste 3	Harmonic Enhancer	ELFO-FM	off	off	off	off	off	RevSend	ChoSend
104(G08)	Big Wing	Pd	Stage 1	Ensemble	Celeste 4	Harmonic Enhancer	ELM-Lvl	off	off	off	off	off	InsL prm3	RevSend
105(G09)	Slide in	Pd	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	PEG-Atk	ChoSend
106(G10)	BPFx	Pd	Hall 2	Ensemble	Chorus 4	Cross Delay	CLFO-D1, ELM-Lvl	off	CLFO-D1	off	off	off	FEG-Dpt	InsL prm10
107(G11)	DigiSweep	Pd	Hall 2	Chorus 5	Compressor	Tempo Cross Delay	FLT-Frq, FEG-Dpt, RevSend	off	off	off	off	off	ChoSend	RevSend
108(G12)	JM Pad	Pd	Hall 2	Chorus 4	Thru	Phaser 2	ELFO-PM, InsL prm1, InsL prm2	off	off	off	off	off	FLT-Frq	FLT-Rez
109(G13)	Vermillion	Pd	Hall 1	Tempo Delay2	Thru	Pitch Change 1	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
110(G14)	Magenta	Pd	Hall 1	Chorus 1	Flanger 1	Delay LCR	ELFO-PM, FLT-Frq	off	ELFO-PM	off	off	off	FLT-Frq	RevSend, ChoSend
111(G15)	Liquito	Sc	Hall 1	Chorus 1	Compressor	V-Flanger	AEG-Rel, FLT-Frq, AEG-D1	off	off	off	off	off	FLT-Rez	ChoSend, RevSend
112(G16)	Shadow	Fx	Hall 2	Flanger 1	Celeste 4	Jump	InsL prm2, ChoSend	off	off	off	off	off	FLT-Frq	InsL prm9
113(H01)	Vibes	Cp	Hall 1	Celeste 2	Thru	3Band EQ	ChoSend	off	off	off	off	off	ELFO-AM	ELFOSpd
114(H02)	Marimba	Cp	Hall 1	Celeste 2	Thru	Thru	ELFO-AM	off	off	off	off	off	FLT-Frq, FLT-Rez	RevSend, ChoSend
115(H03)	Gamelan	Cp	Hall 1	Symphonic	Thru	Thru	ChoSend	off	off	off	off	off	FLT-Frq	AEG-Atk, AEG-Rel
116(H04)	Xylo	Cp	Hall 1	Celeste 2	Thru	Thru	ELFO-FM	off	off	off	off	off	RevSend	ChoSend
117(H05)	Glocken	Cp	Hall 2	Celeste 2	Thru	Thru	ChoSend	off	off	off	off	off	RevSend	ELFO-PM
118(H06)	Crotales	Cp	Hall 1	Celeste 2	Thru	Thru	FLT-Frq	off	off	off	off	off	FLT-Frq	RevSend
119(H07)	Timpani	Pc	Hall 1	Celeste 2	Thru	Thru	ELFO-AM	off	off	off	off	off	AEG-Atk	FLT-Frq
120(H08)	SteelDrum	Cp	Hall 1	Celeste 2	Thru	Thru	ELFO-FM, ChoSend	off	off	off	off	off	AEG-Rel	RevSend
121(H09)	Sitar	Et	Hall 1	Flanger 1	3band EQ	Ensemble Detune	ELFO-PM	off	off	off	off	off	ChoSend	RevSend
122(H10)	BrthFlute	Pi	Hall 1	Chorus 1	Thru	Thru	CLFO-D1, CLFO-D2	off	off	off	off	off	FLT-Frq	ELM-Lvl
123(H11)	Pan Flute	Pi	Hall 1	Chorus 1	Thru	Thru	ELFO-AM, ELFO-FM	off	off	off	off	off	FLT-Frq, FLT-Rez	AEG-Atk
124(H12)	Accordion	Or	Hall 1	Ensemble	Thru	Thru	ChoSend	off	off	off	off	off	HPF-Frq	FLT-Frq
125(H13)	Monica	Rd	Stage 1	Ensemble	AMP Simulator	Touch WAH	ELFO-PM	FLT-Frq	ELFO-PM	off	off	off	ChoSend	RevSend
126(H14)	BluesHarp	Rd	Stage 2	Chorus 1	Touch Wah	V-Distortion	ELFO-AM, CLFO-D1, ELFO-PM	FLT-Frq	off	off	off	off	InsL prm1	RevSend
127(H15)	Amandia	Co	Stage 1	Delay LR	2band EQ	Celeste 4	ELFO-PM	off	ELFO-PM	off	off	off	RevSend	ChoSend
128(H16)	AnalogSplt	Co	Hall 1	Chorus 1	Phaser	Tempo Delay 2	ELFO-PM	off	ELFO-PM	off	off	off	InsS prm1	InsL prm10

## Preset 2 (MSB=63, LSB=1)

No.	Voice Name	Category	Reverb Type	Chorus Type	Insertion1 Type	Insertion2 Type	MW	PB	AT	FC	BC	FS	Kn1	Kn2
1(A01)	1001 Sub	Ba	Stage 2	Ensemble	Thru	Echo	ChoSend, ELM-Lvl	off	off	off	off	off	FLT-Frq, FEG-D1	Insl prm10
2(A02)	Trancy	Ba	Hall 1	Chorus 4	Thru	Delay LR	ChoSend, ELM-Lvl	off	off	off	off	off	FEG-Atk	Insl prm10
3(A03)	Velo	Ba	Stage 2	Chorus 1	Thru	Auto WAH	Insl prm10, RevSend	off	off	off	off	off	FEG-Atk	ChoSend
4(A04)	Wonk	Ba	Hall 1	Ensemble	3band EQ	Thru	ELFO-PM	off	off	off	off	off	FLT-Rez	RevSend, ChoSend
5(A05)	Mini 1	Ba	Room 1	Chorus 1	3band EQ	Pitch Change 1	ELFO-PM	off	off	off	off	off	Insl prm10	RevSend
6(A06)	Mini 2	Ba	Room 1	Chorus 1	3band EQ	Pitch Change 1	ELFO-PM	off	off	off	off	off	Insl prm10	RevSend
7(A07)	D-sub	Ba	Hall 1	Flanger 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend
8(A08)	Lately	Ba	Room 3	Control Delay1	Compressor	AMP Simulator	ELFO-PM	off	off	off	off	off	Insl prm10	ELFOspd
9(A09)	Dark	Ba	Stage 2	Chorus 1	Thru	Thru	FLT-Frq	off	off	off	off	off	FEG-Atk, FEG-D1	ChoSend, ELM-Lvl
10(A10)	Moonbass	Ba	Hall 1	Flanger 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend
11(A11)	Snoop Bs	Ba	Hall 1	Phaser	3band EQ	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
12(A12)	LoTic Bass	Ba	Room 1	Chorus 1	Thru	Chorus 1	ELFO-PM, Volume	off	ELFO-PM	off	off	off	AEG-Atk, AEG-Rel	ChoSend
13(A13)	Taurus	Ba	Hall 1	Flanger 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq, FLT-Rez	ChoSend
14(A14)	Fuzzline	Ba	Hall 1	Phaser	Distortion	Delay LR	ChoSend, ELM-Lvl	off	off	off	off	off	InsS prm10, ELM-Lvl	Insl prm10
15(A15)	Deep One	Ba	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	FLT-Rez
16(A16)	Sqbase	Ba	Hall 1	Tempo Cross Delay	Flanger 1	Thru	ELFO-FM, ELM-Lvl	off	off	off	off	off	InsS prm10, ChoSend	InsS prm3
17(B01)	Portachrd	Sc	Hall 1	Chorus 4	Thru	Delay LR	FLT-Rez, FLT-Frq, ChoSend	off	off	off	off	off	FEG-Atk	ChoSend
18(B02)	Thin man	Sc	Hall 2	Ensemble	Compressor	Cross Delay	FLT-Frq	off	off	off	off	off	AEG-Atk, AEG-Rel	ChoSend, ELM-Lvl
19(B03)	PopularSyn	Sc	Hall 1	Chorus 1	Auto Wah	Cross Delay	InsS prm2	off	off	off	off	off	ChoSend	Insl prm10
20(B04)	Straight	Sc	Hall 1	Ensemble	Celeste 4	Cross Delay	ELFO-PM	off	off	off	off	off	FLT-Rez, InsS prm1	AEG-Rel, FLT-Rez
21(B05)	Poly	Sc	Hall 1	Ensemble	Auto Wah	Delay LR	ELFO-PM	off	off	off	off	off	FLT-Frq, FEG-Dpt	InsS prm9
22(B06)	Zap Comp	Sc	Hall 1	Chorus 1	Touch Wah	Cross Delay	ELFO-PM	off	off	off	off	off	FLT-Rez	RevSend, ChoSend
23(B07)	AnaTonk	Sc	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FEG-D1, FEG-D2	ChoSend
24(B08)	Insomnia	Sc	Hall 1	Tempo Phaser	Compressor	Thru	FLT-Frq	off	off	off	off	off	ELM-Lvl	RevSend
25(B09)	Q Hit	Sc	White Room	Control Delay1	Exciter	Gate Reverb	ELFO-PM	off	off	off	off	off	ELM-Lvl, FLT-Frq	RevSend
26(B10)	BPF1	Sc	Hall 1	Chorus 1	Thru	Thru	CLFO-D1	off	off	off	off	off	FLT-Frq, FLT-Frq	FEG-Atk
27(B11)	T-Eight	Sc	Hall 1	Delay LR	Chorus 1	Compressor	ELFO-PM, CLFOspd, InsS prm10	off	off	off	off	off	FLT-Frq, FEG-Dpt	FEG-Atk
28(B12)	L7 octs	Sc	Hall 1	Celeste 3	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume
29(B13)	NoizRezz	Sc	Hall 1	Chorus 2	Thru	Tempo Cross Delay	ELFO-PM	off	off	off	off	off	Insl prm10, ChoSend	RevSend
30(B14)	GX	Sc	Hall 1	Celeste 4	Thru	Thru	CLFO-D1	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
31(B15)	Noise Harp	Sc	Room 3	Celeste 2	Thru	Hall 1	ELFO-PM	off	off	off	off	off	ChoSend	RevSend
32(B16)	Syntax	Ld	Hall 1	Ensemble	Flanger 3	Delay LCR	FLT-Frq	off	off	off	off	off	InsS prm10	ChoSend
33(C01)	Tri Solo	Ld	Hall 1	Delay LR	3band EQ	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume, RevSend
34(C02)	Smooth Saw	Ld	Hall 1	Delay LR	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume, RevSend
35(C03)	Frontline	Ld	Hall 1	Ensemble	Distortion	Cross Delay	ChoSend, ELM-Lvl	off	off	off	off	off	PCH-Fin	ChoSend
36(C04)	Lucky	Ld	Hall 1	Chorus 3	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume
37(C05)	Sneaky	Ld	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FEG-Dpt	FLT-Rez
38(C06)	Rap Lead 1	Ld	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	FLT-Rez
39(C07)	Rap Lead 2	Ld	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	FLT-Rez
40(C08)	Rap Lead 3	Ld	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	FLT-Rez
41(C09)	PhazFilter	Ld	Hall 1	Tempo Phaser	Chorus 1	Ensemble Detune	ELFO-PM	off	off	off	off	off	InsS prm10, Insl prm10, InsS prm2	PEG-Dpt
42(C10)	SpaceWhirl	Ld	Tunnel	Tempo Delay2	Compressor	Tempo Phaser	Insl prm10, FLT-Frq, AEG-Rel	off	off	off	off	off	RevSend	ChoSend
43(C11)	X-File	Ld	Stage 1	Delay LR	Thru	V-Flanger	ELFO-PM	off	off	off	off	off	PorTime	RevSend
44(C12)	BreathSaw	Ld	Hall 1	Delay LR	2band EQ	Ambience	CLFO-D1, CLFO-D2	off	off	off	off	off	ELM-Lvl	RevSend
45(C13)	1 is more	Ld	Hall 1	Ensemble	Thru	Delay LR	ELFO-PM	off	off	off	off	off	ChoSend	AEG-Atk
46(C14)	Mini Pulse	Ld	Hall 2	Chorus 2	Compressor	Tempo Cross Delay	ELFO-PM	off	off	off	off	off	ChoSend	RevSend, Insl prm10
47(C15)	Syntrump	Ld	Hall 1	Tempo Delay1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend
48(C16)	Eagle	Ld	Hall 1	Tempo Delay1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend
49(D01)	Oberweich	Pd	Hall 1	Chorus 1	Thru	Thru	CLFO-D1	off	off	off	off	off	ChoSend	RevSend
50(D02)	5thBreath	Pd	Hall 2	Ensemble	Exciter	Cross Delay	CLFO-D1	off	off	off	off	off	FLT-Frq, FLT-Rez	Insl prm10
51(D03)	Rain Pad	Pd	Hall 1	Chorus 1	Thru	Thru	ChoSend, Volume	off	off	off	off	off	FLT-Rez	ELM-Lvl, ELM-Lvl
52(D04)	Vortex	Pd	White Room	Chorus 1	Flanger 3	Thru	ELFO-PM, ELFO-FM	off	off	off	off	off	PEG-Dpt	InsS prm1
53(D05)	Sprinkler	Pd	Hall 1	Chorus 1	Thru	V-Flanger	PCH-Crs, Volume	off	off	off	off	off	ELM-Lvl	AEG-Atk, AEG-Rel
54(D06)	Astronaut	Pd	Stage 1	Celeste 4	Phaser	Ambience	FLT-Frq	off	off	off	off	off	ChoSend	RevSend, Insl prm10
55(D07)	BrassyPad	Pd	Hall 1	Delay LR	Chorus 1	V-Flanger	ELM-Lvl	off	off	off	off	off	FLT-Frq	Insl prm14, Insl prm2
56(D08)	Sine Pad	Pd	Hall 2	Chorus 1	Thru	Symphonic	CLFO-D1	off	off	off	off	off	ChoSend	RevSend
57(D09)	Big Syn	St	Hall 2	Chorus 5	Exciter	Cross Delay	FLT-Frq, FLT-Rez	off	off	off	off	off	ELM-Lvl	ELM-Lvl
58(D10)	Berlin	Sc	Hall 2	Flanger 3	Chorus 4	Cross Delay	ChoSend, ELM-Lvl, FLT-Frq	off	off	off	off	off	FLT-Frq	PEG-Dpt
59(D11)	Filtopia	Sc	Hall 1	Chorus 1	Compressor	Hall 2	ELM-Lvl, ChoSend, FLT-Frq	off	off	off	off	off	FEG-Atk	FLT-Frq
60(D12)	Poppy Vox	Sc	Hall 1	Symphonic	Exciter	Hall 1	ELFO-PM	FLT-Frq	off	off	off	off	ChoSend	RevSend
61(D13)	Arabesque	Sc	Hall 1	Chorus 1	Compressor	Hall 2	FLT-Frq, ELM-Lvl, ELM-Pan	off	off	off	off	off	Insl prm13	AEG-D1
62(D14)	Crecendar	Sc	Hall 1	Chorus 1	Flanger 1	Delay LCR	ELFO-PM, FLT-Frq	off	ELFO-PM, InsS prm1	off	off	off	FLT-Frq	FLT-Rez
63(D15)	Soft Dream	Co	Hall 2	Symphonic	Celeste 4	Thru	CLFO-D1, ChoSend	off	off	off	off	off	FLT-Frq	ChoSend
64(D16)	ChimzArt	Co	Hall 1	Chorus 1	Compressor	Hall 2	ELM-Lvl, ELM-Lvl, Volume	off	off	off	off	off	ChoSend	ELM-Pan

No.	Voice Name	Category	Reverb Type	Chorus Type	Insertion1 Type	Insertion2 Type	MW	PB	AT	FC	BC	FS	Kn1	Kn2
65(E01)	Seal	Sq	Hall 2	Tempo Cross Delay	Chorus 4	Ensemble Detune	FLT-Rez, ELM-Lvl	off	off	off	off	off	ELM-Lvl	ChoSend
66(E02)	Shine Seq	Sq	Hall 1	Tempo Cross Delay	Chorus 1	Ensemble Detune	FLT-Rez	off	off	off	off	off	FLT-Frq, ELM-Lvl, CLFO-D1	FLT-Rez
67(E03)	Kickwheel	Sq	Hall 1	Tempo Flanger	Distortion	Delay LR	ELM-Lvl, ChoSend	off	off	off	off	off	InsL prm10, ELM-Lvl	HPF-Frq
68(E04)	Supersnap	Sq	Hall 1	Phaser	Compressor	Delay LR	ELM-Lvl	off	off	off	off	off	ELM-Lvl	ChoSend, InsL prm10
69(E05)	Opener	Sq	Hall 1	Tempo Cross Delay	Chorus 4	Tempo Phaser	FLT-Frq, InsL prm10	off	off	off	off	off	FEG-Atk	ChoSend, InsL prm10
70(E06)	Rosy	Sq	Hall 1	Ensemble	Thru	Delay LR	FLT-Frq	off	off	off	off	off	FEG-Atk	InsL prm10
71(E07)	LAizer	Sq	Hall 2	Chorus 2	Compressor	Tempo Delay 2	ELM-Lvl, FLT-Frq, ChoSend	off	off	off	off	off	ELM-Diy	InsL prm10
72(E08)	2 Friends	Sq	Hall 2	Tempo Delay2	Phaser	Hall 2	ELM-Lvl, ChoSend, AEG-D1	off	off	off	off	off	InsS prm10	FLT-Frq
73(E09)	Synfonic	Sq	Hall 2	Chorus 1	Thru	Tempo Cross Delay	InsL prm10, ChoSend, FLT-Frq	off	off	off	off	off	InsL prm10	RevSend
74(E10)	Hard road	Sq	Hall 1	Flanger 2	AMP Simulator	Delay LR	FEG-Atk, FLT-Frq	off	off	off	off	off	FEG-Atk, FLT-Frq	InsS prm6
75(E11)	Quartz	Sq	Tunnel	Control Delay1	Flanger 3	Voice Cancelar	ELM-Lvl	off	off	off	off	off	InsL prm11	InsL prm12
76(E12)	Atom	Dr	White Room	Phaser	Touch Wah	Talking Modulator	ELFOSpd	off	off	off	off	off	InsL prm1	RevSend
77(E13)	Chordal	Sq	Hall 1	Chorus 4	Thru	Delay LR	AEG-D2, FLT-Frq	off	off	off	off	off	PEG-Dpt	InsL prm10, ChoSend
78(E14)	Orgmatic	Sq	Hall 2	Phaser	Compressor	Tempo Delay 2	InsL prm10, ELM-Lvl, ELM-Lvl	off	off	off	off	off	FLT-Frq	RevSend
79(E15)	Ana Plus	Sq	Hall 1	Tempo Cross Delay	Compressor	Ensemble Detune	ELM-Lvl, InsL prm10	off	off	off	off	off	ELM-Lvl	InsS prm3, InsS prm5
80(E16)	Frequencyz	Se	off	Tempo Cross Delay	Thru	Gate Reverb	ChoSend	off	off	off	off	off	FLT-Frq, FLT-Frq	InsL prm10
81(F01)	Psycho	Se	Hall 1	Chorus 1	Thru	Harmonic Enhancer	ELFO-PM	off	FLT-Rez	off	off	off	RevSend	PCH-Crs
82(F02)	S - E	Se	Stage 2	Chorus 1	Flanger 3	Tempo Cross Delay	ELFO-PM	off	off	off	off	off	InsS prm3	InsS prm1
83(F03)	Voltage	Se	Hall 2	Flanger 2	AMP Simulator	Auto Synth	InsL prm13	off	off	off	off	off	InsL prm1	ChoSend, ELM-Lvl
84(F04)	Ectoplasm	Se	Hall 1	Tempo Cross Delay	Chorus 2	Symphonic	InsL prm1	off	off	off	off	off	FLT-Frq	ELFO-AM
85(F05)	Millenium	Se	Hall 1	Flanger 1	Exciter	Hall 2	ELFO-PM, ELFO-FM	off	off	off	off	off	FLT-Frq	ELFO-PM
86(F06)	Noire	Se	Plate	Delay LR	Flanger 3	Ensemble Detune	ELFO-PM	off	off	off	off	off	InsS prm3, InsS prm2	PCH-Crs
87(F07)	Falling	Se	Hall 1	Chorus 1	Thru	Hall 1	ChoSend, Volume	off	off	off	off	off	FLT-Rez	ELM-Lvl, ELM-Lvl
88(F08)	Topnotched	Se	Hall 1	Tempo Delay2	Thru	Thru	ELFO-AM, Volume	off	off	off	off	off	ELFOSpd	FLT-Frq, FLT-Frq
89(F09)	Drumnotize	Se	Hall 1	Chorus 1	3band EQ	AMP Simulator	ELFO-PM	off	off	off	off	off	FLT-Frq	FLT-Rez
90(F10)	Creature	Se	Hall 1	Control Delay1	Thru	Pitch Change 2	FLT-Frq	off	off	off	off	off	ChoSend	RevSend
91(F11)	Develop	Se	Basement	Phaser	Phaser	Pitch Change 2	InsS prm1	off	off	off	off	off	ELM-Lvl	RevSend
92(F12)	Twilight	Se	Canyon	Tempo Cross Delay	Celeste 4	Pitch Change 1	ELFO-AM, ELFOSpd	off	off	off	off	off	ELFOSpd, CLFOSpd	PCH-Crs
93(F13)	RisingHigh	Fx	Hall 1	Chorus 1	Thru	Thru	ELFO-AM	off	off	off	off	off	RevSend	ChoSend
94(F14)	90th Jimi	Fx	Hall 1	Flanger 2	AMP Simulator	Jump	ChoSend, FLT-Frq	off	off	off	off	off	FEG-Atk, FLT-Frq	InsS prm6
95(F15)	Dew-drop	Fx	Stage 1	Tempo Delay1	Phaser	Pitch Change 2	InsS prm1	off	off	off	off	off	ELM-Lvl	InsL prm10, ChoSend
96(F16)	SpaceTrain	Fx	Hall 1	Ensemble	Phaser	Ensemble Detune	ELFOSpd	off	off	off	off	off	ChoSend	RevSend
97(G01)	Brown Eyes	Fx	Plate	Symphonic	Exciter	Auto Synth	InsL prm10, FEG-Atk	off	off	off	off	off	InsL prm12	InsL prm3
98(G02)	Glacier	Fx	Stage 1	Tempo Cross Delay	Celeste 4	Harmonic Enhancer	InsS prm1	off	off	off	off	off	ELM-Lvl	ChoSend
99(G03)	Sahara	Fx	Hall 1	Chorus 1	Flanger 1	Hall 1	FLT-Frq	off	off	off	off	off	AEG-Atk	ChoSend
100(G04)	Sunnydaze	Fx	Stage 1	Tempo Cross Delay	Chorus 1	Chorus 1	ELFO-AM, ELM-Lvl	off	off	off	off	off	InsL prm10, InsS prm10	ELFOSpd
101(G05)	Starlight	Fx	Hall 1	Chorus 1	Thru	Pitch Change 2	ELM-Lvl	off	off	off	off	off	FLT-Frq	ChoSend
102(G06)	Roxy	Fx	Hall 2	Ensemble	Chorus 4	Thru	CLFO-D1, CLFO-D2, ELM-Lvl	off	off	off	off	off	FEG-Dpt	CLFOSpd
103(G07)	Bel Air	Fx	Hall 2	Chorus 4	Exciter	Flanger 3	InsS prm1, FLT-Rez, FLT-Frq	off	off	off	off	off	InsL prm10	ChoSend
104(G08)	Answers	Fx	Hall 1	Chorus 1	Thru	Delay LR	Volume	off	off	off	off	off	ELM-Diy	RevSend
105(G09)	Bassline	Ba	Hall 1	Flanger 2	Distortion	Delay LCR	ChoSend, ELM-Lvl	off	off	off	off	off	FEG-Atk	InsS prm10, InsL prm10
106(G10)	Boom Bass	Ba	Room 3	Symphonic	Compressor	Voice Cancelar	PEG-Atk	off	off	off	off	off	ELFO-PM	ELFOSpd
107(G11)	Drone	Ba	Hall 2	Chorus 2	Compressor	Tempo Delay 2	FLT-Frq, CLFOSpd, FLT-Rez	off	off	off	off	off	InsL prm10, ChoSend	RevSend
108(G12)	Sweepy	Ba	Hall 2	Chorus 4	Thru	Delay LR	FLT-Frq, ChoSend	off	off	off	off	off	FEG-Atk	InsL prm10, ChoSend
109(G13)	Super DX	Ba	Room 1	Chorus 1	Exciter	Ensemble Detune	ELFO-PM	off	off	off	off	off	FLT-Frq	FLT-Rez
110(G14)	GangstaM	Ba	Room 1	Symphonic	Compressor	Tempo Cross Delay	FLT-Frq, RevSend	off	off	off	off	off	ChoSend, Volume	RevSend
111(G15)	FM Perko	Ba	Room 1	Chorus 2	Compressor	V-Flanger	ChoSend, ELM-Lvl, Volume	off	off	off	off	off	RevSend	FLT-Frq
112(G16)	DX100	Ba	Room 3	Chorus 1	Thru	Thru	FLT-Frq	off	off	off	off	off	ELFO-FM	RevSend
113(H01)	BriteGrand	Pf	Hall 1	Chorus 1	3band EQ	Flanger 3	InsL prm10	off	off	off	off	off	ChoSend	RevSend
114(H02)	Slamming	Pf	Room 3	Tempo Delay2	Compressor	Voice Cancelar	AEG-D1	off	off	off	off	off	InsL prm11	InsL prm12
115(H03)	Danze	Pf	Room 1	Control Delay1	Overdrive	Thru	ChoSend, RevSend	off	off	off	off	off	ELM-Pan	FLT-Frq
116(H04)	House	Pf	Room 2	Control Delay2	Compressor	Ambience	RevSend	off	off	off	off	off	InsL prm10	ChoSend, FLT-Frq
117(H05)	M25	Pf	Hall 1	Tempo Delay1	Exciter	Pitch Change 1	InsL prm10	off	off	off	off	off	PCH-Fin	ChoSend
118(H06)	AcidFly	Pf	Stage 1	Delay LR	AMP Simulator	Digital Scratch	ChoSend, RevSend	off	off	off	off	off	InsL prm5	InsL prm11
119(H07)	Nite Roadz	Pf	Hall 2	Chorus 1	Compressor	Celeste 4	InsL prm1, InsL prm2	off	off	off	off	off	InsL prm10	RevSend
120(H08)	GS Brassy	Sc	Hall 1	Chorus 1	Chorus 1	Thru	ELFO-PM	off	off	off	off	off	FEG-D2, FEG-D1, AEG-D2	RevSend
121(H09)	Grand Pad	Co	Hall 1	Chorus 1	3band EQ	Tempo Cross Delay	AEG-Atk	off	off	off	off	off	FLT-Frq	InsL prm10
122(H10)	Ibiza	Co	Hall 1	Tempo Delay1	Compressor	Celeste 4	FLT-Frq	off	off	off	off	off	RevSend	ChoSend
123(H11)	Melpiano	Co	Plate	Chorus 1	Thru	Symphonic	ELM-Lvl	off	off	off	off	off	ELM-Lvl	RevSend
124(H12)	HonkyTonk	Pf	Room 1	Chorus 1	Thru	Pitch Change 1	ChoSend	off	off	off	off	off	FLT-Frq	RevSend
125(H13)	For Ballad	Pf	Hall 1	Delay LR	Thru	Chorus 4	ELM-Lvl	off	off	off	off	off	ChoSend	RevSend
126(H14)	ShineHarmo	Pf	Hall 1	Chorus 1	3band EQ	Chorus 5	ChoSend, Volume	off	off	off	off	off	PCH-Crs	RevSend
127(H15)	TripleDark	Pf	Hall 1	Chorus 1	3band EQ	Thru	ChoSend	off	off	off	off	off	FLT-Frq	RevSend
128(H16)	StageBrite	Pf	Hall 1	Chorus 1	Thru	Harmonic Enhancer	ChoSend	off	off	off	off	off	FLT-Frq	RevSend

**Internal (MSB=63, LSB=8)**

No.	Voice Name	Category	Reverb Type	Chorus Type	Insertion1 Type	Insertion2 Type	MW	PB	AT	FC	BC	FS	Kn1	Kn2
1(A01)	Hybrid	Pf	Hall 1	Chorus 1	Thru	Thru	ChoSend	off	off	off	off	off	FLT-Frq, FLT-Rez	RevSend
2(A02)	DarkGrand2	Pf	Room 2	Chorus 1	3band EQ	Thru	ChoSend	off	off	off	off	off	FLT-Frq	RevSend
3(A03)	BriStereo	Pf	Hall 1	Celeste 1	3band EQ	Phaser 2	InsL_prm10	off	off	off	off	off	ChoSend	RevSend
4(A04)	HonkyTnk2	Pf	Room 3	Chorus 1	Thru	Thru	ChoSend	off	off	off	off	off	FLT-Frq	RevSend
5(A05)	Diferenc2	Pf	Hall 1	Chorus 1	3band EQ	Harmonic Enhancer	InsL_prm3	off	off	off	off	off	ChoSend	RevSend
6(A06)	Piano/Ep2	Pf	Hall 1	Chorus 1	Chorus 1	Thru	FLT-Frq, ELM-Lvl	off	off	off	off	off	ELM-Lvl, ELM-Lvl	InsS prm10
7(A07)	Pno/Oo/Str	Co	Hall 1	Chorus 1	Chorus 2	Thru	ELM-Lvl	off	off	off	off	off	ELM-Lvl	ChoSend
8(A08)	Grand Pad2	Co	Hall 1	Delay LR	Chorus 1	Thru	ELM-Lvl	off	off	off	off	off	FLT-Frq	ChoSend
9(A09)	Phase CP	Pf	Room 1	Chorus 1	Thru	Phaser 2	FLT-Frq	off	off	off	off	off	InsL_prm10, InsL_prm4, InsL_prm2	RevSend
10(A10)	CP Layer	Pf	Room 2	Ensemble	Thru	Thru	RevSend	off	off	off	off	off	FLT-Frq	ChoSend
11(A11)	WurlI Amp	Pf	Room 1	Celeste 1	Overdrive	Tremolo	InsL_prm2, Volume	off	off	off	off	off	FLT-Frq	InsS prm1, RevSend
12(A12)	SunShine	Pf	Room 2	Chorus 1	Auto Pan	Compressor	InsS prm1	off	off	off	off	off	InsS prm2	RevSend
13(A13)	Phaser EP	Pf	Hall 2	Flanger 1	Flanger 1	Phaser 1	ELFO-PM	off	off	off	off	off	InsL_prm4, InsL_prm1	RevSend
14(A14)	RB Roadz	Pf	Hall 1	Chorus 1	Compressor	Celeste 3	InsL_prm1	off	off	off	off	off	InsS prm4, InsS prm3	RevSend
15(A15)	BasicRoad2	Pf	Hall 1	Chorus 1	3band EQ	Auto Pan	InsL_prm1	off	off	off	off	off	InsL_prm2	RevSend, ChoSend
16(A16)	Early70Rhd	Pf	Stage 1	Chorus 1	Tremolo	V-Distortion	InsS prm2	off	off	off	off	off	AEG-D1	RevSend
17(B01)	Doogie	Pf	Hall 1	Chorus 1	Thru	Thru	CLFO-D1	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
18(B02)	RT Roadz	Pf	Stage 1	Chorus 1	Auto Pan	Phaser 1	InsS prm1, InsL_prm1	off	off	off	off	off	InsS prm2	RevSend
19(B03)	Dyno Pad	Co	Hall 1	Chorus 1	Chorus 1	Thru	ELM-Lvl	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
20(B04)	Roadz Pad	Co	Stage 2	Chorus 1	Auto Pan	Chorus 3	InsS prm2	off	off	off	off	off	FLT-Frq	ChoSend, Volume
21(B05)	NiteBallad	Pf	Hall 2	Chorus 1	Compressor	Celeste 4	InsL_prm1, InsL_prm2	off	off	off	off	off	InsL_prm10	RevSend
22(B06)	DXTinyVel	Pf	Hall 1	Symphonic	Celeste 4	Harmonic Enhancer	ELFO-AM	off	off	off	off	off	InsL_prm3	RevSend
23(B07)	DX Hard	Pf	Hall 1	Chorus 1	Exciter	Symphonic	ELFO-AM	off	off	off	off	off	InsS prm3	RevSend
24(B08)	Superstit	Pf	Room 3	Chorus 2	AMP Simulator	Phaser 2	InsL_prm10	off	off	off	off	off	AEG-D1, AEG-D2	ChoSend
25(B09)	Puls Clav	Sc	Hall 1	Phaser	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Rez	AEG-D1, AEG-D2
26(B10)	Handbel	Cp	Hall 1	Chorus 1	Thru	Thru	ELFO-AM	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
27(B11)	Estrn Bel1	Cp	Hall 1	Celeste 1	Chorus 1	Thru	ChoSend	off	off	off	off	off	FLT-Frq	PCH-Crs
28(B12)	Tiny bell	Cp	Hall 1	Chorus 1	Chorus 1	Thru	ChoSend	off	off	off	off	off	FLT-Frq	AEG-Atk
29(B13)	Argent	Or	Room 1	Chorus 1	Overdrive	Rotary Speaker 1	InsL_prm1	off	off	off	off	off	InsL_prm9	InsL_prm1
30(B14)	Corno Va	Or	Room 1	Chorus 1	Overdrive	Rotary Speaker 1	InsL_prm1, InsL_prm2	off	off	off	off	off	InsL_prm9	InsL_prm1
31(B15)	Blackpool	Or	White Room	Chorus 1	Thru	2Way Rotary Speaker	InsL_prm1	off	InsL_prm1	off	off	off	ELM-Lvl	RevSend
32(B16)	Tonewheels	Or	Room 1	Chorus 5	Thru	Thru	ELFO-PM, ELFO-AM, CLFOSpd	off	off	off	off	off	ELM-Lvl	ChoSend
33(C01)	BowNL	Or	Room 1	Chorus 1	Thru	Thru	RevSend, ELFO-PM	off	off	off	off	off	FLT-Frq	FLT-Rez
34(C02)	BassWalk	Or	Room 1	Chorus 1	Thru	Rotary Speaker 1	InsL_prm1	off	off	off	off	off	InsL_prm9	InsL_prm1
35(C03)	WhiteShade	Or	Hall 1	Chorus 1	3band EQ	Amp Simu + 2Way Rotary Speaker	InsL_prm1	off	off	off	off	off	FLT-Frq	RevSend
36(C04)	Draws	Or	Room 1	Chorus 1	Thru	2Way Rotary Speaker 3	InsL_prm16	InsL_prm2, InsL_prm3	off	off	off	off	InsL_prm14	InsL_prm5, InsL_prm6
37(C05)	PercMellow	Or	Room 1	Chorus 1	Thru	Rotary Speaker 1	InsL_prm1	off	off	off	off	off	InsL_prm9	InsL_prm1
38(C06)	RhoBassFiz	Or	Room 1	Chorus 1	AMP Simulator	Rotary Speaker 1	InsL_prm1, InsL_prm2	off	off	off	off	off	RevSend	InsL_prm1
39(C07)	Knob Drive	Or	Room 1	Chorus 1	AMP Simulator	Rotary Speaker 1	InsL_prm1	off	off	off	off	off	InsS prm1	InsL_prm1
40(C08)	E Bird	Or	Hall 1	Chorus 4	Thru	Rotary Speaker 1	InsL_prm1	off	off	off	off	off	RevSend	ELM-Lvl
41(C09)	16*-4	Or	Hall 1	Chorus 5	Thru	2Way Rotary Speaker	InsL_prm1, InsL_prm9	off	off	off	off	off	RevSend	ChoSend
42(C10)	16-5-4-1-1	Or	Hall 1	Chorus 5	Thru	Rotary Speaker 1	InsL_prm1, InsL_prm9	off	off	off	off	off	RevSend	ChoSend
43(C11)	Mw Church	Or	Hall 2	Celeste 1	Thru	Thru	ChoSend, ELM-Lvl	off	off	off	off	off	FLT-Frq	RevSend
44(C12)	Big Church	Or	Hall 2	Celeste 1	Thru	Thru	FLT-Frq	off	off	off	off	off	ChoSend	RevSend
45(C13)	Hawks	Gt	Hall 1	Chorus 1	Exciter	Harmonic Enhancer	ELFO-PM	off	off	off	off	off	FEG-D1	ChoSend
46(C14)	GoldGuitar	Gt	Room 3	Chorus 4	Thru	2Band EQ	ELFO-PM	off	off	off	off	off	RevSend	ChoSend
47(C15)	El/Ac Mix	Gt	Hall 1	Delay LR	Chorus 1	Comp Distortion	ELFO-PM	off	off	off	off	off	ELM-Lvl, ELM-Lvl	ChoSend, RevSend
48(C16)	VintStrat	Gt	White Room	Delay LR	AMP Simulator	Tremolo	InsL_prm1	off	off	off	off	off	ChoSend	RevSend
49(D01)	StratChor3	Gt	Hall 1	Chorus 4	3band EQ	AMP Simulator	FLT-Frq	off	off	off	off	off	ChoSend	RevSend
50(D02)	VeloGuitar	Gt	Room 2	Chorus 4	Thru	AMP Simulator	ELFO-PM, ELFO-FM, ELFOSpd	off	off	off	off	off	InsL_prm10	ChoSend, Volume
51(D03)	Jazz Man	Gt	Stage 2	Chorus 5	Thru	Thru	ELFO-PM	off	off	off	off	off	RevSend	ChoSend
52(D04)	FMJazzGtr	Gt	Room 3	Chorus 4	Thru	Ambience	ELFO-PM	off	off	off	off	off	FLT-Frq	RevSend
53(D05)	Cry	Gt	Hall 1	Chorus 1	Auto Wah	Comp+Dist+Delay	ELFO-PM	InsL_prm14	off	off	off	off	InsS prm1	ChoSend, Volume
54(D06)	P.F Echo	Gt	Room 3	Delay LR	3band EQ	Dist + 2Way Rotary Speaker	ELFO-PM	off	off	off	off	off	ChoSend	InsL_prm14, Volume
55(D07)	Birdy	Gt	Room 3	Phaser	3band EQ	V-Distortion	ELFO-PM	off	off	off	off	off	InsL_prm1, Volume	InsL_prm11
56(D08)	Velo Chunk	Gt	Room 3	off	3band EQ	V-Distortion	ELFO-PM	off	off	off	off	off	InsL_prm4, InsL_prm1	InsL_prm11
57(D09)	VirtualDis	Gt	Hall 1	Delay LR	AMP Simulator	Comp Distortion	CLFO-D1	off	off	off	off	off	InsS prm6	ChoSend
58(D10)	100 Watts	Gt	Room 3	Phaser	3band EQ	V-Distortion	ELFO-PM	off	off	off	off	off	InsL_prm11	InsL_prm1
59(D11)	Acst Vox	Co	Hall 1	Chorus 1	Thru	Delay LCR	ELM-Lvl	off	off	off	off	off	FLT-Frq, FLT-Rez	ChoSend
60(D12)	Prec Bass	Ba	Hall 1	Chorus 1	AMP Simulator	3Band EQ	CLFO-D1	off	off	off	off	off	ChoSend	InsL_prm1
61(D13)	Fing Sting	Ba	Hall 1	Chorus 1	Exciter	3Band EQ	CLFO-D1	off	off	off	off	off	ChoSend	InsL_prm1
62(D14)	FretlesAmp	Ba	Hall 1	Chorus 1	3band EQ	AMP Simulator	ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend
63(D15)	Slap&Pull	Ba	Room 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq, FLT-Frq	ChoSend
64(D16)	Bs+Cmbal	Co	Hall 1	Chorus 1	Thru	Thru	ELFO-PM	off	off	off	off	off	PCH-Crs	ELM-Lvl



No.	Voice Name	Category	Reverb Type	Chorus Type	Insertion1 Type	Insertion2 Type	MW	PB	AT	FC	BC	FS	Kn1	Kn2
65(E01)	Big Sction	St	Hall 1	Chorus 1	3band EQ	Thru	ChoSend, Volume	AEG-Rel	off	off	off	off	FLT-Frq	AEG-Atk
66(E02)	EnsemblMix	St	Hall 1	Ensemble	Thru	Thru	ChoSend, ELM-Lvl	off	off	off	off	off	FLT-Frq	AEG-Atk, AEG-Rel
67(E03)	Agitato	St	Hall 1	Chorus 1	3band EQ	Thru	ChoSend, Volume	off	off	off	off	off	FLT-Frq	ELFO-AM, ELFO-FM, CLFOSpd
68(E04)	Analog Mix	St	Hall 1	Ensemble	Thru	Thru	ChoSend, Volume	off	off	off	off	off	FLT-Frq	AEG-Atk, AEG-Rel
69(E05)	Violin	St	Hall 1	Chorus 1	Thru	Thru	FLT-Frq	off	off	off	off	off	AEG-Rel,AEG-Atk	ChoSend, RevSend, Volume
70(E06)	Big Pizz	St	Hall 1	Chorus 3	Thru	Thru	ChoSend	off	off	off	off	off	FLT-Frq	ELM-Dly
71(E07)	HarpStrum	St	Room 3	Celeste 2	Thru	Thru	ELFO-PM	off	off	off	off	off	RevSend	ChoSend
72(E08)	Wood Winds	Co	Hall 1	Ensemble	Thru	Thru	CLFO-D1, CLFO-D2, ELFO-PM, ELFO-FM	off	off	off	off	off	FLT-Frq	ChoSend
73(E09)	Pan Attack	Pi	Hall 1	Chorus 1	Thru	Thru	ELFO-AM, ELFO-FM	off	off	off	off	off	FLT-Frq, FLT-Rez	AEG-Atk
74(E10)	AnaString	St	Hall 2	Ensemble	Chorus 1	Cross Delay	CLFO-D1, FLT-Frq	off	off	off	off	off	InsS prm10	ChoSend
75(E11)	AnaString2	St	Hall 2	Symphonic	Chorus 3	Harmonic Enhancer	PCH-Fin	off	off	off	off	off	InsS prm3, InsS prm10, InsS prm6	InsL prm2
76(E12)	Tron	St	Hall 1	Phaser	3band EQ	Thru	ELM-Lvl	off	off	off	off	off	RevSend, ChoSend	FLT-Frq
77(E13)	Brs/Strgs	Br	Hall 1	Chorus 1	Thru	Thru	ELM-Lvl	off	off	off	off	off	ELM-Lvl	PCH-Crs
78(E14)	MediumBrs2	Br	Hall 1	Chorus 1	3band EQ	Thru	ChoSend	off	off	off	off	off	FLT-Frq	RevSend
79(E15)	SoftBrass	Br	Hall 2	Chorus 1	Thru	Cross Delay	ChoSend	off	off	off	off	off	FLT-Frq	InsL prm10, RevSend
80(E16)	HybrBrs	Br	Hall 1	Chorus 1	Thru	Delay LCR	ELFO-PM, ELFO-FM	off	off	off	off	off	FLT-Frq, FLT-Rez	RevSend
81(F01)	Class Sect	Br	Hall 1	Chorus 3	Chorus 3	Thru	InsS prm10	off	off	off	off	off	FLT-Frq	ELM-Lvl
82(F02)	Sfz Brass	Br	Stage 2	Chorus 1	Thru	Thru	ELFO-PM, ELFO-PM	off	off	off	off	off	FLT-Frq	FEG-D2, FEG-D1
83(F03)	Pop Brass	Br	Hall 1	Chorus 1	Thru	Thru	ELFO-FM, ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume
84(F04)	Classical	Br	Hall 1	Chorus 1	Thru	Thru	ELFO-FM, ELFO-PM	off	off	off	off	off	FLT-Frq	ChoSend, Volume
85(F05)	Fr Horns	Br	Hall 1	Chorus 1	Thru	Delay LCR	ELFO-PM, ELFO-AM	off	off	off	off	off	RevSend	ChoSend
86(F06)	Flugel	Br	Hall 1	Ensemble	3band EQ	Thru	CLFO-D1, CLFO-D2	off	off	off	off	off	FLT-Frq	RevSend
87(F07)	Brth Tenor	Rd	Hall 2	Chorus 1	3band EQ	Thru	ELFO-PM, ELFO-AM	off	off	off	off	off	FLT-Frq	ChoSend, RevSend
88(F08)	Velo Growl	Rd	Hall 1	Delay LR	Thru	Thru	ELFO-PM, CLFO-D1	off	off	off	off	off	ChoSend	RevSend
89(F09)	NuSoprn	Rd	Hall 1	Chorus 1	3band EQ	Thru	ELFO-PM, ELFO-AM	off	off	off	off	off	FLT-Frq	ChoSend
90(F10)	J Stabs	Br	Hall 1	Delay LR	Thru	Ensemble Detune	ELFO-PM	off	off	off	off	off	RevSend	ChoSend
91(F11)	Oberhorns	Br	Hall 1	Chorus 4	Thru	Cross Delay	CLFO-D1	off	off	off	off	off	FEG-Atk	ChoSend
92(F12)	Africa	Br	Hall 1	Delay LR	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq, FLT-Rez	PEG-Dpt, AEG-Atk
93(F13)	NuTekBrss	Br	Hall 1	Chorus 4	Distortion	Cross Delay	ChoSend, ELM-Lvl	off	ELFO-PM	off	off	off	PCH-Fin	ChoSend
94(F14)	CS80Brass	Br	Hall 1	Delay LR	Thru	Thru	ELFO-PM	off	off	off	off	off	FLT-Frq, FLT-Rez	RevSend, ChoSend
95(F15)	Fat Brazz	Br	Hall 1	Chorus 4	Thru	Cross Delay	CLFO-D1	off	off	off	off	off	FEG-Atk	ChoSend
96(F16)	EgoSix	Br	Hall 2	Chorus 2	Compressor	Early Ref 1	ChoSend, RevSend, FLT-Frq	off	off	off	off	off	InsL prm10	ChoSend
97(G01)	Ambi Star	Fx	Hall 2	Ensemble	Flanger 3	Cross Delay	FLT-Frq, FLT-Rez, ChoSend	off	off	off	off	off	InsS prm1	InsS prm10
98(G02)	Champ	Fx	Hall 2	Delay LR	Chorus 1	Ensemble Detune	FLT-Rez, ELM-Lvl	off	off	off	off	off	FEG-Atk	InsL prm10
99(G03)	Rndm Gruv	Fx	Hall 2	Ensemble	Chorus 4	Cross Delay	CLFO-D1, ChoSend	off	off	off	off	off	ChoSend, ELM-Lvl	CLFO-D2
100(G04)	Generation	Sq	Hall 2	Tempo Cross Delay	Exciter	Ensemble Detune	FLT-Rez, FLT-Frq	off	off	off	off	off	FLT-Rez	InsS prm1
101(G05)	Molecule	Fx	Hall 1	Tempo Cross Delay	Phaser	Ensemble Detune	ELFO-FM, InsS prm1, InsS prm2	off	off	off	off	off	ELFOSpd	ELM-Lvl, ELM-Lvl
102(G06)	Teardrops	Fx	Room 3	Control Delay1	Phaser	Compressor	InsS prm4, AEG-Atk	off	off	off	off	off	InsS prm10	InsS prm1
103(G07)	Hades	Fx	Hall 1	Delay LR	Thru	Celeste 2	ELFO-PM	off	off	off	off	off	RevSend	ChoSend
104(G08)	Voyager	Fx	Canyon	Tempo Cross Delay	Phaser	Flanger 3	ELFO-FM	off	off	off	off	off	InsL prm1, InsS prm1, ChoSend	ELFOSpd, FLT-Frq
105(G09)	Waterfowl	Fx	Stage 1	Tempo Cross Delay	Phaser	Harmonic Enhancer	ELFOSpd	off	off	off	off	off	InsS prm4	RevSend
106(G10)	Mayflower	Fx	Canyon	Tempo Cross Delay	Flanger 3	Compressor	ELFO-AM, PCH-Fin	off	off	off	off	off	ELFOSpd, ELFO-PM	InsS prm1
107(G11)	Cronen	Pd	Plate	off	Chorus 3	Rotary Speaker 1	InsL prm1, InsL prm9	off	off	off	off	off	ELM-Lvl, ELM-Lvl	InsS prm3
108(G12)	Padness	Pd	Canyon	Chorus 2	Touch Wah	Pitch Change 1	CLFO-D2	off	off	off	off	off	InsS prm8	InsL prm10
109(G13)	Luminosity	Pd	Hall 1	Chorus 1	Flanger 2	Delay LCR	ELFO-AM	off	off	off	off	off	RevSend	ChoSend
110(G14)	Expanse	Pd	Hall 1	Chorus 1	Thru	Echo	ELFO-PM	off	off	off	off	off	ELM-Lvl	ChoSend
111(G15)	Vox 5ths	Pd	Hall 2	Symphonic	Thru	Delay LCR	PCH-Crs, PCH-Crs	off	off	off	off	off	FLT-Frq, FLT-Rez	ChoSend
112(G16)	Cleansing	Pd	Hall 1	Symphonic	Chorus 1	Delay LCR	CLFO-D1	off	off	off	off	off	ChoSend	FLT-Frq, RevSend
113(H01)	4000 Volts	Se	Hall 1	Chorus 1	Chorus 3	Flanger 1	FLT-Frq	off	InsL prm3	off	off	off	PEG-Dpt	FEG-Atk
114(H02)	Rainstorm	Se	Hall 1	Chorus 3	Thru	Thru	FLT-Frq	off	off	off	off	off	PCH-Crs	ELM-Lvl
115(H03)	RadioNoiz	Se	Hall 1	Chorus 3	3band EQ	LO-FI	ELFOSpd	InsL prm2	off	off	off	off	FLT-Frq	InsL prm1
116(H04)	Turntablz	Se	Hall 1	Chorus 1	Thru	LO-FI	ELFO-PM, ELFO-FM	off	off	off	off	off	ChoSend	PCH-Crs
117(H05)	Manufactur	Se	Room 1	Ensemble	Phaser	Delay LR	ELFO-PM	off	off	off	off	off	ELM-Pan, ELM-Pan	RevSend
118(H06)	Zap	Se	Hall 1	Control Delay1	3band EQ	Thru	PCH-Crs	AEG-D1	off	off	off	off	PEG-Hld	ChoSend, RevSend
119(H07)	Helicopt	Se	Hall 1	Phaser	Thru	Auto Pan	FLT-Rez, FLT-Frq, FLT-Frq	ELFOSpd	off	off	off	off	ELM-Lvl	RevSend
120(H08)	Sirens	Se	Hall 1	Chorus 1	Thru	Thru	RevSend	off	off	off	off	off	ELFOSpd	ChoSend
121(H09)	Bubbles	Se	Hall 1	Chorus 3	3band EQ	LO-FI	ELFOSpd	InsL prm2	off	off	off	off	FLT-Frq	InsL prm1
122(H10)	Beatniks	Pc	Hall 1	Tempo Delay1	Thru	Thru	ChoSend	off	off	off	off	off	FLT-Frq, FEG-Dpt	ELM-Lvl
123(H11)	Cybr Whip	Pc	Stage 2	Chorus 1	Thru	V-Flanger	InsL prm2	off	off	off	off	off	FLT-Frq	AEG-Atk
124(H12)	Voiccy	En	Hall 2	Chorus 1	Compressor	Hall 2	ELM-Lvl, ELM-Lvl, FLT-Frq	off	off	off	off	off	ELM-Pan	RevSend
125(H13)	FormantStg	En	Hall 1	Chorus 1	Chorus 2	Talking Modulator	InsL prm1	off	off	off	off	off	FLT-Frq	FLT-Rez
126(H14)	Airy	Vo	Hall 1	Control Delay2	Thru	Thru	ELFO-PM	off	off	off	off	off	PCH-Crs	AEG-Atk, AEG-Rel
127(H15)	Chandelier	Vo	Hall 2	Ensemble	Exciter	Chorus 4	InsS prm1, ELM-Lvl, FLT-Frq	off	off	off	off	off	InsS prm1	FLT-Frq
128(H16)	Choir Atk	Vo	Hall 1	Chorus 1	Exciter	3Band EQ	ELFO-PM, ELFO-AM	off	off	off	off	off	FLT-Frq	FLT-Rez

# Quick Access Voice List

Bank	Category	Program Key	Memory	Voice Program Number	Voice Name
A	A.PIANO	1	PRE1	1	StereoGrnd
		2	PRE1	2	StereoGnd2
		3	PRE1	3	CF Grand M
		4	PRE1	4	Dark Grand
		5	PRE1	5	Difference
		6	PRE2	114	Slamming
		7	PRE1	9	CP2000
		8	PRE2	124	For Ballad
		9	PRE1	7	Piano/Strg
		10	PRE1	8	Piano/Oohs
		11	PRE1	6	Piano/Ep
		12	PRE1	10	Piano/DX
		13	INT	1	Hybrid
		14	INT	2	DarkGrand2
		15	INT	3	BrtStereo
		16	INT	4	HonkyTnk2
B	E.PIANO	1	PRE1	17	Vic'sRoadz
		2	PRE1	18	ErlyFusion
		3	PRE1	16	19 Roadz
		4	PRE1	20	VintgCond
		5	PRE1	11	Wurlitrm
		6	PRE1	13	DF EP IV
		7	PRE1	14	Herb Roadz
		8	PRE1	21	DXAtacky
		9	PRE1	24	Ice Piano
		10	PRE1	26	Bel Roadz
		11	PRE1	31	Clav
		12	PRE1	30	Harpsicode
		13	INT	17	Doogie
		14	INT	18	RT Roadz
		15	INT	19	Dyno Pad
		16	INT	20	Roadz Pad
C	ORGAN	1	PRE1	33	Perc Org
		2	PRE1	34	Cool
		3	PRE1	35	ClickOrgan
		4	PRE1	36	Jazz
		5	PRE1	37	Soft Rock
		6	PRE1	38	Tube
		7	PRE1	39	Contnental
		8	PRE1	40	Swish
		9	PRE1	44	Sunday
		10	PRE1	45	Pipes
		11	PRE1	41	4 Bars
		12	PRE1	42	Full
		13	INT	33	BowNL
		14	INT	34	BassWalk
		15	INT	35	WhiteShade
		16	INT	36	Draws
D	GTR/BASS	1	PRE1	46	New Nylon
		2	PRE1	48	Melo Trmlo
		3	PRE1	54	DirtyTwn
		4	PRE1	49	Strat Chor
		5	PRE1	56	BOODOO MAN
		6	PRE1	52	Acoustic
		7	PRE1	58	Funk It!!
		8	PRE1	59	Upright
		9	PRE1	60	Finger
		10	PRE1	61	PickBass
		11	PRE1	62	Fretless
		12	PRE1	63	Slap
		13	INT	49	StratChor3
		14	INT	50	3VeloGuitar
		15	INT	51	Jazz Man
		16	INT	52	FMJazzGtr
E	STRINGS	1	PRE1	65	Background
		2	PRE1	66	Big String
		3	PRE1	67	Cello Big
		4	PRE1	68	Chamberz
		5	PRE1	69	SmallSect
		6	PRE1	70	CelloSmall
		7	PRE1	76	Wind Orch
		8	PRE1	77	SynthStrgs
		9	PRE1	78	ObiStrings
		10	PRE2	57	Big Syn
		11	PRE1	71	Pizz
		12	PRE1	72	Harp
		13	INT	65	Big Sction
		14	INT	66	EnsemblMix
		15	INT	67	Agitato
		16	INT	68	Analog Mix

Bank	Category	Program Key	Memory	Voice Program Number	Voice Name
F	BRASS	1	PRE1	79	Fanfare
		2	PRE1	80	MediumBrss
		3	PRE1	81	Two Brass
		4	PRE1	82	Brass&Sax
		5	PRE1	85	Trumpet
		6	PRE1	86	Mute Trpt
		7	PRE1	87	Tenor Sax
		8	PRE1	88	Alto Sax
		9	PRE1	90	Soprano
		10	PRE1	92	PowerSynth
		11	PRE1	94	M Brass
		12	PRE1	95	Moon AT
		13	INT	81	Class Sect
		14	INT	82	Sfz Brass
		15	INT	83	Pop Brass
		16	INT	84	Classical
G	SYNTH	1	PRE1	101	Soft Pad
		2	PRE2	50	5thBreath
		3	PRE2	63	Soft Dream
		4	PRE2	58	Berlin
		5	PRE1	111	Liquito
		6	PRE2	22	Zap Comp
		7	PRE2	36	Lucky
		8	PRE2	37	Sneaky
		9	PRE2	40	Rap Lead3
		10	PRE2	5	Mini 1
		11	PRE2	3	Velo
		12	PRE2	109	Super DX
		13	INT	97	Ambi Star
		14	INT	98	Champ
		15	INT	99	Rndm Gruv
		16	INT	100	Generation
H	OTHER	1	PRE1	113	Vibes
		2	PRE1	114	Marimba
		3	PRE1	117	Glocken
		4	PRE1	97	Ooh Choir
		5	PRE1	98	Ahh Choir
		6	PRE2	101	Starlight
		7	PRE2	93	RisingHigh
		8	PRE2	67	Kickwheel
		9	PRE2	70	Rosy
		10	PRE2	73	Synfonic
		11	PRE2	74	Hard road
		12	PRE2	76	Atom
		13	INT	113	4000 Volts
		14	INT	114	RainStorm
		15	INT	115	RadioNoiz
		16	INT	116	Turntablz



**5 Nasty Kit**

Note	ElmAsgn	Wave No.	Wave Name
C 0	on	438	Dr T8Bd
C#0	on	377	Dr BdVar4
D 0	on	337	Pc CongaL
D#0	on	379	Dr BdAna
E 0	on	458	Dr T9BD3
F 0	on	397	Dr SdAmb2
F#0	on	395	Dr SdRim2
G 0	on	439	Dr T8SD1
G#0	on	441	Dr T8SD3
A 0	on	403	Dr SdBrsH
A#0	on	398	Dr SdAmb3
B 0	on	476	Dr EuroBD
C 1	on	458	Dr T9BD3
C#1	on	329	Fx HILo
D 1	on	462	Dr T9SD4
D#1	on	445	Dr T8Clap
E 1	on	369	Pc WdBk
F 1	on	314	Wv Noise
F#1	on	423	Dr HHCi5
G 1	on	314	Wv Noise
G#1	on	470	Dr T9HHC1
A 1	on	314	Wv Noise
A#1	on	472	Dr T9HHO1
B 1	on	418	Dr Tom2L
C 2	on	417	Dr Tom2H
C#2	on	474	Dr T9Crsh
D 2	on	417	Dr Tom2H
D#2	on	325	Fx Eery
E 2	on	435	Dr China
F 2	on	432	Dr Cup2
F#2	on	354	Pc Tmborn
G 2	on	433	Dr Crash
G#2	on	255	Wv MogBs1
A 2	on	434	Dr Crash2
A#2	on	356	Pc VbSlp
B 2	on	429	Dr Ride
C 3	on	328	Fx VxAlk
C#3	on	327	FX HH Hit
D 3	on	345	Pc TmbLsh
D#3	on	338	Pc CongaH
E 3	on	337	Pc CongaL
F 3	on	321	Fx BelAir
F#3	on	326	Fx Electr
G 3	on	362	Pc AnvlPp
G#3	on	362	Pc AnvlPp
A 3	on	353	Pc Shaker
A#3	on	352	Pc Maracs
B 3	on	360	Pc Bltree
C 4	on	438	Dr T8Bd
C#4	on	318	Fx VoxBel
D 4	on	397	Dr SdAmb2
D#4	on	465	Dr T9Clap
E 4	on	394	Dr SdRim1
F 4	on	330	Fx MltPno
F#4	on	447	Dr T8HHCi
G 4	on	361	Pc AnvlPp
G#4	on	471	Dr T9HHC2
A 4	on	361	Pc AnvlPp
A#4	on	448	Dr T8HHOp
B 4	on	325	Fx Eery
C 5	on	325	Fx Eery
C#5	on	474	Dr T9Crsh
D 5	on	435	Dr China
D#5	on	318	Fx VoxBel
E 5	on	449	Dr T8Crsh
F 5	on	209	En VxNoiz
F#5	on	354	Pc Tmborn
G 5	on	366	Pc Ripper
G#5	on	475	Dr T9Ride
A 5	on	450	Dr T8CngL
A#5	on	451	Dr T8CngM
B 5	on	416	Dr TmJzH
C 6	on	448	Dr T8HHOp

**6 Brush Kit**

Note	ElmAsgn	Wave No.	Wave Name
C 0	on	350	Pc Claves
C#0	on	404	Dr SdBrsL
D 0	on	401	Dr SdSweep
D#0	on	403	Dr SdBrsH
E 0	on	401	Dr SdSweep
F 0	on	405	Dr SdRoll
F#0	on	351	Pc Castnt
G 0	on	404	Dr SdBrsL
G#0	on	408	Dr Stick
A 0	on	376	Dr BdVar3
A#0	on	403	Dr SdBrsH
B 0	on	377	Dr BdVar4
C 1	on	373	Dr BdLoJz
C#1	on	403	Dr SdBrsH
D 1	on	404	Dr SdBrsL
D#1	on	358	Pc Clap
E 1	on	402	Dr SdBrsS
F 1	on	414	Dr TmJzL
F#1	on	422	Dr HHCi4
G 1	on	414	Dr TmJzL
G#1	on	424	Dr HHPdl
A 1	on	414	Dr TmJzL
A#1	on	426	Dr HHOpn
B 1	on	415	Dr TmJzM
C 2	on	416	Dr TmJzH
C#2	on	433	Dr Crash
D 2	on	416	Dr TmJzH
D#2	on	429	Dr Ride
E 2	on	430	Dr Ride2
F 2	on	431	Dr Cup2
F#2	on	354	Pc Tmborn
G 2	on	434	Dr Crash2
G#2	on	340	Pc Cowbel
A 2	on	434	Dr Crash2
A#2	on	429	Dr Ride
B 2	on	432	Dr Cup2
C 3	on	336	Pc BongoH
C#3	on	335	Pc BongoL
D 3	on	339	Pc CngSlp
D#3	on	338	Pc CongaH
E 3	on	337	Pc CongaL
F 3	on	345	Pc TmbLsh
F#3	on	344	Pc TmbLsh
G 3	on	341	Pc AgogoL
G#3	on	341	Pc AgogoL
A 3	on	349	Pc Cabasa
A#3	on	352	Pc Maracs
B 3	on	359	Pc Whistl
C 4	on	359	Pc Whistl
C#4	on	343	Pc GiroCl
D 4	on	342	Pc GuiroL
D#4	on	350	Pc Claves
E 4	on	348	Pc Wdblck
F 4	on	348	Pc Wdblck
F#4	on	346	Pc CuicaL
G 4	on	347	Pc CuicaH
G#4	on	355	Pc TrngL
A 4	on	355	Pc TrngL
A#4	on	353	Pc Shaker
B 4	on	357	Pc JnglBl
C 5	on	360	Pc Bltree
C#5	off		
D 5	off		
D#5	off		
E 5	off		
F 5	off		
F#5	off		
G 5	off		
G#5	off		
A 5	off		
A#5	off		
B 5	off		
C 6	off		

**7 Pop Kit**

Note	ElmAsgn	Wave No.	Wave Name
C 0	on	350	Pc Claves
C#0	on	404	Dr SdBrsL
D 0	on	401	Dr SdSweep
D#0	on	403	Dr SdBrsH
E 0	on	401	Dr SdSweep
F 0	on	405	Dr SdRoll
F#0	on	351	Pc Castnt
G 0	on	400	Dr SdDry
G#0	on	408	Dr Stick
A 0	on	376	Dr BdVar3
A#0	on	389	Dr SdPcBH
B 0	on	377	Dr BdVar4
C 1	on	372	Dr BdHby
C#1	on	406	Dr C.Rim1
D 1	on	380	Dr SdGM
D#1	on	358	Pc Clap
E 1	on	380	Dr SdGM
F 1	on	410	Dr TomL
F#1	on	423	Dr HHCi5
G 1	on	410	Dr TomL
G#1	on	425	Dr HHPdl2
A 1	on	411	Dr TomM
A#1	on	427	Dr HHOpn2
B 1	on	411	Dr TomM
C 2	on	412	Dr TomHL
C#2	on	433	Dr Crash
D 2	on	413	Dr TomHH
D#2	on	429	Dr Ride
E 2	on	435	Dr China
F 2	on	431	Dr Cup
F#2	on	354	Pc Tmborn
G 2	on	434	Dr Crash2
G#2	on	340	Pc Cowbel
A 2	on	434	Dr Crash2
A#2	on	356	Pc VbSlp
B 2	on	432	Dr Cup2
C 3	on	336	Pc BongoH
C#3	on	335	Pc BongoL
D 3	on	339	Pc CngSlp
D#3	on	338	Pc CongaH
E 3	on	337	Pc CongaL
F 3	on	345	Pc TmbLsh
F#3	on	344	Pc TmbLsh
G 3	on	341	Pc AgogoL
G#3	on	341	Pc AgogoL
A 3	on	349	Pc Cabasa
A#3	on	352	Pc Maracs
B 3	on	359	Pc Whistl
C 4	on	359	Pc Whistl
C#4	on	343	Pc GiroCl
D 4	on	342	Pc GuiroL
D#4	on	350	Pc Claves
E 4	on	348	Pc Wdblck
F 4	on	348	Pc Wdblck
F#4	on	346	Pc CuicaL
G 4	on	347	Pc CuicaH
G#4	on	355	Pc TrngL
A 4	on	355	Pc TrngL
A#4	on	353	Pc Shaker
B 4	on	357	Pc JnglBl
C 5	on	360	Pc Bltree
C#5	on	399	Dr SdBkbt
D 5	on	381	Dr SdBldS
D#5	on	392	Dr SdVar1
E 5	on	386	Dr SdSonD
F 5	on	394	Dr SdRim1
F#5	on	391	Dr SdWdH
G 5	on	382	Dr SdBldH
G#5	on	389	Dr SdPcBH
A 5	on	384	Dr SdLdwH
A#5	on	371	Dr BdPop
B 5	on	372	Dr BdHby
C 6	on	378	Dr BdVar5

**8 808 Kit**

Note	ElmAsgn	Wave No.	Wave Name
C 0	on	350	Pc Claves
C#0	on	404	Dr SdBrsL
D 0	on	401	Dr SdSweep
D#0	on	403	Dr SdBrsH
E 0	on	401	Dr SdSweep
F 0	on	405	Dr SdRoll
F#0	on	351	Pc Castnt
G 0	on	442	Dr T8SD4
G#0	on	444	Dr T8Rmst
A 0	on	379	Dr BdAna
A#0	on	441	Dr T8SD3
B 0	on	437	Dr T8BdBm
C 1	on	438	Dr T8Bd
C#1	on	443	Dr T8Side
D 1	on	439	Dr T8SD1
D#1	on	445	Dr T8Clap
E 1	on	440	Dr T8SD2
F 1	on	446	Dr T8Tom
F#1	on	447	Dr T8HHCi
G 1	on	446	Dr T8Tom
G#1	on	448	Dr T8HHOp
A 1	on	446	Dr T8Tom
A#1	on	448	Dr T8HHOp
B 1	on	446	Dr T8Tom
C 2	on	446	Dr T8Tom
C#2	on	449	Dr T8Crsh
D 2	on	446	Dr T8Tom
D#2	on	449	Dr T8Crsh
E 2	on	435	Dr China
F 2	on	431	Dr Cup
F#2	on	354	Pc Tmborn
G 2	on	434	Dr Crash2
G#2	on	453	Dr T8Cwbl
A 2	on	434	Dr Crash2
A#2	on	356	Pc VbSlp
B 2	on	430	Dr Ride2
C 3	on	336	Pc BongoH
C#3	on	335	Pc BongoL
D 3	on	452	Dr T8CngH
D#3	on	451	Dr T8CngM
E 3	on	450	Dr T8CngL
F 3	on	345	Pc TmbLsh
F#3	on	344	Pc TmbLsh
G 3	on	341	Pc AgogoL
G#3	on	341	Pc AgogoL
A 3	on	349	Pc Cabasa
A#3	on	455	Dr T8Mracs
B 3	on	359	Pc Whistl
C 4	on	359	Pc Whistl
C#4	on	343	Pc GiroCl
D 4	on	342	Pc GuiroL
D#4	on	454	Dr T8Clve
E 4	on	348	Pc Wdblck
F 4	on	348	Pc Wdblck
F#4	on	346	Pc CuicaL
G 4	on	347	Pc CuicaH
G#4	on	355	Pc TrngL
A 4	on	355	Pc TrngL
A#4	on	353	Pc Shaker
B 4	on	357	Pc JnglBl
C 5	on	360	Pc Bltree
C#5	off		
D 5	off		
D#5	off		
E 5	off		
F 5	off		
F#5	off		
G 5	off		
G#5	off		
A 5	off		
A#5	off		
B 5	off		
C 6	off		

## Internal (MSB=63, LSB=32)

### 1 HipHop Kit

Note	ElmAsgn	Wave No.	Wave Name
C 0	on	437	Dr T8BdBm
C#0	on	440	Dr T8SD2
D 0	on	439	Dr T8SD1
D#0	on	441	Dr T8SD3
E 0	on	442	Dr T8SD4
F 0	on	462	Dr T9SD4
F#0	on	327	FX HH Hit
G 0	on	460	Dr T9SD2
G#0	on	444	Dr T8Rmst
A 0	on	438	Dr T8Bd
A#0	on	463	Dr T9SD5
B 0	on	458	Dr T9BD3
C 1	on	456	Dr T9BD1
C#1	on	406	Dr C.Rim1
D 1	on	459	Dr T9SD1
D#1	on	465	Dr T9Clap
E 1	on	461	Dr T9SD3
F 1	on	467	Dr T9TomL
F#1	on	471	Dr T9HHC2
G 1	on	467	Dr T9TomL
G#1	on	473	Dr T9HHO2
A 1	on	468	Dr T9TomM
A#1	on	472	Dr T9HHO1
B 1	on	468	Dr T9TomM
C 2	on	469	Dr T9TomH
C#2	on	474	Dr T9Crsh
D 2	on	469	Dr T9TomH
D#2	on	475	Dr T9Ride
E 2	on	449	Dr T8Crsh
F 2	on	475	Dr T9Ride
F#2	on	354	Pc Tmborn
G 2	on	449	Dr T8Crsh
G#2	on	453	Dr T8Cwbl
A 2	on	474	Dr T9Crsh
A#2	on	477	Dr DstKik
B 2	on	449	Dr T8Crsh
C 3	on	452	Dr T8CngH
C#3	on	450	Dr T8CngL
D 3	on	451	Dr T8CngM
D#3	on	255	Wv MogBs1
E 3	on	266	Wv Late-S
F 3	on	399	Dr SdBkbt
F#3	on	399	Dr SdBkbt
G 3	on	453	Dr T8Cwbl
G#3	on	341	Pc AgogoL
A 3	on	349	Pc Cabasa
A#3	on	455	Dr T8Mrscs
B 3	on	329	Fx HiLo
C 4	on	329	Fx HiLo
C#4	on	361	Pc AnvHt
D 4	on	366	Pc Ripper
D#4	on	454	Dr T8Clve
E 4	on	454	Dr T8Clve
F 4	on	351	Pc Castnt
F#4	on	363	Pc Scrch1
G 4	on	364	Pc Scrch2
G#4	on	355	Pc TrangL
A 4	on	355	Pc TrangL
A#4	on	353	Pc Shaker
B 4	on	357	Pc JnglBl
C 5	on	360	Pc Bltree
C#5	on	394	Dr SdRim1
D 5	on	388	Dr SdPclH
D#5	on	358	Pc Clap
E 5	on	390	Dr SdPrmH
F 5	on	379	Dr BdAna
F#5	on	447	Dr T8HHCl
G 5	on	457	Dr T9BD2
G#5	on	423	Dr HHCl5
A 5	on	374	Dr BdVar1
A#5	on	448	Dr T8HHOp
B 5	on	476	Dr EuroBD
C 6	on	372	Dr BdHby

### 2 Urbanguard

Note	ElmAsgn	Wave No.	Wave Name
C 0	on	378	Dr BdVar5
C#0	on	404	Dr SdBrsL
D 0	on	401	Dr SdSwep
D#0	on	403	Dr SdBrsH
E 0	on	401	Dr SdSwep
F 0	on	405	Dr SdRoll
F#0	on	314	Wv Noise
G 0	on	385	Dr SdSonA
G#0	on	408	Dr Stick
A 0	on	378	Dr BdVar5
A#0	on	389	Dr SdPcBH
B 0	on	375	Dr BdVar2
C 1	on	373	Dr BdLoJz
C#1	on	407	Dr C.Rim2
D 1	on	380	Dr SdGM
D#1	on	358	Pc Clap
E 1	on	391	Dr SdWdH
F 1	on	409	Dr TomF
F#1	on	419	Dr HHCl1
G 1	on	410	Dr TomL
G#1	on	424	Dr HHPdl
A 1	on	410	Dr TomL
A#1	on	426	Dr HHOpn
B 1	on	411	Dr TomM
C 2	on	412	Dr TomHL
C#2	on	433	Dr Crash
D 2	on	413	Dr TomHH
D#2	on	429	Dr Ride
E 2	on	435	Dr China
F 2	on	431	Dr Cup
F#2	on	354	Pc Tmborn
G 2	on	434	Dr Crash2
G#2	on	453	Dr T8Cwbl
A 2	on	434	Dr Crash2
A#2	on	356	Pc VbSlp
B 2	on	449	Dr T8Crsh
C 3	on	336	Pc BongoH
C#3	on	335	Pc BongoL
D 3	on	339	Pc CngSlp
D#3	on	338	Pc CongaH
E 3	on	337	Pc CongaL
F 3	on	345	Pc TmblsH
F#3	on	344	Pc TmblsL
G 3	on	341	Pc AgogoL
G#3	on	341	Pc AgogoL
A 3	on	349	Pc Cabasa
A#3	on	352	Pc Maracs
B 3	on	359	Pc Whistl
C 4	on	359	Pc Whistl
C#4	on	343	Pc GiroCl
D 4	on	342	Pc GuiroL
D#4	on	350	Pc Claves
E 4	on	348	Pc Wdblck
F 4	on	348	Pc Wdblck
F#4	on	346	Pc CuicaL
G 4	on	347	Pc CuicaH
G#4	on	355	Pc TrangL
A 4	on	355	Pc TrangL
A#4	on	353	Pc Shaker
B 4	on	357	Pc JnglBl
C 5	on	360	Pc Bltree
C#5	on	477	Dr DstKik
D 5	on	477	Dr DstKik
D#5	on	477	Dr DstKik
E 5	on	477	Dr DstKik
F 5	on	477	Dr DstKik
F#5	on	477	Dr DstKik
G 5	on	477	Dr DstKik
G#5	on	477	Dr DstKik
A 5	on	477	Dr DstKik
A#5	on	477	Dr DstKik
B 5	on	477	Dr DstKik
C 6	on	477	Dr DstKik



# Control List

## Control Set Destination Parameter

No.	LCD	Parameter
00	off	:off
01	Volume	Voice Volume
02	RevSend	Reverb Send
03	ChoSend	Chorus Send
04	INS1-P1:EF1	Insertion Effect 1 Parameter 1
:	:	:
13	INS1P10:EF1	Insertion Effect 1 Parameter 10
14	INS2-P1:EF2	Insertion Effect 2 Parameter 1
:	:	:
29	INS2P16:EF2	Insertion Effect 2 Parameter 16
30	CLFOSpd	Common LFO Speed
31	CLFO-D1	Common LFO Depth1
32	CLFO-D2	Common LFO Depth2
33	PorTime	Common Portamento Time
34	ELM-Lvl	Element Level
35	ELM-Pan	Element Pan
36	ELM-Dly	Element Key On Delay
37	ELFOSpd	Element LFO Speed
38	ELFO-PM	Element LFO Pitch Modulation Depth
39	ELFO-AM	Element LFO Amplitude Modulation Depth
40	ELFO-FM	Element LFO Filter Modulation Depth
41	PCH-Crs	Element Pitch Coarse
42	PCH-Fin	Element Pitch Fine
43	PEG-Dpt	Element Pitch EG Depth
44	PEG-Hld	Element Pitch EG Hold Time
45	PEG-Atk	Element Pitch EG Attack Time
46	PEG-D1	Element Pitch EG Decay1 Time
47	PEG-D2	Element Pitch EG Decay2 Time
48	PEG-Rel	Element Pitch EG Release Time
49	AEG-Atk	Element Amplitude EG Attack Time
50	AEG-D1	Element Amplitude EG Decay1 Time
51	AEG-D2	Element Amplitude EG Decay2 Time
52	AEG-Rel	Element Amplitude EG Release Time
53	FEG-Dpt	Element Filter EG Depth
54	FEG-Hld	Element Filter EG Hold Time
55	FEG-Atk	Element Filter EG Attack Time
56	FEG-D1	Element Filter EG Decay1 Time
57	FEG-D2	Element Filter EG Decay2 Time
58	FEG-Rel	Element Filter EG Release Time
59	FLT-Frq	Element Filter Cutoff Frequency
60	FLT-Rez	Element Filter Resonance
61	HPF-Frq	Element Filter HPF Cutoff Frequency

The destination parameters 00 - 29 can be used for all Controller Sets. However, in the case of the Plug-in voices, only the parameters 00 - 13 are available.

The parameters 30 - 61 are available for the Normal voices except for the Plug-in voices.

The parameters 04 - 29 are available only when Insertion effect is applied to the voice, and the effective parameter type differs depending on the currently selected effect type. If the destination parameter is effective, it's actual parameter name will be displayed on the LCD. For example, "INS1P10" of the number 13 will be replaced with the actual parameter name. If not, the LCD displays the one like "INS1P10" shown in the above list in the Controller Set function, and "-----" in the Play mode.

## System Controller Destination Parameter

No.	LCD	Parameter
00	off	off
01	EQLow-G	MEQ Low Gain
02	EQLow-F	MEQ Low Frequency
03	EQLow-Q	MEQ Low Q
04	EQLoM-G	MEQ Low Mid Gain
05	EQLoM-F	MEQ Low Mid Frequency
06	EQLoM-Q	MEQ Low Mid Q
07	EQMid-G	MEQ Mid Gain
08	EQMid-F	MEQ Mid Frequency
09	EQMid-Q	MEQ Mid Q
10	EQHiM-G	MEQ High Mid Gain
11	EQHiM-F	MEQ High Mid Frequency
12	EQHiM-Q	MEQ High Mid Q
13	EQHi-G	MEQ High Gain
14	EQHi-F	MEQ High Frequency
15	EQHi-Q	MEQ High Q
16	REV-P1	ReverbParameter 1
:	:	:
25	REV-P10	Reverb Parameter 10
26	REV-Rtn	Reverb Return
27	REV-Pan	Reverb Pan
28	CHO-P1	Chorus Parameter 1
:	:	:
37	CHO-P10	Chorus Parameter 10
38	CHO-Rtn	Chorus Return
39	CHO-Pan	Chorus Pan
40	Cho>Rev	Send Chorus To Reverb
41	ARP-Typ	Arpeggio Type
42	ARP-Unt	Arpeggio Unit Multiply
43	ARP-Vel	Arpeggio Velocity Rate
44	ARP-Gat	Arpeggio Gate Time Rate
45	Tempo	Arpeggio/Sequencer Tempo
46	EG-Atck	QED EG Attack Time
47	EG-Decy	QED EG Decay Time
48	EG-SusL	QED EG Sustain Level
49	EG-Rele	QED EG Release Time
50	Cutoff	QED Cutoff Frequency
51	Reso	QED Resonance

As to the parameters 16 - 25 and 28 - 37, the effective parameter type differs depending on the currently selected effect type. If the destination parameter is effective, it's actual parameter name will be displayed on the LCD. For example, "REV-P10" of the number 25 will be replaced with the actual parameter name. If not, the LCD displays the one like "REV-P10" shown in the above list in the Controller Set function, and "-----" in the Play mode.

# Arpeggio Type List

## Control Change Number List

### [CONTROLLER]

Name	No.	Remarks
PB:PITCH BEND		Pitch Bend
MW:MODULATION WHELL	1	Modulation
AT:AFTER TOUCH		After Touch
BC:BREATH CONTROLLER	(2)	Set in the Utility or Performance Mode
RB:RIBBON CONTROLLER	(22)	Set in the Utility or Performance Mode
FC:FOOT CONTROLLER	(4)	Set in the Utility or Performance Mode
FS:FOOT SWITCH	(88)	Set in the Utility Mode
FV:FOOT VOLUME	(11)	Set in the Utility Mode (7 or 11)
SUS:SUSTAIN	(64)	Sustain(Hold 1)

### [ASSIGNABLE KNOB]

Name	No.	Remarks
[KNOB A]	(18)	Set in the Utility Mode
[KNOB B]	(19)	Set in the Utility Mode
[KNOB C]	(20)	Set in the Utility Mode
[KNOB 1]	(16)	Set in the Utility or Performance Mode
[KNOB 2]	(17)	Set in the Utility or Performance Mode

The control numbers in the parentheses are the defaults.

No.	Name	No.	Name
1	UpOct1:Sq	65	SuperArp:Ph
2	UpOct2:Sq	66	MuteArp1:Ph
3	UpOct4:Sq	67	MuteArp2:Ph
4	DownOct1:Sq	68	VelGruv1:Ph
5	DownOct2:Sq	69	VelGruv2:Ph
6	DownOct4:Sq	70	SpaceArp:Ph
7	U/DAOct1:Sq	71	MuteLine:Ph
8	U/DAOct2:Sq	72	StepLine:Ph
9	U/DAOct4:Sq	73	AcidLine:Ph
10	U/DBOct1:Sq	74	SplitArp:Ph
11	U/DBOct2:Sq	75	Step Seq:Ph
12	U/DBOct4:Sq	76	PolyArp1:Ph
13	RndmOct1:Sq	77	PolyArp2:Ph
14	RndmOct2:Sq	78	Ana Seq:Ph
15	RndmOct4:Sq	79	Planet:Ph
16	Oct2Up:Sq	80	Rosync:Ph
17	Oct4Up:Sq	81	StrumArp:Ph
18	UnisonUp:Sq	82	Guit1Arp:Ph
19	Up&Down1:Sq	83	RolliArp:Ph
20	Up&Down2:Sq	84	Guit2Arp:Ph
21	Up&Down4:Sq	85	Guit3Arp:Ph
22	Up&Alt1:Sq	86	Guit4Arp:Ph
23	Up&Rndm1:Sq	87	Harp Arp:Ph
24	Up&Rndm2:Sq	88	BigBeat1:Dr
25	Up&Rndm4:Sq	89	BigBeat2:Dr
26	ChdAltB1:Sq	90	BigBeat3:Dr
27	ChdAltB2:Sq	91	BigBeat4:Dr
28	ChdAltB4:Sq	92	Rock1:Dr
29	ChdRndm1:Sq	93	Rock2:Dr
30	ChdRndm2:Sq	94	Rock3:Dr
31	ChdRndm4:Sq	95	BigBeat5:Dr
32	TechnoA:Ph	96	BigBeat6:Dr
33	TechnoB:Ph	97	BigBeat7:Dr
34	TechnoC:Ph	98	BigBeat8:Dr
35	DAHouse:Ph	99	BigBeat9:Dr
36	SyncopaA:Ph	100	BrkTrnce:Dr
37	SyncopaB:Ph	101	House1:Dr
38	SyncpEco:Ph	102	House2:Dr
39	TekEchoA:Ph	103	House3:Dr
40	TekEchoB:Ph	104	Garage:Dr
41	PulsLine:Ph	105	House4:Dr
42	SeqS&H1:Ph	106	House5:Dr
43	SeqS&H2:Ph	107	HipHop:Dr
44	CleanGt1:Ph	108	JazzHop:Dr
45	CleanGt2:Ph	109	Abstract:Dr
46	CleanGt3:Ph	110	LoBeat1:Dr
47	CleanGt4:Ph	111	LoBeat2:Dr
48	Pno16Bt:Ph	112	LoBeat3:Dr
49	PnoLatin:Ph	113	LoBeat4:Dr
50	CrvBass:Ph	114	LoBeat5:Dr
51	Ocean:Ph	115	LoBeat6:Dr
52	Orbit:Ph	116	Drm&Bs1:Dr
53	X-Sweep1:Ph	117	Drm&Bs2:Dr
54	X-Sweep2:Ph	118	Linear:Dr
55	X-Sweep3:Ph	119	08beat1:Dr
56	Lamb:Ph	120	08beat2:Dr
57	Thips:Ph	121	08beat3:Dr
58	Hardcore:Ph	122	16beat1:Dr
59	Harmo:Ph	123	16beat2:Dr
60	Ascorbic:Ph	124	1Bar:Dr
61	Doves:Ph	125	1BarRndm:Dr
62	Chodal:Ph	126	GateCut1:Ct
63	Simple:Ph	127	GateCut2:Ct
64	Waggle:Ph	128	GateCut3:Ct





**[15] TEMPO FLANGER**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	5-21	Speed	1	○
2	LFO Depth	0-127	Depth	2	⊙
3	LFO Phase Difference	-180deg--+180deg	Phase	6	
4	LFO Phase Reset	off/free run, Key/On/Reset, SEQ Start/Reset	Reset	5	
5	EQ Low Frequency	32Hz-2.0kHz	L.Freq	7	○
6	EQ Low Gain	-12dB--+12dB	L.Gain	8	○
7	EQ High Frequency	500Hz-16.0kHz	H.Freq	9	○
8	EQ High Gain	-12dB--+12dB	H.Gain	10	○
9	Delay Offset	0.0ms-50.0ms	DlyOfst	4	
10	Feedback Level	-63--+63	FBLevel	3	○

**[16] PHASER1**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz-39.70Hz	Speed	1	○
2	LFO Depth	0-127	Depth	2	○
3	Diffusion	mono/stereo	Diffuse	6	○
4	EQ Low Frequency	32Hz-2.0kHz	L.Freq	7	○
5	EQ Low Gain	-12dB--+12dB	L.Gain	8	○
6	EQ High Frequency	500Hz-16.0kHz	H.Freq	9	○
7	EQ High Gain	-12dB--+12dB	H.Gain	10	○
8	Stage	4, 5, 6	Stage	5	○
9	Phase Shift Offset	0-127	PhShift	3	
10	Feedback Level	-63--+63	FBLevel	4	⊙

**[17] TEMPO PHASER**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	5-21	Speed	1	○
2	LFO Depth	0-127	Depth	2	⊙
3	LFO Phase Reset	off/free run, Key/On/Reset, SEQ Start/Reset	PhaseReset	6	
4	EQ Low Frequency	32Hz-2.0kHz	L.Freq	7	○
5	EQ Low Gain	-12dB--+12dB	L.Gain	8	○
6	EQ High Frequency	500Hz-16.0kHz	H.Freq	9	○
7	EQ High Gain	-12dB--+12dB	H.Gain	10	○
8	Stage	4, 5, 6	Stage	5	○
9	Phase Shift Offset	0-127	PhShift	3	
10	Feedback Level	-63--+63	FBLevel	4	○

**[18] DELAY L,R(stereo)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time L	0.1ms-740.0ms	TimeL	1	
2	Delay Time R	0.1ms-740.0ms	TimeR	2	
3	Feedback Time 1	0.1ms-740.0ms	FBTime1	3	
4	Feedback Time 2	0.1ms-740.0ms	FBTime2	4	
5	Feedback Level	-63--+63	FBLevel	5	⊙
6	Feedback High Damp	0.1-1.0	FBHiDmp	6	○
7	EQ Low Frequency	32Hz-2.0kHz	L.Freq	7	○
8	EQ Low Gain	-12dB--+12dB	L.Gain	8	○
9	EQ High Frequency	500Hz-16.0kHz	H.Freq	9	○
10	EQ High Gain	-12dB--+12dB	H.Gain	10	○

**[19] CONTROL DELAY1(mono)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	0.1ms-1480.0ms	Time	1	⊙
2	Delay Transition Rate	1-48	Trnsitn	2	○
3	Feedback Level	-63--+63	FBLevel	3	○
4	Feedback High Damp	0.1-1.0	FBHiDmp	4	○
5	EQ Low Frequency	32Hz-2.0kHz	L.Freq	5	○
6	EQ Low Gain	-12dB--+12dB	L.Gain	6	○
7	EQ High Frequency	500Hz-16.0kHz	H.Freq	7	○
8	EQ High Gain	-12dB--+12dB	H.Gain	8	○

**[20] CONTROL DELAY2(stereo)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	0.1ms-740.0ms	Time	1	⊙
2	Delay Transition Rate	1-48	Trnsitn	2	○
3	Feedback Level	-63--+63	FBLevel	3	○
4	Feedback High Damp	0.1-1.0	FBHiDmp	4	○
5	EQ Low Frequency	32Hz-2.0kHz	L.Freq	5	○
6	EQ Low Gain	-12dB--+12dB	L.Gain	6	○
7	EQ High Frequency	500Hz-16.0kHz	H.Freq	7	○
8	EQ High Gain	-12dB--+12dB	H.Gain	8	○

**[21] TEMPO DELAY1(mono)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	2-14	Time	1	
2	Lag	-63ms--+63ms	Lag	5	
3	L/R Diffusion	-63ms--+63ms	Diffuse	4	
4	Feedback Level	-63--+63	FBLevel	2	⊙
5	Feedback High Damp	0.1-1.0	FBHiDmp	3	○
6	EQ Low Frequency	32Hz-2.0kHz	L.Freq	6	○
7	EQ Low Gain	-12dB--+12dB	L.Gain	7	○
8	EQ High Frequency	500Hz-16.0kHz	H.Freq	8	○
9	EQ High Gain	-12dB--+12dB	H.Gain	9	○

**[22] TEMPO DELAY2(stereo)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	2-14	Time	1	
2	Lag	-63ms--+63ms	Lag	5	
3	L/R Diffusion	-63ms--+63ms	Diffuse	4	
4	Feedback Level	-63--+63	FBLevel	2	⊙
5	Feedback High Damp	0.1-1.0	FBHiDmp	3	○
6	EQ Low Frequency	32Hz-2.0kHz	L.Freq	6	○
7	EQ Low Gain	-12dB--+12dB	L.Gain	7	○
8	EQ High Frequency	500Hz-16.0kHz	H.Freq	8	○
9	EQ High Gain	-12dB--+12dB	H.Gain	9	○

**[23] TEMPO CROSS DELAY**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time L>R	2-14	TimeL>R	1	
2	Delay Time R>L	2-14	TimeR>L	2	
3	Input Select	L, R, L&R	Input	5	
4	Lag	-63ms--+63ms	Lag	6	
5	Feedback Level	-63--+63	FBLevel	3	⊙
6	Feedback High Damp	0.1-1.0	FBHiDmp	4	○
7	EQ Low Frequency	32Hz-2.0kHz	L.Freq	7	○
8	EQ Low Gain	-12dB--+12dB	L.Gain	8	○
9	EQ High Frequency	500Hz-16.0kHz	H.Freq	9	○
10	EQ High Gain	-12dB--+12dB	H.Gain	10	○

**3. Insertion Effect 1  
[0] THRU (None)**

**[1]-[4] CHORUS1-4**

**[5]-[8] CELESTE1-4**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz-39.70Hz	Speed	1	○
2	LFO Depth	0-127	Depth	2	○
3	Input Mode	mono/stereo	Input	9	
4	EQ Low Frequency	32Hz-2.0kHz	L.Freq	5	○
5	EQ Low Gain	-12dB--+12dB	L.Gain	6	○
6	EQ High Frequency	500Hz-16.0kHz	H.Freq	7	○
7	EQ High Gain	-12dB--+12dB	H.Gain	8	○
8	Delay Offset	0.0ms-50.0ms	DlyOfst	4	
9	Feedback Level	-63--+63	FBLevel	3	○
10	Dry / Wet Balance	D63>W -D=W -D<W63	Dry/Wet	10	○

**[9]-[11] FLANGER1-3**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz-39.70Hz	Speed	1	○
2	LFO Depth	0-127	Depth	2	○
3	LFO Phase Difference	-180deg--+180deg	Phase	9	
4	EQ Low Frequency	32Hz-2.0kHz	L.Freq	5	○
5	EQ Low Gain	-12dB--+12dB	L.Gain	6	○
6	EQ High Frequency	500Hz-16.0kHz	H.Freq	7	○
7	EQ High Gain	-12dB--+12dB	H.Gain	8	○
8	Delay Offset	0.0ms-50.0ms	DlyOfst	4	
9	Feedback Level	-63--+63	FBLevel	3	○
10	Dry / Wet Balance	D63>W -D=W -D<W63	Dry/Wet	10	○

**[12] PHASER1**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
4	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
5	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
6	EQ High Gain	-12dB~+12dB	H.Gain	9	○
7	Stage	4, 5, 6	Stage	5	○
8	Phase Shift Offset	0~127	PhShift	3	○
9	Feedback Level	-63~+63	FBLevel	4	○
10	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[13] TREMOLO**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	AM Depth	0~127	AMDepth	2	○
3	PM Depth	0~127	PMDepth	3	○
4	LFO Phase Difference	-180deg~+180deg	Phase	4	○
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	5	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	6	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	7	○
8	EQ High Gain	-12dB~+12dB	H.Gain	8	○
9	Input Mode	mono/stereo	Input	9	○

**[14] AUTO PAN**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	L/R Depth	0~127	L/RDpth	2	○
3	F/R Depth	0~127	F/RDpth	3	○
4	PAN Direction	L<R, L>R, L<<R, L>>R, L<R, R<L, R>>L, R<L, L>R (0-5)	Directn	4	○
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	5	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	6	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	7	○
8	EQ High Gain	-12dB~+12dB	H.Gain	8	○

**[15] DISTORTION**

**[16] OVERDRIVE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Drive	0~127	Drive	1	○
2	Edge	0~127	Edge	9	○
3	Output Level	0~127	OutLvl	8	○
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	2	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	3	○
6	LPF Cutoff Frequency	1.0kHz~20.0kHz	LPF	7	○
7	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	4	○
8	EQ Mid Gain	-12dB~+12dB	M.Gain	5	○
9	EQ Mid Width	0.1~12.0	M.Width	6	○
10	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[17] AMP SIMULATOR**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	AMP Type	off, stack, combo, tube	AmpType	2	○
2	Drive	0~127	Drive	1	○
3	Edge	0~127	Edge	4	○
4	Output Level	0~127	OutLvl	5	○
5	LPF Cutoff Frequency	1.0kHz~20.0kHz	LPF	3	○
6	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	6	○

**[18] COMPRESSOR**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Attack	1ms~40ms	Attack	1	○
2	Release	10ms~680ms	Release	2	○
3	Threshold	-48dB~-6dB	Threshld	3	○
4	Ratio	1~20.0	Ratio	4	○
5	Output Level	0~127	OutLvl	5	○

**[19] NOISE GATE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Attack	1ms~40ms	Attack	1	○
2	Release	10ms~680ms	Release	2	○
3	Threshold	-72dB~-30dB	Threshld	3	○
4	Output Level	0~127	Out Lvl	4	○

**[20] AUTO WAH**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	Cutoff Frequency Offset	0~127	Cutoff	3	○
4	Resonance	1~12.0	Reso	4	○
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	5	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	6	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	7	○
8	EQ High Gain	-12dB~+12dB	H.Gain	8	○
9	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	9	○

**[21] TOUCH WAH**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Sensitive	0~127	Sens	1	○
2	Cutoff Frequency Offset	0~127	Cutoff	2	○
3	Resonance	1~12.0	Reso	3	○
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	4	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	5	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	6	○
7	EQ High Gain	-12dB~+12dB	H.Gain	7	○
8	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	8	○

**[22] 2BAND EQ**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	EQ Low Frequency	32Hz~2.0kHz	L.Freq	1	○
2	EQ Low Gain	-12dB~+12dB	L.Gain	2	○
3	EQ High Frequency	500Hz~16.0kHz	H.Freq	3	○
4	EQ High Gain	-12dB~+12dB	H.Gain	4	○

**[23] 3BAND EQ**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	EQ Low Frequency	50Hz~2.0kHz	L.Freq	1	○
2	EQ Low Gain	-12dB~+12dB	L.Gain	2	○
3	EQ High Frequency	500Hz~16.0kHz	H.Freq	6	○
4	EQ High Gain	-12dB~+12dB	H.Gain	7	○
5	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	3	○
6	EQ Mid Gain	-12dB~+12dB	M.Gain	4	○
7	EQ Mid Width	0.1~12.0	M.Width	5	○
8	Input Mode	mono/stereo	Input	8	○

**[24] HARMONIC ENHANCER**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	HPF Cutoff Frequency	500Hz~+16.0kHz	HPF	1	○
2	Drive	0~127	Drive	2	○
3	Mix Level	0~127	Mix Lvl	3	○

**4. Insertion Effect 2**

**[0] THRU (None)**

**[1] HALL1 ~ [8] PLATE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Reverb Time	0.3s~30.0s	RevTime	1	○
2	Initial Delay	0.1ms~99.3ms	InitDly	3	○
3	Reverb Delay	0.1ms~99.3ms	RevDly	11	○
4	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
5	HPF Cutoff Frequency	20Hz~8.0kHz	HPF	4	○
6	LPF Cutoff Frequency	1.0kHz~20.0kHz	LPF	5	○
7	Diffusion	0~10	Diffuse	2	○
8	Density	0~4	Density	12	○
9	ER / Rev Balance	E63>R ~ E=R ~ E<R63	ER/Rev	13	○
10	Feedback Level	-63~+63	FBLevel	15	○
11	Feedback High Damp	0.1~1.0	FBHiDmp	14	○

**[9] DELAY L,C,R**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time L	0.1ms~1486.0ms	TimeL	1	
2	Delay Time R	0.1ms~1486.0ms	TimeR	2	
3	Delay Time C	0.1ms~1486.0ms	TimeC	3	
4	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
5	Delay Level C	0~127	LevelC	6	○
6	Feedback Time	0.1ms~1486.0ms	FBTime	4	
7	Feedback Level	-63~+63	FBLevel	5	○
8	Feedback High Damp	0.1~1.0	FBHiDmp	7	○
9	EQ Low Frequency	32Hz~2.0kHz	L.Freq	13	○
10	EQ Low Gain	-12dB~+12dB	L.Gain	14	○
11	EQ High Frequency	500Hz~16.0kHz	H.Freq	15	○
12	EQ High Gain	-12dB~+12dB	H.Gain	16	○

**[10] DELAY L,R**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time L	0.1ms~1486.0ms	TimeL	1	
2	Delay Time R	0.1ms~1486.0ms	TimeR	2	
3	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
4	Feedback Time 1	0.1ms~1486.0ms	FBTime1	3	
5	Feedback Time 2	0.1ms~1486.0ms	FBTime2	4	
6	Feedback Level	-63~+63	FBLevel	5	○
7	Feedback High Damp	0.1~1.0	FBHiDmp	6	○
8	EQ Low Frequency	32Hz~2.0kHz	L.Freq	13	○
9	EQ Low Gain	-12dB~+12dB	L.Gain	14	○
10	EQ High Frequency	500Hz~16.0kHz	H.Freq	15	○
11	EQ High Gain	-12dB~+12dB	H.Gain	16	○

**[11] ECHO**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time L1	0.1ms~743.0ms	TimeL1	1	
2	Delay Time R1	0.1ms~743.0ms	TimeR1	3	
3	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
4	Feedback Level L	-63~+63	FBLvL	2	○
5	Feedback Level R	-63~+63	FBLvR	4	○
6	Feedback High Damp	0.1~1.0	FBHiDmp	5	○
7	Delay Time L2	0.1ms~743.0ms	TimeL2	6	
8	Delay Time R2	0.1ms~743.0ms	TimeR2	7	
9	Delay Level	0~127	Level2	8	○
10	EQ Low Frequency	32Hz~2.0kHz	L.Freq	13	○
11	EQ Low Gain	-12dB~+12dB	L.Gain	14	○
12	EQ High Frequency	500Hz~16.0kHz	H.Freq	15	○
13	EQ High Gain	-12dB~+12dB	H.Gain	16	○

**[12] CROSS DELAY**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time L>R	0.1ms~743.0ms	TimeL>R	1	
2	Delay Time R>L	0.1ms~743.0ms	TimeR>L	2	
3	Input Select	L, R, L&R	Input	4	
4	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
5	Feedback Level	-63~+63	FBLevel	3	○
6	Feedback High Damp	0.1~1.0	FBHiDmp	5	○
7	EQ Low Frequency	32Hz~2.0kHz	L.Freq	13	○
8	EQ Low Gain	-12dB~+12dB	L.Gain	14	○
9	EQ High Frequency	500Hz~16.0kHz	H.Freq	15	○
10	EQ High Gain	-12dB~+12dB	H.Gain	16	○

**[13] CONTROL DELAY1(mono)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	0.1ms~1486.0ms	Time	1	○
2	Delay Transition Rate	1~48	Trnsitn	2	○
3	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
4	Control Type	normal, scratch	CtrType	11	○
5	Feedback Level	-63~+63	FBLevel	3	○
6	Feedback High Damp	0.1~1.0	FBHiDmp	4	○
7	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
8	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
9	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
10	EQ High Gain	-12dB~+12dB	H.Gain	9	○

**[14] CONTROL DELAY2(stereo)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	0.1ms~743.0ms	Time	1	○
2	Delay Transition Rate	1~48	Trnsitn	2	○
3	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
4	Control Type	normal, scratch	CtrType	11	○
5	Feedback Level	-63~+63	FBLevel	3	○
6	Feedback High Damp	0.1~1.0	FBHiDmp	4	○
7	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
8	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
9	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
10	EQ High Gain	-12dB~+12dB	H.Gain	9	○

**[15] TEMPO DELAY1(mono)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	2~14	Time	1	
2	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
3	Lag	-63ms~+63ms	Lag	6	
4	L/R Diffusion	-63ms~+63ms	Diffuse	5	
5	Feedback Level	-63~+63	FBLevel	3	○
6	Feedback High Damp	0.1~1.0	FBHiDmp	4	○
7	EQ Low Frequency	32Hz~2.0kHz	L.Freq	13	○
8	EQ Low Gain	-12dB~+12dB	L.Gain	14	○
9	EQ High Frequency	500Hz~16.0kHz	H.Freq	15	○
10	EQ High Gain	-12dB~+12dB	H.Gain	16	○

**[16] TEMPO DELAY2(stereo)**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	2~14	Time	1	
2	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
3	Lag	-63ms~+63ms	Lag	6	
4	L/R Diffusion	-63ms~+63ms	Diffuse	5	
5	Feedback Level	-63~+63	FBLevel	3	○
6	Feedback High Damp	0.1~1.0	FBHiDmp	4	○
7	EQ Low Frequency	32Hz~2.0kHz	L.Freq	13	○
8	EQ Low Gain	-12dB~+12dB	L.Gain	14	○
9	EQ High Frequency	500Hz~16.0kHz	H.Freq	15	○
10	EQ High Gain	-12dB~+12dB	H.Gain	16	○

**[17] TEMPO CROSS DELAY**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time L>R	2~14	TimeL>R	1	
2	Delay Time R>L	2~14	TimeR>L	2	
3	Input Select	L, R, L&R	Input	6	
4	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
5	Lag	-63ms~ +63ms	Lag	8	
6	Feedback Level	-63~+63	FBLevel	4	○
7	Feedback High Damp	0.1~1.0	FBHiDmp	5	○
8	EQ Low Frequency	32Hz~2.0kHz	L.Freq	13	○
9	EQ Low Gain	-12dB~+12dB	L.Gain	14	○
10	EQ High Frequency	500Hz~16.0kHz	H.Freq	15	○
11	EQ High Gain	-12dB~+12dB	H.Gain	16	○

**[18]-[19] EARLY REF1~2**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Type	S-hall, L-hall, random, reverse, plate, spring	Type	1	
2	Room Size	0.1~20.0	Size	2	
3	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
4	Diffusion	0 ~ 10	Diffuse	3	
5	Initial Delay	0.1ms~200.0ms	InitDly	4	
6	Liveness	0 ~ 10	Liveness	11	
7	Density	0 ~ 3	Density	12	
8	HPF Cutoff Frequency	20Hz~8.0kHz	HPF	6	○
9	LPF Cutoff Frequency	1.0kHz~20.0kHz	LPF	7	○
10	Feedback Level	-63~+63	FBLevel	5	○
11	Feedback High Damp	0.1~1.0	FBHiDmp	13	

**[20] GATE REVERB**  
**[21] REVERSE GATE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Type	Type-A, Type-B	Type	1	
2	Room Size	0.1~20.0	Size	2	
3	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
4	Diffusion	0 ~ 10	Diffuse	3	
5	Initial Delay	0.1ms~200.0ms	InitDly	4	
6	Liveness	0 ~ 10	Livenss	11	
7	Density	0 ~ 3	Density	12	
8	HPF Cutoff Frequency	20Hz~8.0kHz	HPF	6	○
9	LPF Cutoff Frequency	1.0kHz~20.0kHz	LPF	7	○
10	Feedback Level	-63~+63	FBLevel	5	○
11	Feedback High Damp	0.1~1.0	FBHiDmp	13	

**[22]~[24] KARAOKE1-3**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	0.1ms~400.0ms	DlyTime	1	
2	Feedback Level	-63~+63	FBLevel	2	○
3	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
4	HPF Cutoff Frequency	20Hz~8.0kHz	HPF	3	○
5	LPF Cutoff Frequency	1.0kHz~20.0kHz	LPF	4	○

**[25]~[29] CHORUS1-5**  
**[30]~[33] CELESTE1-4**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	Input Mode	mono/stereo	Input	15	
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
7	EQ High Gain	-12dB~+12dB	H.Gain	9	○
8	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	11	○
9	EQ Mid Gain	-12dB~+12dB	M.Gain	12	○
10	EQ Mid Width	0.1~12.0	M.Width	13	○
11	Delay Offset	0.0ms~50.0ms	DlyOfst	4	
12	Feedback Leve	-63~+63	FBLevel	3	○
13	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[34] SYMPHONIC**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	Delay Offset	0.0ms~50.0ms	DlyOfst	4	
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
7	EQ High Gain	-12dB~+12dB	H.Gain	9	○
8	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	11	○
9	EQ Mid Gain	-12dB~+12dB	M.Gain	12	○
10	EQ Mid Width	0.1~12.0	M.Width	13	○
11	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[35] ENSEMBLE DETUNE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Detune	-50cent~+50cent	Detune	1	
2	Initial Delay Lch	0.0ms~50.0ms	DelayL	2	
3	Initial Delay Rch	0.0ms~50.0ms	DelayR	3	
4	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	11	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	12	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	13	○
8	EQ High Gain	-12dB~+12dB	H.Gain	14	○

**[36]~[38] FLANGER1~3**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	LFO Phase Difference	-180deg~+180deg	Phase	14	
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
7	EQ High Gain	-12dB~+12dB	H.Gain	9	○
8	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	11	○
9	EQ Mid Gain	-12dB~+12dB	M.Gain	12	○
10	EQ Mid Width	0.1~12.0	M.Width	13	○
11	Delay Offset	0.0ms~50.0ms	DlyOfst	4	
12	Feedback Leve	-63~+63	FBLevel	3	○
13	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[39] V-FLANGER**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	LFO Wave	Triangle, Sine, Random	Wave	3	
4	Modulation Phase	-180~+180	Phase	5	
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
8	EQ High Gain	-12dB~+12dB	H.Gain	9	○
9	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	11	○
10	EQ Mid Gain	-12dB~+12dB	M.Gain	12	○
11	EQ Mid Width	0.1~12.0	M.Width	13	○
12	Analog Feel	0~10	Analog	16	○
13	Feedback Gain	-100~+100%	FBLevel	14	○
14	Feedback High Damp	0.1~1.0	FBHiDmp	15	○
15	Delay Offset	0.09~36.21ms	DlyOfst	4	
16	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[40] TEMPO FLANGER**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	5~21	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	LFO Phase Difference	-180deg~+180deg	Phase	14	
4	LFO Phase Reset	off/free run/, KeyOn/Reset, SEQ Start/Reset	Reset	5	
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
8	EQ High Gain	-12dB~+12dB	H.Gain	9	○
9	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	11	○
10	EQ Mid Gain	-12dB~+12dB	M.Gain	12	○
11	EQ Mid Width	0.1~12.0	M.Width	13	○
12	Delay Offset	0.0ms~50.0ms	DlyOfst	4	
13	Feedback Level	-63~+63	FBLevel	3	○
14	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[41] PHASER1**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	Diffusion	mono/stereo	Diffuse	12	
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
7	EQ High Gain	-12dB~+12dB	H.Gain	9	○
8	Stage	4, 5, 6, 7, 8, 9, 10, 11, 12	Stage	11	○
9	Phase Shift Offset	0~127	PhShift	3	
10	Feedback Level	-63~+63	FBLevel	4	○
11	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[42] PHASER2**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	LFO Phase Difference	-180deg~+180deg	Phase	13	○
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
7	EQ High Gain	-12dB~+12dB	H.Gain	9	○
8	Stage	3, 4, 5, 6	Stage	11	○
9	Phase Shift Offset	0~127	PhShift	3	○
10	Feedback Level	-63~+63	FBLevel	4	○
11	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[43] TEMPO PHASER**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	5~21	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	LFO Phase Difference	-180deg~+180deg	Phase	13	○
4	LFO Phase Reset	off/free run, KeyOn/Reset, SEQ Start/Reset	Reset	5	○
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
8	EQ High Gain	-12dB~+12dB	H.Gain	9	○
9	Stage	3, 4, 5, 6	Stage	11	○
10	Phase Shift Offset	0~127	PhShift	3	○
11	Feedback Level	-63~+63	FBLevel	4	○
12	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[44] TREMOLO**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	AM Depth	0~127	AMDepth	2	○
3	PM Depth	0~127	PMDepth	3	○
4	LFO Phase Difference	-180deg~+180deg	Phase	14	○
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
8	EQ High Gain	-12dB~+12dB	H.Gain	9	○
9	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	11	○
10	EQ Mid Gain	-12dB~+12dB	M.Gain	12	○
11	EQ Mid Width	0.1~12.0	M.Width	13	○
12	Input Mode	mono/stereo	Input	15	○

**[45] AUTO PAN**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	L/R Depth	0~127	L/RDpth	2	○
3	F/R Depth	0~127	F/RDpth	3	○
4	PAN Direction	L<R, L>R, L<R, L>R, Rtm, LR(0-5)	Directn	4	○
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
8	EQ High Gain	-12dB~+12dB	H.Gain	9	○
9	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	11	○
10	EQ Mid Gain	-12dB~+12dB	M.Gain	12	○
11	EQ Mid Width	0.1~12.0	M.Width	13	○

**[46] ROTARY SPEAKER1**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
4	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
5	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
6	EQ High Gain	-12dB~+12dB	H.Gain	9	○
7	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	11	○
8	EQ Mid Gain	-12dB~+12dB	M.Gain	12	○
9	EQ Mid Width	0.1~12.0	M.Width	13	○
10	Dry / Wet Balance	D63>W ~ D=W ~ D<W63	Dry/Wet	10	○

**[47] DISTORTION+ROTARY SPEAKER1**

**[48] OVERDrive+ROTARY SPEAKER1**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0 ~ 127	Depth	2	○
3	Dist. Drive	0 ~ 127	Drive	14	○
4	Dist. LPF Cutoff Freq	1.0kHz~18.0kHz, thru	LPF	15	○
5	Dist. Output Level	0 ~ 127	DrivOut	16	○
6	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
7	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
8	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
9	EQ High Gain	-12dB~+12dB	H.Gain	9	○

**[49] AMP SIMULATOR+ROTARY SPEAKER1**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0 ~ 127	Depth	2	○
3	AMP Type	off, stack, combo, tube	AmpType	3	○
4	AMP Drive	0 ~ 127	Drive	14	○
5	AMP LPF Cutoff Freq	1.0kHz~18.0kHz, thru	LPF	15	○
6	AMP Output Level	0 ~ 127	AmpOut	16	○
7	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
8	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
9	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
10	EQ High Gain	-12dB~+12dB	H.Gain	9	○

**[50] ROTARY SPEAKER2**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Rotor Speed	0.0Hz~39.70Hz	Speed	1	○
2	Drive Low	0~127	DriveLo	2	○
3	Drive High	0~127	DriveHi	3	○
4	Low / High Balance	L63>H ~ L=H ~ L<H63	Low/Hi	4	○
5	Mic L-R Angle	0deg~180deg	MicAngl	5	○
6	Divide Frequency	100Hz~10.0kHz	CrosOvr	11	○
7	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
8	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
9	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
10	EQ High Gain	-12dB~+12dB	H.Gain	9	○

**[51] DISTORTION+ROTARY SPEAKER2**

**[52] OVERDrive+ROTARY SPEAKER2**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Rotor Speed	0.0Hz~39.70Hz	Speed	1	○
2	Drive Low	0 ~ 127	DriveLo	2	○
3	Drive High	0 ~ 127	DriveHi	3	○
4	Low/High Balance	L63>H ~ L=H ~ L<H63	Low/Hi	4	○
5	Mic L-R Angle	0deg~180deg	MicAngl	12	○
6	Divide Frequency	100Hz~10.0kHz	CrosOvr	11	○
7	Dist.Drive	0 ~ 127	Drive	14	○
8	Dist. LPF Cutoff Freq	1.0kHz~18.0kHz, thru	LPF	15	○
9	Dist. Output Level	0 ~ 127	DrivOut	16	○
10	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
11	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
12	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
13	EQ High Gain	-12dB~+12dB	H.Gain	9	○

**[53] AMP SIM.+ROTARY SPEAKER2**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Rotor Speed	0.0Hz~39.70Hz	Speed	1	○
2	Drive Low	0 ~ 127	DriveLo	2	○
3	Drive High	0 ~ 127	DriveHi	3	○
4	Low/High Balance	L63>H ~ L=H ~ L<H63	Low/Hi	4	○
5	Mic L-R Angle	0deg~180deg	MicAngl	12	○
6	Divide Frequency	100Hz~10.0kHz	CrosOvr	11	○
7	AMP Type	off, stack, combo, tube	AmpType	13	○
8	AMP Drive	0 ~ 127	Drive	14	○
9	AMP LPF Cutoff Freq	1.0kHz~18.0kHz, thru	LPF	15	○
10	AMP Output Level	0 ~ 127	AmpOut	16	○
11	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
12	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
13	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
14	EQ High Gain	-12dB~+12dB	H.Gain	9	○

**[54] ROTARY SPEAKER3**

**[55] ROTARY SPEAKER4**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Speed Control	sLow, fast	Speed	16	○
2	SLOW-Fast Time of R	0-127	Trans:Rotor	5	○
3	SLOW-Fast Time of H	0-127	Trans:Horn	6	○
4	Rotor Speed SLOW	0.0Hz-2.65Hz	Rotor-Slw	1	○
5	Horn Speed SLOW	0.0Hz-2.65Hz	Horn-Slw	2	○
6	Rotor Speed Fast	2.69Hz-39.70Hz	Rotor-Fst	3	○
7	Horn Speed Fast	2.69Hz-39.70Hz	Horn-Fst	4	○
8	Mic L-R Angle	0deg-180deg	MicAngl	15	○
9	Drive Low	0-127	DriveLo	7	○
10	Drive High	0-127	DriveHi	8	○
11	Low/High Balance	L63>H - L=H - L<H63	Low/Hi	9	○
12	EQ Low Frequency	32Hz-2.0kHz	L.Freq	11	○
13	EQ Low Gain	-12dB-+12dB	L.Gain	12	○
14	EQ High Frequency	500Hz-16.0kHz	H.Freq	13	○
15	EQ High Gain	-12dB-+12dB	H.Gain	14	○

**[56] DISTORTION**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Drive	0-127	Drive	1	○
2	Edge	0-127	Edge	11	○
3	Output Level	0-127	OutLvl	5	○
4	EQ Low Frequency	32Hz-2.0kHz	L.Freq	2	○
5	EQ Low Gain	-12dB-+12dB	L.Gain	3	○
6	LPF Cutoff Frequency	1.0kHz-20.0kHz	LPF	4	○
7	EQ Mid Frequency	100Hz-10.0kHz	M.Freq	7	○
8	EQ Mid Gain	-12dB-+12dB	M.Gain	8	○
9	EQ Mid Width	0.1-12.0	M.Width	9	○
10	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[57] COMP DISTORTION**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Attack	1ms-40ms	Attack	12	○
2	Release	10ms-680ms	Release	13	○
3	Threshold	-48dB--6dB	Thrsld	14	○
4	Ratio	1-20.0	Ratio	15	○
5	EQ Low Frequency	32Hz-2.0kHz	L.Freq	2	○
6	EQ Low Gain	-12dB-+12dB	L.Gain	3	○
7	Drive	0-127	Drive	1	○
8	Output Level	0-127	OutLvl	5	○
9	EQ Mid Frequency	100Hz-10.0kHz	M.Freq	7	○
10	EQ Mid Gain	-12dB-+12dB	M.Gain	8	○
11	EQ Mid Width	0.1-12.0	M.Width	9	○
12	Edge	0-127	Edge	11	○
13	LPF Cutoff Frequency	1.0kHz-20.0kHz	LPF	4	○
14	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[58] V-DISTORTION**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Over Drive	0 - 100%	OverDr	1	○
2	Device	Transster, Vintage Tube, Distortion1, Distortion2, Fuzz	Device	2	○
3	Speaker Type	Flat, Stack, Combo, Twin, Radio, Megaphone	Speaker	3	○
4	Presence	-10 - 10	Presenc	4	○
5	Delay Time L	0.1ms-1486.0ms	DelayL	6	○
6	Delay Time R	0.1ms-1486.0ms	DelayR	7	○
7	Feedback Time	0.1ms-1486.0ms	FBTime	8	○
8	Feedback Level	-63-+63	FBLevel	9	○
9	Feedback High Damp	0.1-1.0	FBHiDmp	12	○
10	Output Level	0 - 100%	DistLvl	5	○
11	Delay Mix	0 - 127	DlyMix	11	○
12	Dry/Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[59] OVERDRIVE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Drive	0-127	Drive	1	○
2	Edge	0-127	Edge	11	○
3	Output Level	0-127	OutLvl	5	○
4	EQ Low Frequency	32Hz-2.0kHz	L.Freq	2	○
5	EQ Low Gain	-12dB-+12dB	L.Gain	3	○
6	LPF Cutoff Frequency	1.0kHz-20.0kHz	LPF	4	○
7	EQ Mid Frequency	100Hz-10.0kHz	M.Freq	7	○
8	EQ Mid Gain	-12dB-+12dB	M.Gain	8	○
9	EQ Mid Width	0.1-12.0	M.Width	9	○
10	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[60] AMP SIMULATOR**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	AMP Type	off, stack, combo, tube	AmpType	2	○
2	Drive	0-127	Drive	1	○
3	Edge	0-127	Edge	11	○
4	Output Level	0-127	OutLvl	4	○
5	LPF Cutoff Frequency	1.0kHz-20.0kHz	LPF	3	○
6	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[61] DIST+DELAY**

**[62] OVERDRIVE+DELAY**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Dist. Drive	0-127	Drive	6	○
2	Dist. EQ Low Gain	-12dB-+12dB	EQ-Low	8	○
3	Dist. EQ Mid Gain	-12dB-+2dB	EQ-Mid	9	○
4	Dist Output Level	0-127	DrivOut	7	○
5	Delay Time L	0.1ms-1486.0ms	DelayL	1	○
6	Delay Time R	0.1ms-1486.0ms	DelayR	2	○
7	Delay Feedback Time	0.1ms-1486.0ms	FBTime	3	○
8	Delay Feedback Leve	-63-+63	FBLevel	4	○
9	Delay mix	0-127	DlyMix	5	○
10	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[63] COMPRESSOR1**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Attack	1ms-40ms	Attack	1	○
2	Release	10ms-680ms	Release	2	○
3	Threshold	-48dB--6dB	Thrsld	3	○
4	Ratio	1-20.0	Ratio	4	○
5	Output Level	0-127	OutLvl	5	○

**[64] NOISE GATE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Attack	1ms-40ms	Attack	1	○
2	Release	10ms-680ms	Release	2	○
3	Threshold	-72dB--30dB	Thrsld	3	○
4	Output Level	0-127	OutLvl	4	○

**[65] COMP+DIST+DELAY**

**[66] COMP+ODRV+DELAY**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Comp. Attack	1ms-40ms	Attack	11	○
2	Comp. Release	10ms-680ms	Release	12	○
3	Comp. Threshold	-48dB--6dB	Thrsld	13	○
4	Comp. Ratio	1-20.0	Ratio	14	○
5	Dist. Drive	0-127	Drive	4	○
6	Dist. EQ Low Gain	-12dB-+12dB	EQ-Low	6	○
7	Dist. EQ Mid Gain	-12dB-+12dB	EQ-Mid	7	○
8	Dist Output Level	0-127	DrivOut	5	○
9	Delay Time	0.1ms-1486.0ms	DlyTime	1	○
10	Delay Feedback Level	-63-+63	FBLevel	2	○
11	Delay Mix	0-127	DlyMix	3	○
12	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[67] PITCH CHANGE1**

**[68] PITCH CHANGE2**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Pitch	-24-+24	Pitch	1	○
2	Initial Delay	0.1ms-248.9ms	InitDly	2	○
3	Feedback Level	-63-+63	FBLevel	5	○
4	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○
5	Fine1	-50-+50	Fine1	3	○
6	Fine2	-50-+50	Fine2	4	○
7	Pan1	L63-C-R63	Pan1	11	○
8	Output Level1	0-127	OutLvl1	12	○
9	Pan2	L63-C-R63	Pan2	13	○
10	Output Level2	0-127	OutLvl2	14	○

In [68] PITCH CHANGE 2, the unit of Fine 1 and Fine 2 (numbers 5 and 6) is cent.

**[69] AUTO WAH**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz-39.70Hz	Speed	1	○
2	LFO Depth	0-127	Depth	2	○
3	Cutoff Frequency Offset	0-127	Cutoff	3	○
4	Resonance	1-12.0	Reso	4	○
5	EQ Low Frequency	32Hz-2.0kHz	L.Freq	6	○
6	EQ Low Gain	-12dB-+12dB	L.Gain	7	○
7	EQ High Frequency	500Hz-16.0kHz	H.Freq	8	○
8	EQ High Gain	-12dB-+12dB	H.Gain	9	○
9	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[70] AUTO WAH + DIST****[71] AUTO WAH + OVERDRIVE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	LFO Frequency	0.0Hz~39.70Hz	Speed	1	○
2	LFO Depth	0~127	Depth	2	○
3	Cutoff Frequency Offset	0~127	Cutoff	3	○
4	Resonance	1~12.0	Reso	4	○
5	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
6	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
7	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
8	EQ High Gain	-12dB~+12dB	H.Gain	9	○
9	Dist Low Gain	-12dB~+12dB	Drive:EQ-Low	12	○
10	Dist Mid Gain	-12dB~+12dB	Drive:EQ-Mid	13	○
11	LPF Cutoff Frequency	1.0kHz~20.0kHz	LPF	14	○
12	Drive	0~127	Drive	11	○
13	Output Level	0~127	DrivOut	15	○
14	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[72] TOUCH WAH**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Sensitive	0~127	Sens	1	○
2	Cutoff Frequency Offset	0~127	Cutoff	2	○
3	Resonance	1~12.0	Reso	3	○
4	EQ Low Frequency	32Hz~12.0kHz	L.Freq	6	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
7	EQ High Gain	-12dB~+12dB	H.Gain	9	○
8	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[73] TOUCH WAH + DIST****[74] TOUCH WAH + OVERDRIVE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Sensitive	0~127	Sens	1	○
2	Cutoff Frequency Offset	0~127	Cutoff	2	○
3	Resonance	1~12.0	Reso	3	○
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
7	EQ High Gain	-12dB~+12dB	H.Gain	9	○
8	Dist Low Gain	-12dB~+12dB	Drive:EQ-Low	12	○
9	Dist Mid Gain	-12dB~+12dB	Drive:EQ-Mid	13	○
10	LPF Cutoff Frequency	1.0kHz~20.0kHz	LPF	14	○
11	Drive	0~127	Drive	11	○
12	Output Level	0~127	DrivOut	15	○
13	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[75] WAH + DIST + DELAY****[76] WAH + OVERDRIVE + DELAY**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Wah sensitive	0~127	WahSens	11	○
2	Wah Cutoff Frequency	0~127	Cutoff	12	○
3	Wah Resonance	1~12.0	Reso	13	○
4	Wah release	10ms~680ms	Release	14	○
5	Dist. Drive	0~127	Drive	4	○
6	Dist. EQ Low Gain	-12dB~+12dB	EQ-Low	6	○
7	Dist. EQ Mid Gain	-12dB~+12dB	EQ-Mid	7	○
8	Dist Output Level	0~127	DrivOut	5	○
9	Delay Time	0.1ms~1486.0ms	Delay	1	○
10	Delay Feedback Leve	-63~+63	FBLevel	2	○
11	Delay mix	0~127	DlyMix	3	○
12	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[77] LO-FI**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Sampling Freq. Control	44.1kHz~344kHz	SmplFrq	1	○
2	Word Length	1~127	WordLen	2	○
3	Output Gain	-6dB~+36dB	OutGain	3	○
4	Filter Type	thru, PowerBass, Radio, Telephone, Clean, Low	FltType	5	○
5	Pre-LPF Cutoff Frequency	63Hz~20.0kHz	Cutoff	4	○
6	Pre-LPF Resonance	1~12.0	Reso	6	○
7	Bit Assign	0~6	BitAsgn	7	○
8	Emphasis	off/on	Emphasi	8	○
9	Input Mode	mono/stereo	Input	15	○
10	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

**[78] LOW RESOLUTION**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Mod Depth	0~127	ModDpth	1	○
2	Mod Delay Offset	1~127	ModDly	2	○
3	Mod Mix Balance	0~127	ModMix	5	○
4	Resolution	1,1/2~1/128	Resoltn	4	○
5	Mod Feedback	-63~+63	ModFB	3	○
6	Phase Inverse R	off, wet, wet+dry	PhasiInv	6	○
7	Dry/Wet Balance	D63>W - D=W - D<W63	Dry/Wet	7	○

**[79] NOISY**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Mod Depth	0~10	ModDpth	2	○
2	Mod Speed	0~127	ModSpd	3	○
3	Mod Feedback	-63~+63	ModFB	4	○
4	Mod Mix Balance	1~127	ModMix	7	○
5	Drive	0~127	Drive	1	○
6	AM Speed	0.00Hz~39.7Hz	AMSpeed	5	○
7	AM Depth	0~127	AMDepth	6	○
8	LPF Frequency	1.0kHz~20.0kHz	Cutoff	8	○
9	LPF Resonance	1.0~12.0	Reso	9	○
10	EQ Frequency	100Hz~10.0kHz	EQFreq	10	○
11	EQ Gain	-12~+12dB	EQGain	11	○
12	EQ Width	1.0~12.0	EQWidth	12	○
13	Dry/Wet Balance	D63>W - D=W - D<W63	Dry/Wet	13	○

**[80] ATTACK LOFI**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Sensitive	0~127	Sens	1	○
2	Resolution	1,1/2~1/32	Resoltn	2	○
3	Peak Frequency	100Hz~10.0kHz	PeakFrq	3	○
4	LPF Frequency	1.0kHz~20.0kHz	LPF	4	○
5	Flanger Speed	0.00Hz~39.7Hz	FlgSpd	5	○
6	Flanger LFO Wave	tri, sine, saw up, saw down	FlgWave	6	○
7	Flanger Depth	0~127	FlgDpt	7	○
8	Fln Depth Ofst R	-63~+63	FlgDptR	8	○
9	Flanger Delay	0.1~650.0ms	FlgDly	9	○
10	Fln Delay Ofst R	0~884	FlgDlyR	10	○
11	Flanger Feedback	-63~+63	FlgFB	11	○
12	Flanger FB Ofst R	-63~+63	FlgFB R	12	○
13	Flanger FB HiDamp	0.1~1.0	FBHiDmp	13	○
14	FB HiDamp Ofst R	-0.9~+0.9	FBHiDmR	14	○
15	Fln Mix Balance	1~127	FlgMix	15	○
16	Dry/Wet Balance	D63>W - D=W - D<W63	Dry/Wet	16	○

**[81] DIGITAL TURNTABLE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Click Density	0~5	Density	1	○
2	Click Level	0~127	Click	2	○
3	Noise Tone	0~6	NoisTon	3	○
4	Dry Send to Noise	0~127	DryNois	6	○
5	Noise Mod Speed	0.00Hz~39.7Hz	ModSpd	4	○
6	Noise Mod Depth	0~127	ModDpth	5	○
7	Noise LPF Freq	1.0kHz~20.0kHz	NoisLPF	7	○
8	Noise LPF Q	1.0~12.0	NoiseQ	8	○
9	Noise Level	0~127	NoisLvl	9	○
10	Dry LPF Frequency	1.0kHz~20.0kHz	DryLPF	10	○
11	Dry Level	0~127	DryLvl	11	○

**[82] DIGITAL SCRATCH**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Input Level	0~127	Input	1	○
2	Initial Delay	0.1~460.0ms	Delay	2	○
3	Scratch Speed	1~127	ScrSpd	3	○
4	Scratch Depth	0~127	ScrDpth	4	○
5	HPF Frequency	20Hz~8.0kHz	HPF	10	○
6	Auto Pan Speed	0.00Hz~39.7Hz	PanSpd	5	○
7	Auto Pan Depth	0~127	PanDpth	6	○
8	EQ Frequency	100Hz~10.0kHz	EQFreq	7	○
9	EQ Gain	-12~+12dB	EQGain	8	○
10	EQ Width	1.0~12.0	EQWidth	9	○
11	Dry/Wet Balance	D63>W - D=W - D<W63	Dry/Wet	11	○



**[83] AUTO SYNTH**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Mod Speed	0-127	ModSpd	1	○
2	Mod Wave Type	TypeA, TypeB, TypeC, TypeD	ModWave	2	
3	Mod Depth	0-127	ModDpth	3	○
4	Mod Depth Ofst R	-63~+63	ModDpth-R Ofst	4	○
5	HPF Frequency	20Hz~8.0kHz	HPF	6	○
6	LPF Frequency	1.0kHz~20.0kHz	LPF	5	○
7	Dry Mix Level	0-127	DryMix	7	○
8	Delay Level	0-127	DlyLvl	12	○
9	Delay Time	0.1~370.0ms	Delay	8	
10	Delay Time Ofst R	0-884	Delay-R Ofst	9	
11	Feedback Level	-63~+63	FBLevel	10	○
12	FB Level Ofst R	-63~+63	FBLevel-R Ofst	11	○
13	AM Speed	0.00Hz~39.7Hz	AMSpeed	13	○
14	AM Wave	tri, sine, saw up, saw down	AM Wave	14	
15	AM Depth	0-127	AMDepth	15	○
16	AM Inverse R	normal, inverse	AM InvR	16	

**[84] TECH MODULATION**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Mod Speed	0-127	Speed	1	○
2	Mod Depth	0-127	Depth	2	○
3	Mod Gain	-12~+12dB	Gain	4	○
4	Mod Mix Balance	D63>W - D=W - D<W63	ModMix	7	○
5	Pre Mod HPF Freq	20Hz~8.0kHz	HPF	3	○
6	Mod LPF Frequency	1.0kHz~20.0kHz	LPF:Cutoff	5	○
7	Mod LPF Resonance	1.0-12.0	LPF:Reso	6	○
8	Delay Time	0.1~740.0ms	Delay	8	
9	Delay Time Ofst R	0-884	Delay-R Ofst	9	
10	Feedback Level	-63~+63	FBLevel	10	○
11	FB Level Ofst R	-63~+63	FBLevel-R Ofst	11	○
12	Feedback Hi Damp	0.1-1.0	FBHiDmp	12	○
13	FB Hi Damp Ofst R	-0.9~+0.9	FBHiDmp-R Ofst	13	○
14	Dry/Wet Balance	D63>W - D=W - D<W63	Dry/Wet	14	○

**[85] JUMP**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Depth	0-127	Depth	1	○
2	Speed	0-127	Speed	2	○
3	Direction	L<>R,L>>R	Directn	3	
4	Type	TypeA,TypeB,TypeC	Type	4	
5	Jump Wave Type	TypeA, TypeB, TypeC, TypeD	JumpWave	5	
6	Resolution	1,1/2-1/256	Resolution	6	
7	HPF Frequency	20Hz~8.0kHz	HPF	8	○
8	LPF Frequency	1.0kHz~20.0kHz	LPF	7	○
9	Dry/Wet Balance	D63>W - D=W - D<W63	Dry/Wet	9	○

**[86] 2BAND EQ**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	EQ Low Frequency	32Hz~2.0kHz	L.Freq	1	○
2	EQ Low Gain	-12dB~+12dB	L.Gain	2	○
3	EQ High Frequency	500Hz~16.0kHz	H.Freq	3	○
4	EQ High Gain	-12dB~+12dB	H.Gain	4	○

**[87] 3BAND EQ**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	EQ Low Frequency	50Hz~2.0kHz	L.Freq	6	○
2	EQ Low Gain	-12dB~+12dB	L.Gain	1	○
3	EQ High Frequency	500Hz~16.0kHz	H.Freq	7	○
4	EQ High Gain	-12dB~+12dB	H.Gain	5	○
5	EQ Mid Frequency	100Hz~10.0kHz	M.Freq	2	○
6	EQ Mid Gain	-12dB~+12dB	M.Gain	3	○
7	EQ Mid Width	0.1-12.0	M.Width	4	○
8	Input Mode	mono/stereo	Input	15	

**[88] HARMONIC ENHANCER**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	HPF Cutoff Frequency	500Hz~16.0kHz	HPF	1	○
2	Drive	0-127	Drive	2	○
3	Mix Level	0-127	MixLvl	3	○

**[89] VOICE CANCELAR**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Low Adjust	0-26	LowAdj	11	○
2	High Adjust	0-26	HighAdj	12	○

**[90] AMBIENCE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Delay Time	0.0ms~50.0ms	DlyTime	1	
2	Wet Output Phase	normal/inverse	WetPhase	2	○
3	Dry / Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○
4	EQ Low Frequency	32Hz~2.0kHz	L.Freq	6	○
5	EQ Low Gain	-12dB~+12dB	L.Gain	7	○
6	EQ High Frequency	500Hz~16.0kHz	H.Freq	8	○
7	EQ High Gain	-12dB~+12dB	H.Gain	9	○

**[91] TALKING MODULATOR**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Vowel	a/i/u/e/o	Vowel	1	○
2	Move Speed	1-62	Speed	2	○
3	Drive	0-127	Drive	3	○
4	Output Level	0-127	OutLvl	4	○

**[92] BEAT CHANGE**

No.	Parameter	Value	LCD	MIDI Parameter Number	Controller
1	Beat Change	-63~+63	BeatChg	1	○
2	Beat Range	0-12	BeatRng	2	○
3	Pitch Change	-63~+63	PchChg	3	○
4	Pitch Range	0-12	PchRng	4	○
5	EQ Frequency	32Hz~2.0kHz	EQFreq	6	○
6	EQ Gain	-12dB~+12dB	EQGain	7	○
7	EQ Width	1.0-12.0	EQWidth	8	○
8	Accuracy Type	sound4-normal-rythm4	AccType	5	
9	Dry/Wet Balance	D63>W - D=W - D<W63	Dry/Wet	10	○

# About MIDI

**MIDI is an acronym that stands for Musical Instrument Digital Interface, which allows electronic musical instruments to “communicate” with each other, by sending and receiving compatible Note, Control Change, Program Change and various other types of MIDI data, or messages. The S80 can control a MIDI device by transmitting note related data and various types of controller data. The S80 can be controlled by the incoming MIDI messages which automatically select MIDI channels, voices and effects, change parameter values, and of course play the voices specified for the various Parts in a Performance.**

## MIDI Messages Transmitted/Received by the S80

The MIDI messages can be divided into two groups: the Channel Messages and System Messages. Below is a brief explanation of the various types of MIDI messages which the S80 can receive/transmit.

### CHANNEL MESSAGES

The Channel Messages are the data related to the performance on the keyboard for the specific channel.

#### •Note On/Note Off (Key On/Key Off)

Messages which are generated when the keyboard is played. Each message includes a specific note number which corresponds to the key which is pressed, plus a velocity value based on how hard the key is struck.

#### •Control Change

Control Change messages let you select a voice bank (Bank Select), control volume, panning, modulation, portamento time, brightness and various other controller parameters, through specific Control Change numbers which correspond to each of the various parameters.

#### •Program Change

Messages which voice to select for each Part. With a combination of Bank Select, you can select not only basic voice numbers, but also variation voice bank numbers.

#### •Channel Aftertouch

Messages which let you control the sounds by the pressure you apply to the keys after the initial striking of the keys, over the entire channel.

#### •Polyphonic Key Pressure

Messages which let you control the sounds by the pressure you apply to the keys after the initial striking of the keys, for each individual key. The internal sequencer (S80) can send this message.

#### •Pitch Bend

Pitch Bend messages are continuous controller messages that allow the pitch of designated notes to be raised or lowered by a specified amount over a specified duration.

### SYSTEM MESSAGES

The System Messages are the data related to the overall system of the device.

#### •Exclusive Messages

Exclusive messages control various functions of the S80, including bulk dump, master volume and master tuning, effect type and various other parameters.

#### •Realtime Messages

Messages which control the sequencer including Start, Stop, Continue, MIDI clock and Active Sensing messages.

#### •Common Messages

Messages which also control the sequencer including Song Select and Song Position Pointer messages.

# MIDI Data Format

Many MIDI messages listed in the MIDI Data Format section are expressed in hexadecimal or binary numbers. Hexadecimal numbers may include the letter "H" as a suffix. The letter "n" indicates a certain whole number.

The chart below lists the corresponding decimal number for each hexadecimal/binary number.

Decimal	Hexadecimal	Binary
0	00	0000 0000
1	01	0000 0001
2	02	0000 0010
3	03	0000 0011
4	04	0000 0100
5	05	0000 0101
6	06	0000 0110
7	07	0000 0111
8	08	0000 1000
9	09	0000 1001
10	0A	0000 1010
11	0B	0000 1011
12	0C	0000 1100
13	0D	0000 1101
14	0E	0000 1110
15	0F	0000 1111
16	10	0001 0000
17	11	0001 0001
18	12	0001 0010
19	13	0001 0011
20	14	0001 0100
21	15	0001 0101
22	16	0001 0110
23	17	0001 0111
24	18	0001 1000
25	19	0001 1001
26	1A	0001 1010
27	1B	0001 1011
28	1C	0001 1100
29	1D	0001 1101
30	1E	0001 1110
31	1F	0001 1111
32	20	0010 0000
33	21	0010 0001
34	22	0010 0010
35	23	0010 0011
36	24	0010 0100
37	25	0010 0101
38	26	0010 0110
39	27	0010 0111
40	28	0010 1000
41	29	0010 1001
42	2A	0010 1010
43	2B	0010 1011
44	2C	0010 1100
45	2D	0010 1101
46	2E	0010 1110
47	2F	0010 1111
48	30	0011 0000
49	31	0011 0001
50	32	0011 0010
51	33	0011 0011
52	34	0011 0100
53	35	0011 0101
54	36	0011 0110
55	37	0011 0111
56	38	0011 1000
57	39	0011 1001
58	3A	0011 1010
59	3B	0011 1011
60	3C	0011 1100
61	3D	0011 1101
62	3E	0011 1110
63	3F	0011 1111

Decimal	Hexadecimal	Binary
64	40	0100 0000
65	41	0100 0001
66	42	0100 0010
67	43	0100 0011
68	44	0100 0100
69	45	0100 0101
70	46	0100 0110
71	47	0100 0111
72	48	0100 1000
73	49	0100 1001
74	4A	0100 1010
75	4B	0100 1011
76	4C	0100 1100
77	4D	0100 1101
78	4E	0100 1110
79	4F	0100 1111
80	50	0101 0000
81	51	0101 0001
82	52	0101 0010
83	53	0101 0011
84	54	0101 0100
85	55	0101 0101
86	56	0101 0110
87	57	0101 0111
88	58	0101 1000
89	59	0101 1001
90	5A	0101 1010
91	5B	0101 1011
92	5C	0101 1100
93	5D	0101 1101
94	5E	0101 1110
95	5F	0101 1111
96	60	0110 0000
97	61	0110 0001
98	62	0110 0010
99	63	0110 0011
100	64	0110 0100
101	65	0110 0101
102	66	0110 0110
103	67	0110 0111
104	68	0110 1000
105	69	0110 1001
106	6A	0110 1010
107	6B	0110 1011
108	6C	0110 1100
109	6D	0110 1101
110	6E	0110 1110
111	6F	0110 1111
112	70	0111 0000
113	71	0111 0001
114	72	0111 0010
115	73	0111 0011
116	74	0111 0100
117	75	0111 0101
118	76	0111 0110
119	77	0111 0111
120	78	0111 1000
121	79	0111 1001
122	7A	0111 1010
123	7B	0111 1011
124	7C	0111 1100
125	7D	0111 1101
126	7E	0111 1110
127	7F	0111 1111

### Additional Notes

- For example, 144 - 159(Decimal)/9nH/1001 0000 - 1001 1111(Binary) indicate the note-on messages for the channels 1 through 16 respectively. 176 - 191/BnH/1011 0000 - 1011 1111 indicate the control change messages for the channels 1 through 16 respectively. 192 - 207/CnH/1100 0000 - 1100 1111 indicate the program change messages for the channels 1 through 16 respectively. 240/F0H/1111 0000 is positioned at the beginning of data to indicate a system exclusive message. 247/F7H/1111 0111 is positioned at the end of the system exclusive message.
- aaH(Hexadecimal)/0aaaaaaa(Binary) indicates the data addresses. The data address consists of High, Mid and Low.
- bbH/0bbbbbbb indicates byte counts.
- ccH/0ccccccc indicates tcheck sums.
- ddH/0ddddddd indicates data/value.

# SYNTHESIZER/SEQUENCER PART

## 1) TRANSMIT FLOW

MIDI <-[SW1] +---	NOTE ON/OFF	9nH	
OUT			
+---	CONTROL CHANGE		
	MODULATION	BnH,01H	
	PORTAMENTO TIME	BnH,05H	(CS6x only)
	PAN	BnH,0AH	(CS6x only)
	SUSTAIN SWITCH	BnH,40H	
	PORTAMENTO SWITCH	BnH,41H	(CS6x only)
	FILTER RESONANCE	BnH,47H	(CS6x only)
	EG RELEASE TIME	BnH,48H	(CS6x only)
	EG ATTACK TIME	BnH,49H	(CS6x only)
	FILTER CUTOFF FREQ	BnH,4AH	(CS6x only)
	EG DECAY TIME	BnH,4BH	(CS6x only)
	REVERB SEND	BnH,5BH	(CS6x only)
	CHORUS SEND	BnH,5DH	(CS6x only)
	ASSIGNABLE CONTROLLER	BnH,(00H .. 5FH)	
	FOOT VOLUME	BnH,(07H or 0BH)	
+-[SW8]--	BANK SEL MSB	BnH,00H	
	BANK SEL LSB	BnH,20H	
-[SW2]--	EG SUSTAIN LEVEL	BnH,1FH	(CS6x only)
+---	PROGRAM CHANGE	CnH	
+---	CHANNEL AFTER TOUCH	DnH	
+---	PITCH BEND CHANGE	EnH	
-[SW3,4]--	SYSTEM REALTIME MESSAGE		
	TIMING CLOCK	F8H	
-[SW4]----	SYSTEM REALTIME MESSAGE		
	START	FAH	
	CONTINUE	FBH	
	STOP	FCH	
+ [SW5] +---	SYSTEM EXCLUSIVE MESSAGE		
	-[SW6]--SAMPLE DUMP STANDARD		
	DUMP REQUEST	FOH 7EH nnH 03H ssH ssH F7H	
	ACK	FOH 7EH nnH 7FH ppH F7H	
	NAK	FOH 7EH nnH 7EH ppH F7H	
	CANCEL	FOH 7EH nnH 7DH ppH F7H	
	WAIT	FOH 7EH nnH 7CH ppH F7H	
	-[SW7]--<BULK DUMP>	FOH 43H 0nH 64H bhH blH ahH amH alH ddH....ddH ccH F7H	
	-[SW7]--<PARAMETER CHANGE>	FOH 43H 1nH 64H ahH amH alH ddH....ddH F7H	
-----	SYSTEM EXCLUSIVE MESSAGE		
	IDENTITY REPLY	FOH 7EH 7FH 06H 02H 43H 00H 41H 2DH 02H 00H 00H 01H F7H	
-----	ACTIVE SENSING	FEH	

- [SW1] MIDI Transmit Channel  
Master Keyboard Mode = on: complies with Zone Transmit Channel.  
Master Keyboard Mode = off: complies with Keyboard Transmit Channel.  
The data played back using Sequencer Part will be output through the channels set for the sequence data, ignoring [SW1] settings.  
CS6R transmits BC and A-C/1-2 of ASSIGNABLE CONTROLLER, and the data from the Sequencer Part. [SW2] MIDI Control Mode
- [SW3] MIDI Sync
- [SW4] MIDI Control
- [SW5] MIDI Device Number  
When set to all, data will be output through the channel 1.
- [SW6] PHRASE CLIP MODE JOB only. Not available on S80.
- [SW7] In the VOICE MODE, VOICE related data only. In the PERFORMANCE MODE, PERFORMANCE related data only.  
SYSTEM data will be transmitted/received in all modes.
- [SW8] SYSTEM Bank Select Switch

## 2) RECEIVE FLOW

MIDI >-[SW11] +---	NOTE OFF	8nH	
	+---	NOTE ON/OFF	9nH
	+---	CONTROL CHANGE	
	MODULATION	BnH,01H	
	PORTAMENTO TIME	BnH,05H	
	DATA ENTRY MSB	BnH,06	
	DATA ENTRY LSB	BnH,26H	
	MAIN VOLUME	BnH,07H	
	PAN	BnH,0AH	
	EXPRESSION	BnH,0BH	
	SUSTAIN SWITCH	BnH,40H	
	PORTAMENTO SWITCH	BnH,41H	
	SOSTENUTO	BnH,42H	
	HARMONIC CONTENT	BnH,47H	
	EG RELEASE TIME	BnH,48H	
	EG ATTACK TIME	BnH,49H	
	BRIGHTNESS	BnH,4AH	
	EG DECAY TIME	BnH,4BH	
	EFFECT1 DEPTH	BnH,5BH	
	EFFECT3 DEPTH	BnH,5DH	
	DATA ENTRY INC	BnH,60H	
	DATA ENTRY DEC	BnH,61H	
	ASSIGNABLE CONTROLLER	BnH,(00H .. 5FH)	
	RPN		
	PITCH BEND SENS	BnH,64H,00H,65H,00H,06H,mmH	
	FINE TUNING	BnH,64H,01H,65H,00H,06H,mmH,26H,11H	*1
	COARSE TUNING	BnH,64H,02H,65H,00H,06H,mmH	*1
	RPN RESET	BnH,64H,7FH,65H,7FH	
	ALL SOUND OFF	BnH,78H	
	RESET ALL CONTROLLERS	BnH,79H	
	ALL NOTE OFF	BnH,7BH	
	OMNI MODE OFF	BnH,7CH	
	OMNI MODE ON	BnH,7DH	
	MONO MODE	BnH,7EH	
	POLY MODE	BnH,7FH	
	+-[SW2]--	EG SUSTAIN LEVEL	BnH,1FH
	+-[SW8]--	BANK SEL MSB	BnH,00H
		BANK SEL LSB	BnH,20H
	+-[SW9]--	PROGRAM CHANGE	CnH
	+-----	CHANNEL AFTER TOUCH	DnH
	+-----	PITCH BEND CHANGE	EnH
	+-----	SYSTEM EXCLUSIVE MESSAGE	
	IDENTITY REQUEST	FOH 7EH 0nH 06H 01H F7H	
	REMOTE SWITCH	FOH 43H 10H 64H 0AH 00H alH ddH F7H	
	+-[SW12]--	GM MODE ON	FOH 7EH 7FH 09H 01H F7H
+ [SW5] +	SYSTEM EXCLUSIVE MESSAGE		
	MIDI MASTER VOLUME	FOH 7FH 7FH 04H 01H 11H mmH F7H	
	+-[SW6]--SAMPLE DUMP STANDARD		
	DUMP HEADER	FOH 7EH nnH 01H ssH ssH ddH....ddH F7H	
	DATA PACKET	FOH 7EH nnH 02H kkH ddH....ddH ccH F7H	
	CANCEL	FOH 7EH nnH 7DH ppH F7H	
	+-[SW10]--<BULK DUMP>	FOH 43H 0nH 64H bhH blH ahH amH alH ddH....ddH ccH F7H	
	+-[SW7]--<PARAMETER CHANGE>	FOH 43H 1nH 64H ahH amH alH ddH....ddH F7H	
	+-[SW7]--<BULK DUMP REQUEST>	FOH 43H 2nH 64H ahH amH alH ddH....ddH F7H	
	+-[SW7]--<PARAMETER REQUEST>	FOH 43H 3nH 64H ahH amH alH F7H	
	+-[SW12]--	XG SYSTEM ON	FOH 43H 1nH 4CH 00H 00H 7EH 00H F7H
+ [SW3] +-----	SYSTEM REALTIME MESSAGE		
	TIMING CLOCK	F8H	
+ [SW4] +-----	SYSTEM REALTIME MESSAGE		
	START	FAH	
	CONTINUE	FBH	
	STOP	FCH	
+-----	ACTIVE SENSING	FEH	

- [SW2] MIDI Control Mode
- [SW3] MIDI Sync
- [SW4] MIDI Control
- [SW5] MIDI Device Number  
When set to the number other than off, MIDI MASTER VOLUME will be received.
- [SW6] PHRASE CLIP MODE JOB only. Not available on S80.
- [SW7] In the VOICE MODE, VOICE related data only. In the PERFORMANCE MODE, PERFORMANCE related data only.  
SYSTEM data will be transmitted/received in all modes.
- [SW8] SYSTEM Bank Select Switch
- [SW9] SYSTEM Program Change Switch (Received only in the Play Mode when Voice Mode or Phrase Clip Mode is selected.)
- [SW10] SYSTEM Bulk Protect and the conditions mentioned in SW7 above.
- [SW11] MIDI Receive Channel and Receive Filter.  
In Performance Mode, complies with Part Receive Channel and Part Receive Switch.  
In the modes other than Performance Mode, complies with Basic Receive Channel.
- [SW12] SYSTEM Receive GM/XG On

\*1 Performance Mode only.

### 3) TRANSMIT/RECEIVE DATA

#### (3-1) CHANNEL VOICE MESSAGES

CS6R transmits BC and A-C/1-2 of ASSIGNABLE CONTROLLER, and the data from the Sequencer Part.

##### (3-1-1) NOTE OFF

STATUS 1000nnnn(8nH) n = 0 - 15 CHANNEL NUMBER  
 NOTE NUMBER 0kkkkkkk k = 0 (C-2) - 127 (G8)  
 VELOCITY 0vvvvvvv ignores "v"  
 Receive only.

##### (3-1-2) NOTE ON/OFF

STATUS 1001nnnn(9nH) n = 0 - 15 CHANNEL NUMBER  
 NOTE NUMBER 0kkkkkkk k = 0 (C-2) - 127 (G8)  
 VELOCITY 0vvvvvvv(v=0) NOTE ON  
 0vvvvvvv(v=0) NOTE OFF

##### (3-1-3) CONTROL CHANGE

STATUS 1011nnnn(BnH) n = 0 - 15 CHANNEL NUMBER  
 CONTROL NUMBER 0cccccc  
 CONTROL VALUE 0vvvvvvv

\* TRANSMITTED CONTROL NUMBER

c = 0	BANK SEL MSB	; v = 0,63,127	*3
c = 32	BANK SEL LSB	; v = 0,1,8,9,24,25,32,40,41,64,65	*3
c = 1	MODULATION	; v = 0 - 127	
c = 5	PORTAMENTO TIME	; v = 0 - 127	*4
c = 7	MAIN VOLUME	; v = 0 - 127	
c = 10	PAN	; v = 0 - 127	*4
c = 11	EXPRESSION	; v = 0 - 127	
c = 31	EG SUSTAIN LEVEL	; v = 0:-64 - 64:0 - 127:+63 *4,*5	
c = 64	SUSTAIN SWITCH	; v = 0, 127	
c = 65	PORTAMENTO SWITCH	; v = 0-63:OFF , 64-127:ON	*4
c = 71	FILTER RESONANCE	; v = 0:-64 - 64:0 - 127:+63	*4
c = 72	EG RELEASE TIME	; v = 0:-64 - 64:0 - 127:+63	*4
c = 73	EG ATTACK TIME	; v = 0:-64 - 64:0 - 127:+63	*4
c = 74	FILTER CUTOFF FREQ	; v = 0:-64 - 64:0 - 127:+63	*4
c = 75	EG DECAY TIME	; v = 0:-64 - 64:0 - 127:+63	*4
c = 91	REVERB SEND	; v = 0 - 127	*4
c = 93	CHORUS SEND	; v = 0 - 127	*4
c = 0..95	ASSIGNABLE CONTROLLER	; v = 0 - 127	*6

The Sequencer Part will play back all the recorded control change messages.

\* RECEIVED CONTROL NUMBER

c = 0	BANK SEL MSB	; v = 0 - 127	*3
c = 32	BANK SEL LSB	; v = 0 - 127	*3
c = 1	MODULATION	; v = 0 - 127	
c = 5	PORTAMENTO TIME	; v = 0 - 127	*2
c = 6	DATA ENTRY MSB	; v = 0 - 127	*1
c = 38	DATA ENTRY LSB	; v = 0 - 127	*1
c = 7	MAIN VOLUME	; v = 0 - 127	
c = 10	PAN	; v = 0 - 127	
c = 11	EXPRESSION	; v = 0 - 127	
c = 31	EG SUSTAIN LEVEL	; v = 0:-64 - 64:0 - 127:+63 *2,*5	
c = 64	SUSTAIN SWITCH	; v = 0-63:OFF , 64-127:ON	*2
c = 65	PORTAMENTO SWITCH	; v = 0-63:OFF , 64-127:ON	*2
c = 66	SOSTENUTO	; v = 0-63:OFF , 64-127:ON	*2
c = 71	HARMONIC CONTENT	; v = 0:-64 - 64:0 - 127:+63	
c = 72	EG RELEASE TIME	; v = 0:-64 - 64:0 - 127:+63	
c = 73	EG ATTACK TIME	; v = 0:-64 - 64:0 - 127:+63	
c = 74	BRIGHTNESS	; v = 0:-64 - 64:0 - 127:+63	
c = 75	EG DECAY TIME	; v = 0:-64 - 64:0 - 127:+63	*2
c = 91	EFFECT1 DEPTH	; v = 0 - 127	
c = 93	EFFECT3 DEPTH	; v = 0 - 127	
c = 96	DATA ENTRY INC	; v = 127	*1
c = 97	DATA ENTRY DEC	; v = 127	*1
c = 0..95	ASSIGNABLE CONTROLLER	; v = 0 - 127	*6
c = 0..95	ARPEGGIO SW	; v = 0-63:OFF , 64-127:ON	*6
c = 0..95	ARPEGGIO HOLD	; v = 0-63:OFF , 64-127:ON	*6

\*1 Used only when a value is set using RPN.  
 \*2 Invalid with Drum Voices.  
 \*3 Relation between BANK CHANGE and PROGRAM is as follows:

CATEGORY	MSB	LSB	PROGRAM No	Displayed on LCD
Normal Voice	Internal	0	0	0..127 (1..128)
Drum Voice	Internal	127	0	0..1 (1..2)
Normal Voice	Preset 1	63	0	0..127 (1..128)
	Preset 2	63	1	0..127 (1..128)
	Internal	63	8	0..127 (1..128)
	External	63	9	0..127 (1..128)
Plug-in Voice	Plug-in 1	63	24	0..63 (1..64)
	Plug-in 2	63	25	0..63 (1..64)
Drum Voice	Preset	63	32	0..7 (1..8)
	Internal	63	40	0..1 (1..2)
	External	63	41	0..1 (1..2)
Performance	Internal	63	64	0..127 (1..128)
	External	63	65	0..63 (1..64)
Phrase Clip	Internal	63	104	0..3 (1..4)

\*4 CS6x only.  
 \*5 Transmitted/received only when MODE2 is selected in CONTROL CHANGE MODE.  
 \*6 The default CONTROL NUMBERS of ASSIGNABLE CONTROLLER are as follows:

BREATH CONTROLLER	2
FOOT CONTROLLER	4 (Transmit: CS6x and S80 only)
SCENE CONTROL	14 (Transmit/Receive: CS6x only)
KNOB 1	16
KNOB 2	17
KNOB A	18
KNOB B	19
KNOB C	20
RIBBON CONTROLLER	22 (Transmit: CS6x only)
CONTROL SLIDER	7 (Transmit/Receive: S80 only)
FOOT SWITCH	88 (Transmit: CS6x, S80 only)
ARPEGGIO HOLD	89 (Transmit: CS6x only)
ARPEGGIO SWITCH	90 (Transmit: CS6x only)

PORTAMENTO TIME sets the time it takes for the pitch to reach the next note played when PORTAMENTO SWITCH is set to on.  
 PAN position relatively changes according to the preset value for each voice.  
 EFFECT1 DEPTH controls reverb send level.  
 EFFECT3 DEPTH controls chorus send level.  
 HARMONIC CONTENT adjusts the resonance preset for each voice.  
 Setting a value adds to or subtracts from the center value, 64, since it is an offset parameter.  
 The larger the value more resonant sound will be produced. The effective range may be narrower than the range you can designate depending on the selected voice.  
 The parameters, EG ATTACK TIME, EG DECAY TIME, EG SUSTAIN LEVEL, EG RELEASE TIME adjust the envelopes preset for each voice.  
 Setting these values add to or subtract from the center value, 64, since these are offset parameters.  
 BRIGHTNESS adjusts the cutoff frequency preset for each voice.  
 Setting a value adds to or subtracts from the center value, 64, since it is an offset parameter.  
 The smaller the value the cutoff frequency will be lowered. The effective range may be narrower than the range you can designate depending on the selected voice.  
 Bank Select will be actually executed when the Program Change message is received.  
 Bank Select and Program Change numbers that are not supported by Yamaha will be ignored.

#### (3-1-4) PROGRAM CHANGE

STATUS 1100nnnn(CnH) n = 0 - 15 CHANNEL NUMBER  
 PROGRAM NUMBER 0ppppppp p = 0 - 127

#### (3-1-5) CHANNEL AFTER TOUCH

STATUS 1101nnnn(DnH) n = 0 - 15 CHANNEL NUMBER  
 VALUE 0vvvvvvv v = 0 - 127 AFTER TOUCH VALUE

#### (3-1-6) PITCH BEND CHANGE

STATUS 1110nnnn(EnH) n = 0 - 15 CHANNEL NUMBER  
 LSB 0vvvvvvv PITCH BEND CHANGE LSB  
 MSB 0vvvvvvv PITCH BEND CHANGE MSB  
 Transmitted with a resolution of 7 bits.

#### (3-2) CHANNEL MODE MESSAGES

STATUS 1011nnnn(BnH) n = 0 - 15 CHANNEL NUMBER  
 CONTROL NUMBER 0cccccc c = CONTROL NUMBER  
 CONTROL VALUE 0vvvvvvv v = DATA VALUE

##### (3-2-1) ALL SOUNDS OFF (CONTROL NUMBER = 78H, DATA VALUE = 0)

All the sounds currently played including the channel messages such as note-on and hold-on in a certain channel are muted when receiving this message.

##### (3-2-2) RESET ALL CONTROLLERS (CONTROL NUMBER = 79H, DATA VALUE = 0)

Resets the values set for the following controllers.

PITCH BEND CHANGE	0 (center)
CHANNEL AFTER TOUCH	0 (minimum)
MODULATION	0 (minimum)
EXPRESSION	127 (maximum)
BREATH CONTROLLER	127 (maximum)
FOOT CONTROLLER	127 (maximum)
RIBBON CONTROLLER	0 (center)
KNOB 1	0 (center)
KNOB 2	0 (center)
SUSTAIN SWITCH	0 (off)
SOSTENUTO SWITCH	0 (off)
RPN	Not assigned; No change

Doesn't reset the following data:

PROGRAM CHANGE, BANK SELECT MSB/LSB, VOLUME, PAN.  
 HARMONIC CONTENT, SUSTAIN LEVEL, RELEASE TIME, ATTACK TIME, DECAY TIME, BRIGHTNESS  
 EFFECT SEND LEVEL 1, EFFECT SEND LEVEL 3, PORTAMENTO SWITCH  
 PITCH BEND SENSITIVITY, FINE TUNING, COARSE TUNING  
 ASSIGNABLE CONTROLLER

##### (3-2-3) ALL NOTES OFF (CONTROL NUMBER = 7BH, DATA VALUE = 0)

All the notes currently set to on in certain channel(s) are muted when receiving this message. However, if Sustain or Sostenuto is on, notes will continue sounding until these are turned off.

##### (3-2-4) OMNI MODE OFF (CONTROL NUMBER = 7CH, DATA VALUE = 0)

Performs the same function as when receiving ALL NOTES OFF.  
 Sets VOICE RECEIVE CHANNEL to "OMNI OFF," channel 1.

##### (3-2-5) OMNI MODE ON (CONTROL NUMBER = 7DH, DATA VALUE = 0)

Performs the same function as when receiving ALL NOTES OFF.  
 Sets VOICE RECEIVE CHANNEL to "OMNI ON."

##### (3-2-6) MONO (CONTROL NUMBER = 7EH, DATA VALUE = 0.16)

Performs the same function as when receiving ALL SOUNDS OFF. If the 3rd byte (mono) is within 0 through 16, the channel will be Mode4(m = 1).  
 In VOICE MODE, the mode can be Mode2(m=1) according to VOICE RECEIVE CHANNEL.

##### (3-2-7) POLY (CONTROL NUMBER = 7FH, DATA VALUE = 0)

Performs the same function as when receiving ALL SOUNDS OFF. The channel will be Mode3.  
 In VOICE MODE, the mode can be Mode1 according to VOICE RECEIVE CHANNEL.

#### (3-3) REGISTERED PARAMETER NUMBER

STATUS 1011nnnn(BnH) n = 0 - 15 CHANNEL NUMBER  
 LSB 01100100(64H)  
 RPN LSB 0ppppppp p = RPN LSB(Refer to the table as shown below)  
 MSB 01100101(65H)  
 RPN MSB 0qqqqqqq q = RPN MSB(Refer to the table as shown below)  
 DATA ENTRY MSB 00000110(06H)  
 DATA VALUE 0mmmmmm m = Data Value  
 DATA ENTRY LSB 00100110(26H)  
 DATA VALUE 01111111 1 = Data Value

First, designate the parameter using RPN MSB/LSB numbers. Then, set its value with data entry MSB/LSB.

RPN	D.ENTRY
LSB MSB MSB LSB	PARAMETER NAME DATA RANGE
00H 00H mmH ---	PITCH BEND SENSITIVITY 00H - 18H (0 - 24 semitones)
01H 00H mmH 11H	MASTER FINE TUNE (mmH,11H)=(00H,00H)-(40H,00H)-(7FH,7FH) (-8192+100/8192) - 0 - (+8192+100/8192)
02H 00H mmH ---	MASTER COARSE TUNE 28H - 40H - 58H (-24 - 0 - +24 semitones)
7FH 7FH --- ---	RPN RESET RPN numbers will be left not designated. The internal values are not affected.

#### (3-4) NON-REGISTERED PARAMETER NUMBER

There are no applicable parameters.

#### (3-5) SYSTEM REAL TIME MESSAGES

##### (3-5-1) ACTIVE SENSING

STATUS 11111110(FEH)

Transmitted at every 200 msec.  
 Once this code is received, the instrument starts sensing. When no status nor data is received for over approximately 350 ms, MIDI receiving buffer will be cleared, and the sounds currently played and the sustain switch are forcibly turned off. In this case, each control data will be reset to a certain value.

#### (3-6) SYSTEM EXCLUSIVE MESSAGE

##### (3-6-1) UNIVERSAL NON REALTIME MESSAGE

###### (3-6-1-1) GENERAL MIDI MODE ON

FOH 7EH 7FH 09H 01H F7H

Received only when SYSTEM Receive GM/XG on is set to on in PERFORMANCE MODE. The Part values will be reset according to the SYSTEM Internal Part settings.

(3-6-1-2)IDENTITY REQUEST(Receive only)

F0H 7EH 0nH 06H 01H F7H ("n" = Device No.However, this instrument receives under "omni.")

(3-6-1-3)IDENTITY REPLY (Transmit only)

F0H 7EH 7FH 06H 02H 43H 00H 41H ddH ddH 00H 00H 00H 01H F7H

dd:Device Number Code
CS6x: 5C 03
CS6R: 5D 03
S80: 5E 03

(3-6-2)UNIVERSAL REALTIME MESSAGE

(3-6-2-1) MIDI MASTER VOLUME

F0H 7FH 7FH 04H 01H 11H mmH F7H

Sets the MASTER VOLUME value.
The value "mm" is used to set the master volume (the value "11" should be ignored).

(3-6-3)PARAMETER CHANGE

(3-6-3-1) XG SYSTEM ON

11110000 F0 Exclusive status
10000111 43 YAMAHA ID
0001nnnn 1n device Number
10011000 4C Model ID
0aaaaaaa 0 Address High
0aaaaaaa 0 Address Mid
0aaaaaaa 7E Address Low
0 0 Data
11110111 F7 End of Exclusive

Received only when SYSTEM Receive GM/XG on is set to on in PERFORMANCE MODE. The Part values will be reset according to the SYSTEM Internal Part settings. Be aware that executing this message takes ca. 170ms and that, therefore, a certain interval before executing the following message is needed.

(3-6-3-2) NATIVE PARAMETER CHANGE, REMOTE SWITCH

11110000 F0 Exclusive status
01000011 43 YAMAHA ID
0001nnnn 1n device Number
01100100 64 Model ID
0aaaaaaa aaaaaaa Address High
0aaaaaaa aaaaaaa Address Mid
0aaaaaaa aaaaaaa Address Low
0ddddd dd dddd Data
11110111 F7 End of Exclusive

For parameters with data size of 2 or more, the appropriate number of data bytes will be transmitted. See the following MIDI Data Table for Address and Byte Count. Always received no matter which device number is selected, in the case of REMOTE SWITCH.

(3-6-4)BULK DUMP

11110000 F0 Exclusive status
01000011 43 YAMAHA ID
0000nnnn 0n device Number
01100100 64 Model ID
0bbbbbbb bbbbbbbb Byte Count
0bbbbbbb bbbbbbbb Byte Count
0aaaaaaa aaaaaaa Address High
0aaaaaaa aaaaaaa Address Mid
0aaaaaaa aaaaaaa Address Low
0 0 Data
| |
0ccccccc cccccccc Check-sum
11110111 F7 End of Exclusive

See the following MIDI Data Table for Address and Byte Count. The Check sum is the value that results in a value of 0 for the lower 7 bits when the Byte Count, Start Address, Data and Check sum itself are added.

(3-6-5) DUMP REQUEST

11110000 F0 Exclusive status
01000011 43 YAMAHA ID
0010nnnn 2n device Number
01100100 64 Model ID
0aaaaaaa aaaaaaa Address High
0aaaaaaa aaaaaaa Address Mid
0aaaaaaa aaaaaaa Address Low
11110111 F7 End of Exclusive

See the following MIDI Data Table for Address and Byte Count.

(3-6-6) PARAMETER REQUEST

11110000 F0 Exclusive status
01000011 43 YAMAHA ID
0011nnnn 3n device Number
01100100 64 Model ID
0aaaaaaa aaaaaaa Address Hig
0aaaaaaa aaaaaaa Address Mid
0aaaaaaa aaaaaaa Address Low
11110111 F7 End of Exclusive

See the following MIDI Data Table for Address and Byte Count.

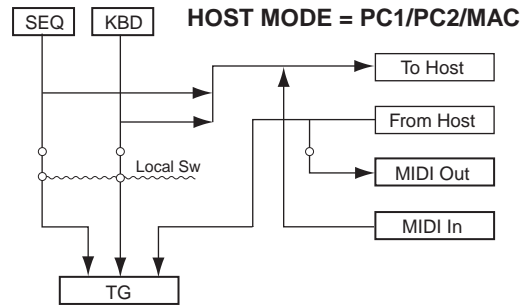
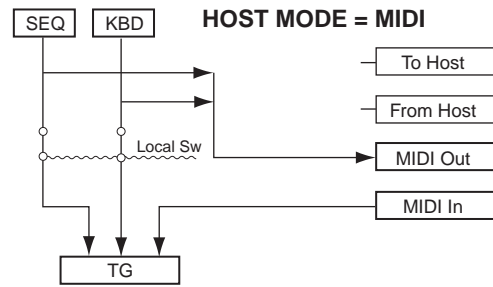
(3-6-7)SAMPLE DUMP STANDARD

Receives sample dump headers and those data, and executes dump request. Doesn't send sample dump headers and those data.

DUMP REQUEST F0 7E nn 03 ss ss F7
Requests to send by designating the sample number of the source device.
ACK F0 7E nn 7F pp F7
Requests to send the following data after receiving the last packet of data.
NAK F0 7E nn 7E pp F7
Requests to send the remaining data after failing to receive the last packet of data.
CANCEL F0 7E nn 7D pp F7
Reports the cancellation of sample dump.
WAIT F0 7E nn 7C pp F7
Orders the source device not to send packets until an alternative order is given. To resume the operation, send "ACK" or "CANCEL."
DUMP HEADER F0 7E nn 01 ss ss ee ff ff gg gg hh hh ii ii jj F7
Header of the data.
DATA PACKET F0 7E nn 02 kk < data 120 bytes > cc F7
Sample data.

nn Channel Number
ss ss Requested Sample, LSB First
pp Packet Number
ee Sample Format
ff ff ff Sample Period in Nanoseconds
gg gg gg Sample Length in Words
hh hh hh Sustain Loop Start Point Word Number (LSB First)
ii ii ii Sustain Loop End Point Word Number (LSB First)
jj Loop Type

4) SYSTEM OVERVIEW (Keyboard, Sequencer and Tone Generator)



Although three types of note on/note off data, received via MIDI, played by the internal sequencer and played on the keyboard will be distinguished, the other controllers (channel messages) equally affect the entire notes.

ALL SOUNDS OFF clears all the sounds in the specific channel(s) played by both the keyboard and the data via MIDI.
ALL NOTES OFF received via MIDI clears the sounds in the specific channel(s) played via MIDI.

# MIDI Data Table

## Bank Select

Available Bank Select/Program Change

MSB (HEX)	LSB (HEX)	Program No.	Type	Memory	Description
0	00	0	0 - 127	Normal Voice	Internal
127	7F	0	0 - 1	Drum Voice	User(Internal)
63	3F	0	0 - 127	Normal Voice	Preset 1
		1	01 - 127		Preset 2
		8	08 - 127		User(Internal)
		9	09 - 127		User(External)
		24	18 - 63	Plug-in Voice	User(Plug-in 1)
		25	19 - 63		User(Plug-in 2)
		32	20 - 7	Drum Voice	Preset
		40	28 - 1		User(Internal)
		41	29 - 1		User(External)
		63	3F	64	40 - 127
65	41 - 127				User(External)
68	0 - 3			Clip Kit	User

## Plug-in Voice Bank Display

Available Bank Select/Program Change of the Plug-in Boards

(Before selecting a number, a Plug-in Board should be installed and PLG1 or PLG2 has to be selected in Voice Mode.)

MSB (HEX)	LSB (HEX)	Program No.	Type	LCD Display	Description
63	3F	18 - 19	0 - 63	Internal	PLG INT
0	00	00 - 7F	0 - 127	XG Normal	NORM/LLL
64	40	00 - 7F	0 - 127	XG SFX	NORM/SFX
126	7E	00 - 7F	0 - 127	XG SFX kit	KIT/SFX
127	7F	00 - 7F	0 - 127	XG Drum kit	KIT/DRM
***	**	00 - 7F	0 - 127	others	MMM/LLL

Only the banks that can be received by Plug-in Board are shown.

<Table1>

## Parameter Base Address

Parameter Block	Top Address			Description	
	H	M	L		
SYSTEM	00	00	00	System	
	00	10	00	Plug-in Board Native System	
	00	20	00	Master EQ	
	00	70	00	Panel Knob	
REMOTE SWITCH	0A	00	00	Remote Switch	
BULK CONTROL	0E	00	00	Header	
	0F	00	00	Footer	
PERFORMANCE COMMON	30	00	00	Performance Common	
PERFORMANCE PART	31	00	00	Part1	
				:	
	31	0F	00	Part16	
	31	40	00	A/D Part	
	31	50	00	Phrase Clip Part	
PERFORMANCE ZONE	31	60	00	Plug-in 1 Part	
	31	61	00	Plug-in 2 Part	
	32	00	00	Zone1	
			:		
	32	03	00	Zone4	
VOICE COMMON	40	00	00	Common	
	40	01	00	Reverb	
	40	02	00	Chorus	
	40	03	00	Insertion 1	
	40	04	00	Insertion 2	
	40	05	00	Controller	
	40	06	00	LFO	
	40	70	00	Extra	
	VOICE ELEMENT GROUP1	41	ee	00	ee : Element No.
	VOICE ELEMENT GROUP2	42	ee	00	ee : Element No.
VOICE ELEMENT GROUP3	43	ee	00	ee : Element No.	
VOICE ELEMENT GROUP4	44	ee	00	ee : Element No.	
KIT COMMON (DRUM VOICE & CLIP KIT)	46	00	00	Common	
	46	01	00	Reverb	
	46	02	00	Chorus	
	46	03	00	Insertion 1	
	46	04	00	Insertion 2	
	46	05	00	Controller	
	46	70	00	Extra	
	46	71	00	Extra Phrase Clip	
	KIT ELEMENT GROUP1	47	ee	00	ee : Element No.
	KIT ELEMENT GROUP2	48	ee	00	ee : Element No.
KIT ELEMENT GROUP3	49	ee	00	ee : Element No.	
KIT ELEMENT GROUP4	4A	ee	00	ee : Element No.	
VOICE PLUGIN	4C	00	00	Common	
	4C	01	00	Reverb	
	4C	02	00	Chorus	
	4C	03	00	Insertion 1	
	4C	05	00	Controller	
	4C	10	00	Plug-in Element	
	4C	20	00	Native	
	4C	70	00	Extra	

< Table 2 >

## Bulk Dump Block

- "Top Address" indicates the top address of each block designated by bulk dump operation.
- "Byte Count" indicates the data size contained in each block designated by bulk dump operation.
- All blocks, from Bulk Header through Bulk Footer, of PERFORMANCE/VOICE can be received even though they are not sent in order and/or not all of them are sent. However, squeezing a different block in those blocks causes the operation invalid.
- To execute 1 Performance/1 Voice bulk dump request, designate its corresponding Bulk Header address.
- For the information about "mm" and "nn" shown in the following list, refer to MIDI PARAMETER CHANGE TABLE (BULK CONTROL) below.

Parameter Block	Description	Byte Count			Top Address		
		Dec	Hex	H	M	L	

SYSTEM	System	60	3C	00	00	00
	Plug-in Board Native System	32	20	00	10	00
	Master EQ (for Voice Mode)	20	14	00	20	00

PERFORMANCE	COMMON	Bulk Header	0	00	0E	mm	nn
		Common	68	44	30	00	00
		Reverb	24	18	30	01	00
		Chorus	25	19	30	02	00
		Insertion 1 (for A/D Part)	22	16	30	03	00
		Insertion 2 (for A/D Part)	34	22	30	04	00
		Controller (for A/D Part)	10	0A	30	05	00
		Master EQ	20	14	30	10	00
		Native (for InsEF Plug-in)	68	44	30	20	00
				37	25	31	00
PART	Part1	16	Blocks	:	:	:	
	:	37	25	31	0F	00	
A/D PART	A/D Part	37	25	31	40	00	
	PHRASE CLIP PART	37	25	31	50	00	
PLUG-IN PART	Plug-in 1 Part	37	25	31	60	00	
	Plug-in 2 Part	37	25	31	61	00	
MASTER KEYBOARD ZONE	Zone1	16	10	32	00	00	
	:	4	Blocks	:	:	:	
	Zone4	16	10	32	03	00	
	Bulk Footer	0	00	0F	mm	nn	

VOICE (NORMAL)	COMMON	Bulk Header	0	00	0E	mm	nn
		Extra	56	38	40	70	00
		Common	13	0D	40	00	00
		Reverb	24	18	40	01	00
		Chorus	25	19	40	02	00
		Insertion 1(S)	22	16	40	03	00
		Insertion 2(L)	34	22	40	04	00
		Controller	30	1E	40	05	00
		LFO	14	0E	40	06	00
		ELEMENT 1	Oscillator	13	0D	41	00
	Amplitude		29	1D	41	00	20
	Pitch		27	1B	42	00	00
	Filter		48	30	43	00	00
	EQ		8	08	44	00	00
	ELEMENT 2	LFO	6	06	44	00	40
Oscillator		13	0D	41	01	00	
Amplitude		29	1D	41	01	20	
Pitch		27	1B	42	01	00	
Filter		48	30	43	01	00	
ELEMENT 3	EQ	8	08	44	01	00	
	LFO	6	06	44	01	40	
	Oscillator	13	0D	41	02	00	
	Amplitude	29	1D	41	02	20	
	Pitch	27	1B	42	02	00	
ELEMENT 4	Filter	48	30	43	02	00	
	EQ	8	08	44	02	00	
	LFO	6	06	44	02	40	
	Oscillator	13	0D	41	03	00	
	Amplitude	29	1D	41	03	20	
	Pitch	27	1B	42	03	00	
	Filter	48	30	43	03	00	
	EQ	8	08	44	03	00	
	LFO	6	06	44	03	40	
	Bulk Footer	0	00	0F	mm	nn	

VOICE (DRUM)	COMMON	Bulk Header	0	00	0E	mm	nn	
		Extra	56	38	46	70	00	
		Common	7	07	46	00	00	
		Reverb	24	18	46	01	00	
		Chorus	25	19	46	02	00	
		Insertion 1(S)	22	16	46	03	00	
		Insertion 2(L)	34	22	46	04	00	
		Controller	30	1E	46	05	00	
		KEY C 0	Oscillator	18	12	47	00	00
			Amplitude	12	0C	47	00	20
	Pitch		3	03	48	00	00	
	Filter		8	08	49	00	00	
	EQ		8	08	4A	00	00	
	KEY C 6	:	73	Blocks	:	:	:	
		Oscillator	18	12	47	48	00	
Amplitude		12	0C	47	48	20		
Pitch		3	03	48	48	00		
Filter		8	08	49	48	00		
	EQ	8	08	4A	48	00		
	Bulk Footer	0	00	0F	mm	nn		

VOICE (PLUG-IN)	ID	Bulk Header	0	00	0E	mm	nn
COMMON	Extra	56	38	4C	70	00	00
	Common	13	0D	4C	00	00	00
	Reverb	24	18	4C	01	00	00
	Chorus	25	19	4C	02	00	00
	Insertion 1(S)	22	16	4C	03	00	00
	Controller	10	0A	4C	05	00	00
	Plug-in Element	35	23	4C	10	00	00
	Native	68	44	4C	20	00	00
Bulk Footer	0	00	0F	mm	nn		

Parameter Change

F0, 43, 1n, id, ah, am, al, dt, ... F7

n: Device Number  
id: Model ID  
ah: Parameter Address High  
am: Parameter Address Middle  
al: Parameter Address Low  
dt: Data

Parameter Request

F0, 43, 3n, id, ah, am, al, F7

n: Device Number  
id: Model ID  
ah: Parameter Address High  
am: Parameter Address Middle  
al: Parameter Address Low

Bulk Dump

F0, 43, 0n, id, bh, bl, ah, am, al, dt, ..., cc, F7

n: Device Number  
id: Model ID  
bh: Byte Count High  
bl: Byte Count Low  
ah: Parameter Address High  
am: Parameter Address Middle  
al: Parameter Address Low  
dt: Data  
cc: Check Sum of Data

Bulk Dump Request

F0, 43, 2n, id, ah, am, al, F7

n: Device Number  
id: Model ID  
ah: Parameter Address High  
am: Parameter Address Middle  
al: Parameter Address Low

<Table 3>

MIDI PARAMETER CHANGE TABLE (SYSTEM)

Address	Size	Data Range(HEX)	Parameter Name	Description	Default(HEX)	Notes
00 00	00	1	00 - 7F	Master Volume	0 - 127	MIDI Master Volume
01	1	28 - 58	Master Note Shift	-24 ~ +24[semitones]	40	
02	4	00 - 0F	Master Tune	-102.4 ~ +102.3[cent]	00	MIDI Master Tuning 00 = 440.00 [Hz]
				1st bit3-0 → bit15-12		
				2nd bit3-0 → bit11-8		
				3rd bit3-0 → bit7-4		
				4th bit3-0 → bit3-0		
06	1	00 - 01	Controller Reset	hold.reset	00	
07	1	35 - 4B	Master Transpose	-11 ~ +11[semitones]	40	CS6x, S80 only
08	1	3D - 43	Master Octave Shift	-3 ~ +3	40	CS6x, S80 only
09	1	00 - 01	Local Switch	off.on	01	
0A	1	00 - 10 7F	Basic Receive Channel	1 - 16,omni,off	00	
0B	1	00 - 0F 7F	Keyboard Transmit Channel	1 - 16,off	00	
0C	1	00 - 01	MIDI Sync	in.MIDI	00	
0D	1	00 - 01	MIDI Control	off.on	01	
0E	1	00 - 01	Plug-in Board 1 MIDI Sync/Control	off.on	00	
0F	1	00 - 01	Plug-in Board 2 MIDI Sync/Control	off.on	00	
10	1		reserved		02	
11	1	00 - 03	BC Curve (for TG)	thru, soft, hard, wide	00	
12	1	00 - 04	Keyboard Velocity Curve	norm, soft, hard, wide, fixed	00	CS6x, S80 only
13	1	01 - 7F	Keyboard Fixed Velocity	1 - 127	40	CS6x, S80 only
14	1	00 - 01	Receive GM/XG On	off.on	01	
15	1	00 - 03	Receive/Transmit Bank Select	off.all,part,perform	01	
16	1	00 - 01	Receive Program Change	off.on	00	
17	1	00 - 01	MIDI Control Mode	mode1, mode2	00	
18	1	00 - 07	Thru Port	1 - 8	00	
19	1	00 - 01	MIDI Input	MIDI,LAN	00	
1A	1	00 - 01	Effect Bypass Reverb	off.on	01	
1B	1	00 - 01	Effect Bypass Chorus	off.on	01	
1C	1	00 - 01	Effect Bypass Insertion	off.on	00	
1D	1		reserved		00	
1E	1	00 - 02	GM/XG Receive Mode	all-part, layer-part, all-off	02	
1F	1	00 - 03	Power on Mode	Performance, Voice(INT), Voice(PRE1), last	0F	
20	1		reserved		00	
21	1		reserved		00	
22	1		reserved		00	
23	1		reserved		00	
24	1		reserved		00	
25	4		reserved		00	
26	1	00 - 5F	Scene Control Number	off.1 - 95	0E	CS6x only
2A	1	00 - 33	Knob A Destination	off.1 - 51	01	
2B	1	00 - 33	Knob B Destination	off.1 - 51	07	
2C	1	00 - 33	Knob C Destination	off.1 - 51	0D	
2D	1	00 - 5F	Knob A Control Number	off.1 - 95	12	
2E	1	00 - 5F	Knob B Control Number	off.1 - 95	13	
2F	1	00 - 5F	Knob C Control Number	off.1 - 95	14	
30	1	00 - 01	FV Assign	volume, express	01	
31	1	00 - 64	FS Assign	off.1 - 95, Arr Sw, Arr Hold, SMF Play, PC Inc, PC Dec	58	
32	1	00 - 5F	ARP Switch Control Number	off.1 - 95	5A	
33	1	00 - 5F	ARP Hold Control Number	off.1 - 95	59	
34	1	00 - 01	ARP MIDI Out Switch	off.on	00	for Voice Mode
35	1	00 - 0F	ARP MIDI Out Channel	1 - 16	00	
36	1	00 - 5F	KN1 Control Number	off.1 - 95	10	
37	1	00 - 5F	KN2 Control Number	off.1 - 95	11	
38	1	00 - 5F	BC Control Number	off.1 - 95	02	
39	1	00 - 5F	FC Control Number	off.1 - 95	04	
3A	1	00 - 5F	RB Control Number	off.1 - 95	16	
3B	1	00 - 01	RB Mode	hold.reset	00	(CS6x only)

TOTAL SIZE = 60 3C (HEX)

00 10	00	16	00 - 7F	Plug-in 1 Native System Parameter	depends on Plug-in Board	depends on Plug-in Board
10	16	00 - 7F	Plug-in 2 Native System Parameter	depends on Plug-in Board	depends on Plug-in Board	

TOTAL SIZE = 32 20 (HEX)

00 20	00	1	34 - 4C	EQ Gain1	-12 ~ +12[dB]	40	for Voice Mode
01	1	04 - 28	EQ Frequency1	32 - 2000[Hz]	0C		
02	1	01 - 78	EQ Q1	0.1 - 12.0	07		
03	1	00 - 01	EQ Shape1	shelf, peak	00		
04	1	34 - 4C	EQ Gain2	-12 ~ +12[dB]	40		
05	1	0E - 36	EQ Frequency2	100 - 10.0[kHz]	1C		
06	1	01 - 78	EQ Q2	0.1 - 12.0	07		
	1		NOT USED				
08	1	34 - 4C	EQ Gain3	-12 ~ +12[dB]	40		
09	1	0E - 36	EQ Frequency3	100 - 10.0[kHz]	22		
0A	1	01 - 78	EQ Q3	0.1 - 12.0	07		
	1		NOT USED				
0C	1	34 - 4C	EQ Gain4	-12 ~ +12[dB]	40		
0D	1	0E - 36	EQ Frequency4	100 - 10.0[kHz]	2E		
0E	1	01 - 78	EQ Q4	0.1 - 12.0	07		
	1		NOT USED				
10	1	34 - 4C	EQ Gain5	-12 ~ +12[dB]	40		
11	1	1C - 3A	EQ Frequency5	0.5 - 16.0[kHz]	34		
12	1	01 - 78	EQ Q5	0.1 - 12.0	07		
13	1	00 - 01	EQ Shape5	shelf, peak	00		

TOTAL SIZE = 20 14 (HEX)

00 70	00	1	00 - 7F	Phrase Clip Pitch Knob	0 - 127	--	CS6x, CS6R only
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<Table 8>

MIDI PARAMETER CHANGE TABLE (NORMAL VOICE COMMON)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for Voice Name, ARP, QED, and Scene parameters.

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for Volume, Element Switch, and Mono/Poly Mode.

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for Reverb Type, Reverb Parameter, and Insertion Connect Type.

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for Chorus Type, Chorus Parameter, and Chorus Return.

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for Insertion-1 Type MSB and LSB parameters.

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for Insertion-2 Type MSB and LSB parameters.

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for Controller Set1 Source and Destination MSB/LSB parameters.

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for LFO Phase, LFO Wave, LFO Speed, and LFO Delay Time.

MIDI PARAMETER CHANGE TABLE (NORMAL VOICE ELEMENT)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains MIDI parameter data for Wave Number, Pan, Random Pan Depth, and Alternate Pan Depth.



## MIDI PARAMETER CHANGE TABLE (DRUM VOICE KEY)

Address	Size	Data Range(HEX)	Pramerter Name	Description	Default(HEX)	Notes
46 03 00	2	00-7F	Insertion-1 Type MSB	Refere to Effect Parameter List	0000	
		00-7F	Insertion-1 Type LSB			
46 03 02	2	00-7F	Insertion-1 Parameter1 MSB	"		Depends On Effect Type
		00-7F	Insertion-1 Parameter1 LSB			
46 03 04	2	00-7F	Insertion-1 Parameter2 MSB	"	"	
		00-7F	Insertion-1 Parameter2 LSB			
46 03 06	2	00-7F	Insertion-1 Parameter3 MSB	"	"	
		00-7F	Insertion-1 Parameter3 LSB			
46 03 08	2	00-7F	Insertion-1 Parameter4 MSB	"	"	
		00-7F	Insertion-1 Parameter4 LSB			
46 03 0A	2	00-7F	Insertion-1 Parameter5 MSB	"	"	
		00-7F	Insertion-1 Parameter5 LSB			
46 03 0C	2	00-7F	Insertion-1 Parameter6 MSB	"	"	
		00-7F	Insertion-1 Parameter6 LSB			
46 03 0E	2	00-7F	Insertion-1 Parameter7 MSB	"	"	
		00-7F	Insertion-1 Parameter7 LSB			
46 03 10	2	00-7F	Insertion-1 Parameter8 MSB	"	"	
		00-7F	Insertion-1 Parameter8 LSB			
46 03 12	2	00-7F	Insertion-1 Parameter9 MSB	"	"	
		00-7F	Insertion-1 Parameter9 LSB			
46 03 14	2	00-7F	Insertion-1 Parameter10 MSB	"	"	
		00-7F	Insertion-1 Parameter10 LSB			

TOTAL SIZE = 22 16 (HEX)

46 04 00	2	00-7F	Insertion-2 Type MSB	Refer to Effect Parameter List	0000	
		00-7F	Insertion-2 Type LSB			
46 04 02	2	00-7F	Insertion-2 Parameter 1 MSB	"		Depends On Effect Type
		00-7F	Insertion-2 Parameter 1 LSB			
46 04 04	2	00-7F	Insertion-2 Parameter 2 MSB	"	"	
		00-7F	Insertion-2 Parameter 2 LSB			
46 04 06	2	00-7F	Insertion-2 Parameter 3 MSB	"	"	
		00-7F	Insertion-2 Parameter 3 LSB			
46 04 08	2	00-7F	Insertion-2 Parameter 4 MSB	"	"	
		00-7F	Insertion-2 Parameter 4 LSB			
46 04 0A	2	00-7F	Insertion-2 Parameter 5 MSB	"	"	
		00-7F	Insertion-2 Parameter 5 LSB			
46 04 0C	2	00-7F	Insertion-2 Parameter 6 MSB	"	"	
		00-7F	Insertion-2 Parameter 6 LSB			
46 04 0E	2	00-7F	Insertion-2 Parameter 7 MSB	"	"	
		00-7F	Insertion-2 Parameter 7 LSB			
46 04 10	2	00-7F	Insertion-2 Parameter 8 MSB	"	"	
		00-7F	Insertion-2 Parameter 8 LSB			
46 04 12	2	00-7F	Insertion-2 Parameter 9 MSB	"	"	
		00-7F	Insertion-2 Parameter 9 LSB			
46 04 14	2	00-7F	Insertion-2 Parameter 10 MSB	"	"	
		00-7F	Insertion-2 Parameter 10 LSB			
46 04 16	2	00-7F	Insertion-2 Parameter 11 MSB	"	"	
		00-7F	Insertion-2 Parameter 11 LSB			
46 04 18	2	00-7F	Insertion-2 Parameter 12 MSB	"	"	
		00-7F	Insertion-2 Parameter 12 LSB			
46 04 1A	2	00-7F	Insertion-2 Parameter 13 MSB	"	"	
		00-7F	Insertion-2 Parameter 13 LSB			
46 04 1C	2	00-7F	Insertion-2 Parameter 14 MSB	"	"	
		00-7F	Insertion-2 Parameter 14 LSB			
46 04 1E	2	00-7F	Insertion-2 Parameter 15 MSB	"	"	
		00-7F	Insertion-2 Parameter 15 LSB			
46 04 20	2	00-7F	Insertion-2 Parameter 16 MSB	"	"	
		00-7F	Insertion-2 Parameter 16 LSB			

TOTAL SIZE = 34 22 (HEX)

46 05 00	1	00-09	Controller Set1 Source	PB, MW, ---, AT, FC, FS, RB, BC, KN1, KN2	00	
46 05 01	2	00	Controller Set1 Destination MSB	0 - 29	00	
		00-1D	Controller Set1 Destination LSB			
46 05 03	1	00-7F	Controller Set1 Depth	-64 +63	40	
46 05 04	1		reserved		00	
46 05 05	1	00-09	Controller Set2 Source	PB, MW, ---, AT, FC, FS, RB, BC, KN1, KN2	00	
46 05 06	2	00	Controller Set2 Destination MSB	0 - 29	00	
		00-1D	Controller Set2 Destination LSB			
46 05 08	1	00-7F	Controller Set2 Depth	-64 +63	40	
46 05 09	1		reserved		00	
46 05 0A	1	00-09	Controller Set3 Source	PB, MW, ---, AT, FC, FS, RB, BC, KN1, KN2	00	
46 05 0B	2	00	Controller Set3 Destination MSB	0 - 29	00	
		00-1D	Controller Set3 Destination LSB			
46 05 0D	1	00-7F	Controller Set3 Depth	-64 +63	40	
46 05 0E	1		reserved		00	
46 05 0F	1	00-09	Controller Set4 Source	PB, MW, ---, AT, FC, FS, RB, BC, KN1, KN2	00	
46 05 10	2	00	Controller Set4 Destination MSB	0 - 29	00	
		00-1D	Controller Set4 Destination LSB			
46 05 12	1	00-7F	Controller Set4 Depth	-64 +63	40	
46 05 13	1		reserved		00	
46 05 14	1	00-09	Controller Set5 Source	PB, MW, ---, AT, FC, FS, RB, BC, KN1, KN2	00	
46 05 15	2	00	Controller Set5 Destination MSB	0 - 29	00	
		00-1D	Controller Set5 Destination LSB			
46 05 17	1	00-7F	Controller Set5 Depth	-64 +63	40	
46 05 18	1		reserved		00	
46 05 19	1	00-09	Controller Set6 Source	PB, MW, ---, AT, FC, FS, RB, BC, KN1, KN2	00	
46 05 1A	2	00	Controller Set6 Destination MSB	0 - 29	00	
		00-1D	Controller Set6 Destination LSB			
46 05 1C	1	00-7F	Controller Set6 Depth	-64 +63	40	
46 05 1D	1		reserved		00	

TOTAL SIZE = 30 1E (HEX)

Address	Size	Data Range(HEX)	Pramerter Name	Description	Default(HEX)	Notes
47 ee 00	1	00-01	Element Assion	off.on	00	*1
47 ee 01	1	00-03	Wave Type	wave_vce	00	
47 ee 02	1	00	reserved		00	
47 ee 03	1	00-01	Reactive Note Off	off.on	01	
47 ee 04	1	00-01	Assign Mode	single_multi	01	*1
47 ee 05	1	00-7F	Alternate Group	0.off, 1 - 127	00	*1
47 ee 06	2	00-7F	Wave Number MSB	1st bit6-0 -> bit13-7 0(off), 1 - 479(C56k.c56R)	00	
		00-7F	Wave Number LSB	2nd bit6-0 -> bit6-0 0(off), 1 - 553(S80)	00	
47 ee 08	3	00-7F	Voice Bank Number MSB	0 - 127	00	*1
		00-7F	Voice Bank Number LSB	0 - 127	00	*1
		00-7F	Voice Number	0 - 127	00	*1
47 ee 0B	1	01-7F	Pan	L63 - C - R63	40	*1
47 ee 0C	1	00-7F	Random Pan Depth	0 - 127	00	
47 ee 0D	1	00-7F	Alternate Pan Depth	L64 - 0 - R63	40	
47 ee 0E	1	00-7F	Reverb Send Level	0 - 127	28	*1
47 ee 0F	1	00-7F	Chorus Send Level	0 - 127	00	*1
47 ee 10	1	00-02	Insertion Effect Switch	thru ins1, ins2	00	*1
47 ee 11	1	00-45	Output Select	0 LAR 8: ind1+2 64-68: ind1 - ind6	00	*1

TOTAL SIZE = 18 12 (HEX)

47 ee 20	1	00-7F	Element Level	0 - 127	64	*1
47 ee 21	1	00-7F	Level Velocity Sensitivity	-64 +63	40	
47 ee 22	1	00	reserved		00	
47 ee 23	1	00-7F	AEG Attack Time	0 - 127	00	
47 ee 24	1	00-7F	AEG Decay1 Time	0 - 127	00	
47 ee 25	1	00-7F	AEG Decay2 Time	0 - 126,hold	7E	
47 ee 26	1	00	reserved		00	
47 ee 27	1	00	reserved		00	
47 ee 28	1	00	reserved		00	
47 ee 29	1	00-7F	AEG Decay1 Level	0 - 127	7F	
47 ee 2A	1	00	reserved		00	
47 ee 2B	1	00	reserved		00	

TOTAL SIZE = 12 0C (HEX)

48 ee 00	1	10-70	Coarse Tune	-48 +48	40	*1
48 ee 01	1	00-7F	Fine Tune	-64 +63	40	*1
48 ee 02	1	00-7F	Pitch Velocity Sensitivity	-64 +63	40	

TOTAL SIZE = 3 03 (HEX)

49 ee 00	1	00	reserved		00	
49 ee 01	2	00-01	LPF Cutoff Frequency MSB	0 - 255	01 7F	
		00-7F	LPF Cutoff Frequency LSB			
49 ee 03	1	00-7F	LPF Cutoff Velocity Sensitivity	-64 +63	40	
49 ee 04	1	00-1F	LPF Resonance	0 - 31	04	
49 ee 05	1	40	reserved		40	
49 ee 06	2	00-01	HPF Cutoff Frequency MSB	0 - 255	00 00	
		00-7F	HPF Cutoff Frequency LSB			

TOTAL SIZE = 8 08 (HEX)

4A ee 00	1	00-05	EQ Type	EQ L/H, PEQ, Boost6, Boost12, Boost18, thru	00	
4A ee 01	1	00-1F	EQ Resonance	0 - 31	00	
4A ee 02	2	00-01	EQ 1 Frequency MSB	EQ L/H: 46-182, PEQ: 83-251	00 53	
		00-7F	EQ 1 Frequency LSB			
4A ee 04	1	20-60	EQ 1 GAIN	-32 +32	40	
4A ee 05	2	00-01	EQ 2 Frequency MSB	EQ L/H:131-241	01 71	
		00-7F	EQ 2 Frequency LSB			
4A ee 07	1	20-60	EQ 2 GAIN	-32 +32	40	

TOTAL SIZE = 8 08 (HEX)

ee = Element Number (00..48: C0 - C6)

\*1: Only this parameter is available when Wave/Voice type is set to "vce" in the OSC wave screen.

<Table 10>

MIDI PARAMETER CHANGE TABLE (PLUGIN VOICE)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains parameters for ARP Type, ARP Switch, ARP Hold, ARP Unit Multiply, ARP Note Limit Low, ARP Note Limit High, ARP Key Mode, ARP Vel Mode, ARP Velocity Rate MSB, ARP Velocity Rate LSB, ARP Gate Time Rate MSB, ARP Gate Time Rate LSB, ARP Tempo MSB, ARP Tempo LSB, QED Pan, QED Chorus Control, QED Release Time, QED KnobA, QED KnobB, QED KnobC, QED/Scene 1 Knob1, QED/Scene 1 Knob2, QED/Scene 1 Cutoff Frequency, QED/Scene 1 Resonance, QED/Scene 1 Attack Time, QED/Scene 1 Decay Time, Scene 2 Knob1, Scene 2 Knob2, Scene 2 Cutoff Frequency, Scene 2 Resonance, Scene 2 Attack Time, Scene 2 Decay Time, Scene Control.

TOTAL SIZE = 56 38 (HEX)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains parameters for Volume, Same Note Number Key On Assign, Mono/Poly Mode, Pitch Bend Range, Portamento Switch, Portamento Time, Reverb Send, Chorus Send.

TOTAL SIZE = 13 0D (HEX)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains parameters for Reverb Type MSB, Reverb Type LSB, Reverb Parameter 1 MSB, Reverb Parameter 1 LSB, Reverb Parameter 2 MSB, Reverb Parameter 2 LSB, Reverb Parameter 3 MSB, Reverb Parameter 3 LSB, Reverb Parameter 4 MSB, Reverb Parameter 4 LSB, Reverb Parameter 5 MSB, Reverb Parameter 5 LSB, Reverb Parameter 6 MSB, Reverb Parameter 6 LSB, Reverb Parameter 7 MSB, Reverb Parameter 7 LSB, Reverb Parameter 8 MSB, Reverb Parameter 8 LSB, Reverb Parameter 9 MSB, Reverb Parameter 9 LSB, Reverb Parameter 10 MSB, Reverb Parameter 10 LSB, Reverb Return, Reverb Pan.

TOTAL SIZE = 24 18 (HEX)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains parameters for Chorus Type MSB, Chorus Type LSB, Chorus Parameter 1 MSB, Chorus Parameter 1 LSB, Chorus Parameter 2 MSB, Chorus Parameter 2 LSB, Chorus Parameter 3 MSB, Chorus Parameter 3 LSB, Chorus Parameter 4 MSB, Chorus Parameter 4 LSB, Chorus Parameter 5 MSB, Chorus Parameter 5 LSB, Chorus Parameter 6 MSB, Chorus Parameter 6 LSB, Chorus Parameter 7 MSB, Chorus Parameter 7 LSB, Chorus Parameter 8 MSB, Chorus Parameter 8 LSB, Chorus Parameter 9 MSB, Chorus Parameter 9 LSB, Chorus Parameter 10 MSB, Chorus Parameter 10 LSB, Chorus Return, Chorus Pan, Send Chorus To Reverb.

TOTAL SIZE = 25 19 (HEX)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains parameters for Insertion Type MSB, Insertion Type LSB, Insertion Parameter1 MSB, Insertion Parameter1 LSB, Insertion Parameter2 MSB, Insertion Parameter2 LSB, Insertion Parameter3 MSB, Insertion Parameter3 LSB, Insertion Parameter4 MSB, Insertion Parameter4 LSB, Insertion Parameter5 MSB, Insertion Parameter5 LSB, Insertion Parameter6 MSB, Insertion Parameter6 LSB, Insertion Parameter7 MSB, Insertion Parameter7 LSB, Insertion Parameter8 MSB, Insertion Parameter8 LSB, Insertion Parameter9 MSB, Insertion Parameter9 LSB, Insertion Parameter10 MSB, Insertion Parameter10 LSB.

TOTAL SIZE = 22 16 (HEX)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains parameters for Controller Set1 Source, Controller Set1 Destination MSB, Controller Set1 Destination LSB, Controller Set1 Depth, Controller Set2 Source, Controller Set2 Destination, Controller Set2 Destination MSB, Controller Set2 Depth.

TOTAL SIZE = 10 0A (HEX)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains parameters for Voice Bank MSB, Voice Bank LSB, Voice Number, Note Shift, Velocity Sense Depth, Velocity Sense Offset, (Vibrato Rate) LFO Speed, (Vibrato Depth) LFO Pitch Depth, (Vibrato Delay) LFO Delay, MW Filter Control, MW LFO Pitch Modulation Depth, MW LFO Filter Modulation Depth, MW LFO Amplitude Modulation Depth, CAT Pitch Control, CAT Filter Control, CAT LFO Pitch Modulation Depth, CAT LFO Filter Modulation Depth, CAT LFO Amplitude Modulation Depth, AC1 Controller Number, AC1 Filter Control, AC1 LFO Pitch Modulation Depth, AC1 LFO Filter Modulation Depth, AC1 LFO Amplitude Modulation Depth, Pitch EG Initial Level, Pitch EG Attack Time, Pitch EG Release Level, Pitch EG Release Time, EQ Low Gain, EQ High Gain, EQ Low Frequency, EQ High Frequency, HPP Cutoff Frequency.

TOTAL SIZE = 35 23 (HEX)

Table with columns: Address, Size, Data Range(HEX), Parameter Name, Description, Default(HEX), Notes. Contains parameters for Plug-in Board Native Parameter, Plug-in Board Type MSB, Plug-in Board Type LSB, Plug-in Board Version Number.

TOTAL SIZE = 68 44 (HEX)

Function...	Transmitted	Recognized	Remarks	
Basic Channel	Default Changed	1 - 16 1 - 16	1 - 16 1 - 16	Memorised
Mode	Default Messages Altered	3 X *****	1 1 - 4(m=1) *2 X	Memorised
Note Number : True voice		0 - 127 *****	0 - 127 0 - 127	Transpose
Velocity	Note ON Note OFF	O 9nH,v=1-127 X 9nH,v=0	O v=1-127 X	
After Touch	Key's Ch's	X O	X O *1	
Pitch Bend		O	O *1	
Control Change	0,32 1,7,11 5,10 6,38 64 65 66 71-75 91,93 96-97 100-101 1-95	O O X X O X X X X X X O	O O O O O O O O O O O O O O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1	Bank Select  Data Entry Sustain Sw Portamento Sw Sosutenuto Sound Controller Effect Depth RPN Inc,Dec RPN LSB,MSB Assignable Cntrl
Prog Change : True #		O 0 - 127 *1 *****	O 0 - 127 0 - 127	
System Exclusive		O	O	
Common : Song Pos. : Song Sel. : Tune	X X X	X X X	X X X	
System : Clock Real Time : Commands	X X	X X	O X	
Aux : All Sound Off : Reset All Cntrls : Local ON/OFF Mes- : All Notes OFF sages: Active Sense : Reset	X X X X O X	X X X X O X	O (120,126,127) O (121) X O (123-125) O X	
Notes: *1 receive if switch is on. *2 m is always treated as "1" regardless of its value.				

Mode 1 : OMNI ON , POLY      Mode 2 : OMNI ON ,MONO      O : Yes  
 Mode 3 : OMNI OFF, POLY      Mode 4 : OMNI OFF,MONO      X : No

Function...	Transmitted	Recognized	Remarks
Basic Channel Default Changed	1 - 16 X	X X	Memorised
Mode Default Messages Altered	X X *****	X X X	
Note Number : True voice	0 - 127 *****	X X	
Velocity Note ON Note OFF	O 9nH,v=1-127 X 9nH,v=0	X X	
After Touch Key's Ch's	O O	X X	
Pitch Bend	O	X	
Control Change 0-121	O	X	
Prog Change : True #	O 0 - 127 *****	X	
System Exclusive	O	X	
Common : Song Pos. : Song Sel. : Tune	X X X	X X X	
System : Clock Real Time : Commands	O *2 O *2	O *1 *2 O *2	
Aux : All Sound Off : Reset All Cntrls : Local ON/OFF Mes- : All Notes OFF sages: Active Sense : Reset	O O O O O X	X X X X X X	
Notes: *1 if MIDI sync is midi *2 if MIDI control in is on			

Mode 1 : OMNI ON , POLY  
 Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON ,MONO  
 Mode 4 : OMNI OFF,MONO

O : Yes  
 X : No

