YAMAHA

TONE GENERATOR

MU50

SOUND LIST & MIDI DATA

REVERB

No.	Exclusive msb	lsb	Effect Type	Description
0	0	0	NO EFFECT	Effect turned off.
1	1	0	HALL1	Reverb simulating the resonance of a hall.
2	1	1	HALL2	Reverb simulating the resonance of a hall.
3	2	0	ROOM1	Reverb simulating the resonance of a room.
4	2	1	ROOM2	Reverb simulating the resonance of a room.
5	2	2	ROOM3	Reverb simulating the resonance of a room.
6	3	0	STAGE1	Reverb appropriate for a solo instrument.
7	3	1	STAGE2	Reverb appropriate for a solo instrument.
8	4	0	PLATE	Reverb simulating a metal plate reverb unit.
9	10	0	WHITE ROOM	A unique short reverb with a bit of initial delay.
10	11	0	TUNNEL	Simulation of a tunnel space expanding to left and right.
11	13	0	BASEMENT	A bit of initial delay followed by reverb with a unique resonance.

CHORUS

No.	Exclusive msb	lsb	Effect Type	Description
0	0	0	NO EFFECT	Effect turned off.
1	41	0	CHORUS1	Conventional chorus program that adds natural spaciousness.
2	41	1	CHORUS2	Conventional chorus program that adds natural spaciousness.
3	41	2	CHORUS3	Conventional chorus program that adds natural spaciousness.
4	41	8	CHORUS4	Chorus with stereo input. The pan setting specified for the Part will also apply to the effect sound.
5	42	0	CELESTE1	A 3-phase LFO adds modulation and spaciousness to the sound.
6	42	1	CELESTE2	A 4-phase LFO adds modulation and spaciousness to the sound.
7	42	2	CELESTE3	A 5-phase LFO adds modulation and spaciousness to the sound.
8	42	8	CELESTE4	CELESTE with stereo input. The pan setting specified for the Part will also apply to the effect sound.
9	43	0	FLANGER1	Adds a jet-airplane effect to the sound.
10	43	1	FLANGER2	Adds a jet-airplane effect to the sound.
11	43	8	FLANGER3	Adds a jet-airplane effect to the sound.

VARIATION

No.	Exclusive msb	lsb	Effect Type	Description
0	0	0	NO EFFECT	Effect turned off.
1	1	0	HALL1	Reverb simulating the resonance of a hall.
2	1	1	HALL2	Reverb simulating the resonance of a hall.
3	2	0	ROOM1	Reverb simulating the resonance of a room.
4	2	1	ROOM2	Reverb simulating the resonance of a room.
5	2	2	ROOM3	Reverb simulating the resonance of a room.
6	3	0	STAGE1	Reverb appropriate for a solo instrument.
7	3	1	STAGE2	Reverb appropriate for a solo instrument.
8	4	0	PLATE	Reverb simulating a metal plate reverb unit.
9	5	0	DELAY L,C,R	A program that creates three delay sounds; L, R, and C (center).
10	6	0	DELAY L,R	A program that creates two delay sounds; L and R. Two feedback delays are provided.
11	7	0	ECHO	Two delays (L and R) and independent feedback delays for L and R.
12	8	0	CROSS DELAY	A program that crosses the feedback of two delays.
13	9	0	ER1	An effect that produces only the early reflection component of reverb.
14	9	1	ER2	An effect that produces only the early reflection component of reverb.
15	A	0	GATE REVERB	A simulation of gated reverb.
16	B	0	REVERSE GATE	A program that simulates gated reverb played backwards.
17	14	0	KARAOKE 1	A delay with feedback of the same type as used for karaoke reverb.
18	14	1	KARAOKE 2	A delay with feedback of the same type as used for karaoke reverb.
19	14	2	KARAOKE 3	A delay with feedback of the same type as used for karaoke reverb.
20	41	0	CHORUS1	A conventional chorus program, providing natural spaciousness.
21	41	1	CHORUS2	A conventional chorus program, providing natural spaciousness.
22	41	2	CHORUS3	A conventional chorus program, providing natural spaciousness.
23	41	8	CHORUS4	Chorus with stereo input.
24	42	0	CELESTE1	A 3-phase LFO adds modulation and spaciousness to the sound.
25	42	1	CELESTE2	A 4-phase LFO adds modulation and spaciousness to the sound.
26	42	2	CELESTE3	A 5-phase LFO adds modulation and spaciousness to the sound.
27	42	8	CELESTE4	Celeste with stereo input.
28	43	0	FLANGER1	Adds a jet-airplane effect to the sound.
29	43	1	FLANGER2	Adds a jet-airplane effect to the sound.
30	43	8	FLANGER3	Adds a jet-airplane effect to the sound.
31	44	0	SYMPHONIC	A multi-phase version of CELESTE.
32	45	0	ROTARY SPEAKER	A simulation of a rotary speaker. You can use an AC1 (assignable controller) etc. to control the speed of rotation.
33	46	0	TREMOLO	An effect that cyclically modulates the volume.
34	47	0	AUTO PAN	A program that cyclically moves the sound image to left and right, front and back.
35	48	0	PHASER1	Cyclically changes the phase to add modulation to the sound.
36	48	8	PHASER2	Phaser with stereo input.
37	49	0	DISTORTION	Adds a sharp-edged distortion to the sound.
38	4A	0	OVER DRIVE	Adds mild distortion to the sound.
39	4B	0	AMP SIMULATOR	A simulation of a guitar amp.
40	4C	0	3-BAND EQ(MONO)	A mono EQ with adjustable LOW, MID, and HIGH equalizing.
41	4D	0	2-BAND EQ(STEREO)	A stereo EQ with adjustable LOW and HIGH. Ideal for drum Parts.
42	4E	0	AUTO WAH(LFO)	Cyclically modulates the center frequency of a wah filter. With an AC1 etc. this can function as a pedal wah.
43	40	0	THRU	Bypass without applying an effect.

parameter 1~10 = required parameters
parameter 11~16 = optional parameters

BASIC EFFECT TYPE

No.	Parameter	Display	Value	See Table	MU80	MU50	Control

CHORUS1,2,3,4
CELESTE1,2,3,4

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	LFO Frequency	0.00~39.7Hz	0-127	table#1	●	●	
2	LFO PM Depth	0~127	0-63		●	T 0-127	
3	Feedback Level	-63~+63	1-127		●	●	
4	Delay Offset	0~127	0-127	table#2	●	●	
5							
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ Low Gain	-12~+12dB	52-76		●	●	
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
9	EQ High Gain	-12~+12dB	52-76		●	●	
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	EQ Mid Frequency	100Hz~10.0kHz	14-54	table#3	●		
12	EQ Mid Gain	-12~+12dB	52-76		●		
13	EQ Mid Width	1.0~12.0	10-120		●		
14	LFO AM Depth	0~127	0-127		●		
15	Input Mode	mono/stereo	0-1			●	
16							

FLANGER1,2,3

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	LFO Frequency	0.00~39.7Hz	0-127	table#1	●	●	
2	LFO Depth	0~127	0-127		●	●	
3	Feedback Level	-63~+63	1-127		●	●	
4	Delay Offset	0~63	0-63	table#2	●	●	
5							
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ Low Gain	-12~+12dB	52-76		●	●	
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
9	EQ High Gain	-12~+12dB	52-76		●	●	
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	EQ Mid Frequency	100Hz~10.0kHz	14-54	table#3	●		
12	EQ Mid Gain	-12~+12dB	52-76		●		
13	EQ Mid Width	1.0~12.0	10-120		●		
14	LFO Phase Difference	-180~+180deg	4-124	resolution = 30deg.	●	T resolution = 3deg.	
15							
16							

SYMPHONIC

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	LFO Frequency	0.00~39.7Hz	0-127	table#1	●	●	
2	LFO Depth	0~127	0-127		●	●	
3	Delay Offset	0~127	0-127	table#2	●	●	
4							
5							
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ Low Gain	-12~+12dB	52-76		●	●	
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
9	EQ High Gain	-12~+12dB	52-76		●	●	
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	EQ Mid Frequency	100Hz~10.0kHz	14-54	table#3	●		
12	EQ Mid Gain	-12~+12dB	52-76		●		
13	EQ Mid Width	1.0~12.0	10-120		●		
14							
15							
16							

ROTARY SPEAKER

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	LFO Frequency	0.00~39.7Hz	0-127	table#1	●	●	●
2	LFO Depth	0~127	0-127		●	●	
3							
4							
5							
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ Low Gain	-12~+12dB	52-76		●	●	
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
9	EQ High Gain	-12~+12dB	52-76		●	●	
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●		
11	EQ Mid Frequency	100Hz~10.0kHz	14-54	table#3	●		
12	EQ Mid Gain	-12~+12dB	52-76		●		
13	EQ Mid Width	1.0~12.0	10-120		●		
14							
15							
16							

TREMOLO

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	LFO Frequency	0.00~39.7Hz	0-127	table#1	●	●	●
2	AM Depth	0~127	0-127		●	●	
3	PM Depth	0~127	0-127		●	●	
4							
5							
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ Low Gain	-12~+12dB	52-76		●	●	
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
9	EQ High Gain	-12~+12dB	52-76		●	●	
10							
11	EQ Mid Frequency	100Hz~10.0kHz	14-54	table#3	●		
12	EQ Mid Gain	-12~+12dB	52-76		●		

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
13	EQ Mid Width	1.0~12.0	10-120		●		
14	LFO Phase Difference	-180~+180deg	4-124	resolution = 30deg. ●		T resolution = 3deg.	
15	Input Mode	mono/stereo	0-1			●	
16							

AUTO PAN

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	LFO Frequency	0.00~39.7Hz	0-127	table#1	●	●	●
2	L/R Depth	0~127	0-127		●	●	
3	F/R Depth	0~127	0-127		●	●	
4	PAN Direction	L<->R,L->R,L<-R,Lturn,Rturn,L/R	0-5		●	●	
5							
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ Low Gain	-12~+12dB	52-76		●	●	
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
9	EQ High Gain	-12~+12dB	52-76		●	●	
10							
11	EQ Mid Frequency	100Hz~10.0kHz	14-54	table#3	●		
12	EQ Mid Gain	-12~+12dB	52-76		●		
13	EQ Mid Width	1.0~12.0	10-120		●		
14							
15							
16							

PHASER1,PHASER2

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	LFO Frequency	0.00~39.7Hz	0-127	table#1	●	●	
2	LFO Depth	0~127	0-127		●	●	
3	Phase Shift Offset	0~127	0-127		●	●	
4	Feedback Level	-63~+63	1-127		●	●	
5							
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ Low Gain	-12~+12dB	52-76		●	●	
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
9	EQ High Gain	-12~+12dB	52-76		●	●	
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	Stage	3~10	3-10		▲ 4,6,8,	▲ 6~10(phaser1) / 3~5(phaser2)	
12	Diffusion	Mono/Stereo	0-1			●	
13	LFO Phase Difference	-180~+180deg.	4-124	resolution = 3deg.		● phaser2 only	
14							
15							
16							

DISTORTION
OVERDRIVE

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Drive	0~127	0-127		●	●	●
2	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	● 4-40 32Hz~2.0kHz	●	
3	EQ Low Gain	-12~+12dB	52-76		●	●	
4	LPF Cutoff	1.0k~Thru	34-60	table#3	●	●	
5	Output Level	0~127	0-127		●	●	
6							
7	EQ Mid Frequency	500Hz~10.0kHz	28-54	table#3	T 14-54 100Hz~10.0kHz	●	
8	EQ Mid Gain	-12~+12dB	52-76		●	●	
9	EQ Mid Width	1.0~12.0	10-120		●	●	
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	
11	Edge(Clip Curve)	0~127	0-127	mild~sharp	●		
12							
13							
14							
15							
16							

GUITAR AMP SIMULATOR

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Drive	0~127	0-127		●	●	●
2	AMP Type	Off,Stack,Combo,Tube	0-3		●	●	
3	LPF Cutoff	1.0k~Thru	34-60	table#3	●	●	
4	Output Level	0~127	0-127		●	●	
5							
6							
7							
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	
11	Edge(Clip Curve)	0~127	0-127	mild~sharp		●	
12							
13							
14							
15							
16							

3-BAND EQ

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	EQ Low Gain	-12~+12dB	52-76		●	●	
2	EQ Mid Frequency	500Hz~10.0kHz	28-54	table#3	T 14-54 100Hz~10.0kHz	●	
3	EQ Mid Gain	-12~+12dB	52-76		●	●	
4	EQ Mid Width	1.0~12.0	10-120		●	●	
5	EQ High Gain	-12~+12dB	52-76		●	●	
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●		
8							
9							
10							
11							
12							

MU50 Effect Parameter List

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
13							
14							
15							
16							

2-BAND EQ

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
2	EQ Low Gain	-12~+12dB	52-76		●	●	
3	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
4	EQ High Gain	-12~+12dB	52-76		●	●	
5							
6							
7							
8							
9							
10							
11	EQ Mid Frequency	100Hz~10.0kHz	14-54	table#3	●		
12	EQ Mid Gain	-12~+12dB	52-76		●		
13	EQ Mid Width	1.0~12.0	10-120		●		
14							
15							
16							

AUTO WAH

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	LFO Frequency	0.00~39.7Hz	0-127	table#1	●	●	
2	LFO Depth	0~127	0-127		●	●	
3	Cutoff Frequency Offset	0~127	0-127		●	●	●
4	Resonance	1.0~12.0	10-120		●	●	
5							
6	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3	T 4-40 32Hz~2.0kHz	●	
7	EQ Low Gain	-12~+12dB	52-76		●	●	
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●	●	
9	EQ High Gain	-12~+12dB	52-76		●	●	
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	
11	Drive	0~127	0-127		●		
12							
13							
14							
15							
16							

HALL1,HALL2
ROOM1,ROOM2,ROOM3
STAGE1,STAGE2
PLATE

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Reverb Time	0.3~30.0s	0-69	table#4	●	●	
2	Diffusion	0~10	0-10		●	●	
3	Initial Delay	0~63	0-63	table#5	●	●	
4	HPF Cutoff	Thru~8.0kHz	0-52	table#3	●	●	
5	LPF Cutoff	1.0k~Thru	34-60	table#3	●	●	
6							
7							
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	Rev Delay	0~63	0-63	table#5	●	●	
12	Density	0~3	0-3		T 0-4 *REV(0-4),VAR(0-3)	●	
13	Er/Rev Balance	E63>R ~ E=R ~ E<R63	1-127		●	●	
14	High Damp	0.1~1.0	1-10		●		
15	Feedback Level	-63~+63	1-127			●	
16							

DELAY L,C,R

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Lch Delay	0.1~715.0ms	1-7150		●	●	
2	Rch Delay	0.1~715.0ms	1-7150		●	●	
3	Cch Delay	0.1~715.0ms	1-7150		●	●	
4	Feedback Delay	0.1~715.0ms	1-7150		●	●	
5	Feedback Level	-63~+63	1-127		●	●	
6	Cch Level	0~127	0-127		●	●	
7	High Damp	0.1~1.0	1-10		●	●	
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	HPF Cutoff	Thru~8.0kHz	0-52	table#3	●		
12	LPF Cutoff	1.0k~Thru	34-60	table#3	●		
13	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3		●	
14	EQ Low Gain	-12~+12dB	52-76			●	
15	EQ High Frequency	500Hz~16.0kHz	28-58	table#3		●	
16	EQ High Gain	-12~+12dB	52-76			●	

DELAY L,R

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Lch Delay	0.1~715.0ms	1-7150		●	●	
2	Rch Delay	0.1~715.0ms	1-7150		●	●	
3	Feedback Delay 1	0.1~715.0ms	1-7150		●	●	
4	Feedback Delay 2	0.1~715.0ms	1-7150		●	●	
5	Feedback Level	-63~+63	1-127		●	●	
6	High Damp	0.1~1.0	1-10		●	●	

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
7							
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	HPF Cutoff	Thru~8.0kHz	0-52	table#3	●		
12	LPF Cutoff	1.0k~Thru	34-60	table#3	●		
13	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3		●	
14	EQ Low Gain	-12~+12dB	52-76			●	
15	EQ High Frequency	500Hz~16.0kHz	28-58	table#3		●	
16	EQ High Gain	-12~+12dB	52-76			●	

ECHO

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Lch Delay1	0.1~355.0ms	1-3550		●	●	
2	Lch Feedback Level	-63~+63	1-127		●	●	
3	Rch Delay1	0.1~355.0ms	1-3550		●	●	
4	Rch Feedback Level	-63~+63	1-127		●	●	
5	High Damp	0.1~1.0	1-10		●	●	
6	Lch Delay2	0.1~355.0ms	1-3550		●	●	
7	Rch Delay2	0.1~355.0ms	1-3550		●	●	
8	Delay2 Level	0~127	0-127		●	●	
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	HPF Cutoff	Thru~8.0kHz	0-52	table#3	●		
12	LPF Cutoff	1.0k~Thru	34-60	table#3	●		
13	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3		●	
14	EQ Low Gain	-12~+12dB	52-76			●	
15	EQ High Frequency	500Hz~16.0kHz	28-58	table#3		●	
16	EQ High Gain	-12~+12dB	52-76			●	

CROSS DELAY

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	L->R Delay	0.1~355.0ms	1-3550		●	●	
2	R->L Delay	0.1~355.0ms	1-3550		●	●	
3	Feedback Level	-63~+63	1-127		●	●	
4	Input Select	L,R,L&R	0-2		●	●	
5	High Damp	0.1~1.0	1-10		●	●	
6							
7							
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	HPF Cutoff	Thru~8.0kHz	0-52	table#3	●		
12	LPF Cutoff	1.0k~Thru	34-60	table#3	●		
13	EQ Low Frequency	50Hz~2.0kHz	8-40	table#3		●	
14	EQ Low Gain	-12~+12dB	52-76			●	
15	EQ High Frequency	500Hz~16.0kHz	28-58	table#3		●	
16	EQ High Gain	-12~+12dB	52-76			●	

EARLY REF1,EARLY REF2

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Type	S-H, L-H, Rdm, Rvs, Plt, Spr	0-5		●	●	
2	Room Size	0.1~7.0	0-44	table#6	●	●	
3	Diffusion	0~10	0-10		●	●	
4	Initial Delay	0~63	0-63	table#5	●	●	
5	Feedback Level	-63~+63	1-127		●	●	
6	HPF Cutoff	Thru~8.0kHz	0-52		●	●	
7	LPF Cutoff	1.0k~Thru	34-60		●	●	
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	Liveness	0~10	0-10		●	●	
12	Density	0~3	0-3		●	●	
13	High Damp	0.1~1.0	1-10		●	●	
14							
15							
16							

GATE REVERB
REVERSE GATE

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Type	TypeA,TypeB	0-1		●	●	
2	Room Size	0.1~7.0	0-44	table#6	●	●	
3	Diffusion	0~10	0-10		●	●	
4	Initial Delay	0~63	0-63	table#5	●	●	
5	Feedback Level	-63~+63	1-127		●	●	
6	HPF Cutoff	Thru~8.0kHz	0-52		●	●	
7	LPF Cutoff	1.0k~Thru	34-60		●	●	
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	Liveness	0~10	0-10		●	●	
12	Density	0~3	0-3		●	●	
13	High Damp	0.1~1.0	1-10		●	●	
14							
15							
16							

OPTION EFFECT TYPE

PITCH CHANGE

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Pitch	-24~+24	40-88		●		
2	Initial Delay	0~127	0-127	table#7	●		

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
3	Fine 1	-50~+50	14-114		●		
4	Fine 2	-50~+50	14-114		●		
5	Feedback Gain	-99~+99%	1-127		●		
6							
7							
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●		●
11	Pan 1	L63~R63	1-127		●		
12	Output Level 1	0~127	0-127		●		
13	Pan 2	L63~R63	1-127		●		
14	Output Level 2	0~127	0-127		●		
15							
16							

AURAL EXICETER

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	HPF cutoff	500Hz~16.0kHz	28-58		●		
2	Drive	0~127	0-127		●		
3	Mix Level	0~127	0-127		●		
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

TOUCH WAH,WAH+DIST

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Sensitive	0~127	0-127		●		
2	Cutoff Frequency Offset	0~127	0-127		●		●
3	Resonance	1.0~12.0	10-120		●		
4							
5							
6	EQ Low Frequency	32Hz~2.0kHz	4-40	table#3	●		
7	EQ Low Gain	-12~+12dB	52-76		●		
8	EQ High Frequency	500Hz~16.0kHz	28-58	table#3	●		
9	EQ High Gain	-12~+12dB	52-76		●		
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●		
11	Drive	0~127	0-127		●		
12							
13							
14							
15							
16							

COMPRESSOR

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Attack	1~40ms	0-19	table#8	●		
2	Release	10~680ms	0-15	table#9	●		
3	Threshold	-48~-6dB	79-121		●		
4	Ratio	1.0~20.0	0-7	table#10	●		
5	Output Level	0~127	0-127		●		
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

NOISE GATE

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
1	Attack	1~40ms	0-19	table#8	●		
2	Release	10~680ms	0-15	table#9	●		
3	Threshold	-72~-30dB	55-97		●		
4	Output Level	0~127	0-127		●		
5							
6							
7							
8							
9							
10							
11	Ratio	1.0~5.0	0-7				
12							
13							
14							
15							
16							

No.	Parameter	Display	Value	See Table	MU80	MU50	Control
	WHITE ROOM						
	TUNNEL						
	CANYON (MU80 Only)						
	BASEMENT						
1	Reverb Time	0.3~30.0s	0-69	table#4	●	●	
2	Diffusion	0~10	0-10		●	●	
3	Initial Delay	0~63	0-63	table#5	●	●	
4	HPF Cutoff	Thru~8.0kHz	0-52	table#3	●	●	
5	LPF Cutoff	1.0k~Thru	34-60	table#3	●	●	
6	Width	0.5~10.2m	0-37	table#11	●	●	
7	Heigt	0.5~20.2m	0-73	table#11	●	●	
8	Depth	0.5~30.2m	0-104	table#11	●	●	
9	Wall Vary	0~30	0-30		●	●	
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11	Rev Delay	0~63	0-63	table#5	●	●	
12	Density	0~3	0-3		T 0-4 *REV(0-4),VAR(0-3) ●		
13	Er/Rev Balance	E63>R ~ E=R ~ E<R63	1-127			●	
14	High Damp	0.1~1.0	1-10		●		
15	Feedback Level	-63~+63	1-127			●	
16							
	KARAOKE1,2,3						
1	Delay Time	0~127	0-127	table#7	●	●	
2	Feedback Level	-63~+63	1-127		●	●	
3	HPF Cutoff	Thru~8.0kHz	0-52		●	●	
4	LPF Cutoff	1.0k~Thru	34-60		●	●	
5							
6							
7							
8							
9							
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●	●	●
11							
12							
13							
14							
15							
16							

Changes from the MU80
Delete tables #8,#9,#10(comp attack time,comp release time, comp ratio).
Exchange table#1 with updated table

table#1 LFO Frequency

Data	Value	Data	Value
0	0	64	2.69
1	0.04	65	2.77
2	0.08	66	2.86
3	0.12	67	2.94
4	0.16	68	3.02
5	0.21	69	3.11
6	0.25	70	3.19
7	0.29	71	3.28
8	0.33	72	3.36
9	0.37	73	3.44
10	0.42	74	3.53
11	0.46	75	3.61
12	0.50	76	3.70
13	0.54	77	3.86
14	0.58	78	4.03
15	0.63	79	4.20
16	0.67	80	4.37
17	0.71	81	4.54
18	0.75	82	4.71
19	0.79	83	4.87
20	0.84	84	5.04
21	0.88	85	5.21
22	0.92	86	5.38
23	0.96	87	5.55
24	1.00	88	5.72
25	1.05	89	6.05
26	1.09	90	6.39
27	1.13	91	6.72
28	1.17	92	7.06
29	1.22	93	7.40
30	1.26	94	7.73
31	1.30	95	8.07
32	1.34	96	8.41
33	1.38	97	8.74
34	1.43	98	9.08
35	1.47	99	9.42
36	1.51	100	9.75
37	1.55	101	10.0
38	1.59	102	10.7
39	1.64	103	11.4
40	1.68	104	12.1
41	1.72	105	12.7
42	1.76	106	13.4
43	1.80	107	14.1
44	1.85	108	14.8
45	1.89	109	15.4
46	1.93	110	16.1
47	1.97	111	16.8
48	2.01	112	17.5
49	2.06	113	18.1
50	2.10	114	19.5
51	2.14	115	20.8
52	2.18	116	22.2
53	2.22	117	23.5
54	2.27	118	24.8
55	2.31	119	26.2
56	2.35	120	27.5
57	2.39	121	28.9
58	2.43	122	30.2
59	2.48	123	31.6
60	2.52	124	32.9
61	2.56	125	34.3
62	2.60	126	37.0
63	2.65	127	39.7

table#2 Modulation Delay Offset

Data	Value	Data	Value
0	0.0	64	6.4
1	0.1	65	6.5
2	0.2	66	6.6
3	0.3	67	6.7
4	0.4	68	6.8
5	0.5	69	6.9
6	0.6	70	7.0
7	0.7	71	7.1
8	0.8	72	7.2
9	0.9	73	7.3
10	1.0	74	7.4
11	1.1	75	7.5
12	1.2	76	7.6
13	1.3	77	7.7
14	1.4	78	7.8
15	1.5	79	7.9
16	1.6	80	8.0
17	1.7	81	8.1
18	1.8	82	8.2
19	1.9	83	8.3
20	2.0	84	8.4
21	2.1	85	8.5
22	2.2	86	8.6
23	2.3	87	8.7
24	2.4	88	8.8
25	2.5	89	8.9
26	2.6	90	9.0
27	2.7	91	9.1
28	2.8	92	9.2
29	2.9	93	9.3
30	3.0	94	9.4
31	3.1	95	9.5
32	3.2	96	9.6
33	3.3	97	9.7
34	3.4	98	9.8
35	3.5	99	9.9
36	3.6	100	10.0
37	3.7	101	11.1
38	3.8	102	12.2
39	3.9	103	13.3
40	4.0	104	14.4
41	4.1	105	15.5
42	4.2	106	17.1
43	4.3	107	18.6
44	4.4	108	20.2
45	4.5	109	21.8
46	4.6	110	23.3
47	4.7	111	24.9
48	4.8	112	26.5
49	4.9	113	28.0
50	5.0	114	29.6
51	5.1	115	31.2
52	5.2	116	32.8
53	5.3	117	34.3
54	5.4	118	35.9
55	5.5	119	37.5
56	5.6	120	39.0
57	5.7	121	40.6
58	5.8	122	42.2
59	5.9	123	43.7
60	6.0	124	45.3
61	6.1	125	46.9
62	6.2	126	48.4
63	6.3	127	50.0

table#3 EQ Frequency

Data	Value
8	50
9	56
10	63
11	70
12	80
13	90
14	100
15	110
16	125
17	140
18	160
19	180
20	200
21	225
22	250
23	280
24	315
25	355
26	400
27	450
28	500
29	560
30	630
31	700
32	800
33	900
34	1.0k
35	1.1k
36	1.2k
37	1.4k
38	1.6k
39	1.8k
40	2.0k
41	2.2k
42	2.5k
43	2.8k
44	3.2k
45	3.6k
46	4.0k
47	4.5k
48	5.0k
49	5.6k
50	6.3k
51	7.0k
52	8.0k
53	9.0k
54	10.0k
55	11.0k
56	12.0k
57	14.0k
58	16.0k
59	18.0k
60	THRU(20.0k)

table#4 Reverb time

Data	Value	Data	Value
0	0.3	64	17.0
1	0.4	65	18.0
2	0.5	66	19.0
3	0.6	67	20.0
4	0.7	68	25.0
5	0.8	69	30.0
6	0.9		
7	1.0		
8	1.1		
9	1.2		
10	1.3		
11	1.4		
12	1.5		
13	1.6		
14	1.7		
15	1.8		
16	1.9		
17	2.0		
18	2.1		
19	2.2		
20	2.3		
21	2.4		
22	2.5		
23	2.6		
24	2.7		
25	2.8		
26	2.9		
27	3.0		
28	3.1		
29	3.2		
30	3.3		
31	3.4		
32	3.5		
33	3.6		
34	3.7		
35	3.8		
36	3.9		
37	4.0		
38	4.1		
39	4.2		
40	4.3		
41	4.4		
42	4.5		
43	4.6		
44	4.7		
45	4.8		
46	4.9		
47	5.0		
48	5.5		
49	6.0		
50	6.5		
51	7.0		
52	7.5		
53	8.0		
54	8.5		
55	9.0		
56	9.5		
57	10.0		
58	11.0		
59	12.0		
60	13.0		
61	14.0		
62	15.0		
63	16.0		

table#5 Delay Time(200.0ms)

Data	Value	Data	Value
0	0.1	64	100.8
1	1.7	65	102.4
2	3.2	66	104.0
3	4.8	67	105.6
4	6.4	68	107.1
5	8.0	69	108.7
6	9.5	70	110.3
7	11.1	71	111.9
8	12.7	72	113.4
9	14.3	73	115.0
10	15.8	74	116.6
11	17.4	75	118.2
12	19.0	76	119.7
13	20.6	77	121.3
14	22.1	78	122.9
15	23.7	79	124.4
16	25.3	80	126.0
17	26.9	81	127.6
18	28.4	82	129.2
19	30.0	83	130.7
20	31.6	84	132.3
21	33.2	85	133.9
22	34.7	86	135.5
23	36.3	87	137.0
24	37.9	88	138.6
25	39.5	89	140.2
26	41.0	90	141.8
27	42.6	91	143.3
28	44.2	92	144.9
29	45.7	93	146.5
30	47.3	94	148.1
31	48.9	95	149.6
32	50.5	96	151.2
33	52.0	97	152.8
34	53.6	98	154.4
35	55.2	99	155.9
36	56.8	100	157.5
37	58.3	101	159.1
38	59.9	102	160.6
39	61.5	103	162.2
40	63.1	104	163.8
41	64.6	105	165.4
42	66.2	106	166.9
43	67.8	107	168.5
44	69.4	108	170.1
45	70.9	109	171.7
46	72.5	110	173.2
47	74.1	111	174.8
48	75.7	112	176.4
49	77.2	113	178.0
50	78.8	114	179.5
51	80.4	115	181.1
52	81.9	116	182.7
53	83.5	117	184.3
54	85.1	118	185.8
55	86.7	119	187.4
56	88.2	120	189.0
57	89.8	121	190.6
58	91.4	122	192.1
59	93.0	123	193.7
60	94.5	124	195.3
61	96.1	125	196.9
62	97.7	126	198.4
63	99.3	127	200.0

table#6 Room Size

Data	Value
0	0.1
1	0.3
2	0.4
3	0.6
4	0.7
5	0.9
6	1.0
7	1.2
8	1.4
9	1.5
10	1.7
11	1.8
12	2.0
13	2.1
14	2.3
15	2.5
16	2.6
17	2.8
18	2.9
19	3.1
20	3.2
21	3.4
22	3.5
23	3.7
24	3.9
25	4.0
26	4.2
27	4.3
28	4.5
29	4.6
30	4.8
31	5.0
32	5.1
33	5.3
34	5.4
35	5.6
36	5.7
37	5.9
38	6.1
39	6.2
40	6.4
41	6.5
42	6.7
43	6.8
44	7.0

table#7 Delay Time(400.0ms)

Data	Value	Data	Value
0	0.1	64	201.6
1	3.2	65	204.8
2	6.4	66	207.9
3	9.5	67	211.1
4	12.7	68	214.2
5	15.8	69	217.4
6	19.0	70	220.5
7	22.1	71	223.7
8	25.3	72	226.8
9	28.4	73	230.0
10	31.6	74	233.1
11	34.7	75	236.3
12	37.9	76	239.4
13	41.0	77	242.6
14	44.2	78	245.7
15	47.3	79	248.9
16	50.5	80	252.0
17	53.6	81	255.2
18	56.8	82	258.3
19	59.9	83	261.5
20	63.1	84	264.6
21	66.2	85	267.7
22	69.4	86	270.9
23	72.5	87	274.0
24	75.7	88	277.2
25	78.8	89	280.3
26	82.0	90	283.5
27	85.1	91	286.6
28	88.3	92	289.8
29	91.4	93	292.9
30	94.6	94	296.1
31	97.7	95	299.2
32	100.9	96	302.4
33	104.0	97	305.5
34	107.2	98	308.7
35	110.3	99	311.8
36	113.5	100	315.0
37	116.6	101	318.1
38	119.8	102	321.3
39	122.9	103	324.4
40	126.1	104	327.6
41	129.2	105	330.7
42	132.4	106	333.9
43	135.5	107	337.0
44	138.6	108	340.2
45	141.8	109	343.3
46	144.9	110	346.5
47	148.1	111	349.6
48	151.2	112	352.8
49	154.4	113	355.9
50	157.5	114	359.1
51	160.7	115	362.2
52	163.8	116	365.4
53	167.0	117	368.5
54	170.1	118	371.7
55	173.3	119	374.8
56	176.4	120	378.0
57	179.6	121	381.1
58	182.7	122	384.3
59	185.9	123	387.4
60	189.0	124	390.6
61	192.2	125	393.7
62	195.3	126	396.9
63	198.5	127	400.0

table#8 Reverb Width;Depth;Height

Data	Value	Data	Value
0	0.5	64	17.6
1	0.8	65	17.9
2	1.0	66	18.2
3	1.3	67	18.5
4	1.5	68	18.8
5	1.8	69	19.1
6	2.0	70	19.4
7	2.3	71	19.7
8	2.6	72	20.0
9	2.8	73	20.2
10	3.1	74	20.5
11	3.3	75	20.8
12	3.6	76	21.1
13	3.9	77	21.4
14	4.1	78	21.7
15	4.4	79	22.0
16	4.6	80	22.4
17	4.9	81	22.7
18	5.2	82	23.0
19	5.4	83	23.3
20	5.7	84	23.6
21	5.9	85	23.9
22	6.2	86	24.2
23	6.5	87	24.5
24	6.7	88	24.9
25	7.0	89	25.2
26	7.2	90	25.5
27	7.5	91	25.8
28	7.8	92	26.1
29	8.0	93	26.5
30	8.3	94	26.8
31	8.6	95	27.1
32	8.8	96	27.5
33	9.1	97	27.8
34	9.4	98	28.1
35	9.6	99	28.5
36	9.9	100	28.8
37	10.2	101	29.2
38	10.4	102	29.5
39	10.7	103	29.9
40	11.0	104	30.2
41	11.2		
42	11.5		
43	11.8		
44	12.1		
45	12.3		
46	12.6		
47	12.9		
48	13.1		
49	13.4		
50	13.7		
51	14.0		
52	14.2		
53	14.5		
54	14.8		
55	15.1		
56	15.4		
57	15.6		
58	15.9		
59	16.2		
60	16.5		
61	16.8		
62	17.1		
63	17.3		

REVERB TYPE
The following effect types are required under XG.   11typ

DEC	HEX	00	01	02	...	08
TYPE MSB		TYPE LSB				
000	0	[0] NO EFFECT				
001	1	[1] HALL1	[2] HALL2			
002	2	[3] ROOM1	[4] ROOM2	[5] ROOM3		
003	3	[6] STAGE1	[7] STAGE2			
004	4	[8] PLATE				
005	5	NO EFFECT				
:	:	:				
015	F	NO EFFECT				
016	10	[9] WHITE ROOM				
017	11	[10] TUNNEL				
018	12	NO EFFECT				
019	13	[11] BASEMENT				
020	14	NO EFFECT				
:	:	:				
127	7F	NO EFFECT				

NO EFFECT
same as BASIC EFFECT(LSB=0)

CHORUS TYPE   11type

DEC	HEX	00	01	02	...	08
TYPE MSB		TYPE LSB				
000	0	[0] NO EFFECT				
001	1	NO EFFECT				
:	:	:				
064	40	NO EFFECT				
065	41	[1] CHORUS1	[2] CHORUS2	[3] CHORUS3		[4] CHORUS4
066	42	[5] CELESTE1	[6] CELESTE2	[7] CELESTE3		[8] CELESTE4
067	43	[9] FLANGER 1	[10] FLANGER 2			[11] FLANGER3
068	44	NO EFFECT				
:	:	:				
127	7F	NO EFFECT				

NO EFFECT
same as BASIC EFFECT(LSB=0)

VARIATION TYPE(0~63)   42type

DEC	HEX	00	01	02	...	08
TYPE MSB		TYPE LSB				
000	0	[0] NO EFFECT				
001	1	[1] HALL1	[2] HALL2			
002	2	[3] ROOM1	[4] ROOM2	[5] ROOM3		
003	3	[6] STAGE1	[7] STAGE2			
004	4	[8] PLATE				
005	5	[9] DELAY L,C,R				
006	6	[10] DELAY L,R				
007	7	[11] ECHO				
008	8	[12] CROSS DELAY				
009	9	[13] ER1	[14] ER2			
010	A	[15] GATE REVERB				
011	B	[16] REVERSE GATE				
012	C	NO EFFECT or THRU				
:	:	:				
019	13	NO EFFECT or THRU				
020	14	[17] KARAOKE1	[18] KARAOKE2	[19] KARAOKE3		
021	15	NO EFFECT or THRU				
:	:	:				
063	3F	NO EFFECT or THRU				

NO EFFECT (for SYS) or THRU (for INS)
same as BASIC EFFECT (LSB=0)

VARIATION TYPE(64~127)

DEC	HEX	00	01	02	...	08
TYPE MSB		TYPE LSB				
064	40	[43] THRU				
065	41	[20] CHORUS1	[21] CHORUS2	[22] CHORUS3		[23] CHORUS4
066	42	[24] CELESTE1	[25] CELESTE2	[26] CELESTE3		[27] CELESTE4
067	43	[28] FLANGER 1	[29] FLANGER 2			[30] FLANGER3
068	44	[31] SYMPHONIC				
069	45	[32] ROTARY SPEAKER				
070	46	[33] TREMOLO				
071	47	[34] AUTO PAN				
072	48	[35] PHASER1				[36] PHASER2
073	49	[37] DISTORTION				
074	4A	[38] OVER DRIVE				
075	4B	[39] AMP SIMULATOR				
076	4C	[40] 3-BAND EQ(MONO)				
077	4D	[41] 2-BAND EQ(STEREO)				
078	4E	[42] AUTO WAH(LFO)				
079	4F	THRU				
:	:	:				
127	7F	THRU				

THRU
same as BASIC EFFECT (LSB=0)

1. Channel messages

1.1 Key on / Key off

Reception note range =C-2~G8
Velocity range = 1~127 (Velocity is received only for Note Off)
Not received by a Part for which the Multi Part parameter Rcv NOTE MESSAGE = OFF
Not received by a Rhythm Part for which Rcv NOTE OFF = OFF
Key On is not received by a Rhythm Part for which Rcv NOTE ON = OFF

1.2 Control change

Control Changes are not received by a Part for which the Multi Part parameter Rcv CONTROL CHANGE = OFF

1.2.1 Bank Select

Cntrl#	parameter	Data Range
0	Bank Select MSB	0:Normal, 64:SFX, 126-127:Drum
32	Bank Select LSB	0...127

Bank Select processing is suspended until a Program Change is received.
When Sound Module Mode = C/M, all Bank Select messages are ignored.

1.2.2 Modulation

Cntrl#	parameter	Data Range
1	Modulation	0...127

When the Multi Part parameter Rcv MODULATION = OFF, that Part will not receive Modulation messages.

1.2.3 Portamento Time

Cntrl#	parameter	Data Range
5	Portamento Time	0...127

When the parameter 1.2.9 Portamento = ON, this adjusts the speed of pitch change.
A setting of 0 is minimum portamento time, and 127 is longest portamento time.

1.2.4 Data Entry

Cntrl#	parameter	Data Range
6	Data Entry MSB	0...127
38	Data Entry LSB	0...127

Use this to set the value of the parameter specified by RPN and NRPN.

1.2.5 Main Volume

Cntrl#	parameter	Data Range
7	Main Volume	0...127

When the Multi Part parameter Rcv VOLUME = OFF, that Part will not receive Volume messages.

1.2.6 Pan

Cntrl#	parameter	Data Range
10	Pan	0...127

0 is left, 127 is right.
When the Multi Part parameter Rcv PAN = OFF, that Part will not receive Pan messages.

1.2.7 Expression

Cntrl#	parameter	Data Range
11	Expression	0...127

When the Multi Part parameter Rcv EXPRESSION = OFF, that Part will not receive Expression messages.

1.2.8 Hold1

Cntrl#	parameter	Data Range
64	Hold1	0...127
		(0-63:off, 64-127:on)

When the Multi Part parameter Rcv HOLD1 = OFF, that Part will not receive Hold1 messages.

1.2.9 Portamento

Cntrl#	parameter	Data Range
65	Portamento	0...127
		(0-63:off, 64-127:on)

When the Multi Part parameter Rcv PORTAMENTO = OFF, that Part will not receive Portamento messages.

1.2.10 Sostenuto

Cntrl#	parameter	Data Range
66	Sostenuto	0...127
		(0-63:off, 64-127:on)

When the Multi Part parameter Rcv SOSTENUTO = OFF, that Part will not receive Sostenuto messages.

1.2.11 Soft Pedal

Cntrl#	parameter	Data Range
67	Soft Pedal	0...127
		(0-63:off, 64-127:on)

When the Multi Part parameter Rcv SOFT PEDAL= OFF, that Part will not receive Soft Pedal messages.

1.2.12 Harmonic Content

Cntrl#	parameter	Data Range
71	Harmonic Content	0...127
		(0:-64, 64:+0, 127:+63)

This message adjusts the resonance specified by the voice data. Since this is a relative change parameter,
specify the increase or decrease relative to a center value of 64. Higher values will result in a more characteristic sound.
Depending on the voice, the range of effect may be narrower than the range available for setting.

1.2.13 Release Time

Cntrl#	parameter	Data Range
72	Release Time	0...127
		(0:-64, 64:+0, 127:+63)

This message adjusts the envelope release time specified by the voice data. Since this is a relative change parameter,
specify an increase or decrease relative to a center value of 64.

1.2.14 Attack Time

Cntrl#	parameter	Data Range
73	Attack Time	0...127
		(0:-64, 64:+0, 127:+63)

This message adjusts the envelope attack time specified by the voice data. Since this is a relative change parameter,
specify an increase or decrease relative to a central value of 64.

1.2.15 Brightness

Cntrl#	parameter	Data Range
74	Brightness	0...127
		(0:-64, 64:+0, 127:+63)

This message adjusts the cutoff frequency specified by the voice data. Since this is a relative change parameter,
specify an increase or decrease relative to a central value of 64. Lower values will result in a softer sound.
For some voices, the range of effect may be narrower than the range available for adjustment.

1.2.16 Portamento Control

Cntrl#	parameter	Data Range
84	Portamento Control	0...127

Portamento Control is transmitted specifying the Note On Key of currently-sounding note.
Specify a Portamento Source Key number of 0~127. When a Portamento Control message is received,
the currently sounding pitch will change with a Portamento Time of 0 to the key of the next-received Note On on the same channel.
This message is received even if Rcv PORTAMENTO = OFF

1.2.17 Effect1 Depth (Reverb Send Level)

Cntrl#	parameter	Data Range
91	Effect1 Depth	0...127

This message sets the send level for the reverb effect.

1.2.18 Effect3 Depth (Chorus Send Level)

Cntrl#	parameter	Data Range
93	Effect3 Depth	0...127

This message sets the send level for the chorus effect.

1.2.19 Effect4 Depth (Variation Effect Send Level)

Cntrl#	parameter	Data Range
94	Effect4 Depth	0...127(when Variation Connection = 1 (System))

This message sets the send level for the Variation effect.
If Variation Connection = 0(Insertion), this has no effect.

1.2.20 Data Increment / Decrement (for RPN)

Cntrl#	parameter	Data Range
96	RPN Increment	0...127
97	RPN Decrement	0...127

The data byte is ignored.

These messages increase or decrease the MSB value of Pitch Bend Sensitivity, Fine Tune, or Coarse Tune in steps of 1.
When the maximum value or minimum value is reached, the value will not be incremented or decremented further.
(Incrementing the Fine Tune will not cause the Coarse Tune to be stepped up.)

1.2.21 NRPN (Non-Registered Parameter Number)

Cntrl#	parameter	Data Range
98	NRPN LSB	0...127
99	NRPN MSB	0...127

When the Multi Part parameter Rcv NRPN = OFF, that Part will not receive NRPN messages.
First send the NRPN MSB and NRPN LSB to specify the parameter which is to be controlled. Then
use Data Entry to set the value of the specified parameter.

The following NRPN numbers can be received.

NRPN MSB	LSB	Data entry MSB	Parameter name and value range
$01	$08	$mm	Vibrato Rate mm : $00 - $40 - $7F (-64 - 0 - +63)
$01	$09	$mm	Vibrato Depth mm : $00 - $40 - $7F (-64 - 0 - +63)
$01	$0A	$mm	Vibrato Delay mm : $00 - $40 - $7F (-64 - 0 - +63)
$01	$20	$mm	Filter Cutoff Frequency mm : $00 - $40 - $7F (-64 - 0 - +63)
$01	$21	$mm	Filter Resonance mm : $00 - $40 - $7F (-64 - 0 - +63)
$01	$63	$mm	EG Attack Time mm : $00 - $40 - $7F (-64 - 0 - +63)
$01	$64	$mm	EG Decay Time mm : $00 - $40 - $7F (-64 - 0 - +63)
$01	$66	$mm	EG Release Time mm : $00 - $40 - $7F (-64 - 0 - +63)
$14	$rr	$mm	Drum Filter Cutoff Frequency mm : $00 - $40 - $7F (-64 - 0 - +63) rr : drum instrument note number
$15	$rr	$mm	Drum Filter Resonance mm : $00 - $40 - $7F (-64 - 0 - +63) rr : drum instrument note number
$16	$rr	$mm	Drum EG Attack Rate mm : $00 - $40 - $7F (-64 - 0 - +63) rr : drum instrument note number
$17	$rr	$mm	Drum EG Decay Rate mm : $00 - $40 - $7F (-64 - 0 - +63) rr : drum instrument note number Applies to both Decay1 and 2.
$18	$rr	$mm	Drum Instrument Pitch Coarse mm : $00 - $40 - $7F (-64 - 0 - +63) rr : drum instrument note number
$19	$rr	$mm	Drum Instrument Pitch Fine mm : $00 - $40 - $7F (-64 - 0 - +63) rr : drum instrument note number
$1A	$rr	$mm	Drum Instrument Level mm : $00 - $7F (0 - max) rr : drum instrument note number
$1C	$rr	$mm	Drum Instrument Pan mm : $00 - $40 - $7F (random, left - center - right) rr : drum instrument note number
$1D	$rr	$mm	Drum Instrument Reverb Send Level mm : $00 - $7F (0 - max) rr : drum instrument note number
$1E	$rr	$mm	Drum Instrument Chorus Send Level mm : $00 - $7F (0 - max) rr : drum instrument note number
$1F	$rr	$mm	Drum Instrument Variation Send Level mm : $00 - $7F (0 - max) rr : drum instrument note number

MSB 14h-1Fh(for Drum)is valid only when that channel is in Drum mode and Drum Setup 1 or 2 is selected.

1.2.22 RPN (Registered Parameter Number)

Cntrl#	parameter	Data Range
100	RPN LSB	0...127
101	RPN MSB	0...127
		Default:7F 7FH

When the Multi Part parameter Rcv RPN = OFF, that Part will not receive these messages.

The following RPN numbers can be received.

RPN MSB	LSB	Data entry MSB	LSB	Parameter name and value range
00H	00H	mmH	—	Pitch Bend Sensitivity mm:00-18H(0-2 chromatic steps) Settable in chromatic steps up to 2 octaves Default:02H LSB value is ignored.
00H	01H	mmH	11H	Fine Tuning mm:00H-40H-7FH(-64-0-+63)
00H	02H	mmH	—	Coarse Tuning mm:28H - 40H - 58H(-24 - +24 chromatic steps) LSB value is ignored.
7FH	7FH	—	—	RPN null Set condition in which RPN and NRPN numbers are not specified. Internally set values are not affected.

1.2.23 Channel Mode Messages

The following Channel Mode Messages are received.

2nd byte	3rd byte	
120	0	All Sound Off
121	0	Reset All Controllers
123	0	All Note Off
124	0	Omni Off
125	0	Omni On
126	0 ~ 16	Mono
127	0	Poly

1.2.23.1 All Sound Off

Turn off all sounds currently sounding on the specified channel.
However the status of channel messages such as Note On and Hold On is maintained.

1.2.23.2 Reset All Controllers

The values of the following controllers will change.

Controller	Value
Pitch Bend	±0 (center)
Channel Pressure	0 (off)
Polyphonic Key Pressure	0 (off)
Modulation	0 (off)
Expression	127 (max)
Hold	0 (off)
Portamento	0 (off)
Sostenuto	0 (off)
Soft Pedal	0 (off)
Portamento Control	resets the Portamento Source Note Number that was received
RPN	number not specified; internal data will not change
NRPN	number not specified; internal data will not change

1.2.23.3 All Note Off

This message turns off all notes currently on for the specified channel.
However if Hold 1 or Sostenuto are on, notes will continue sounding until these are turned off.

1.2.23.4 Omni Off

Perform the same processing as when All Note Off is received.

1.2.23.5 Omni On

Perform the same processing as when All Note Off is received.

1.2.23.6 Mono

Perform the same processing as when All Sound Off is received, and if the 3rd byte (mono number) is in the range of 0~16,
set the applicable channel to Mode 4 (m = 1).

1.2.23.7 Poly

Perform the same processing as when All Sound Off is received, and set the applicable channel to Mode 3.

1.3 Program Change

If the Multi Part parameter Rcv PROGRAM CHANGE = OFF, that Part will not receive Program Changes.
If Sound Module Mode = C/M, all Program Changes for the Drum Voice Part are ignored.

1.4 Pitch Bend

If the Multi Part parameter Rcv PITCH BEND CHANGE = OFF, that Part will not receive Pitch Bend messages.

1.5 Channel Aftertouch

With the default setting there will be no function.
If the Multi Part parameter Rcv CHANNEL AFTER TOUCH = OFF, that Part will not receive Channel Aftertouch.

1.6 Polyphonic Aftertouch

With the default setting there will be no function.
If the Multi Part parameter Rcv POLYPHONIC AFTER TOUCH = OFF, that Part will not receive Polyphonic Aftertouch.
There will be an effect only for note numbers 36-97.

2. System Exclusive Messages

2.1 Parameter Changes

This device uses the following parameter changes.

[UNIVERSAL REALTIME MESSAGE]
1) Master Volume

[UNIVERSAL NON REALTIME MESSAGE]
1) General MIDI Mode On
2) Identity Request(INQUIRY MESSAGE)
3) Identity Reply(INQUIRY MESSAGE)

[XG NATIVE]
1) XG System on
2) XG System Data parameter change
3) System Information
4) Multi Effect1 Data parameter change
5) Display Data parameter change
6) Multi Part Data parameter change
7) Drums Setup Data parameter change

[MU80, MU50 NATIVE]
1) MU80, MU50 System data parameter change
2) Current Performance parameter change
3) Remote switch

[Other]
1) Master tuning
2) TG300 System Data Parameter change
3) TG300 Multi Effect Data parameter change
4) TG300 Mutli Part Data parameter change
5) Disk Orchestra On

2.1.2 Universal Realtime Messages

2.1.2.1 Master Volume

11110000	F0	= Exclusive status
01111111	7F	= Universal Real Time
01111111	7F	= ID of target device
00000100	04	= Sub-ID #1=Device Control Message
00000001	01	= Sub-ID #2=Master Volume
0sssssss	*SS	= Volume LSB
0ttttttt	TT	= Volume MSB
11110111	F7	= End of Exclusive
or,		
11110000	F0	= Exclusive status
01111111	7F	= Universal Real Time
0xxxnnnn	XN	= Device Number, xxx = don't care
00000100	04	= Sub-ID #1=Device Control Message
00000001	01	= Sub-ID #2=Master Volume
0sssssss	SS	= Volume LSB
0ttttttt	TT	= Volume MSB
11110111	F7	= End of Exclusive

When this is received, the Volume MSB will be reflected in the System Parameter MASTER VOLUME.

* SS is the hex expression of 0sssssss Same for others

2.1.3 Universal Non-Realtime Messages

2.1.3.1 General MIDI Mode On

11110000	F0	= Exclusive status
01111110	7E	= Universal Non-Real Time
01111111	7F	= ID of target device
00001001	09	= Sub-ID #1=General MIDI Message
00000001	01	= Sub-ID #2=General MIDI On
11110111	F7	= End of Exclusive
or,		
11110000	F0	= Exclusive status
01111110	7E	= Universal Non-Real Time
0xxxnnnn	XN	= Device Number, xxx = don't care
00001001	09	= Sub-ID #1=General MIDI Message
00000001	01	= Sub-ID #2=General MIDI On
11110111	F7	= End of Exclusive

When On is received, the SOUND MODULE MODE will be changed to XG mode.
Ignored when in C/M mode.
Not received when Rcv GM EXCLUSIVE = OFF
Since approximately 50 ms is required to execute this message, leave an appropriate interval before the message that follows it.

2.1.3.2 Identity Request

11110000	F0	= Exclusive status
01111110	7E	= Universal Non-Real Time
0ccccccc	ccccccc	= Device Number
00000110	06	= General Information
00000001	01	= Identity Request(Sub-ID #2)
11110111	F7	= End of Exclusive

When this message is received, this device will transmit the following 2.1.3.3 Identity Reply message.

2.1.3.3 Identity Reply

11110000	F0	=Exclusive status	
11111110	7E	=Universal Non-Real Time	
0nnnnnnn	0nnnnnnn	=Device Number	
00000110	06	=General Information(Sub-ID #1)	
00000010	02	=Device Identity Reply(Sub-ID #2)	
01000011	43	=YAMAHA ID	
00000000	00	=Device Family Code LSB	MU50ID#1
01000001	41	=Device Family Code MSB	MU50ID#2
01000110	46	=Device Number Code LSB	MU50ID#3
00000001	01	=Device Number Code MSB	MU50ID#4
00000000	00		
00000000	00		
00000000	00		
00000000	01	=XG ID	
11110111	F7	=End of Exclusive	

This device transmits this message when it receives a 2.1.3.2 Identity Request message.

2.1.4   XG Native Parameter Change

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0001nnnn	1n	device Number
01001100	4C	XG Model ID
0aaaaaaa	aaaaaaa	Address High
0aaaaaaa	aaaaaaa	Address Mid
0aaaaaaa	aaaaaaa	Address Low
0ddddddd	ddddddd	Data
11110111	F7	End of Exclusive

For parameters whose data size is 2 or 4, transmit the appropriate number of data bytes.

2.1.4.1   XG Sytem On

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0001nnnn	1N	device Number
01001100	4C	XG Model ID
0aaaaaaa	00	Address High
0aaaaaaa	00	Address Mid
0aaaaaaa	7E	Address Low
00000000	00	Data
11110111	F7	End of Exclusive

When On is received, the SOUND MODULE MODE will change to XG.
Since approximately 50 ms is required to execute this message, leave an appropriate interval before
the message that follows it.

2.1.4.2   XG System Data parameter change
Refer to tables <1-1> and <1-2>.

2.1.4.3   System Information
Data transmission is performed in response to a Dump Request, but data reception is ignored.
Refer to tables <1-1> and <1-3>.

2.1.4.4   Multi Effect1 Data parameter change
Refer to tables <1-1> and <1-4>.

2.1.4.5   Display Data parameter change
Refer to tables <1-1> and <1-5>.

2.1.4.6   Multi Part Data parameter change
Refer to tables <1-1> and <1-6>.

2.1.4.7   Drums Setup Data parameter change
Refer to tables <1-1> and <1-7>.
If a DRUM SETUP RESET parameter change is received while in XG mode, the Drum Setup parameter values will be initialized.
In any mode, selecting a Drum Set will cause the Drum Setup parameter values to be initialized.

2.1.5   MU80, MU50 native parameter change

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0001nnnn	1n	device Number
01001001	49	MU80, MU50 Model ID
0aaaaaaa	aaaaaaa	Address High
0aaaaaaa	aaaaaaa	Address Mid
0aaaaaaa	aaaaaaa	Address Low
0ddddddd	ddddddd	Data
11110111	F7	End of Exclusive

For parameters with a data size of 2 or 4, transmit the appropriate number of data bytes.

2.1.5.1   MU80, MU50 System Data parameter change
Refer to tables <2-1> and <2-2>.

2.1.5.2   Current Performance parameter change
Refer to tables <2-1> and <2-3>.

2.1.5.3   Remote Switch
Refer to tables <2-1> and <2-4>.

2.1.6   Other parameter changes

2.1.6.1   Master Tuning

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0001nnnn	1n	device Number
00100111	27	Model ID
00000001	30	Sub ID2
00000000	00	
00000000	00	
0mmmmmmm	mm	Master Tune MSB
0lllllll	ll	Master Tune LSB
0ccccccc	cc	
11110111	F7	End of Exclusive

This message simultaneously changes the pitch of all channels.

2.1.6.2   Disk Orchestra On

11110000	F0
01000011	43
01110011	73
00000001	01
00010100	14
11110111	F7

This message sets the SOUND MODULE MODE of this device to DOC MODE.

2.2   Bulk Dump

This device handles the following bulk dump data.

[XG NATIVE]
1) XG System Data
2) Multi Effect1 Data
3) Multi Part Data
4) Drums Setup Data

[MU80, MU50 NATIVE]
1) MU80, MU50 System data
2) Internal Performance

2.2.1   XG Native Bulk Dump

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0000nnnn	0n	device Number
01001100	4C	XG Model ID
0bbbbbbb	bbbbbbb	ByteCount
0bbbbbbb	bbbbbbb	ByteCount
0aaaaaaa	aaaaaaa	Address High
0aaaaaaa	aaaaaaa	Address Mid
0aaaaaaa	aaaaaaa	Address Low
00000000	00	Data
0ccccccc	ccccccc	Check-sum
11110111	F7	End of Exclusive

For the Address and Byte Count, refer to the supplementary tables.
The Check Sum is the value that results in a value of zero for the lower 7 bits when the Start Address, Byte Count, and the Check Sum itself are added.

No more than 512 bytes shall be transmitted at one time. If one of the above Dump Request messages for 513 bytes or more is received,
the data will be divided into appropriate packets of 512 bytes or less, and transmitted at appropriate intervals (of at least 120 msec).

2.2.1.1   XG System Data bulk dump
Refer to tables <1-1> and <1-2>.

2.2.1.2   Multi Effect1 Data bulk dump
Refer to tables <1-1> and <1-4>.

2.2.1.3   Multi Part Data bulk dump
Refer to tables <1-1> and <1-6>.

2.2.1.4   Drums Setup Data bulk dump
Refer to tables <1-1> and <1-7>.

2.2.2   MU80, MU50 Native Bulk Dump

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0000nnnn	0n	device Number
01001001	49	MU80, MU50 Model ID
0bbbbbbb	bbbbbbb	ByteCount
0bbbbbbb	bbbbbbb	ByteCount
0aaaaaaa	aaaaaaa	Address High
0aaaaaaa	aaaaaaa	Address Mid
0aaaaaaa	aaaaaaa	Address Low
00000000	00	Data
0ccccccc	ccccccc	Check-sum
11110111	F7	End of Exclusive

For the Address and Byte Count, refer to the supplementary tables.
The Check Sum is the value that results in a value of zero for the lower 7 bits when the
Start Address, Byte Count, and the Check Sum itself are added.

No more than 512 bytes shall be transmitted at one time. If one of the above Dump
Request messages for 513 bytes or more is received,
the data will be divided into appropriate packets of 512 bytes or less, and transmitted at
appropriate intervals (of at least 120 msec).

2.2.2.1   MU80, MU50 System Data bulk dump
Refer to tables <2-1> and <2-2>.

2.2.2.2   Internal Performance bulk dump
Refer to tables <2-1> and <2-5>.

2.3   Parameter Request

This device is able to handle requests for parameters corresponding to parameter
changes.

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0011nnnn	3n	device Number
01001100	4C	XG Model ID
0aaaaaaa	aaaaaaa	Address High
0aaaaaaa	aaaaaaa	Address Mid
0aaaaaaa	aaaaaaa	Address Low
11110111	F7	End of Exclusive

2.4   Dump Request

This device is able to handle requests for various types of bulk dump data.

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0010nnnn	2n	device Number
01001100	4C	XG Model ID
0aaaaaaa	aaaaaaa	Address High
0aaaaaaa	aaaaaaa	Address Mid
0aaaaaaa	aaaaaaa	Address Low
11110111	F7	End of Exclusive

3. Realtime Messages
3.1   Active Sensing

a) Transmission
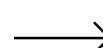   Not transmited.

b) Reception
    Once FE has been received, if no MIDI data is subsequently received for longer than
    an interval of approximately 300 msec, this device will perform the same processing
    as when ALL SOUND OFF, ALL NOTE OFF, and RESET ALL CONTROLLERS
    messages are received, and will then return to a status in which FE is not monitored.

<Table 1-1>

Parameter Base Address
Model ID = 4C [XG]

Parameter Change			
	Address		
	(H)	(M)	(L)	Description
XG SYSTEM	00	00	00	System
	00	00	7D	Drum Setup Reset
	00	00	7E	XG System On
	00	00	7F	Reset All Parameters
INFORMATION	01	00	00	System Information
EFFECT 1	02	01	00	Effect1(Reverb,Chorus,Variation)
DISPLAY	06	00	00	Display Letter
	07	00	00	Display Bitmap
MULTI PART	08	00	00	Multi Part 1
				:
	08	0F	00	Multi Part 16
DRUM	30	18	00	Drum Setup 1
	31	18	00	Drum Setup 2

Address	Parameter
3n 0B 00	note number 13
3n 0C 00	note number 14
:	:
3n 5B 00	note number 91

<Table 1-2>

MIDI Parameter Change table (SYSTEM) [XG]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
00 00 00	4	0000 - 07FF	MASTER TUNE	-102.4 - +102.3[cent]	00 04 00 00
01				1st bit3-0→bit15-12	-400
02				2nd bit3-0→bit11-8	
03				3rd bit3-0→bit7-4	
				4th bit3-0→bit3-0	
04	1	00 - 7F	MASTER VOLUME	0 - 127	7F
05	1	00 - 7F	not used		
06	1	28 - 58	TRANSPOSE	-24 - +24[semitones]	40
7D		n	DRUM SETUP RESET	n=Drum setup number (receive only)	
7E		00	XG SYSTEM ON	00=XG sytem ON (receive only)	
7F		00	ALL PARAMETER RESET	00=ON (receive only)	

TOTAL SIZE 06

<Table 1-3>

MIDI Parameter Change table (System information) [XG]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
01 00 00	E	20 - 7F	Model Name	32-127(ASCII)	
:		:			
0E		20 - 7F			
0F	1	00 - 7F	XG Support Level		0 - 127

TOTAL SIZE 10

This is transmitted in response to a Dump Request. This message is not received.

<Table 1-4>

MIDI Parameter Change table (EFFECT 1) [XG]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
02 01 00	2	00-7F	REVERB TYPE MSB	see Effect Program List	01(=HALL1)
		00-7F	REVERB TYPE LSB	00 : basic type	00
02	1	00-7F	REVERB PARAMETER 1	see Effect Parameter List	depends on reverb type
03	1	00-7F	REVERB PARAMETER 2	see Effect Parameter List	depends on reverb type
04	1	00-7F	REVERB PARAMETER 3	see Effect Parameter List	depends on reverb type
05	1	00-7F	REVERB PARAMETER 4	see Effect Parameter List	depends on reverb type
06	1	00-7F	REVERB PARAMETER 5	see Effect Parameter List	depends on reverb type
07	1	00-7F	REVERB PARAMETER 6	see Effect Parameter List	depends on reverb type
08	1	00-7F	REVERB PARAMETER 7	see Effect Parameter List	depends on reverb type
09	1	00-7F	REVERB PARAMETER 8	see Effect Parameter List	depends on reverb type
0A	1	00-7F	REVERB PARAMETER 9	see Effect Parameter List	depends on reverb type
0B	1	00-7F	REVERB PARAMETER 10	see Effect Parameter List	depends on reverb type
0C	1	00-7F	REVERB RETURN	-∞dB...0dB...+6dB(0...64...127)	40
0D	1	01-7F	REVERB PAN	L63...C...R63(1...64...127)	40

TOTAL SIZE 0E

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
02 01 10	1	00-7F	REVERB PARAMETER 11	see Effect Parameter List	depends on reverb type
11	1	00-7F	REVERB PARAMETER 12	see Effect Parameter List	depends on reverb type
12	1	00-7F	REVERB PARAMETER 13	see Effect Parameter List	depends on reverb type
13	1	00-7F	REVERB PARAMETER 14	see Effect Parameter List	depends on reverb type
14	1	00-7F	REVERB PARAMETER 15	see Effect Parameter List	depends on reverb type
15	1	00-7F	REVERB PARAMETER 16	see Effect Parameter List	depends on reverb type

TOTAL SIZE 6

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
02 01 20	2	00-7F	CHORUS TYPE MSB	see Effect Program List	41(=CHORUS1)
		00-7F	CHORUS TYPE LSB	00 : basic type	00
22	1	00-7F	CHORUS PARAMETER 1	see Effect Parameter List	depends on chorus Type
23	1	00-7F	CHORUS PARAMETER 2	see Effect Parameter List	depends on chorus Type
24	1	00-7F	CHORUS PARAMETER 3	see Effect Parameter List	depends on chorus Type
25	1	00-7F	CHORUS PARAMETER 4	see Effect Parameter List	depends on chorus Type
26	1	00-7F	CHORUS PARAMETER 5	see Effect Parameter List	depends on chorus Type

27	1	00-7F	CHORUS PARAMETER 6	see Effect Parameter List	depends on chorus Type
28	1	00-7F	CHORUS PARAMETER 7	see Effect Parameter List	depends on chorus Type
29	1	00-7F	CHORUS PARAMETER 8	see Effect Parameter List	depends on chorus Type
2A	1	00-7F	CHORUS PARAMETER 9	see Effect Parameter List	depends on chorus Type
2B	1	00-7F	CHORUS PARAMETER 10	see Effect Parameter List	depends on chorus Type
2C	1	00-7F	CHORUS RETURN	-∞dB...0dB...+6dB(0...64...127)	40
2D	1	01-7F	CHORUS PAN	L63...C...R63(1...64...127)	40
2E	1	00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB(0...64...127)	00
TOTAL SIZE	0F				

02 01 30	1	00-7F	CHORUS PARAMETER 11	see Effect Parameter List	depends on chorus Type
31	1	00-7F	CHORUS PARAMETER 12	see Effect Parameter List	depends on chorus Type
32	1	00-7F	CHORUS PARAMETER 13	see Effect Parameter List	depends on chorus Type
33	1	00-7F	CHORUS PARAMETER 14	see Effect Parameter List	depends on chorus Type
34	1	00-7F	CHORUS PARAMETER 15	see Effect Parameter List	depends on chorus Type
35	1	00-7F	CHORUS PARAMETER 16	see Effect Parameter List	depends on chorus Type
TOTAL SIZE	6				

02 01 40	2	00-7F	VARIATION TYPE MSB	see Effect Program List	05(=DELAY L,C,R)
		00-7F	VARIATION TYPE LSB	00 : basic type	00
42	2	00-7F	VARIATION PARAMETER 1 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 1 LSB	see Effect Parameter List	depends on variation type
44	2	00-7F	VARIATION PARAMETER 2 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 2 LSB	see Effect Parameter List	depends on variation type
46	2	00-7F	VARIATION PARAMETER 3 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 3 LSB	see Effect Parameter List	depends on variation type
48	2	00-7F	VARIATION PARAMETER 4 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 4 LSB	see Effect Parameter List	depends on variation type
4A	2	00-7F	VARIATION PARAMETER 5 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 5 LSB	see Effect Parameter List	depends on variation type
4C	2	00-7F	VARIATION PARAMETER 5 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 6 LSB	see Effect Parameter List	depends on variation type
4E	2	00-7F	VARIATION PARAMETER 7 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 7 LSB	see Effect Parameter List	depends on variation type
50	2	00-7F	VARIATION PARAMETER 8 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 8 LSB	see Effect Parameter List	depends on variation type
52	2	00-7F	VARIATION PARAMETER 9 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 9 LSB	see Effect Parameter List	depends on variation type
54	2	00-7F	VARIATION PARAMETER 10 MSB	see Effect Parameter List	depends on variation type
		00-7F	VARIATION PARAMETER 10 LSB	see Effect Parameter List	depends on variation type
56	1	00-7F	VARIATION RETURN	-∞dB...0dB...+6dB(0...64...127)	40
57	1	01-7F	VARIATION PAN	L63...C...R63(1...64...127)	40
58	1	00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB(0...64...127)	00
59	1	00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB(0...64...127)	00
5A	1	00-01	VARIATION CONNECTION	0:INSERTION,1:SYSTEM	00
5B	1	00-01	VARIATION PART	Part1...16(0...15) OFF(127)	7F
5C	1	00-7F	MW VARIATION CONTROL DEPTH	-64 - +63	40
5D	1	00-7F	BEND VARIATION CONTROL DEPTH	-64 - +63	40
5E	1	00-7F	CAT VARIATION CONTROL DEPTH	-64 - +63	40
5F	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64 - +63	40
60	1	00-7F	AC2 VARIATION CONTROL DEPTH	-64 - +63	40
TOTAL SIZE	21				

02 01 70	1	00-7F	VARIATION PARAMETER 11	see Effect Parameter List	depends on variation type
71	1	00-7F	VARIATION PARAMETER 12	see Effect Parameter List	depends on variation type
72	1	00-7F	VARIATION PARAMETER 13	see Effect Parameter List	depends on variation type
73	1	00-7F	VARIATION PARAMETER 14	see Effect Parameter List	depends on variation type
74	1	00-7F	VARIATION PARAMETER 15	see Effect Parameter List	depends on variation type
75	1	00-7F	VARIATION PARAMETER 16	see Effect Parameter List	depends on variation type
TOTAL SIZE	6				

<Table 1-5>

MIDI Parameter Change table (DISPLAY DATA) [XG]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
06 00 00	20	20 - 7F	DISPLAY LETTER	32-127(ASCII CHARACTER)	
:		:			
1F		20 - 7F			
TOTAL SIZE	20				
07 vh 00	30	00 - 7F	DISPLAY BITMAP Data0	0 - 127	
:		:			
2F		00 - 7F	Data47		

TOTAL SIZE 30

v : Vertical extension (0 to 7)   Single display is 16×16 dots, so maximum display is 256 dots (h) by 128 dots (v).
h : Horizontal extension (0 to F)

The data is related to the display screen as follows.
Each byte of data represents seven horizontal pixels.
Set a bit to 1 to turn on a pixe, and to 0 to turn off a pixel.
This data is arranged on the screen as follows.

```
        b6 b5 b4 b3 b2 b1 b0           b6 b5 b4 b3 b2 b1 b0           b6 b5 b4 b3 b2 b1 b0   (b stands for bit)
 Data0   *  *  *  *  *  *  *    Data16  *  *  *  *  *  *  *    Data32  *  *  -  -  -  -  -
 Data1                          Data17                        Data33
 Data2                          Data18                        Data34
 Data3                          Data19                        Data35
 Data4                          Data20                        Data36
 Data5                          Data21                        Data37
```

Data6	Data22	Data38
Data7	Data23	Data39
Data8	Data24	Data40
Data9	Data25	Data41
Data10	Data26	Data42
Data11	Data27	Data43
Data12	Data28	Data44
Data13	Data29	Data45
Data14	Data30	Data46
Data15	Data31	Data47

" For Data32~Data47, only bit 6 and bit 5 are used."

It is also possible for bitmap data to be received to change only for specified pixels. In this case, other pixels will display the previous status.
DISPLAY DATA parameter changes can be used to transmit consecutive data starting with a desired location.

<Table 1-6>

MIDI Parameter Change table (MULTI PART) [XG]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
08 nn 00	1	00 - 20	ELEMENT RESERVE	0 - 32	part10=0, other =2
nn 01	1	00 - 7F	BANK SELECT MSB	0 - 127	part10=7F, other=0
nn 02	1	00 - 7F	BANK SELECT LSB	0 - 127	00
nn 03	1	00 - 7F	PROGRAM NUMBER	1 - 128	00
nn 04	1	00 - 1F, 7F	Rcv CHANNEL	A1 - A16, OFF	Part No.
nn 05	1	00 - 01	MONO/POLY MODE	0:MONO 1:POLY	01
nn 06	1	00 - 02	SAME NOTE NUMBER KEY ON ASSIGN	0:SINGLE 1:MULTI 2:INST (for DRUM)	1 (all part) Part 10=2, other=0
nn 07	1	00 - 05	PART MODE	0:NORMAL 1:DRUM 2 - 5:DRUMS1 - 4	00 (Other than Part 10) 02 (Part10)
nn 08	1	28 - 58	NOTE SHIFT	-24 - +24[semitones]	40
nn 09	2	00 - FF	DETUNE	-12.8 - +12.7[Hz]	08 00
nn 0A				1st bit3-0→bit7-4 2nd bit3-0→bit3-0	(80)
nn 0B	1	00 - 7F	VOLUME	0 - 127	64
nn 0C	1	00 - 7F	VELOCITY SENSE DEPTH	0 - 127	40
nn 0D	1	00 - 7F	VELOCITY SENSE OFFSET	0 - 127	40
nn 0E	1	00 - 7F	PAN	0:random 1/L63...64/C...127/R63	40
nn 0F	1	00 - 7F	NOTE LIMIT LOW	C-2 - G8	00
nn 10	1	00 - 7F	NOTE LIMIT HIGH	C-2 - G8	7F
nn 11	1	00 - 7F	DRY LEVEL	0 - 127	7F
nn 12	1	00 - 7F	CHORUS SEND	0 - 127	00
nn 13	1	00 - 7F	REVERB SEND	0 - 127	28
nn 14	1	00 - 7F	VARIATION SEND	0 - 127	00
nn 15	1	00 - 7F	VIBRATO RATE	-64 - +63	40
nn 16	1	00 - 7F	VIBRATO DEPTH	-64 - +63	40 (drum part ignores)
nn 17	1	00 - 7F	VIBRATO DELAY	-64 - +63	40 (drum part ignores)
nn 18	1	00 - 7F	FILTER CUTOFF FREQUENCY	-64 - +63	40
nn 19	1	00 - 7F	FILTER RESONANCE	-64 - +63	40
nn 1A	1	00 - 7F	EG ATTACK TIME	-64 - +63	40
nn 1B	1	00 - 7F	EG DECAY TIME	-64 - +63	40
nn 1C	1	00 - 7F	EG RELEASE TIME	-64 - +63	40
nn 1D	1	28 - 58	MW PITCH CONTROL	-24 - +24[semitones]	40
nn 1E	1	00 - 7F	MW FILTER CONTROL	-9600 - +9450[cent]	40
nn 1F	1	00 - 7F	MW AMPLITUDE CONTROL	-64 - +63	40
nn 20	1	00 - 7F	MW LFO PMOD DEPTH	0 - 127	0A
nn 21	1	00 - 7F	MW LFO FMOD DEPTH	0 - 127	00
nn 22	1	00 - 7F	MW LFO AMOD DEPTH	0 - 127	00
nn 23	1	28 - 58	BEND PITCH CONTROL	-24 - +24[semitones]	42
nn 24	1	00 - 7F	BEND FILTER CONTROL	-9600 - +9450[cent]	40
nn 25	1	00 - 7F	BEND AMPLITUDE CONTROL	-64 - +63	40
nn 26	1	00 - 7F	BEND LFO PMOD DEPTH	0 - 127	40
nn 27	1	00 - 7F	BEND LFO FMOD DEPTH	0 - 127	40
nn 28	1	00 - 7F	BEND LFO AMOD DEPTH	0 - 127	40
TOTAL SIZE	29				
nn 30	1	00 - 01	Rcv PITCH BEND	OFF/ON	01
nn 31	1	00 - 01	Rcv CH AFTER TOUCH(CAT)	OFF/ON	01
nn 32	1	00 - 01	Rcv PROGRAM CHANGE	OFF/ON	01
nn 33	1	00 - 01	Rcv CONTROL CHANGE	OFF/ON	01
nn 34	1	00 - 01	Rcv POLY AFTER TOUCH(PAT)	OFF/ON	01
nn 35	1	00 - 01	Rcv NOTE MESSAGE	OFF/ON	01
nn 36	1	00 - 01	Rcv RPN	OFF/ON	01
nn 37	1	00 - 01	Rcv NRPN	OFF/ON	XG=01, GM=00
nn 38	1	00 - 01	Rcv MODURATION	OFF/ON	01
nn 39	1	00 - 01	Rcv VOLUME	OFF/ON	01
nn 3A	1	00 - 01	Rcv PAN	OFF/ON	01
nn 3B	1	00 - 01	Rcv EXPRESSION	OFF/ON	01
nn 3C	1	00 - 01	Rcv HOLD1	OFF/ON	01
nn 3D	1	00 - 01	Rcv PORTAMENTO	OFF/ON	01
nn 3E	1	00 - 01	Rcv SOSTENUTO	OFF/ON	01
nn 3F	1	00 - 01	Rcv SOFT PEDAL	OFF/ON	01
nn 40	1	00 - 01	Rcv BANK SELECT	OFF/ON	XG=01, GM=00

nn 41	1	00 - 7F	SCALE TUNING C	-64 - +63[cent]	40
nn 42	1	00 - 7F	SCALE TUNING C#	-64 - +63[cent]	40
nn 43	1	00 - 7F	SCALE TUNING D	-64 - +63[cent]	40
nn 44	1	00 - 7F	SCALE TUNING D#	-64 - +63[cent]	40
nn 45	1	00 - 7F	SCALE TUNING E	-64 - +63[cent]	40
nn 46	1	00 - 7F	SCALE TUNING F	-64 - +63[cent]	40
nn 47	1	00 - 7F	SCALE TUNING F#	-64 - +63[cent]	40
nn 48	1	00 - 7F	SCALE TUNING G	-64 - +63[cent]	40
nn 49	1	00 - 7F	SCALE TUNING G#	-64 - +63[cent]	40
nn 4A	1	00 - 7F	SCALE TUNING A	-64 - +63[cent]	40
nn 4B	1	00 - 7F	SCALE TUNING A#	-64 - +63[cent]	40
nn 4C	1	00 - 7F	SCALE TUNING B	-64 - +63[cent]	40
nn 4D	1	28 - 58	CAT PITCH CONTROL	-24 - +24[semitones]	40
nn 4E	1	00 - 7F	CAT FILTER CONTROL	-9600 - +9450[cent]	40
nn 4F	1	00 - 7F	CAT AMPLITUDE CONTROL	-64 - +63	40
nn 50	1	00 - 7F	CAT LFO PMOD DEPTH	0 - 127	00
nn 51	1	00 - 7F	CAT LFO FMOD DEPTH	0 - 127	00
nn 52	1	00 - 7F	CAT LFO AMOD DEPTH	0 - 127	00
nn 53	1	28 - 58	PAT PITCH CONTROL	-24 - +24[semitones]	40
nn 54	1	00 - 7F	PAT FILTER CONTROL	-9600 - +9450[cent]	40
nn 55	1	00 - 7F	PAT AMPLITUDE CONTROL	-64 - +63	40
nn 56	1	00 - 7F	PAT LFO PMOD DEPTH	0 - 127	00
nn 57	1	00 - 7F	PAT LFO FMOD DEPTH	0 - 127	00
nn 58	1	00 - 7F	PAT LFO AMOD DEPTH	0 - 127	00
nn 59	1	00 - 5F	AC1 CONTROLLER NUMBER	0 - 95	10
nn 5A	1	28 - 58	AC1 PITCH CONTROL	-24 - +24[semitones]	40
nn 5B	1	00 - 7F	AC1 FILTER CONTROL	-9600 - +9450[cent]	40
nn 5C	1	00 - 7F	AC1 AMPLITUDE CONTROL	-64 - +63	40
nn 5D	1	00 - 7F	AC1 LFO PMOD DEPTH	0 - 127	00
nn 5E	1	00 - 7F	AC1 LFO FMOD DEPTH	0 - 127	00
nn 5F	1	00 - 7F	AC1 LFO AMOD DEPTH	0 - 127	00
nn 60	1	00 - 5F	AC2 CONTROLLER NUMBER	0 - 95	11
nn 61	1	28 - 58	AC2 PITCH CONTROL	-24 - +24[semitones]	40
nn 62	1	00 - 7F	AC2 FILTER CONTROL	-9600 - +9450[cent]	40
nn 63	1	00 - 7F	AC2 AMPLITUDE CONTROL	-64 - +63	40
nn 64	1	00 - 7F	AC2 LFO PMOD DEPTH	0 - 127	00
nn 65	1	00 - 7F	AC2 LFO FMOD DEPTH	0 - 127	00
nn 66	1	00 - 7F	AC2 LFO AMOD DEPTH	0 - 127	00
nn 67	1	00 - 01	PORTAMENTO SWITCH	0/OFF, 1/ON	00
nn 68	1	00 - 7F	PORTAMENTO TIME	0 - 127	00
nn 69	1	00 - 7F	PITCH EG INITIAL LEVEL	-64 - +63	40
nn 6A	1	00 - 7F	PITCH EG ATTACK TIME	-64 - +63	40
nn 6B	1	00 - 7F	PITCH EG RELEASE LEVEL	-64 - +63	40
nn 6C	1	00 - 7F	PITCH EG RELEASE TIME	-64 - +63	40
nn 6D	1	00 - 7F	VELOCITY LIMIT LOW	1 - 127	01
nn 6E	1	00 - 7F	VELOCITY LIMIT HIGH	1 - 127	7F

TOTAL SIZE 3F

nn = PartNumber (0:1 Part, 1:2 Part, 2:3 Part,…,15:16 Part)
For the DRUM PART, the following parameters have no effect.
- BANK SELECT LSB
- PORTAMENTO
- SOFT PEDAL
- MONO/POLY
- SCALE TUNING
- POLY AFTER TOUCH
- PITCH EG

<Table 1-7>

MIDI Parameter Change table (DRUM SETUP) [XG]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
3n rr 00	1	00 - 7F	PITCH COARSE	-64 - +63	40
3n rr 01	1	00 - 7F	PITCH FINE	-64 - +63[cent]	40
3n rr 02	1	00 - 7F	LEVEL	0 - 127	depend on the note
3n rr 03	1	00 - 7F	ALTERNATE GROUP	0:OFF, 1 - 127	depend on the note
3n rr 04	1	00 - 7F	PAN	0:random, 1/L63_64/C_127/R63	depend on the note
3n rr 05	1	00 - 7F	REVERB SEND	0 - 127	depend on the note
3n rr 06	1	00 - 7F	CHORUS SEND	0 - 127	depend on the note
3n rr 07	1	00 - 7F	VARIATION SEND	0 - 127	7F
3n rr 08	1	00 - 01	KEY ASSIGN	0:SINGLE 1:MULTI	00
3n rr 09	1	00 - 01	Rcv NOTE OFF	0/OFF, 1/ON	depend on the note
3n rr 0A	1	00 - 01	Rcv NOTE ON	0/OFF, 1/ON	01
3n rr 0B	1	00 - 7F	FILTER CUTOFF FREQUENCY	-64 - 63	40
3n rr 0C	1	00 - 7F	FILTER RESONANCE	-64 - 63	40
3n rr 0D	1	00 - 7F	EG ATTACK RATE	-64 - 63	40
3n rr 0E	1	00 - 7F	EG DECAY1 RATE	-64 - 63	40
3n rr 0F	1	00 - 7F	EG DECAY2 RATE	-64 - 63	40

TOTAL SIZE 10

[Note]
n:Drum setup number, A minimum of two setups is required.
rr:Note Number (0D-54), As a minimum, all notes covered by GMx must be supported.
When XG system on or GM system on messages are received, all DRUM SETUP parameters are initialized.
The Drum Setup Reset message can be used to initialize each Drum Setup parameter.

<Table 2-1>

Parameter Base Address
Model ID = 49 [MU80, MU50]

Parameter Change			
	Address		
	(H)	(M)	(L)	Description
MU50 SYSTEM	00	00	00	System
CURRENT	09	00	00	Performance Common PER-
FORMANCE	09	01	00	Performance Part1
09	02	00Performance Part2	09
03	00Performance Part3	09
04	00Performance Part4	REMOTE SWITCH 0A
00	00Switch remote	
INTERNAL	30	00	00	Internal Performance#1 Common
PERFORMANCE		:		
	30	7F	00	Internal Performance#128 Common
	31	00	00	Internal Performance#1 Part1
		:		
	31	7F	00	Internal Performance#128 Part1
	32	00	00	Internal Performance#1 Part2
		:		
	32	7F	00	Internal Performance#128 Part2
	33	00	00	Internal Performance#1 Part3
		:		
	33	7F	00	Internal Performance#128 Part3
	34	00	00	Internal Performance#1 Part4
		:		
	34	7F	00	Internal Performance#128 Part4

Performance Common

Address	Parameter
09 00 00	System
00 20	Effect

pp: Performance#

Performance Common INT

Address	Parameter
30 pp 00	System
pp 20	Effect

pp: Performance#

<Table2-2>

MIDI Parameter Change table (SYSTEM) [MU80, MU50]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
00 00 00	1	00-01	MUTE LOCK	0/OFF, 1/ON	0
01	1		not used		
02	1		not used		
03	1	00-01	RECEIVE GM ON	0/OFF,1/ON	1
04	1	00-01	RECELVE BANK SELECT	0/OFF,1/ON	1
05	1	00-04	BULK OUT INTERVAL TIME	0/50, 1/100, 2/150, 3/200, 4/300	2
06	1	00-10	PERFORMANCE CHANNEL	1 - 16, all	1
07	1	28-58	PERFORMANCE TRANSPOSE	-24 - +24[semitone]	40
08	1	00-07	LCD CONTRAST	1 - 8	2
09	1	00-07	MULTI PORT NUMBER for MIDI OUT	1 - 8	1

TOTAL SIZE 0A

<Table2-3>

MIDI Parameter Change table (CURRENT PERFORMANCE COMMON SYSTEM) [MU80, MU50]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
09 00 00	0C	20 - 7F	performance name	32 - 127(ASCII CHARACTER)	
09 00 0C	01	00 - 7F	master volume	0 - 127	
09 00 0D	01	01 - 7F	master pan	1/L63 - 64/C - 127/R63	
09 00 0E	01	00 - 5F	AC1 CC Number	0- 95	
09 00 0F	01	00 - 01	not used		

TOTAL SIZE 10

pp:performance number   (00-40)

MIDI Parameter Change table (CURRENT PERFORMANCE COMMON EFFECT) [MU80, MU50]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
09 00 20	2	00-7F	REVERB TYPE MSB	See Effect Program List	01(=HALL1)
09 00 21		00-7F	REVERB TYPE LSB	00 : basic type	00
09 00 22	1	00-7F	REVERB PARAMETER 1	See Effect Parameter List	depends on reverb type
09 00 23	1	00-7F	REVERB PARAMETER 2	See Effect Parameter List	depends on reverb type
09 00 24	1	00-7F	REVERB PARAMETER 3	See Effect Parameter List	depends on reverb type
09 00 25	1	00-7F	REVERB PARAMETER 4	See Effect Parameter List	depends on reverb type
09 00 26	1	00-7F	REVERB PARAMETER 5	See Effect Parameter List	depends on reverb type
09 00 27	1	00-7F	REVERB RETURN	-∞dB...0dB...+6dB(0...64...127)	40
09 00 28	1	01-7F	REVERB PAN	L63...C...R63(1...64...127)	40
09 00 29	2	00-7F	CHORUS TYPE MSB	See Effect Program List	41(=CHORUS1)
09 00 2A		00-7F	CHORUS TYPE LSB	00 : basic type	00
09 00 2B	1	00-7F	CHORUS PARMETER 1	See Effect Parameter List	depends on chorus Type
09 00 2C	1	00-7F	CHORUS PARMETER 2	See Effect Parameter List	depends on chorus Type
09 00 2D	1	00-7F	CHORUS PARMETER 3	See Effect Parameter List	depends on chorus Type
09 00 2E	1	00-7F	CHORUS PARMETER 4	See Effect Parameter List	depends on chorus Type
09 00 2F	1	00-7F	CHORUS PARMETER 5	See Effect Parameter List	depends on chorus Type
09 00 30	1	00-7F	CHORUS RETURN	-∞dB...0dB...+6dB(0...64...127)	40
09 00 31	1	01-7F	CHORUS PAN	L63...C...R63(1...64...127)	40
09 00 32	1	00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB(0...64...127)	00
09 00 33	2	00-7F	VARIATION TYPE MSB	See Effect Program List	05(=DELAY L,C,R)
09 00 34		00-7F	VARIATION TYPE LSB	00 : basic type	00

09 00 35	2	00-7F	VARIATION PARMETER 1 MSB	See Effect Parameter List	depends on variation type
09 00 36		00-7F	VARIATION PARMETER 1 LSB	See Effect Parameter List	depends on variation type
09 00 37	2	00-7F	VARIATION PARMETER 2 MSB	See Effect Parameter List	depends on variation type
09 00 38		00-7F	VARIATION PARMETER 2 LSB	See Effect Parameter List	depends on variation type
09 00 39	2	00-7F	VARIATION PARMETER 3 MSB	See Effect Parameter List	depends on variation type
09 00 3A		00-7F	VARIATION PARMETER 3 LSB	See Effect Parameter List	depends on variation type
09 00 3B	2	00-7F	VARIATION PARMETER 4 MSB	See Effect Parameter List	depends on variation type
09 00 3C		00-7F	VARIATION PARMETER 4 LSB	See Effect Parameter List	depends on variation type
09 00 3D	2	00-7F	VARIATION PARMETER 5 MSB	See Effect Parameter List	depends on variation type
09 00 3E		00-7F	VARIATION PARMETER 5 LSB	See Effect Parameter List	depends on variation type
09 00 3F	2	00-7F	VARIATION PARMETER 10 MSB	See Effect Parameter List	depends on variation type
09 00 40		00-7F	VARIATION PARMETER 10 LSB	See Effect Parameter List	depends on variation type
09 00 41	1	00-7F	VARIATION RETURN	-∞dB...0dB...+6dB(0...64...127)	40
09 00 42	1	01-7F	VARIATION PAN	L63...C...R63(1...64...127)	40
09 00 43	1	00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB(0...64...127)	00
09 00 44	1	00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB(0...64...127)	00
09 00 45	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64 - +63	00
09 00 46	1	00-01	VARIATION CONECTION	0:INSERTION,1:SYSTEM	00
09 00 47	1	00-7F	VARIATION PART	Part1...4(0...3) OFF(127)	7F

TOTAL SIZE 40

MIDI Parameter Change table (CURRENT PERFORMANCE PART) [MU80, MU50]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
09 0n 00	1	00 - 7F	PROGRAM NUMBER	1 - 128	
09 0n 01	1	00 - 7F	BANK SELECT	0 - 127 (See XG voice map, 127=SFX bank)	
09 0n 02	1	00 - 7F	VOLUME	0 - 127	
09 0n 03	1	00 - 7F	PAN	0/random, 1/L63 - 64/C - 127/R63	
09 0n 04	1	00 - 7F	DRY SEND LEVEL	0 - 127(VarConnection=SYS)	
09 0n 05	1	00 - 7F	CHORUS SEND	0 - 127	
09 0n 06	1	00 - 7F	REVERB SEND	0 - 127	
09 0n 07	1	00 - 7F	VARIATION SEND	0 - 127	
09 0n 08	1	28 - 58	NOTE SHIFT	-24 - +24[semitones]	
09 0n 09	1	00 - 01	Rcv NOTE MESSAGE(MUTE)	0/OFF,1/ON	
09 0n 0A	1	00 - 7F	FILTER CUTOFF FREQUENCY	-64 - +63	
09 0n 0B	1	00 - 7F	FILTER RESONANCE	-64 - +63	
09 0n 0C	1	00 - 7F	EG ATTACK TIME	-64 - +63	
09 0n 0D	1	00 - 7F	EG DECAY TIME	-64 - +63	
09 0n 0E	1	00 - 7F	EG RELEASE TIME	-64 - +63	
09 0n 0F	1	00 - 7F	VIBRATO RATE	-64 - +63	
09 0n 10	1	00 - 7F	VIBRATO DEPTH	-64 - +63	
09 0n 11	1	00 - 7F	VIBRATO DELAY	-64 - +63	
09 0n 12	2	00 - FF	DETUNE	-12.8 - +12.7[Hz] 1st bit3-0→bit7-4	
09 0n 14	1	00 - 7F	PITCH EG INITIAL LEVEL	-64 - +63	
09 0n 15	1	00 - 7F	PITCH EG ATTACK TIME	-64 - +63	
09 0n 16	1	00 - 7F	PITCH EG RELEASE LEVEL	-64 - +63	
09 0n 17	1	00 - 7F	PITCH EG RELEASE TIME	-64 - +63	
09 0n 18	1	00 - 7F	MW LFO PMOD DEPTH	0 - 127	
09 0n 19	1	00 - 7F	MW LFO FMOD DEPTH	0 - 127	
09 0n 1A	1	28 - 58	BEND PITCH CONTROL	-24 - +24[semitones]	
09 0n 1B	1	00 - 7F	AC1 FILTER CONTROL	-64 - +63	
09 0n 1C	1	00 - 7F	AC1 AMPLITUDE CONTROL	-64 - +63	
09 0n 1D	1	00 - 01	MONO/POLY MODE	0/MONO, 1/POLY	
09 0n 1E	1	00 - 7F	VELOCITY SENSE DEPTH	0 - 127	
09 0n 1F	1	00 - 7F	VELOCITY SENSE OFFSET	0 - 127	
09 0n 20	1	00 - 7F	NOTE LIMIT LOW	C-2 - G8	
09 0n 21	1	00 - 7F	NOTE LIMIT HIGH	C-2 - G8	
09 0n 22	1	00 - 01	PORTAMENTO SWITCH	0/OFF,1/ON	
09 0n 23	1	00 - 7F	PORTAMENTO TIME	0 - 127	
09 0n 24	1	01 - 7F	VELOCITY LIMIT LOW	1 - 127	
09 0n 25	1	01 - 7F	VELOCITY LIMIT HIGH	1 - 127	

TOTAL SIZE 26
[Note]
n: performance part number (01-04)

<Table2-4>

MIDI Parameter Change table (REMOTE SWITCH) [MU80, MU50]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
0A 00 00	1	00-01	PLAY switch	0/OFF,1/ON	
0A 00 01	1	00-01	UTIL switch	0/OFF,1/ON	
0A 00 02	1	00-01	MODE switch	0/OFF,1/ON	
0A 00 03	1	00-01	EDIT switch	0/OFF,1/ON	
0A 00 04	1	00-01	EFFECT switch	0/OFF,1/ON	
0A 00 05	1		not used		
0A 00 06	1	00-01	MUTE/SOLO switch	0/OFF,1/ON	
0A 00 07	1	00-01	ENTER switch	0/OFF,1/ON	
0A 00 08	1	00-01	EXIT switch	0/OFF,1/ON	
0A 00 09	1	00-01	PART- switch	0/OFF,1/ON	
0A 00 0A	1	00-01	SELECT- switch	0/OFF,1/ON	
0A 00 0B	1	00-01	VALUE- switch	0/OFF,1/ON	
0A 00 0C	1	00-01	PART+ switch	0/OFF,1/ON	
0A 00 0D	1	00-01	SELECT+ switch	0/OFF,1/ON	
0A 00 0E	1	00-01	VALUE+ switch	0/OFF,1/ON	

<Table2-5>

MIDI Parameter Change table (INTERNAL PERFORMANCE COMMON SYSTEM) [MU80, MU50]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
30 pp 00	0C	20 - 7F	performance name	32-127(ASCII CHARACTER)	
30 pp 0C	01	00 - 7F	performance volume	0 - 127	
30 pp 0D	01	01 - 7F	performance pan	1/L63 - 64/C - 127/R63	
30 pp 0E	01	00 - 5F	AC1 CC Number	0- 95	
30 pp 0F	01		not used		
TOTAL SIZE		10			

pp:performance number   (00-7F)

MIDI Parameter Change table (INTERNAL PERFORMANCE COMMON EFFECT) [MU80, MU50]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
30 pp 20	2	00-7F	REVERB TYPE MSB	See Effect Program List	
30 pp 21		00-7F	REVERB TYPE LSB	00 : basic type	
30 pp 22	1	00-7F	REVERB PARAMETER 1	See Effect Parameter List	
30 pp 23	1	00-7F	REVERB PARAMETER 2	See Effect Parameter List	
30 pp 24	1	00-7F	REVERB PARAMETER 3	See Effect Parameter List	
30 pp 25	1	00-7F	REVERB PARAMETER 4	See Effect Parameter List	
30 pp 26	1	00-7F	REVERB PARAMETER 5	See Effect Parameter List	
30 pp 27	1	00-7F	REVERB RETURN	-∞dB...0dB...+6dB(0...64...127)	
30 pp 28	1	01-7F	REVERB PAN	L63...C...R63(1...64...127)	
30 pp 29	2	00-7F	CHORUS TYPE MSB	See Effect Program List	
30 pp 2A		00-7F	CHORUS TYPE LSB	00 : basic type	
30 pp 2B	1	00-7F	CHORUS PARMETER 1	See Effect Parameter List	
30 pp 2C	1	00-7F	CHORUS PARMETER 2	See Effect Parameter List	
30 pp 2D	1	00-7F	CHORUS PARMETER 3	See Effect Parameter List	
30 pp 2E	1	00-7F	CHORUS PARMETER 4	See Effect Parameter List	
30 pp 2F	1	00-7F	CHORUS PARMETER 5	See Effect Parameter List	
30 pp 30	1	00-7F	CHORUS RETURN	-∞dB...0dB...+6dB(0...64...127)	
30 pp 31	1	01-7F	CHORUS PAN	L63...C...R63(1...64...127)	
30 pp 32	1	00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB(0...64...127)	
30 pp 33	2	00-7F	VARIATION TYPE MSB	See Effect Program List	
30 pp 34		00-7F	VARIATION TYPE LSB	00 : basic type	
30 pp 35	2	00-7F	VARIATION PARMETER 1 MSB	See Effect Parameter List	
30 pp 36		00-7F	VARIATION PARMETER 1 LSB	See Effect Parameter List	
30 pp 37	2	00-7F	VARIATION PARMETER 2 MSB	See Effect Parameter List	
30 pp 38		00-7F	VARIATION PARMETER 2 LSB	See Effect Parameter List	
30 pp 39	2	00-7F	VARIATION PARMETER 3 MSB	See Effect Parameter List	
30 pp 3A		00-7F	VARIATION PARMETER 3 LSB	See Effect Parameter List	
30 pp 3B	2	00-7F	VARIATION PARMETER 4 MSB	See Effect Parameter List	
30 pp 3C		00-7F	VARIATION PARMETER 4 LSB	See Effect Parameter List	
30 pp 3D	2	00-7F	VARIATION PARMETER 5 MSB	See Effect Parameter List	
30 pp 3E		00-7F	VARIATION PARMETER 5 LSB	See Effect Parameter List	
30 pp 3F	2	00-7F	VARIATION PARMETER 10 MSB	See Effect Parameter List	
30 pp 40		00-7F	VARIATION PARMETER 10 LSB	See Effect Parameter List	
30 pp 41	1	00-7F	VARIATION RETURN	-∞dB...0dB...+6dB(0...64...127)	
30 pp 42	1	01-7F	VARIATION PAN	L63...C...R63(1...64...127)	
30 pp 43	1	00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB(0...64...127)	
30 pp 44	1	00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB(0...64...127)	
30 pp 45	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64 - +63	
30 pp 46	1	00-01	VARIATION CONECTION	0:INSERTION,1:SYSTEM	
30 pp 47	1	00-03,7F	VARATION PART	Part1...4(0...3) OFF(127)	

TOTAL SIZE   40

[Note]
pp:performance number   (00-7F)

MIDI Parameter Change table (INTERNAL PERFORMANCE PART) [MU80, MU50]

Address (H)	Size (H)	Data (H)	Prameter	Description	Default value(H)
3n pp 00	1	00 - 7F	PROGRAM NUMBER	1 - 128	
3n pp 01	1	00 - 7F	BANK SELECT	0 - 127 (See XG voice map, 127=SFX bank)	
3n pp 02	1	00 - 7F	VOLUME	0 - 127	
3n pp 03	1	00 - 7F	PAN	0/random, 1/L63 - 64/C - 127/R63	
3n pp 04	1	00 - 7F	DRY SEND LEVEL	0 - 127	
3n pp 05	1	00 - 7F	CHORUS SEND	0 - 127	
3n pp 06	1	00 - 7F	REVERB SEND	0 - 127	
3n pp 07	1	00 - 7F	VARIATION SEND	0 - 127	
3n pp 08	1	28 - 58	NOTE SHIFT	-24 - +24[semitones]	
3n pp 09	1	00 - 7F	FILTER CUTOFF FREQUENCY	-64 - +63	
3n pp 0A	1	00 - 7F	FILTER RESONANCE	-64 - +63	
3n pp 0B	1	00 - 7F	EG ATTACK TIME	-64 - +63	
3n pp 0C	1	00 - 7F	EG DECAY TIME	-64 - +63	
3n pp 0D	1	00 - 7F	EG RELEASE TIME	-64 - +63	
3n pp 0E	1	00 - 7F	VIBRATO RATE	-64 - +63	
3n pp 0F	1	00 - 7F	VIBRATO DEPTH	-64 - +63	
3n pp 10	1	00 - 7F	VIBRATO DELAY	-64 - +63	
3n pp 11	2	00 - FF	DETUNE	-12.8 - +12.7[Hz] 1st bit3-0→bit7-4 2st bit3-0→bit3-0	
			Rcv NOTE MESSAGE	1st bit6 : 0/OFF,1/ON	

21

				MONO/POLY MODE	1st bit5 : 0/MONO, 1/POLY
				PORTAMENTO SWITCH	1st bit4 : 0/OFF,1/ON
3n	pp	13	1	00 - 7F	PITCH EG INITIAL LEVEL	-64 - +63
3n	pp	14	1	00 - 7F	PITCH EG ATTACK TIME	-64 - +63
3n	pp	15	1	00 - 7F	PITCH EG RELEASE LEVEL	-64 - +63
3n	pp	16	1	00 - 7F	PITCH EG RELEASE TIME	-64 - +63
3n	pp	17	1	00 - 7F	MW LFO PMOD DEPTH	0 - 127
3n	pp	18	1	00 - 7F	MW LFO FMOD DEPTH	0 - 127
3n	pp	19	1	28 - 58	BEND PITCH CONTROL	-24 - +24[semitones]
3n	pp	1A	1	00 - 7F	AC1 FILTER CONTROL	-64 - +63
3n	pp	1B	1	00 - 7F	AC1 AMPLITUDE CONTROL	-64 - +63
3n	pp	1C	1	00 - 7F	VELOCITY SENSE DEPTH	0 - 127
3n	pp	1D	1	00 - 7F	VELOCITY SENSE OFFSET	0 - 127
3n	pp	1E	1	00 - 7F	NOTE LIMIT LOW	C-2 - G8
3n	pp	1F	1	00 - 7F	NOTE LIMIT HIGH	C-2 - G8
3n	pp	20	1	00 - 7F	PORTAMENTO TIME	0 - 127
3n	pp	21	1	01 - 7F	VELOCITY LIMIT LOW	1 - 127
3n	pp	22	1	01 - 7F	VELOCITY LIMIT HIGH	1 - 127

TOTAL SIZE   23

[Note]

n: performance part number	(01-04)
pp:performance number	(00-7F)

XG BASIC EFFECT TYPE

The following effect types are required under XG.

REVERB BLOCK

TYPE MSB		TYPE LSB		
DEC	HEX	00	01	02
000	0	NO EFFECT		
001	1	HALL1	HALL2	
002	2	ROOM1	ROOM2	ROOM3
003	3	STAGE1	STAGE2	
004	4	PLATE		

CHORUS BLOCK

TYPE MSB			TYPE LSB	
DEC	HEX	00	01	02
000	0	NO EFFECT		
065	41	CHORUS1	CHORUS2	CHORUS3
066	42	CELESTE1	CELESTE2	CELESTE3
067	43	FLANGER 1	FLANGER 2	

VARIATION BLOCK

TYPE MSB			TYPE LSB	
DEC	HEX	00	01	02
000	0	NO EFFECT		
001	1	HALL1	HALL2	
002	2	ROOM1	ROOM2	ROOM3
003	3	STAGE1	STAGE2	
004	4	PLATE		
005	5	DELAY L,C,R		
006	6	DELAY L,R		
007	7	ECHO		
008	8	CROSS DELAY		
009	9	ER1	ER2	
010	A	GATE REVERB		
011	B	REVERSE GATE		
064	40	THRU		
065	41	CHORUS1	CHORUS2	CHORUS3
066	42	CELESTE1	CELESTE2	CELESTE3
067	43	FLANGER 1	FLANGER 2	
068	44	SYMPHONIC		
069	45	ROTARY SPEAKER		
070	46	TREMOLO		
071	47	AUTO PAN		
072	48	PHASER		
073	49	DISTORTION		
074	4A	OVER DRIVE		
075	4B	AMP SIMULATOR		
076	4C	3BAND EQ(MONO)		
077	4D	2BAND EQ(STEREO)		
078	4E	AUTO WAH(LFO)		

XG Voice List

Bank Select MSB=000   LSB=Bank Number

Instrument Group	Pgm	Bank 0	Elem	KSP Bank 1	Elem	Stereo Bank 3	Elem	Single Bank 6	Elem	Slow Bank 8	Elem	Fast Decay Bank 12	Elem	Double Attack Bank 14	Elem	Bright Bank 16	Elem	Bank 17	Elem	Dark Bank 18	Elem	Bank 19	Elem	Rsonant Bank 20	Elem
Piano	1	GrandPno	1	GrndPnoK	1															MelloGrP	1				
	2	BritePno	1	BritPnoK	1																				
	3	E.Grand	2	ElGrPnoK	2																				
	4	HnkyTonk	2	HnkyTnkK	2																				
	5	E.Piano1	2	El.Pno1K	1															MelloEP1	2				
	6	E.Piano2	2	El.Pno2K	1																				
	7	Harpsi.	1	Harpsi.K	1																				
	8	Clavi.	2	Clavi. K	1																				
Chromatic Percussion	9	Celesta	1																						
	10	Glocken	1																						
	11	MusicBox	2																						
	12	Vibes	1	VibesK	1																				
	13	Marimba	1	MarimbaK	1																				
	14	Xylophon	1																						
	15	TubulBel	1																						
	16	Dulcimer	1																						
Organ	17	DrawOrgn	1																						
	18	PercOrgn	1																						
	19	RockOrgn	2																						
	20	ChrchOrg	2																						
	21	ReedOrgn	1																						
	22	Acordion	2																						
	23	Harmnica	1																						
	24	TangoAcd	2																						
Guitar	25	NylonGtr	1														NylonGt2	1							
	26	SteelGtr	1														SteelGt2	1							
	27	Jazz Gtr	1																		MelloGtr	1				
	28	CleanGtr	1																						
	29	Mute.Gtr	1																						
	30	Ovrdrive	1																						
	31	Dist.Gtr	1																						
	32	GtrHarmo	1																						
Bass	33	Aco.Bass	1																						
	34	FngrBass	1																		FingrDrk	2				
	35	PickBass	1																						
	36	Fretless	1																						
	37	SlapBas1	1																						
	38	SlapBas2	1																						
	39	SynBass1	1																		SynBa1Dk	1			FastResB	1
	40	SynBass2	2					MelloSB1	1	Seq Bass	2										ClkSynBa	2	SynBa2Dk	1		
Strings	41	Violin	1							SlowVln	1														
	42	Viola	1																						
	43	Cello	1																						
	44	Contrabs	1																						
	45	Trem.Str	1							SlowTrStr	1														
	46	Pizz.Str	1																						
	47	Harp	1																						
	48	Timpani	1																						
Ensemble	49	Strings1	1			S.Strngs	2			Slow Str	1														
	50	Strings2	1			S.SlwStr	2			LegatoSt	2														
	51	Syn.Str1	2																						
	52	Syn.Str2	2																						
	53	ChoirAah	1			S.Choir	2									Ch.Aahs2	2								
	54	VoiceOoh	1																						
	55	SynVoice	1																						
	56	Orch.Hit	2																						
Brass	57	Trumpet	1														Trumpet2	1	BriteTrp	2						
	58	Trombone	1																		Trmbone2	2				
	59	Tuba	1														Tuba 2	1								
	60	Mute.Trp	1																						
	61	Fr.Horn	1					FrHrSolo	2																
	62	BrasSect	1																						
	63	SynBras1	2									QuackBr	2										RezSynBr	2
	64	SynBras2	2																		Soft Brs	2				

▓▓▓▓▓ : Same as Bank 0

Bank Select MSB=000   LSB=Bank Number

Instrument Group	Pgm	Attack Bank 24	Elem	Release Bank 25	Elem	Rezo Sweep Bank 27	Elem	Muted Bank 28	Elem	Detune 1 Bank 32	Elem	Detune 2 Bank 33	Elem	Detune 3 Bank 34	Elem	Octave 1 Bank 35	Elem	Octave 2 Bank 36	Elem	5th 1 Bank 37	Elem	5th 2 Bank 38	Elem	Bend Bank 39	Elem
Piano	1																							
	2																							
	3									Det.CP80	2														
	4																								
	5									Chor.EP1	2														
	6									Chor.EP2	2	DX Hard	2	DXLegend	2										
	7			Harpsi.2	2											Harpsi.3	2								
	8					ClaviWah	2																		
Chromatic	9																								
Percussion	10																								
	11																								
	12																								
	13																								
	14																								
	15																								
	16															Dulcimr2	2								
Organ	17									DetDrwOr	2	60sDrOr1	2	60sDrOr2	2	70sDrOr1	2	DrawOrg2	2	60sDrOr3	2	EvenBar	2		
	18	70sPcOr1	2							DetPrcOr	2	LiteOrg	2							PercOrg2	2				
	19																								
	20									ChurOrg3	2					ChurOrg2	2								
	21																								
	22									AccordIt	2														
	23									Harmo 2	2														
	24																								
Guitar	25			NylonGt3	2																				
	26															12StrGtr	2								
	27									JazzAmp	2														
	28									ChorusGt	2														
	29																								
	30																								
	31																								
	32																								
Bass	33																								
	34					FlangeBa	2																		
	35							MutePkBa	1																
	36									Fretles2	2	Fretles3	2	Fretles4	2										
	37					ResoSlap	1			PunchThm	2														
	38																								
	39	AcidBass	1													Clv Bass	2								
	40									SmthBa 2	2														
Strings	41																								
	42																								
	43																								
	44																								
	45																								
	46																								
	47																								
	48																								
Ensemble	49	ArcoStr	2													60sStrng	2								
	50																								
	51					ResoStr	2																		
	52																								
	53									MelChoir	2														
	54																								
	55																								
	56															OrchHit2	2								
Brass	57									WarmTrp	2														
	58																								
	59																								
	60																								
	61									FrHorn2	1											HornOrch	2		
	62															Tp&TbSec	2								
	63	PolyBrss	2			SynBras3	2			JumpBrss	2														
	64																								

Bank Select MSB=000   LSB=Bank Number

Tutti | Velo-Switch | Velo-Xfade | other wave

Instrument Group	Pgm	Bank 40	Elem	Bank 41	Elem	Bank 42	Elem	Bank 43	Elem	Bank 45	Elem	Bank 64	Elem	Bank 65	Elem	Bank 66	Elem	Bank 67	Elem	Bank 68	Elem	Bank 69	Elem	Bank 70	Elem
Piano	1	PianoStr	2	Dream	2																				
	2																								
	3	ElGrPno1	2	ElGrPno2	2																				
	4																								
	5	HardEl.P	2							VX El.P1	2	60sEl.P	1												
	6	DX Phase	2	DX+Analg	2	DXKotoEP	2			VX El.P2	2														
	7																								
	8											PulseClv	1	PierceCl	2										
Chromatic Percussion	9																								
	10																								
	11											Orgel	2												
	12									HardVibe	2														
	13											SineMrmb	2												
	14																								
	15																								
	16																								
Organ	17	16+2"2/3	2									Organ Ba	1	70sDrOr2	2	CheezOrg	2	DrawOrg3	2						
	18																								
	19											RotaryOr	2	SloRotar	2	FstRotar	2								
	20	NotreDam	2									OrgFlute	2	TrmOrgFl	2										
	21	Puff Org	2																						
	22																								
	23																								
	24											TngoAcd2	2												
Guitar	25							VelGtHrm	2																
	26	Nyln&Stl	2	Stl&Body	2																				
	27																								
	28																								
	29	FunkGtr1	2	MuteStlG	2			FunkGtr2	2	Jazz Man	1														
	30							Gt.Pinch	2																
	31	FeedbkGt	2	FeedbGt2	2																				
	32													GtFeedbk	1	GtrHrmo2	1								
Bass	33	JazzRthm	2							VXUprght	2														
	34	Ba&DstEG	2					FngrSlap	2	FngBass2	2					ModAlem	2								
	35																								
	36																								
	37																								
	38							VeloSlap	2																
	39	TeknoBa	2									Oscar	2	SqrBass	2	RubberBa	2								
	40	ModulrBa	2	DX Bass	2							X WireBa	2												
Strings	41																								
	42																								
	43																								
	44																								
	45	Susp Str	2																						
	46																								
	47	YangChin	2																						
	48																								
Ensemble	49	Orchestr	2	Orchstr2	2	TremOrch	2			VeloStr	2														
	50	Warm Str	2	Kingdom	2							70sStr	1	Str Ens3	1										
	51											Syn Str4	2	SS Str	2										
	52																								
	53	ChoirStr	2																						
	54																								
	55	SynVox2	2	Choral	2							AnaVoice	1												
	56											Impact	2												
Brass	57																								
	58																								
	59																								
	60																								
	61																								
	62	BrssSec2	2	HiBrass	2	MelloBrs	2																		
	63									AnaVelBr	2	AnaBrss1	2												
	64	SynBras4	2	ChorBrss	2					VelBras2	2	AnaBrss2	2												

Bank Select MSB=000   LSB=Bank Number

Bank Select MSB=064   LSB=000
SFX

Instrument Group	Pgm	Bank 71	Elem	Bank 72	Elem	Bank 96	Elem	Bank 97	Elem	Bank 98	Elem	Bank 99	Elem	Bank 100	Elem	Bank 101	Elem
Piano	1																
	2																
	3																
	4																
	5																
	6																
	7																
	8																
Chromatic	9																
Percussion	10																
	11																
	12																
	13								Balafon2	2	Log Drum	2						
	14																
	15							ChrchBel	2	Carillon	2							
	16							Cimbalom	2	Santur	2							
Organ	17																
	18																
	19																
	20																
	21																
	22																
	23																
	24																
Guitar	25							Ukulele	1									
	26							Mandolin	2									
	27																
	28																
	29																
	30																
	31																
	32																
Bass	33																
	34																
	35																
	36							SynFretl	2	Smooth	2							
	37																
	38																
	39							Hammer	2									
	40																
Strings	41																
	42																
	43																
	44																
	45																
	46																
	47																
	48																
Ensemble	49																
	50																
	51																
	52																
	53																
	54																
	55																
	56																
Brass	57																
	58																
	59																
	60																
	61																
	62																
	63																
	64																

Pgm	Bank 0	Elem
1	CuttngNz	1
2	CttngNz2	2
3		
4	Str Slap	1
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17	Fl.KClik	1
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33	Rain	1
34	Thunder	1
35	Wind	1
36	Stream	2
37	Bubble	2
38	Feed	2
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49	Dog	1
50	Horse	1
51	Bird 2	1
52		
53		
54		
55	Ghost	2
56	Maou	2
57		
58		
59		
60		
61		
62		
63		
64		

▩ : No sound

XG Voice List

Bank Select MSB=000   LSB=Bank Number

Instrument Group	Pgm	Bank 0	Elem	KSP Bank 1	Elem	Stereo Bank 3	Elem	Single Bank 6	Elem	Slow Bank 8	Elem	Fast Decay Bank 12	Elem	Double Attack Bank 14	Elem	Bright Bank 16	Elem	Bank 17	Elem	Dark Bank 18	Elem	Bank 19	Elem	Rsonant Bank 20	Elem
Reed	65	SprnoSax	1																						
	66	Alto Sax	1																						
	67	TenorSax	1																						
	68	Bari.Sax	1																						
	69	Oboe	2																						
	70	Eng.Horn	1																						
	71	Bassoon	1																						
	72	Clarinet	1																						
Pipe	73	Piccolo	1																						
	74	Flute	1																						
	75	Recorder	1																						
	76	PanFlute	1																						
	77	Bottle	2																						
	78	Shakhchi	2																						
	79	Whistle	1																						
	80	Ocarina	1																						
Synth Lead	81	SquareLd	2					Square 2	1	LMSquare	2									Hollow	1	Shmoog	2		
	82	Saw.Lead	2					Saw 2	1	ThickSaw	2									DynaSaw	1	DigiSaw	2	Big Lead	2
	83	CaliopLd	2																						
	84	Chiff Ld	2																						
	85	CharanLd	2																						
	86	Voice Ld	2																						
	87	Fifth Ld	2																						
	88	Bass &Ld	2													Big&Low	2								
Synth Pad	89	NewAgePd	2																						
	90	Warm Pad	2													ThickPad	2	Soft Pad	2	SinePad	2				
	91	PolySyPd	2																						
	92	ChoirPad	2																						
	93	BowedPad	2																						
	94	MetalPad	2																						
	95	Halo Pad	2																						
	96	SweepPad	2																					Shwimmer	2
Synth Effects	97	Rain	2																						
	98	SoundTrk	2																						
	99	Crystal	2									SynDrCmp	2	Popcorn	2					TinyBell	2				
	100	Atmosphr	2																	WarmAtms	2	HollwRls	2		
	101	Bright	2																						
	102	Goblins	2																						
	103	Echoes	2							EchoPad2	2			Echo Pan	2										
	104	Sci-Fi	2																						
Ethnic	105	Sitar	1																						
	106	Banjo	1																						
	107	Shamisen	1																						
	108	Koto	1																						
	109	Kalimba	1																						
	110	Bagpipe	2																						
	111	Fiddle	1																						
	112	Shanai	1																						
Percussive	113	TnklBell	2																						
	114	Agogo	2																						
	115	SteelDrm	2																						
	116	WoodBlok	1																						
	117	TaikoDrm	1																						
	118	MelodTom	2																						
	119	Syn.Drum	1																						
	120	RevCymbl	1																						
Sound Effects	121	FretNoiz	2																						
	122	BrthNoiz	2																						
	123	Seashore	2																						
	124	Tweet	2																						
	125	Telphone	1																						
	126	Helicptr	1																						
	127	Applause	1																						
	128	Gunshot	1																						

: Same as Bank 0

Bank Select MSB=000   LSB=Bank Number

		Attack		Release		Rezo Sweep		Muted		Detune 1		Detune 2		Detune 3		Octave 1		Octave 2		5th 1		5th 2		Bend	
Instrument Group	Pgm	Bank 24	Elem	Bank 25	Elem	Bank 27	Elem	Bank 28	Elem	Bank 32	Elem	Bank 33	Elem	Bank 34	Elem	Bank 35	Elem	Bank 36	Elem	Bank 37	Elem	Bank 38	Elem	Bank 39	Elem
Reed	65																								
	66																								
	67																								
	68																								
	69																								
	70																								
	71																								
	72																								
Pipe	73																								
	74																								
	75																								
	76																								
	77																								
	78																								
	79																								
	80																								
Synth Lead	81																								
	82	HeavySyn	2	WaspySyn	2																				
	83																								
	84																								
	85																								
	86	SynthAah	2																						
	87																Big Five	2							
	88																								
Synth Pad	89																								
	90																								
	91																								
	92																								
	93																								
	94																								
	95																								
	96					Converge	2																		
Synth Effects	97																								
	98					Prologue	2																		
	99																RndGlock	2							
	100																								
	101																								
	102																								
	103																								
	104																								
Ethnic	105									DetSitar	2					Sitar 2	2								
	106							MuteBnjo	1																
	107																								
	108																								
	109																								
	110																								
	111																								
	112																								
Percussive	113																								
	114																								
	115																								
	116																								
	117																								
	118																								
	119																								
	120																								
Sound Effects	121																								
	122																								
	123																								
	124																								
	125																								
	126																								
	127																								
	128																								

Bank Select MSB=000   LSB=Bank Number

Instrument Group	Pgm	Bank 40 (Tutti)	Elem	Bank 41	Elem	Bank 42	Elem	Bank 43 (Velo-Switch)	Elem	Bank 45 (Velo-Xfade)	Elem	Bank 64 (other wave)	Elem	Bank 65	Elem	Bank 66	Elem	Bank 67	Elem	Bank 68	Elem	Bank 69	Elem	Bank 70	Elem
Reed	65																								
	66	Sax Sect	2					HyprAlto	2																
	67	BrthTnSx	2	SoftTenr	2							TnrSax 2	1												
	68																								
	69																								
	70																								
	71																								
	72																								
Pipe	73																								
	74																								
	75																								
	76																								
	77																								
	78																								
	79																								
	80																								
Synth Lead	81											Mellow	2	SoloSine	2	SineLead	1								
	82	PulseSaw	2	Dr. Lead	2					VeloLead	2														
	83													Pure Pad	2										
	84											Rubby	2												
	85											DistLead	2	WireLead	2										
	86											VoxLead	2												
	87																								
	88											Fat&Prky	2	SoftWurl	2										
Synth Pad	89											Fantasy2	2												
	90											Horn Pad	2	RotarStr	2										
	91											PolyPd80	2	ClickPad	2	Ana Pad	2	SquarPad	2						
	92											Heaven2	2			Itopia	2	CC Pad	2						
	93											Glacier	2	GlassPad	2										
	94											Tine Pad	2	Pan Pad	2										
	95																								
	96											PolarPad	2			Celstial	2								
Synth Effects	97							ClaviPad	2			HrmoRain	2	AfrcnWnd	2	Caribean	2								
	98											Ancestrl	2												
	99	GlockChi	2	ClearBel	2	ChorBell	2					SynMalet	1	SftCryst	2	LoudGlok	2	XmasBell	2	VibeBell	2	DigiBell	2	AirBells	2
	100	NylonEP	2									NylnHarp	2	Harp Vox	2	AtmosPad	2	Planet	2						
	101											FantaBel	2												
	102											GobSyn	2	50sSciFi	2	Ring Pad	2	Ritual	2	ToHeaven	2			Night	2
	103											EchoBell	2	Big Pan	2	SynPiano	2	Creation	2	Stardust	2	Reso Pan	2		
	104											Starz	2												
Ethnic	105																								
	106																								
	107																								
	108																								
	109																								
	110																								
	111																								
	112											Shanai2	1												
Percussive	113																								
	114																								
	115																								
	116																								
	117																								
	118											Mel Tom2	1	Real Tom	2	Rock Tom	2								
	119											Ana Tom	1	ElecPerc	2										
	120																								
Sound Effects	121																								
	122																								
	123																								
	124																								
	125																								
	126																								
	127																								
	128																								

Bank Select MSB=000   LSB=Bank Number

Instrument Group	Pgm	Bank 71	Elem	Bank 72	Elem	Bank 96	Elem	Bank 97	Elem	Bank 98	Elem	Bank 99	Elem	Bank 100	Elem	Bank 101	Elem
Reed	65																
	66																
	67																
	68																
	69																
	70																
	71																
	72																
Pipe	73																
	74																
	75																
	76																
	77																
	78																
	79																
	80																
Synth Lead	81																
	82					Seq Ana	2										
	83																
	84																
	85																
	86																
	87																
	88																
Synth Pad	89																
	90																
	91																
	92																
	93																
	94																
	95																
	96																
Synth Effects	97																
	98																
	99	BellHarp	2	Gamelmba	2												
	100																
	101					Smokey	2										
	102	Glisten	2			BelChoir	2										
	103																
	104																
Ethnic	105					Tambra	2	Tamboura	2								
	106					Rabab	2	Gopichnt	2	Oud	2						
	107																
	108					T. Koto	2	Kanoon	2								
	109																
	110																
	111																
	112					Pungi	1	Hichriki	2								
Percussive	113					Bonang	2	Gender	2	Gamelan	2	S.Gamlan	2	Rama Cym	2	AsianBel	2
	114																
	115							GlasPerc	2	ThaiBell	2						
	116					Castanet	1										
	117					Gr.Cassa	1										
	118																
	119																
	120																
Sound Effects	121																
	122																
	123																
	124																
	125																
	126																
	127																
	128																

Bank Select MSB=064   LSB=000
SFX

Pgm	Bank 0	Elem
65	Tel.Dial	1
66	DoorSqek	1
67	Door Slam	1
68	Scratch	1
69	Scratch 2	2
70	WindChm	1
71	Telphon2	1
72		
73		
74		
75		
76		
77		
78		
79		
80		
81	CarEngin	1
82	Car Stop	1
83	Car Pass	1
84	CarCrash	1
85	Siren	2
86	Train	1
87	Jetplane	2
88	Starship	2
89	Burst	2
90	Coaster	2
91	SbMarine	2
92		
93		
94		
95		
96		
97	Laughing	1
98	Scream	1
99	Punch	1
100	Heart	1
101	FootStep	1
102		
103		
104		
105		
106		
107		
108		
109		
110		
111		
112		
113	MchinGun	1
114	LaserGun	2
115	Xplosion	2
116	FireWork	2
117		
118		
119		
120		
121		
122		
123		
124		
125		
126		
127		
128		

: No sound

XG Voice List

TG300B Voice List

Bank Select MSB=Bank Number LSB=000

Instrument Group	Pgm	Bank0	Elem	Bank 1	Elem	Bank 2	Elem	Bank 3	Elem	Bank 4	Elem	Bank 5	Elem	Bank 6	Elem	Bank 7	Elem	Bank 8	Elem	Bank 9	Elem	Bank 10	Elem	Bank 11	Elem
Piano	1	GrandPno	1															GrndPnoK	1						
	2	BritePno	1															BritPnoK	1						
	3	E.Grand	2	ElGrPno1	2	ElGrPno2	2											ElGrPnoK	2						
	4	HnkyTonk	2															HnkyTnkK	2						
	5	E.Piano1	2															Chor.EP1	2						
	6	E.Piano2	2															Chor.EP2	2						
	7	Harpsi.	1															Harpsi.3	2						
	8	Clavi.	2															Clavi. K	1						
Chromatic Percussion	9	Celesta	1																						
	10	Glocken	1																						
	11	MusicBox	2																						
	12	Vibes	1	Hard Vibe	2													VibesK	1						
	13	Marimba	1															MarimbaK	1						
	14	Xylophon	1																						
	15	TubulBel	1															ChrchBel	2	Carillon	2				
	16	Dulcimer	1	Dulcimr 2	2													Cimbalom	2						
Organ	17	DrawOrgn	1	70sDrOr1	2													DetDrwOr	2	70sDrOr2	2				
	18	PercOrgn	1	70sPcOr1	2													DetPrcOr	2						
	19	RockOrgn	2															RotaryOr	2						
	20	ChrchOrg	2															ChurOrg2	2						
	21	ReedOrgn	1																						
	22	Acordion	2															AccordIt	2						
	23	Harmnica	1	Harmo 2	2																				
	24	TangoAcd	2																						
Guitar	25	NylonGtr	1															Ukulele	1						
	26	SteelGtr	1															12StrGtr	2	Nyln&Stl	2				
	27	Jazz Gtr	1	MelloGtr	1													PdlSteel	1						
	28	CleanGtr	1															ChorusGt	2						
	29	Mute.Gtr	1															FunkGtr1	2						
	30	Ovrdrive	1																						
	31	Dist.Gtr	1															FeedbkGt	2	FeedbGt2	2				
	32	GtrHarmo	1															GtFeedbk	1						
Bass	33	Aco.Bass	1																						
	34	FngrBass	1	FngBass2	2																				
	35	PickBass	1															MutePkBa	1						
	36	Fretless	1	Fretles2	2	Fretles3	2	Fretles4	2	SynFretl	2	Smooth	2												
	37	SlapBas1	1															ResoSlap	1						
	38	SlapBas2	1																						
	39	SynBass1	1	SynBa1Dk	1													AcidBass	1	FastResB	1	TeknoBa	2		
	40	SynBass2	2	ClkSynBa	2	ModulrBa	2	Seq Bass	2									DX Bass	2	X WireBa	2				
Strings	41	Violin	1															SlowVln	1						
	42	Viola	1																						
	43	Cello	1																						
	44	Contrabs	1																						
	45	Trem.Str	1															SlwTrStr	1	Susp Str	2				
	46	Pizz.Str	1																						
	47	Harp	1																						
	48	Timpani	1																						
Ensemble	49	Strings1	1	Slow Str	1													Orchestr	2	Orchstr2	2	TremOrch	2	ChoirStr	2
	50	Strings2	1	70s Str	1													LegatoSt	2	Warm Str	2	S.SlwStr	2		
	51	Syn.Str1	2	SynStr4	2													Syn Str 3	2						
	52	Syn.Str2	2																						
	53	ChoirAah	1															S.Choir	2	MelChoir	2				
	54	VoiceDoo	1																						
	55	SynVoice	1															SynVox2	2						
	56	Orch.Hit	2	OrchHit2	2													Impact	2						
Brass	57	Trumpet	1	Trumpet2	1																				
	58	Trombone	1	Trmbone2	2																				
	59	Tuba	1	Tuba 2	1																				
	60	Mute.Trp	1																						
	61	Fr.Horn	2	FrHorn2	2													FrHrSolo	1						
	62	BrasSect	1															BrssSec2	2						
	63	SynBras1	2	PolyBrss	2													SynBras3	2	QuackBr	2				
	64	SynBras2	1	Soft Brs	2													SynBras4	2						

Bank Select MSB=Bank Number LSB=000

Instrument Group	Pgm	Bank 16	Elem	Bank 17	Elem	Bank 18	Elem	Bank 19	Elem	Bank 24	Elem	Bank 25	Elem	Bank 26	Elem	Bank 32	Elem	Bank 33	Elem	Bank 40	Elem	Bank 126	Elem	Bank 127	Elem
Piano	1	MelloGrP	1																			A-Piano1	2	a.piano1	1
	2																					A-Piano2	2	a.piano2	1
	3																					A-Piano3	2	a.piano3	1
	4																					A-Piano4	2	e.piano1	1
	5	VX El.P1	2							60sEl.P	1	HardEl.P	2	MelloEP1	2	El.Pno1K	1					A-Piano5	1	e.piano2	1
	6	VX El.P2	2							DX Hard	2					El.Pno2K	1					A-Piano6	1	e.piano3	1
	7	Harpsi.K	1							Harpsi.2	2											A-Piano7	1	e.piano4	1
	8																					E-Piano1	2	hnkytnk	2
Chromatic	9																					E-Piano2	2	e.organ1	2
Percussion	10																					E-Piano3	2	e.organ2	2
	11																					A-Guitr1	1	e.organ3	1
	12																					A-Guitr2	2	e.organ4	1
	13			Balafon2	2					Log Drum	2											A-Guitr3	2	pipeorg1	2
	14																					E-Guitr1	2	pipeorg2	2
	15																					E-Guitr2	1	pipeorg3	2
	16																					Slap-1	2	acordion	2
Organ	17	60sDrOr1	2	60sDrOr2	2	60sDrOr3	2			CheezOrg	2					DrawOrg2	2	EvenBar	2	Organ Ba	1	Slap-2	2	harpsi1	1
	18															PercOrg2	2					Slap-3	2	harpsi2	2
	19	SloRotar	2							FstRotar	2											Slap-4	2	harpsi3	1
	20	ChurOrg3	2							OrgFlute	2					TrmOrgFl	2					Slap-5	2	clavi1	1
	21																					Slap-6	2	clavi2	1
	22																					Slap-7	2	clavi3	1
	23																					Slap-8	2	celesta1	1
	24																					Finger-1	1	celesta2	1
Guitar	25	NylonGt3	2							VelGtHrm	2					NylonGt2	1			LequintG	1	Finger-2	2	synbras1	2
	26	Mandolin	2													SteelGt2	1					Picked-1	1	synbras2	2
	27																					Picked-2	2	synbras3	2
	28																					FretlsBs	1	synbras4	2
	29	FunkGtr2	2																			A-Bass	1	synbass1	1
	30																					Choir-1	1	synbass2	1
	31																					Choir-2	1	synbass3	1
	32																					Choir-3	1	synbass4	1
Bass	33																					Choir-4	2	newagepd	2
	34																					Strngs-1	2	synharmo	2
	35																					Strngs-2	2	choir pd	2
	36																					Strngs-3	2	bowed pd	2
	37																					Strngs-4	2	soundtrk	2
	38																					E-Organ1	2	atmosphr	2
	39	ResoBass	1																			E-Organ2	2	syn warm	2
	40	RubberBa	2	SynBa2Dk	1	MelloSB2	1	SmthBa 2	2													E-Organ3	2	synfunny	1
Strings	41																					E-Organ4	2	synecho1	2
	42																					E-Organ5	2	rain	2
	43																					E-Organ6	2	synoboe	2
	44																					E-Organ7	2	synecho2	2
	45																					E-Organ8	2	synsolo	2
	46																					E-Organ9	2	synrdorg	2
	47																					SoftTP-1	1	synbell	1
	48																					SoftTP-2	1	squareld	2
Ensemble	49	S.Strngs	2							VeloStr	2											TP/TRB-1	1	strsect1	2
	50																					TP/TRB-2	1	strsect2	2
	51																					TP/TRB-3	1	strsect3	2
	52																					TP/TRB-4	1	pizz.str	1
	53														Ch.Aahs2	2					TP/TRB-5	2	violin 1	2
	54																					TP/TRB-6	1	violin 2	1
	55																					Sax-1	1	cello 1	1
	56	LoFiRave	2																			Sax-2	1	cello 2	1
Brass	57									BriteTrp	2	WarmTrp	2									Sax-3	1	contrabs	1
	58																					Sax-4	2	harp 1	1
	59																					Brass-1	1	harp 2	1
	60																					Brass-2	1	guitar 1	1
	61	HornOrch	2																			Brass-3	2	guitar 2	1
	62																					Brass-4	2	elecgtr1	2
	63	AnaBrss1	2																			Brass-5	2	elecgtr2	2
	64	AnaBrss2	2	VelBras2	2																	Orch-Hit	1	sitar	1

Bank Select MSB=Bank Number LSB=000

Instrument Group	Pgm	Bank0	Elem	Bank 1	Elem	Bank 2	Elem	Bank 3	Elem	Bank 4	Elem	Bank 5	Elem	Bank 6	Elem	Bank 7	Elem	Bank 8	Elem	Bank 9	Elem	Bank 10	Elem	Bank 11	Elem
Reed	65	SprnoSax	1																							
	66	Alto Sax	1																HyprAlto	2						
	67	TnrSax 2	1																BrthTnSx	2						
	68	Bari.Sax	1																							
	69	Oboe	2																							
	70	Eng.Horn	1																							
	71	Bassoon	1																							
	72	Clarinet	1																							
Pipe	73	Piccolo	1																							
	74	Flute	1																							
	75	Recorder	1																							
	76	PanFlute	1																							
	77	Bottle	2																							
	78	Shakhchi	2																							
	79	Whistle	1																							
	80	Ocarina	1																							
Synth Lead	81	SquareLd	2	Square 2	1	Hollow	1	Mellow	2	SoloSine	2	Shmoog	2	LMSquare	2					SineLead	1						
	82	Saw.Lead	2	Saw 2	1	PulseSaw	2	ThickSaw	2	Big Lead	2	VeloLead	2	HeavySyn	2	DynaSaw	1	Dr. Lead	2						
	83	CaliopLd	2			Pure Pad	2																			
	84	Chiff Ld	2																							
	85	CharanLd	2																DistLead	2						
	86	Voice Ld	2																							
	87	Fifth Ld	2	Big Five	2																					
	88	Bass &Ld	2	Big&Low	2	Fat&Prky	2																			
Synth Pad	89	NewAgePd	2	Fantasy2	2																					
	90	Warm Pad	2	ThickPad	2	Horn Pad	2	RotarStr	2	Soft Pad	2															
	91	PolySyPd	2	PolyPd80	2																					
	92	ChoirPad	2	Heaven2	2																					
	93	BowedPad	2																							
	94	MetalPad	2	Tine Pad	2	Pan Pad	2																			
	95	Halo Pad	2																							
	96	SweepPad	2	PolarPad	2														Converge	2	Shwimmer	2	Celstial	2		
Synth Effects	97	Rain	2	HrmoRain	2	AfrcnWnd	2											ClaviPad	2						
	98	SoundTrk	2	Ancestrl	2	Prologue	2																			
	99	Crystal	2	SynMalet	1	SftCryst	2	RndGlock	2	LoudGlok	2	GlockChi	2	ClearBel	2	XmasBell	2	VibeBell	2	DigiBell	2				
	100	Atmosphr	2	WarmAtms	2	NylnHarp	2	Harp Vox	2	HollwRls	2	NylonEP	2	AtmosPad	2										
	101	Bright	2																							
	102	Goblins	2	GobSyn	2	50sSciFi	2																			
	103	Echoes	2	EchoBell	2	Echo Pan	2	EchoPad2	2	Big Pan	2			SynPiano	2										
	104	Sci-Fi	2	Starz	2																					
Ethnic	105	Sitar	1	Sitar 2	2	DetSitar	2											Tambra	2						
	106	Banjo	1	MuteBnjo	1														Rabab	2						
	107	Shamisen	1	Tsugaru	2																					
	108	Koto	1																T. Koto	2						
	109	Kalimba	1																							
	110	Bagpipe	2																							
	111	Fiddle	1																							
	112	Shanai	1	Shanai 2	1														Pungi	1						
Percussive	113	TnklBell	2																Bonang	2	Gender	2	Gamelan	2	S.Gamlan	2
	114	Agogo	2																							
	115	SteelDrm	2																							
	116	WoodBlok	1																Castanet	1						
	117	TaikoDrm	1																Gr.Cassa	1						
	118	MelodTom	2	Real Tom	2														Mel Tom2	1	Rock Tom	2				
	119	Syn.Drum	1																Ana Tom	1	ElecPerc	2				
	120	RevCymbl	1																							
Sound Effects	121	FretNoiz	2	CuttngNz	1	Str Slap	1	CttngNz2	2																
	122	BrthNoiz	2	Fl.KClik	1																					
	123	Seashore	2	Rain	1	Thunder	1	Wind	1	Stream	2	Bubble	2												
	124	Tweet	2	Dog	1	Horse	1	Bird 2	1																
	125	Telphone	1	Tel.Dial	1	DoorSqek	1	DoorSlam	1	Scratch	1	WindChm	1	Scratch2	2										
	126	Helicptr	1	CarEngin	1	Car Stop	1	Car Pass	1	CarCrash	1	Siren	2	Train	1	Jetplane	2	Starship	2	Burst	2		
	127	Applause	1	Laughing	1	Scream	1	Punch	1	Heart	1	FootStep	1												
	128	Gunshot	1	MchinGun	1	LaserGun	2	Xplosion	2																

Bank Select MSB=Bank Number LSB=000

Instrument Group	Pgm	Bank 16	Elem	Bank 17	Elem	Bank 18	Elem	Bank 19	Elem	Bank 24	Elem	Bank 25	Elem	Bank 26	Elem	Bank 32	Elem	Bank 33	Elem	Bank 40	Elem	Bank 126	Elem	Bank 127	Elem
Reed	65																							a.bass 1	1
	66																							a.bass 2	1
	67																							e.bass 1	1
	68																							e.bass 2	1
	69																							slapbas1	1
	70																							slapbas2	1
	71																							fretles1	1
	72																							fretles2	1
Pipe	73																							flute1	1
	74																							flute2	1
	75																							piccolo1	1
	76																							piccolo2	2
	77																							recorder	1
	78																							panpipes	2
	79																							sax1	2
	80																							sax2	1
Synth Lead	81																							sax3	1
	82	WaspySyn	2																					sax4	1
	83																							clarint1	1
	84																							clarint2	1
	85																							oboe	1
	86																							eng.horn	1
	87																							bassoon	1
	88																							harmnica	1
Synth Pad	89																							trumpet1	1
	90																							trumpet2	1
	91																							trmbone1	2
	92																							trmbone2	2
	93																							fr.horn1	1
	94																							fr.horn2	2
	95																							tuba	2
	96																							brssect1	1
Synth Effects	97																							brssect2	2
	98																							vibe1	1
	99	ChorBell	2	AirBells	2	BellHarp	2	Gamelmba	2															vibe2	1
	100																							symallet	1
	101																							maletwin	2
	102																							glocken	2
	103																							tubulbel	1
	104																							xylophon	1
Ethnic	105	Tamboura	2																					marimba	2
	106	Gopichnt	2							Oud	2													koto	1
	107																							sho	2
	108	Kanoon	2																					shakhchi	2
	109																							whistle1	2
	110																							whistle2	1
	111																							bottle	2
	112	Hichriki	2																					breath	2
Percussive	113	Rama Cym	2																					timpani	1
	114																							melotom	1
	115																							deepsnar	1
	116																							e.perc1	1
	117																							e.perc2	1
	118																							taiko	1
	119																							taikorim	1
	120																							cymbal	2
Sound Effects	121																							castanet	1
	122																							triangle	1
	123																							orchehit	1
	124																							telphone	1
	125																							bird	1
	126	Coaster	2																					jam	1
	127																							efctwatr	2
	128																							efctjngl	2

C/M Voice List

Pgm#	TYPE1 part1~9	TYPE2 part11~16	Pgm#	TYPE1 part1~9	TYPE2 part11~16	Pgm#	TYPE1 part1~9	TYPE2 part11~16
1	a.piano1	A-Piano1	49	strsect1	TP/TRB-1	97	brssect2	Silence
2	a.piano2	A-Piano2	50	strsect2	TP/TRB-2	98	vibe1	Silence
3	a.piano3	A-Piano3	51	strsect3	TP/TRB-3	99	vibe2	Silence
4	e.piano1	A-Piano4	52	pizz.str	TP/TRB-4	100	symallet	Silence
5	e.piano2	A-Piano5	53	violin 1	TP/TRB-5	101	maletwin	Silence
6	e.piano3	A-Piano6	54	violin 2	TP/TRB-6	102	glocken	Silence
7	e.piano4	A-Piano7	55	cello 1	Sax-1	103	tubulbel	Silence
8	hnkytnk	E-Piano1	56	cello 2	Sax-2	104	xylophon	Silence
9	e.organ1	E-Piano2	57	contrabs	Sax-3	105	marimba	Silence
10	e.organ2	E-Piano3	58	harp 1	Sax-4	106	koto	Silence
11	e.organ3	A-Guitr1	59	harp 2	Brass-1	107	sho	Silence
12	e.organ4	A-Guitr2	60	guitar 1	Brass-2	108	shakhchi	Silence
13	pipeorg1	A-Guitr3	61	guitar 2	Brass-3	109	whistle1	Silence
14	pipeorg2	E-Guitr1	62	elecgtr1	Brass-4	110	whistle2	Silence
15	pipeorg3	E-Guitr2	63	elecgtr2	Brass-5	111	bottle	Silence
16	acordion	Slap-1	64	sitar	Orch-Hit	112	breath	Silence
17	harpsi1	Slap-2	65	a.bass 1	Silence	113	timpani	Silence
18	harpsi2	Slap-3	66	a.bass 2	Silence	114	melotom	Silence
19	harpsi3	Slap-4	67	e.bass 1	Silence	115	deepsnar	Silence
20	clavi1	Slap-5	68	e.bass 2	Silence	116	e.perc1	Silence
21	clavi2	Slap-6	69	slapbas1	Silence	117	e.perc2	Silence
22	clavi3	Slap-7	70	slapbas2	Silence	118	taiko	Silence
23	celesta1	Slap-8	71	fretles1	Silence	119	taikorim	Silence
24	celesta2	Finger-1	72	fretles2	Silence	120	cymbal	Silence
25	synbras1	Finger-2	73	flute1	Silence	121	castanet	Silence
26	synbras2	Picked-1	74	flute2	Silence	122	triangle	Silence
27	synbras3	Picked-2	75	piccolo1	Silence	123	orchehit	Silence
28	synbras4	FretlsBs	76	piccolo2	Silence	124	telphone	Silence
29	synbass1	A-Bass	77	recorder	Silence	125	bird	Silence
30	synbass2	Choir-1	78	panpipes	Silence	126	jam	Silence
31	synbass3	Choir-2	79	sax1	Silence	127	efctwatr	Silence
32	synbass4	Choir-3	80	sax2	Silence	128	efctjngl	Silence
33	newagepd	Choir-4	81	sax3	Silence			
34	synharmo	Strngs-1	82	sax4	Silence			
35	choir pd	Strngs-2	83	clarint1	Silence			
36	bowed pd	Strngs-3	84	clarint2	Silence			
37	soundtrk	Strngs-4	85	oboe	Silence			
38	atmosphr	E-Organ1	86	eng.horn	Silence			
39	syn warm	E-Organ2	87	bassoon	Silence			
40	synfunny	E-Organ3	88	harmnica	Silence			
41	synecho1	E-Organ4	89	trumpet1	Silence			
42	rain	E-Organ5	90	trumpet2	Silence			
43	synoboe	E-Organ6	91	trmbone1	Silence			
44	synecho2	E-Organ7	92	trmbone2	Silence			
45	synsolo	E-Organ8	93	fr.horn1	Silence			
46	synrdorg	E-Organ9	94	fr.horn2	Silence			
47	synbell	SoftTP-1	95	tuba	Silence			
48	squareld	SoftTP-2	96	brssect1	Silence			

DOC Voice List

Pgm#	Voice		Pgm#	Voice		Pgm#	Voice
1	Brass		48	Piano		95	
2	Trumpet		49	Piano-M		96	
3	Fr.Horn		50	Piano		97	
4	Sax		51	E.Piano2		98	
5	Clarinet		52	Piano-B		99	
6	Oboe		53	Piano-B		100	
7	Flute 1		54	Folk Gtr		101	
8	Acordion		55	Rock Gtr		102	
9	Strings		56	Banjo		103	
10	Violin		57	Pizz.		104	
11	FullOrgn		58	Harp		105	
12	JazOrgn1		59			106	
13	Piano		60			107	
14	E.Piano1		61	Brass		108	
15	Harpsi.		62	Flute		109	
16	Celesta		63	Strings		110	
17	Vibes		64	Choir		111	
18	Marimba		65	PipeOrgn		112	
19	Harpsi.		66	JazOrgn1		113	
20	Vibes		67	SynBrass		114	
21	SynBrass		68	Sax		115	
22			69	ClavTone		116	
23	SynCrstl		70	RockGtr2		117	
24	Timpani		71	Mute Gtr		118	
25	Gut Gtr		72	U.Bass-M		119	
26	JazzGtr1		73	JazzGtr2		120	
27	RockGtr1		74	PopBrass		121	
28	Harpsi.		75	Str-Mild		122	
29	U.Bass		76	Violin-H		123	
30	E.Bass		77	P.Organ		124	
31	E.Bass/S		78	Sax-Mild		125	
32	Syn.Bass		79	E.Bass-H		126	
33			80	Flute 2		127	
34			81	Bassoon		128	
35			82	Cham.Str			
36			83	JazOrgn2			
37			84				
38			85				
39			86				
40			87				
41	Mute Trp		88				
42	Harmnica		89	Dist.Gtr			
43	Choir		90	Cosmic 1			
44	JazOrgn1		91	Cosmic 2			
45	Syn.Wood		92	Cosmic 3			
46	Syn.Str		93	Orch.Hit			
47	SynChoir		94				

: Ignore program change

XG Drum Map

Bank Select MSB=Bank Number LSB=000

				Bank 127 Program 1	127 2	127 9	127 17	127 25	127 26	127 33	127 41	127 49	126 1	126 2
Note#	Note	Key off	Alternate assign	Standard Kit	Standard2 Kit	Room Kit	Rock Kit	Electro Kit	Analog Kit	Jazz Kit	Brush Kit	Classic Kit	SFX 1	SFX 2
13	C# -1		3	Surdo Mute										
14	D -1		3	Surdo Open										
15	D# -1			Hi Q										
16	E -1			Whip Slap										
17	F -1		4	Scratch Push										
18	F# -1		4	ScratchPull										
19	G -1			Finger Snap										
20	G# -1			Click Noise										
21	A -1			Metro Click										
22	A# -1			Metro Bell										
23	B -1			Seq Click L										
24	C 0			Seq Click H										
25	C# 0			Brush Tap										
26	D 0	O		BrushSwirl L										
27	D# 0			Brush Slap										
28	E 0	O		BrushSwirl H				ReversCymbal	ReversCymbal					
29	F 0	O		Snare Roll	Snare Roll 2									
30	F# 0	O		Castanet				Hi Q	Hi Q					
31	G 0			Snare L	Snare L2		SD Rock M	Snare M	SD Rock H		Brush Slap L			
32	G# 0			Sticks										
33	A 0			Bass Drum L			Bass Drum M	Bass Drum H4	Bass Drum M			Bass Drum L2		
34	A# 0			Open RimShot	OpenRimShot2									
35	B 0			Bass Drum M	Bass Drum M2		Bass Drum H3	BD Rock	BD Analog L			Gran Cassa		
36	C 1			Bass Drum H	Bass Drum H2		BD Rock	BD Gate	BD Analog H	BD Jazz	BD Soft	GranCasaMute	GtrCutNoise	Dial Tone
37	C# 1			Side Stick					AnaSideStick				GtrCutNoise2	DoorCreaking
38	D 1			Snare M	Snare M2	SD Room L	SD Rock	SD Rock L	Ana Snare L		Brush Slap	MarchingSn M	String Slap	Door Slam
39	D# 1			Hand Clap										Scratch
40	E 1			Snare H	Snare H2	SD Room H	SD Rock Rim	SD Rock H	Ana Snare H		Brush Tap	MarchingSn H		Scratch 2
41	F 1			Floor Tom L		Room Tom 1	Rock Tom 1	E Tom 1	Analog Tom 1	Jazz Tom 1	Brush Tom 1	Jazz Tom 1		Windchime
42	F# 1		1	Hi-HatClosed					AnaHHClosed1					TelephnRing2
43	G 1			Floor Tom H		Room Tom 2	Rock Tom 2	E Tom 2	Analog Tom 2	Jazz Tom 2	Brush Tom 2	Jazz Tom 2		
44	G# 1		1	Hi-Hat Pedal					AnaHHClosed2					
45	A 1			Low Tom		Room Tom 3	Rock Tom 3	E Tom 3	Analog Tom 3	Jazz Tom 3	Brush Tom 3	Jazz Tom 3		
46	A# 1		1	Hi-Hat Open					Ana HH Open					
47	B 1			Mid Tom L		Room Tom 4	Rock Tom 4	E Tom 4	Analog Tom 4	Jazz Tom 4	Brush Tom 4	Jazz Tom 4		
48	C 2			Mid Tom H		Room Tom 5	Rock Tom 5	E Tom 5	Analog Tom 5	Jazz Tom 5	Brush Tom 5	Jazz Tom 5		
49	C# 2			CrashCymbal1					Ana Cymbal			HandCymOpenL		
50	D 2			High Tom		Room Tom 6	Rock Tom 6	E Tom 6	Analog Tom 6	Jazz Tom 6	Brush Tom 6	Jazz Tom 6		
51	D# 2			Ride Cymbal1								HandCymClosL		
52	E 2			China Cymbal									FL.Key Click	Engine Start
53	F 2			RideCymbalCp										Tire Screech
54	F# 2			Tambourine										Car Passing
55	G 2			SplashCymbal										Crash
56	G# 2			Cowbell					Ana Cowbell					Siren
57	A 2			CrashCymbal2								HandCymOpenH		Train
58	A# 2			Vibraslap										Jetplane
59	B 2			Ride Cymbal2								HandCymClosH		Starship
60	C 3			Bongo H										Burst Noise
61	C# 3			Bongo L										Coaster
62	D 3			Conga H Mute					Ana Conga H					SbMarine
63	D# 3			Conga H Open					Ana Conga M					
64	E 3			Conga L					Ana Conga L					
65	F 3			Timbale H										
66	F# 3			Timbale L										
67	G 3			Agogo H										

: Same as Standard Kit : No Sound

Bank Select MSB=Bank Number   LSB=000

Note#	Note		Key off	Alternate assign	127 / 1 Standard Kit	127 / 2 Standard2 Kit	127 / 9 Room Kit	127 / 17 Rock Kit	127 / 25 Electro Kit	127 / 26 Analog Kit	127 / 33 Jazz Kit	127 / 41 Brush Kit	127 / 49 Classic Kit	126 / 1 SFX 1	126 / 2 SFX 2
68	G#	3			Agogo L									Rain	Laughing
69	A	3			Cabasa									Thunder	Screaming
70	A#	3			Maracas					Ana Maracas				Wind	Punch
71	B	3	O		SambaWhistlH									Stream	Heartbeat
72	C	4	O		SambaWhistlL									Bubble	Footsteps
73	C#	4			Guiro Short									Feed	
74	D	4	O		Guiro Long										
75	D#	4			Claves					Ana Claves					
76	E	4			Wood Block H										
77	F	4			Wood Block L										
78	F#	4			Cuica Mute				Scratch Push	Scratch Push					
79	G	4			Cuica Open				Scratch Pull	Scratch Pull					
80	G#	4		2	TriangleMute										
81	A	4		2	TriangleOpen										
82	A#	4			Shaker										
83	B	4			Jingle Bell										
84	C	5			Bell Tree									Dog	Machine Gun
85	C#	5												Horse Gallop	Laser Gun
86	D	5												Bird 2	Explosion
87	D#	5													FireWork
88	E	5													
89	F	5													
90	F#	5												Ghost	
91	G	5												Maou	

TG300B Drum Map

Note#	Note		Alternate Assign	1 Standard Kit	9 Room Kit	17 Power Kit	25 Electro Kit	26 Analog Kit	33 Jazz Kit	41 Brush Kit	49 Orchestra Kit	57 SFX Set	128 C/M Kit
25	C#	0		Snare Roll									
26	D	0		Finger Snap									
27	D#	0		Hi Q							Hi-Hat Closed		
28	E	0		Whip Slap							Hi-Hat Pedal		
29	F	0	7	Scratch Push							Hi-Hat Open		
30	F#	0	7	Scratch Pull							Ride Cymbal 1		
31	G	0		Sticks									
32	G#	0		Click Noise									
33	A	0		Metronome Click									
34	A#	0		Metronome Bell									
35	B	0		Bass Drum M							BD Jazz		
36	C	1		Bass Drum H		BD Power	BD Electronic	BD Analog H	BD Jazz	BD Soft	Gran Cassa		
37	C#	1		Side Stick				Analog Side Stick					
38	D	1		Snare M		SD Power	SD Electronic	Analog Snare L		Brush Tap	Concert SD		
39	D#	1		Hand Clap						Brush Slap	Castanet	High-Q	
40	E	1		Snare H			SD Power			Brush Swirl	Concert SD	Slap	SD Electro
41	F	1		Floor Tom L	Room Tom 1	Room Tom 1	E Tom 1	Analog Tom 1	Jazz Tom 1	Jazz Tom 1	Timpani F	Scratch Push	
42	F#	1	1	Hi-Hat Closed				Analog HH Closed 1			Timpani F#	Scratch Pull	
43	G	1		Floor Tom H	Room Tom 2	Room Tom 2	E Tom 2	Analog Tom 2	Jazz Tom 2	Jazz Tom 2	Timpani G	Sticks	
44	G#	1	1	Hi-Hat Pedal				Analog HH Closed 2			Timpani G#	Square Click	Hi-Hat Open 1
45	A	1		Low Tom	Room Tom 3	Room Tom 3	E Tom 3	Analog Tom 3	Jazz Tom 3	Jazz Tom 3	Timpani A	Metronome Click	
46	A#	1	1	Hi-Hat Open				Analog HH Open			Timpani A#	Metronome Bell	Hi-Hat Open 2
47	B	1		Mid Tom L	Room Tom 4	Room Tom 4	E Tom 4	Analog Tom 4	Jazz Tom 4	Jazz Tom 4	Timpani B	Guitar Fret Noise	
48	C	2		Mid Tom H	Room Tom 5	Room Tom 5	E Tom 5	Analog Tom 5	Jazz Tom 5	Jazz Tom 5	Timpani C	Guitar Cutting Down	
49	C#	2		Crash Cymbal 1				Analog Cymbal			Timpani C#	Guitar Cutting Up	
50	D	2		High Tom	Room Tom 6	Room Tom 6	E Tom 6	Analog Tom 6	Jazz Tom 6	Jazz Tom 6	Timpani D	Ac Bass Slap	

: Same as Standard Kit   : No Sound

Program #			1	9	17	25	26	33	41	49	57	128
Note#	Note	Alternate Assign	Standard Kit	Room Kit	Power Kit	Electro Kit	Analog Kit	Jazz Kit	Brush Kit	Orchestra Kit	SFX Set	C/M Kit
51	D# 2		Ride Cymbal 1							Timpani D#	FL.Key Click	
52	E 2		Chinese Cymbal			Reverse Cymbal				Timpani E	Laughing	
53	F 2		Ride Cymbal Cup							Timpani F	Screaming	
54	F# 2		Tambourine								Punch	
55	G 2		Splash Cymbal								Heartbeat	
56	G# 2		Cowbell				Analog Cowbell				Footsteps 1	
57	A 2		Crash Cymbal 2							Hand Cym.1	Footsteps 2	
58	A# 2		Vibraslap								Applause	
59	B 2		Ride Cymbal 2							Hand Cym.2	Door Creaking	
60	C 3		Bongo H								Door Slam	
61	C# 3		Bongo L								Scratch	
62	D 3		Conga H Mute				Analog Conga H				Windchime	
63	D# 3		Conga H Open				Analog Conga M				Engine Start	
64	E 3		Conga L				Analog Conga L				Tire Screech	
65	F 3		Timbale H								Car Passing	
66	F# 3		Timbale L								Crash	
67	G 3		Agogo H								Siren	
68	G# 3		Agogo L								Train	
69	A 3		Cabasa								Jetplane	
70	A# 3		Maracas				Analog Maracas				Helicopter	
71	B 3	2	Samba Whistle H								Starship	
72	C 4	2	Samba Whistle L								Gunshot	
73	C# 4	3	Guiro Short								Machine Gun	Vibraslap
74	D 4	3	Guiro Long								Laser Gun	
75	D# 4		Claves				Analog Claves				Explosion	
76	E 4		Wood Block H								Dog	Laughing
77	F 4		Wood Block L								Horse Gallop	Screaming
78	F# 4	4	Cuica Mute								Bird Tweet	Punch
79	G 4	4	Cuica Open								Rain	Heartbeat
80	G# 4	5	Triangle Mute								Thunder	Footsteps 1
81	A 4	5	Triangle Open								Wind	Footsteps 2
82	A# 4		Shaker								Seashore	Applause
83	B 4		Jingle Bell								Stream	Door Creaking
84	C 5		Bell Tree								Bubble	Door Slam
85	C# 5		Castanet									Scratch
86	D 5	6	Surdo Mute									Windchime
87	D# 5	6	Surdo Open									Engine Start
88	E 5									Applause		Tire Screech
89	F 5											Car Passing
90	F# 5											Crash
91	G 5											Siren
92	G# 5											Train
93	A 5											Jetplain
94	A# 5											Helicopter
95	B 5											Starship
96	C 6											Gunshot
97	C# 6											Machine Gun
98	D 6											Laser Gun
99	D# 6											Explosion
100	E 6											Dog
101	F 6											Horse Gallop
102	F# 6											Bird Tweet
103	G 6											Rain
104	G# 6											Thunder
105	A 6											Wind
106	A# 6											Seashore
107	B 6											Stream
108	C 7											Bubble

■ : Same as Standard Kit   ■ : No Sound

C/M Drum Map

Note#	Note	Alternate Assign	C/M Kit
35	B0		Bass Drum M
36	C1		Bass Drum H
37	C#1		Side Stick
38	D1		Snare M
39	D#1		Hand Clap
40	E1		SD Electro
41	F1		Floor Tom L
42	F#1	1	Hi-Hat Closed
43	G1		Floor Tom H
44	G#1	1	Hi-Hat Open 1
45	A1		Low Tom
46	A#1	1	Hi-Hat Open 2
47	B1		Mid Tom L
48	C2		Mid Tom H
49	C#2		Crash Cymbal 1
50	D2		High Tom
51	D#2		Ride Cymbal 1
52	E2		
53	F2		
54	F#2		Tambourine
55	G2		
56	G#2		Cowbell
57	A2		
58	A#2		
59	B2		
60	C3		Bongo H
61	C#3		Bongo L
62	D3		Conga H Mute
63	D#3		Conga H Open
64	E3		Conga L
65	F3		Timbale H
66	F#3		Timbale L
67	G3		Agogo H
68	G#3		Agogo L
69	A3		Cabasa
70	A#3		Maracas
71	B3	2	Samba Whistle H
72	C4	2	Samba Whistle L
73	C#4		Vibraslap
74	D4		
75	D#4		Claves
76	E4		Laughing
77	F4		Screaming
78	F#4		Punch
79	G4		Heartbeat
80	G#4		Footsteps 1
81	A4		Footsteps 2

Note#	Note	Alternate Assign	C/M Kit
82	A#4		Applause
83	B4		Door Creaking
84	C5		Door Slam
85	C#5		Scratch
86	D5		Windchime
87	D#5		Engine Start
88	E5		Tire Screech
89	F5		Car Passing
90	F#5		Crash
91	G5		Siren
92	G#5		Train
93	A5		Jetplane
94	A#5		Helicopter
95	B5		Starship
96	C6		Gunshot
97	C#6		Machine Gun
98	D6		Laser Gun
99	D#6		Explosion
100	E6		Dog
101	F6		Horse Gallop
102	F#6		Bird Tweet
103	G6		Rain
104	G#6		Thunder
105	A6		Wind
106	A#6		Seashore
107	B6		Stream
108	C7		Bubble

: No Sound

Drum List

DOC Drum Map

Note#	Note	Alternate Assign	C/M Kit
21	A-1		Cymbal Mute
22	A#-1		
23	B-1		
24	C0		
25	C#0		
26	D0		
27	D#0		
28	E0		
29	F0		
30	F#0	1	Brush Roll
31	G0		
32	G#0	2	Hi-Hat closed heavy
33	A0		
34	A#0		Crash Cymbal light
35	B0		BD light
36	C1		SD+RIM heavy
37	C#1		Ride Cymbal cup
38	D1		SD+RIM light
39	D#1		
40	E1		
41	F1		BD norm
42	F#1		Rim Shot
43	G1		SD heavy
44	G#1	1	Brush Shot
45	A1		SD light
46	A#1	2	Hi-Hat pedal
47	B1		SD echo
48	C2		Tom 4
49	C#2	2	Hi-Hat closed norm
50	D2		Tom 3
51	D#2	2	Hi-Hat open
52	E2		Tom 2
53	F2		Tom 1
54	F#2		Ride Cymbal norm
55	G2		E.Tom 3
56	G#2		Crash Cymbal norm
57	A2		E.Tom 2
58	A#2		Crash Cymbal norm
59	B2	2	E.Tom 1
60	C3	2	Conga L
61	C#3		Cabasa
62	D3		Conga H
63	D#3		Metronome
64	E3		Bongo H
65	F3		Timbale L
66	F#3		Claves
67	G3		Timbale H

Note#	Note	Alternate Assign	C/M Kit
68	G#3		Castanets
69	A3		Cuica L
70	A#3		Cowbell
71	B3		Cuica H
72	C4		Handclaps
73	C#4		Agogo L
74	D4		
75	D#4		Agogo H
76	E4		Bongo L
77	F4		Cuica L
78	F#4		Tambourine
79	G4		Crash Cymbal norm
80	G#4	3	Triangle closed
81	A4		Brush Roll
82	A#4	3	Triangle open

▇▇▇ : No Sound

#	Performance Name	Layer	Comment
1	LD:Whistlead	4	Lead sound with whistle mixed in
2	CH:SynVox	2	Synth chorus with distinctive high range
3	BA:KingBass	3	Synth bass for slow and medium tempos
4	OR:Bright	2	Bright organ through rotary speaker
5	EP:CP80	1	CP80 revisited
6	ST:Natural	4	String voice; attack changes with velocity
7	AP:Piano	2	Full-sounding grand piano
8	PD:SnowyNite	2	Snowy sound; use short, articulated key play
9	BR:Legend	3	Fat analog-synth brass
10	SE:NASA-MW	4	Rockeet blastoff and space drift
11	ET:SouthEast	3	Southeast-Asian sound
12	EP:Hammered	2	Dry electric piano
13	GT:Distorted	4	Distortion guitar with touch- and MW-driven feedback
14	LD:Obiees	2	Mono analog-synth lead; also good as brass
15	BA:Moogy	3	Synth bass for fast tempos
16	OR:Rocker	3	Rock organ
17	AP:MIDIGrand	2	Layered grand and electric pianos
18	MK:FunkyClav	2	Funky clavinet with autowow and flanger
19	ET:EthnicKit	4	Left hand is small drum; right hand is bell
20	ST:HiEnsembl	2	Analog-synth string with distinctive high range
21	CH:Natural	3	Natural chorus
22	OR:Church	4	Church organ
23	FX:ZHole	4	Otherworldly pad sound
24	FX:DayBreak	3	FX sound; image of daybreak
25	AP:Piano&Pad	2	Layered piano and strings pad
26	BR:PunchBRS	3	Punch brass; good for live performance
27	FX:HiBeam	2	Fat decay sound with brassy color
28	EP:EP&HiVCE	3	Layered electric piano and chorus
29	ST:PhazedPad	2	Synth pad through phaser
30	SE:TerrorSE	4	Horror-type lower-depths sound effect
31	KS:JazzClub	3	Split: wood bass and piano
32	BR:Festival	2	Fanfare brass; good for single-note play

Performance bank selects are as follows.

PRE : MSB = 01, LSB = 00

INT : MSB = 02, LSB = 00

AP:acoustic piano

BA:bass

BR:brass

CH:choir

ET:ethnic

EP:electric piano

FX:synth SFX

GT:guitar

KS:keyboard split

LD:synth lead

MK:misc. piano/keyboard

OR:organ

PD:synth pad

SE:sound effcts

ST:strings/orchestra

```
 YAMAHA  [ Tone Generator ]                  Date:16-FEB-1995
         Model   MU50 MIDI Implementation Chart   Version : 1.0
+---------------------------------------------------------------------+
|                     | Transmitted   |  Recognized     |   Remarks     |
|         Function ...|               |                 |               |
|---------------------+---------------+-----------------+---------------|
| Basic    Default    | x             | 1 - 16          | memorized     |
| Channel  Changed    | x             | 1 - 16          |               |
|---------------------+---------------+-----------------+---------------|
|          Default    | x             | 3               |               |
| Mode     Messages   | x             | 3,4(m = 1)  *2  |               |
|          Altered    | ************* | x               |               |
|---------------------+---------------+-----------------+---------------|
| Note                | x             | 0 - 127         |               |
| Number : True voice | ************* | 0 - 127         |               |
|---------------------+---------------+-----------------+---------------|
| Velocity Note ON    | x             | o   9nH,v=1-127 |               |
|          Note OFF   | x             | x               |               |
|---------------------+---------------+-----------------+---------------|
| After    Key's      | x             | o           *1  |               |
| Touch    Ch's       | x             | o           *1  |               |
|---------------------+---------------+-----------------+---------------|
| Pitch Bender        | x             | o 0-24 semi *1  |               |
|---------------------+---------------+-----------------+---------------|
|             0,32    | x             | o           *1  |Bank Select    |
|      1,5,7,10,11    | x             | o           *1  |               |
|             6,38    | x             | o               |Data Entry     |
|            64-67    | x             | o           *1  |               |
| Control    71-74    | x             | o               |Sound Controller|
|               84    | x             | o               |Portamento Cntrl|
| Change  91,93,94    | x             | o               |Effect Depth   |
|            96-97    | x             | o           *1  |RPN Inc,Dec    |
|            98-99    | x             | o           *1  |NRPN LSB,MSB   |
|          100-101    | x             | o           *1  |RPN LSB,MSB    |
|              120    | x             | o               |All Sound Off  |
|              121    | x             | o               |Reset All Cntrls|
|                     |               |                 |               |
|---------------------+---------------+-----------------+---------------|
| Prog                | x             | o  0 - 127      |               |
| Change : True #     | ************* |                 |               |
|---------------------+---------------+-----------------+---------------|
| System Exclusive    | o         *3  | o           *3  |               |
|---------------------+---------------+-----------------+---------------|
| System : Song Pos.  | x             | x               |               |
|        : Song Sel.  | x             | x               |               |
| Common : Tune       | x             | x               |               |
|---------------------+---------------+-----------------+---------------|
| System    :Clock    | x             | x               |               |
| Real Time :Commands | x             | x               |               |
|---------------------+---------------+-----------------+---------------|
| Aux  :Local ON/OFF  | x             | x               |               |
|      :All Notes OFF | x             | o(123-127)      |               |
| Mes- :Active Sense  | x             | o               |               |
| sages:Reset         | x             | x               |               |
+---------------------------------------------------------------------+
| Notes: *1  ; receive if switch is on.                               |
|        *2  ; m is always treated as "1" regardless of its value.    |
|        *3  ; transmit/receive if exclusive switch is on.            |
|                                                                     |
|                                                                     |
+---------------------------------------------------------------------+
  Mode 1 : OMNI ON,  POLY    Mode 2 : OMNI ON,  MONO      o : Yes
  Mode 3 : OMNI OFF, POLY    Mode 4 : OMNI OFF, MONO      x : No
```

YAMAHA

YAMAHA CORPORATION