



SW1000XG

P C I A U D I O M I D I C A R D



Data List

XG Voice List (Normal voices)

Bank Select LSB = Bank number

		Key Scale		Panning		Stereo		Single		Slow		Fast Decay		
Bank Select MSB	Bank Select LSB	0	0	0	0	0	0	0	0	0	0	0	0	
Instrument Group	Pgrn # (1-128)	MU Basic	E	SW1000XG Native	E		E		E		E		E	
Piano	1	GrandPno	1	† GrandP #	1	GrndPnoK	1							
	2	BritePno	1	† BriteP # 1	1	BritPnoK	1	† StBrtPno	2					
	3	El.Grand	2			ElGrPnoK	2							
	4	HnkyTonk	2			HnkyTnkK	2							
	5	E.Piano1	2	† EPiano1#	2	El.Pno1K	1							
	6	E.Piano2	2	† EPiano2#	1	El.Pno2K	1						† ChoEPDcy	2
	7	Harpsi.	1			Harpsi.K	1							
	8	Clavi	2	† Clavi #	2	Clavi K	1							
Chromatic Percussion	9	Celesta	1											
	10	Glocken	1											
	11	MusicBox	2											
	12	Vibes	1			Vibes K	1							
	13	Marimba	1			MarimbaK	1							
	14	Xylophon	1											
	15	TubulBel	1											
	16	Dulcimer	1											
Organ	17	DrawOrgn	1	† DrawOrg#	2			† StDrawOr	2					
	18	PercOrgn	1	† PercOrg#	2									
	19	RockOrgn	2	† RockOrg#	2									
	20	ChrchOrg	2											
	21	ReedOrgn	1											
	22	Acordion	2											
	23	Harmnica	1											
	24	TangoAcd	2	† TangoAc#	2									
Guitar	25	NylonGtr	1	† NylonGtr#	1									
	26	SteelGtr	1	† SteelGtr#	1									
	27	Jazz Gtr	1	† JazzGtr#	2									
	28	CleanGtr	1											
	29	Mute Gtr	1	† MuteGtr#	2									
	30	Ovrdrive	1	† Ovrdrv#	2									
	31	Dist.Gtr	1	† DistGtr#	1								DstRthmG **	2
	32	GtrHarmo	1											
Bass	33	Aco.Bass	1	† AcoBass#	1									
	34	FngrBass	1	† FngrBa #	1									
	35	PickBass	1											
	36	Fretless	1	† Frtless# 1										
	37	SlapBas1	1	† SlapBa1#	2									
	38	SlapBas2	1	† SlapBa2#	2									
	39	SynBass1	1											
	40	SynBass2	2						MelloSBa 1				Seq Bass 2	
Strings	41	Violin	1	† Violin # 1							Slow Vln	1		
	42	Viola	1											
	43	Cello	1											
	44	Contrabs	1											
	45	Trem.Str	1	† TremStr#	2						SlwTrStr	1		
	46	Pizz.Str	1											
	47	Harp	1											
	48	Timpani	1											
Ensemble	49	Strings1	1	† Strngs1#	1			S.Strngs	2		Slow Str	1		
	50	Strings2	1	† Strngs2#	1			S.SlwStr	2		LegatoSt	2		
	51	Syn Str1	2								† Memory 2			
	52	Syn Str2	2											
	53	ChoirAah	1					S.Choir	2					
	54	VoiceOoh	1											
	55	SynVoice	1											
	56	Orch.Hit	2										LoFi Hit ***	2
Brass	57	Trumpet	1	† Trumpet#	1									
	58	Trombone	1	† Trmbone#	1									
	59	Tuba	1											
	60	Mute Trp	1	† MuteTrp#	2									
	61	Fr. Horn	1							FrHrSolo	1			
	62	BrssSect	1	† BrssSec#	2			StBrssSec ***	2					
	63	SynBrss1	2										Quack Br 2	
	64	SynBrss2	1											

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: Same as Bank 0. E: Number of elements
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

Switching between MU Basic and SW1000XG Native can be executed by Voice Map of the SW1000XG System bulk dump. (Refer to the MIDI Data Format)

Double Attack Bright 1 Bright 2 Dark 1 Dark 2 Resonant LFO-Cutoff Freq

0 14	0 16	0 17	0 18	0 19	0 20	0 21
E		E	E	E	E	E
			MelloGrP 1		† ResoBrP 1	
			MelloEP1 2			
	NylonGt2 1 SteelGt2 1		MelloGtr 1			
			FingrDrk 2			
						† CsmicSlp 2
	† BrtSlpSp 2		SynBa1Dk 1 ClkSynBa 2	SynBa2Dk 1	FastResB 1	† TL66 2
† SfrzStrgs 1						
			† Zephyr 2			† TradeWnd 2
	Ch.Aahs2 2					
	Trumpet2 1	BriteTrp 2				
			Trmbone2 2			
	Tuba 2	1				
SfrzndBr ** 2			MildBrss *** 2		RezSynBr 2	
			Soft Brs 2			

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XG Voice List (Normal voices)

Bank Select LSB = Bank number

		Vel-cutoff freq	Attack	Release	Sweep	Resonant Sweep	
Bank Select MSB	0	0	0	0	0	0	
Bank Select LSB	0	22	24	25	26	27	
Instrument Group	Pgm# (1-128)	MU Basic	E	E	E	E	
Piano	1	GrandPho	1				
	2	BritePho	1				
	3	El.Grand	2				
	4	HnkyTonk	2				
	5	E.Piano1	2				
	6	E.Piano2	2				
	7	Harpsi.	1		Harpsi.2	2	
	8	Clavi	2				ClaviWah 2
Chromatic Percussion	9	Celesta	1				
	10	Glocken	1				
	11	MusicBox	2				
	12	Vibes	1				
	13	Marimba	1				
	14	Xylophon	1				
	15	TubulBel	1				
	16	Dulcimer	1				
Organ	17	DrawOrgn	1				
	18	PercOrgn	1	70sPcOr1	2		
	19	RockOrgn	2				
	20	ChrchOrg	2				
	21	ReedOrgn	1				
	22	Acordion	2				
	23	Harmnica	1				
	24	TangoAcid	2				
Guitar	25	NylonGtr	1		NylonGt3	2	
	26	SteelGtr	1				
	27	Jazz Gtr	1				
	28	CleanGtr	1				
	29	Mute Gtr	1				
	30	Ovrdrive	1				
	31	Dist.Gtr	1	DistGtr2 **	2		
	32	GtrHarmo	1				
Bass	33	Aco.Bass	1				
	34	FngrBass	1			FlangeBa 2	
	35	PickBass	1				
	36	Fretless	1				
	37	SlapBas1	1			ResoSlap 1	
	38	SlapBas2	1	† Wah Slap	2		
	39	SynBass1	1		AcidBass 1		
	40	SynBass2	2	† Zealot	2	ResoBass *** 1	
Strings	41	Violin	1				
	42	Viola	1				
	43	Cello	1				
	44	Contrabs	1				
	45	Trem.Str	1				
	46	Pizz.Str	1				
	47	Harp	1				
	48	Timpani	1				
Ensemble	49	Strings1	1	Arco Str	2		
	50	Strings2	1				
	51	Syn Str1	2			Reso Str 2	
	52	Syn Str2	2				
	53	ChoirAah	1				
	54	VoiceOoh	1				
	55	SynVoice	1				
	56	Orch.Hit	2				
Brass	57	Trumpet	1				
	58	Trombone	1				
	59	Tuba	1				
	60	Mute Trp	1				
	61	Fr. Horn	1				
	62	BrssSect	1				
	63	SynBrss1	2	PolyBrss	2	SynBrss3 2	
	64	SynBrss2	1				

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☐ : Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

Muted	Complex-FEG	Detune 1	Detune 2	Detune 3	Octave 1	Octave 2
0 28	0 29	0 32	0 33	0 34	0 35	0 36
E	E	E	E	E	E	E
		† DtdnBrnP Det.CP80 2			† Synth CP 2	
		Chor.EP1 2 Chor.EP2 2	DX Hard 2	DXLegend 2		
					Harpsi.3 2	
					Dulcimr2 2	
		DetDrwOr 2 DetPrcOr 2	60sDrOr1 2 Lite Org 2	60sDrOr2 2	70sDrOr1 2	DrawOrg2 2
		ChurOrg3 2 † ReedOrDt 2			ChurOrg2 2	
		Accordlt 2 Harmo. 2 2				
		† NynGtDt 2 † StlGtrDt 2			12StrGr 2	
		Jazz Amp 2 ChorusGt 2	† ChoGtrLt 2			
		† OdrvGtDt 2			DistGtr3 ** 2	PowerGt2 ** 2
		† FngrBaDt 2				
MutePkBa 1		Fretles2 2 PunchThm 2	Fretles3 2	Fretles4 2		
† MtdPulsB 1	† SlwAttck 1	SmthSynB 2			Civ Bass 2	
					† Pizz Oct 2	
					60sStrng 2	
					Syn Str3 ** 2	
		MelChoir 2				
		Warm Trp 2			OrchHit2 2	
		FrHorn 2 1				
	† AnalgSfz 2	JumpBrss 2			Tp&TbSec 2	Tp&TbSc2 *** 2

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XG Voice List (Normal voices)

Bank Select LSB = Bank number

		5th 1		5th 2		Bend		Tutti 1		Tutti 2		
Bank Select MSB		0		0		0		0		0		
Bank Select LSB		0		37		38		39		40		
Instrument Group	Pgm # (1-128)	MU Basic	E	E	E	E	E	E	E	E		
Piano	1	GrandPno	1					PianoStr	2	Dream	2	
	2	BritePno	1					† SyPadPno	2			
	3	El.Grand	2					LayerCP1	2	LayerCP2	2	
	4	HnkyTonk	2									
	5	E.Piano1	2					HardEl.P	2			
	6	E.Piano2	2					DX Phase	2	DX+Analg	2	
	7	Harpsi.	1					† ElHarpsi	2			
	8	Clavi	2					† CsmcClav	2			
Chromatic Percussion	9	Celesta	1									
	10	Glocken	1									
	11	MusicBox	2									
	12	Vibes	1									
	13	Marimba	1									
	14	Xylophon	1									
	15	TubulBel	1									
	16	Dulcimer	1									
Organ	17	DrawOrgn	1	60sDrOr3	2	Even Bar	2	16+2*2/3	2			
	18	PercOrgn	1	PercOrg2	2							
	19	RockOrgn	2									
	20	ChrchOrg	2					NotreDam	2			
	21	ReedOrgn	1					Puff Org	2			
	22	Acordion	2									
	23	Harmnica	1									
	24	TangoAcid	2									
Guitar	25	NylonGtr	1					† Wayside	2			
	26	SteelGtr	1					Nyln&Stl	2	Stl&Body	2	
	27	Jazz Gtr	1					† OrganGtr	2	† OctPlate	2	
	28	CleanGtr	1									
	29	Mute Gtr	1					FunkGtr1	2	MuteStlG	2	
	30	Ovrdrive	1					† Parallel	2			
	31	Dist.Gtr	1	PowerGt1 **	2	Dst.5ths **	2	FeedbkGt	2	FeedbkG2	2	
	32	GtrHarmo	1									
Bass	33	Aco.Bass	1					JazzRthm	2	† PckAcoBa	2	
	34	FngrBass	1					Ba&DstEG	2			
	35	PickBass	1					† PkB&MtGt	2			
	36	Fretless	1									
	37	SlapBas1	1									
	38	SlapBas2	1									
	39	SynBass1	1					TechnoBa	2	† Kik'n'Ba	2	
	40	SynBass2	2					ModulrBa	2	DX Bass	2	
Strings	41	Violin	1					† Unison	2			
	42	Viola	1					† VlaDoubl	2			
	43	Cello	1									
	44	Contrabs	1									
	45	Trem.Str	1					Susp.Str	2			
	46	Pizz.Str	1					† Sleep	2			
	47	Harp	1					YangChin	2			
	48	Timpani	1									
Ensemble	49	Strings1	1					Orchestr	2	Orchstr2	2	
	50	Strings2	1					Warm Str	2	Kingdom	2	
	51	Syn Str1	2				† Monarchy	2	GrandPad ***	2	† SweepStr	2
	52	Syn Str2	2				† WormHole	2				
	53	ChoirAah	1				† Gasp	2	ChoirStr	2	† Dead Sea	2
	54	VoiceOoh	1									
	55	SynVoice	1					SyVoice2	2	Choral	2	
	56	Orch.Hit	2					† Throne	2			
Brass	57	Trumpet	1									
	58	Trombone	1									
	59	Tuba	1									
	60	Mute Trp	1					† Backyard	2			
	61	Fr. Horn	1	HornOrch	2							
	62	BrssSect	1				BrssFall **	1	BrssSec2	2	Hi Brass	2
	63	SynBrss1	2					SyBrssSub ***	2			
	64	SynBrss2	1					SynBrss4	2	ChoirBr	2	

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: Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

XG Voice List (Normal voices)

Bank Select LSB = Bank number

		Other Waves 1		Other Waves 2		Other Waves 3		Other Waves 4		Other Waves 5			
Bank Select MSB	0	0	0	0	0	0	0	0	0	0			
Bank Select LSB	0	64	65	66	67	68							
Instrument Group	Pgm # (1-128)	MU Basic	E	E	E	E	E	E	E	E	E		
Piano	1	GrandPno	1	† ConGrnd	1	† ConGrndK	1	† DblConGr	2	† MIDIGrd1	2	† MIDIGrd2	2
	2	BritePno	1	† BrConGrd	1	† BrConGrK	1	† MIDIGrd3	2	† MIDIGrd4	2	† OldPiano	2
	3	El.Grand	2										
	4	HnkyTonk	2										
	5	E.Piano2	2	60sEl.P1	1	† Old EP	1	† Tribecca	1	† Diploid1	2	† Flops	1
	6	E.Piano2	2	† Shrakawa	2	† OldEP Tn	2	† Flips	1	† FlipsDtd	2	† Flicks	1
	7	Harp.	1	† SynHrpsi	2								
	8	Clavi	2	PulseClv	1	PierceCl	2	† ClrClavi	1	† SwpClavi	1	† SynClavi	1
Chromatic Percussion	9	Celesta	1	† FMCelsta	1								
	10	Glocken	1										
	11	MusicBox 2		Orgel	2	† SmalOrgl	2						
	12	Vibes	1										
	13	Marimba	1	SineMrb	2								
	14	Xylophon	1										
	15	TubulBel	1										
	16	Dulcimer	1										
Organ	17	DrawOrgn	1	Organ Ba	1	70sDrOr2	2	CheezOrg	2	DrawOrg3	2	StdiumOr ***	1
	18	PercOrgn	1	JazOrgn ***	1	WarmJzOr ***	2	ClikOrgn ***	2	† Grace	2	† CmGrace	2
	19	RockOrgn	2	RotaryOr	2	SloRotar	2	FstRotar	2	† GlaclRtr	2		
	20	ChrchOrg	2	OrgFlute	2	TrmOrgFl	2						
	21	ReedOrgn	1	† SyReedDk	2								
	22	Acordion	2										
	23	Harmnica	1										
	24	TangoAcid	2	TngoAcid2	2	† TghtAcid	1	† TghtAcidD	2				
Guitar	25	NylonGtr	1	† EsGuitar	1	† EsGtrHrd	1	† EsGtMllo	1	† EsGtrDcy	1		
	26	SteelGtr	1	† Nashville	1	† NashvilleR	1	† Nashville2	2				
	27	Jazz Gtr	1	† SuperJzM	1	† SuperJzB	1	† SuperJzD	2	† SuperJzR	1	† DX JzGtr	1
	28	CleanGtr	1	CleanGt2 **	1	MidT.Gtr ***	1	MidTgtSt ***	1	NasalGtr ***	1	NasiGtSt ***	2
	29	Mute Gtr	1	† Wrench	1	† WrenchHv	1	† WrnchDbl	2	† Tin	2		
	30	Ovrdrive	1	† ManhttnM	1	† ManhttnB	1	† ManhttnD	2	† ManhttnP	2		
	31	Dist.Gtr	1	† Bite	1	† Bite Res	1	† Bite Dtd	2	† Bite +	2	† Burnout	2
	32	GtrHarmo	1	AcoHarmo **	1	GtFeedbk	1	GtrHrmo2	1	† Shimla	2		
Bass	33	Aco.Bass	1	† Boston	1	† BostnBrt	1	† Coolth	1	† Coolth B	1		
	34	FngrBass	1	Jazzy Ba **	1	Mod.Bass	2	† Chase	1	† ChaseRes	1	† BlueBass	1
	35	PickBass	1	† HardPick	1	† HrdPikRs	2	† PkBass +	2				
	36	Fretless	1	† PwrFrtls	1	† PwrFrtlR	1	† TalkinBa	1	† NoizFrtl	2		
	37	SlapBas1	1	Slapper ***	1	Thum&Slp ***	2	† GltzySlp	2	† FM Slap	1	† FMSlpDtd	2
	38	SlapBas2	1										
	39	SynBass1	1	Orbiter	2	Sqr.Bass	2	RubberBa	2	Fish ***	1	HardReso ***	1
	40	SynBass2	2	X WireBa	2	AtkPulse ***	1	CS Light ***	1	MettBass ***	1	† FrcOscBa	1
Strings	41	Violin	1	† Cadenza	1	† CadenzDk	1						
	42	Viola	1	† Sonata	1								
	43	Cello	1										
	44	Contrabs	1										
	45	Trem.Str	1	† Fear	1	† Fear Dtd	2	† Apoclyps	2				
	46	Pizz.Str	1										
	47	Harp	1										
	48	Timpani	1										
Ensemble	49	Strings1	1	† SprStrng	1	† SprStrSt	2	† Triste	1	† Basso	2		
	50	Strings2	1	70s Str	1	Strings3	1						
	51	Syn Str1	2	Syn Str4	2	Syn Str5	2	† Solitude	2	† Fate	1	† Thuilium	1
	52	Syn Str2	2	† Hope	2	† Virgo	2	† Platinum	1	† OctavPWM	2	† Taurus	2
	53	ChoirAah	1	StrngAah **	1	Male Aah **	1	† Scroll	2	† Scroll +	2		
	54	VoiceOoh	1	VoiceDoo **	1	† Hmn	1	† WriChoir	2				
	55	SynVoice	1	AnaVoice	1	† Aspirate	1	† AsprateD	2	† Facula	2		
	56	Orch.Hit	2	Impact	2	BrssStab **	2	DoubleHit **	2	BrStab80 **	2	Bass Hit ***	1
Brass	57	Trumpet	1	Dark Trp ***	1	DrkTpSft ***	1	† Soft Trp	1	† Blow	1	† Blow Dbl	2
	58	Trombone	1	BrghtTrb ***	1	MellowTb ***	1	† JJJ	1				
	59	Tuba	1										
	60	Mute Trp	1	MuteTrp2 **	1	† Bkstairs	1						
	61	Fr. Horn	1	† Syn Horn	1								
	62	BrssSect	1	† SprBrass	2	† SprBrCut	1	† SprBrBlw	2	† PwrD Sftz	2	† PwrSftzBr	2
	63	SynBrss1	2	AnaBrss1	2	† SynthThn	1	† SyncBrss	1	† SyncBrSt	2	† AnaHorn1	1
	64	SynBrss2	1	AnaBrss2	2	† Soft Cut	1	† AnaHornS	2				

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☐ : Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

Other Waves 6 Other Waves 7 Other Waves 8 Other Waves 9 Other Waves 10 Other Waves 11 Other Waves 12

0 69	0 70	0 71	0 72	0 73	0 74	0 75
E	E	E	E	E	E	E
† Soho	† † FlopsDtd	2 † Diploid2 2	† Brooklyn	1 † Diploid3 2	PhunkyDX	2 † Nasal DX
† FliksDtd	† † BrightDX	1 † BrtDXDtd	2 † Kitayama	2 † Turnpik1	2 Turnpik2	2 † Cerritos 1
† SprClavi	2 † GtrClavi 2	† HardyPlk	1 † HrdyPlk+	2 † FMClavDb	2	
StidiumO2 ***	2 GospelOr ***	1 ClkGspIO ***	2 ChapelOr ***	2 † DimChors	2 Dawn	1 † Mellorgn
† DimClick	2 † Dusk	2 † FM Click	1 † Spoony 1	† SprRotry	2 LoFiOrgn 2	† BeepOrgn 2
† DXJzGt D	2 † PulsJazz	1 † RghcastN	1 † RghcastM	1		
† Hammer M	1 † Hammer B	1 † Hammer D	2 † HammerSt	2 † FMChoGr	2 FMChoGtS	2 † PeskyGr
† Bombay	2 † Bombay S	2 † Jaipur	2			
† Wah Saw	1 † Pluto	1 † Pluto + 2	† Stimuli	1 † RunPulse	1 TalkPuls	1 † Node
† Cubit	1 † Cubit + 2	† Keel	1 † KeelPwr	2 † PlnPulse	2 PwrPuls 1	† PwrPulsB
† Brook	1 † Brook St	2				
† Frost	2 † Leo	2 † SolPlexs	2			
BassHit+ ***	2 6th Hit ***	1 6thHit + ***	2 Euro Hit ***	1 EuroHit+ ***	2 Blowout	2
† Alto&Trp	2 † Tnr&Trp	2 † BrssBros	2 † VagueBro	2		
† AnaHorn2	1 † AnHrnOct	2 † SawBrPwr	2			

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XG Voice List (Normal voices)

Bank Select LSB = Bank number

Other Waves 13 Other Waves 14 Other Waves 15 Other Waves 16 Other Waves 17

Bank Select MSB	0	0	0	0	0	0	0	0
Bank Select LSB	0	76	77	78	79	80		
Instrument Group	Pgm # (1-128)	MU Basic	E	E	E	E	E	E
Piano	1	GrandPho	1					
	2	BritePno	1					
	3	El.Grand 2						
	4	HnkyTonk	2					
	5	E.Piano1	2	† NaslDXDt	2	† Din	2	
	6	E.Piano2	2	† Sunset	1	† Soft DX	2	† Reso DX
	7	Harpsi.	1					
	8	Clavi	2					
Chromatic Percussion	9	Celesta	1					
	10	Glocken	1					
	11	MusicBox	2					
	12	Vibes	1					
	13	Marimba	1					
	14	Xylophon	1					
	15	TubulBel	1					
	16	Dulcimer	1					
Organ	17	DrawOrgn	1	† Fuzzorgn	2	† FMO	1	
	18	PercOrgn	1	† Belief	2	† SnapOrgn	1	
	19	RockOrgn	2					
	20	ChrchOrg	2					
	21	ReedOrgn	1					
	22	Acordion	2					
	23	Harmnica	1					
	24	TangoAcid	2					
Guitar	25	NylonGtr	1					
	26	SteelGtr	1					
	27	Jazz Gtr	1					
	28	CleanGtr	1	† ClaviGtr	2			
	29	Mute Gtr	1					
	30	Ovrdrive	1					
	31	Dist.Gtr	1					
	32	GtrHarmo	1					
Bass	33	Aco.Bass	1					
	34	FngrBass	1					
	35	PickBass	1					
	36	Fretless	1					
	37	SlapBas1	1					
	38	SlapBas2	1					
	39	SynBass1	1	† Stainer	1	† StainAtk	1	† SweepSqr
	40	SynBass2	2	† Pwrdr Saw	1			† SwpSqr +
Strings	41	Violin	1					
	42	Viola	1					
	43	Cello	1					
	44	Contrabs	1					
	45	Trem.Str	1					
	46	Pizz.Str	1					
	47	Harp	1					
	48	Timpani	1					
Ensemble	49	Strings1	1					
	50	Strings2	1					
	51	Syn Str1	2					
	52	Syn Str2	2					
	53	ChoirAah	1					
	54	VoiceOoh	1					
	55	SynVoice	1					
	56	Orch.Hit	2					
Brass	57	Trumpet	1					
	58	Trombone	1					
	59	Tuba	1					
	60	Mute Trp	1					
	61	Fr. Horn	1					
	62	BrssSect	1					
	63	SynBrss1	2					
	64	SynBrss2	1					

Continued on page 24

☐ : Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

XG Voice List (Normal voices)

Bank Select LSB = Bank number

		Other Waves 25		Other Instrument 1		Other Instrument 2		Other Instrument 3		Other Instrument 4	
Bank Select MSB	0	0	0	0	0	0	0	0	0	0	0
Bank Select LSB	0	88	96	97	98	99					
Instrument Group	Pgrn # (1-128)	MU Basic	E	E	E	E	E	E	E	E	E
Piano	1	GrandPno	1								
	2	BritePno	1								
	3	El.Grand	2								
	4	HnkyTonk	2								
	5	E.Piano1	2								
	6	E.Piano2	2								
	7	Harpsi.	1								
	8	Clavi	2								
Chromatic Percussion	9	Celesta	1								
	10	Glocken	1								
	11	MusicBox	2								
	12	Vibes	1								
	13	Marimba	1		Balafon **	2	Balimba	2	Log Drum	2	
	14	Xylophon	1								
	15	TubulBel	1		ChrchBel	2	Carillon	2			
	16	Dulcimer	1		Cimbalom	2	Santur	2			
Organ	17	DrawOrgn	1								
	18	PercOrgn	1								
	19	RockOrgn	2								
	20	ChrchOrg	2								
	21	ReedOrgn	1								
	22	Acordion	2								
	23	Harmnica	1								
	24	TangoAcid	2								
Guitar	25	NylonGtr	1		Ukulele	1					
	26	SteelGtr	1		Mandolin	2	† MndlnEns	2			
	27	Jazz Gtr	1		PdlSteel **	1					
	28	CleanGtr	1								
	29	Mute Gtr	1		Mu.DstGt **	2					
	30	Ovrdrive	1								
	31	Dist.Gtr	1								
	32	GtrHarmo	1								
Bass	33	Aco.Bass	1		† WalkSyBa	1	† Dim&Cool	1			
	34	FngrBass	1								
	35	PickBass	1								
	36	Fretless	1		SynFretl	2	SmthFrtl	2			
	37	SlapBas1	1								
	38	SlapBas2	1								
	39	SynBass1	1	† Crook	2	Hammer	2				
	40	SynBass2	2								
Strings	41	Violin	1								
	42	Viola	1								
	43	Cello	1								
	44	Contrabs	1								
	45	Trem.Str	1								
	46	Pizz.Str	1								
	47	Harp	1		† Vln Harp	1	† VlnHrpDt	2			
	48	Timpani	1								
Ensemble	49	Strings1	1								
	50	Strings2	1								
	51	Syn Str1	2								
	52	Syn Str2	2								
	53	ChoirAah	1								
	54	VoiceOoh	1		VoiceHmn **	1					
	55	SynVoice	1								
	56	Orch.Hit	2								
Brass	57	Trumpet	1		FlugHrn **	1	† Cornet	2			
	58	Trombone	1								
	59	Tuba	1								
	60	Mute Trp	1								
	61	Fr. Horn	1								
	62	BrssSect	1								
	63	SynBrss1	2								
	64	SynBrss2	1								

Continued on page 26

☐ : Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

Other Instrument 5 Other Instrument 6 Capital Voices on MU100 Native Map Capital Voices on MU Basic Map

0 100	0 101	0 126	0 127	
E	E		E	E
		† GrandP #	1	
		† BriteP # 1		
		† EPiano1#	2	
		† EPiano2#	1	
		† Clavi #	2	
		† DrawOrg#	2	
		† PercOrg#	2	
		† RockOrg#	2	
		† TangoAc#	2	
		† NylonGt#	1	
		† SteelGt#	1	
		† JazzGtr#	2	
		† MuteGtr#	2	
		† Ovdriv#	2	
		† DistGtr#	1	
		† AcoBass#	1	
		† FngrBa #	1	
		† Frtless# 1		
		† SlapBa1#	2	
		† SlapBa2#	2	
		† Violin # 1		
		† TremStr#	2	
		† Strngs1#	1	
		† Strngs2#	1	
		† Trumpet#	1	
		† Trmbone#	1	
		† MuteTrp#	2	
		† BrssSec#	2	
<p>⬇ Continued on page 27 ⬇</p>				

XG Voice List (Normal voices)

Bank Select LSB = Bank number

MODEL EXCLUSIVE VOICE

Timbre Timbre, Poly Timbre, Looped Timbre, Looped, Poly Phrase, Looped Phrase, Looped, Poly SFX, Timbre

Bank Select MSB	0	48	48	48	48	48	48	48	48								
Bank Select LSB	0	0	8	16	24	48	56	64									
Instrument Group	Pgm# (1-128)	MU Basic	E	E	E	E	E	E	E								
Piano	1	GrandPno	1	† MtdClavi	1	† Beeline	1	† Rage	1	† Fuss	1	† Reflex 1	2	† Insanity	2	† DstnFire	2
	2	BritePno	1	† Orimba	2	† BlineHrd	2	† TnglCaos	1	† VanAllen	1	† Reflex 2	2	† Habakkuk	2	† BlowNoiz	1
	3	El.Grand	2			† Dwarf	2	† Incontnc	1	† Divinity	2	† Prcesion	2			† Fall	1
	4	HnkyTonk	2			† Byte	1	† IncntClk	1	† Paranoia	1	† RndmWalk	1			† Chaff	2
	5	E.Piano1	2			† Ping	1	† CheapOsc	1	† Vexation	1	† RandmRun	1				
	6	E.Piano2	2			† NastyCut	1	† CheapOc+	2	† CalcOrg1	1						
	7	Harpsi.	1			† NstyCtSt	2	† NstOrSpl	2	† CalcOrg2	2						
	8	Clavi	2			† Xe	1	† SprClick	1	† CalcOrg3	2						
Chromatic Percussion	9	Celesta	1			† OrganHit	1	† Boomout	2	† ChoCalcO	2						
	10	Glocken	1			† OrgnHit+	2	† ChoirSpl	2	† Sodium	2						
	11	MusicBox	2			† Soft Hit	1	† Veld	2								
	12	Vibes	1			† Vein	1	† VaporVox	1								
	13	Marimba	1			† Packet	1	† VoxShoot	2								
	14	Xylophon	1			† Jolly	1	† SemiacOr	2								
	15	TubulBel	1			† Jolly +	2										
	16	Dulcimer	1			† Envy	1										
Organ	17	DrawOrgn	1			† EnvyShrt	2										
	18	PercOrgn	1			† Cough	1										
	19	RockOrgn	2			† Remark	2										
	20	ChrchOrg	2			† Potala	2										
	21	ReedOrgn	1			† Fury	2										
	22	Acordion	2			† Glocken+	1										
	23	Harmnica	1														
Guitar	24	TangoAcid	2														
	25	NylonGtr	1														
	26	SteelGtr	1														
	27	Jazz Gtr	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														
	35	PickBass	1														
	36	Fretless	1														
	37	SlapBas1	1														
	38	SlapBas2	1														
	39	SynBass1	1														
Strings	40	SynBass2	2														
	41	Violin	1														
	42	Viola	1														
	43	Cello	1														
	44	Contrabs	1														
	45	Trem.Str	1														
	46	Pizz.Str	1														
	47	Harp	1														
Ensemble	48	Timpani	1														
	49	Strings1	1														
	50	Strings2	1														
	51	Syn Str1	2														
	52	Syn Str2	2														
	53	ChoirAah	1														
	54	VoiceOoh	1														
	55	SynVoice	1														
	56	Orch.Hit	2														
Brass	57	Trumpet	1														
	58	Trombone	1														
	59	Tuba	1														
	60	Mute Trp	1														
	61	Fr. Horn	1														
	62	BrssSect	1														
	63	SynBrss	2														
	64	SynBrss2	1														

Continued on page 28

: No sound
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension
 E : Number of elements

XG Voice List (Normal voices)

Bank Select LSB = Bank number

		Key Scale Panning		Stereo		Single		Slow		Fast Decay	
Bank Select MSB	0	0	0	0	0	0	0	0	0	0	0
Bank Select LSB	0	0	1	3	6	8	12				
Instrument Group	Pgrn # (1-128)	MU Basic	E	SW1000XG Native	E	E	E	E	E	E	E
↕ Continued from page 2 ↕											
Reed	65	SprnoSax 1							† VgSprnSx	1	
	66	Alto Sax	1	† AltoSax#	2						
	67	TenorSax 1									
	68	Bari.Sax	1								
	69	Oboe	2	† Oboe # 1							
	70	Eng.Horn 1									
	71	Bassoon	1								
Pipe	72	Clarinet	1								
	73	Piccolo	1								
	74	Flute	1	† Flute #	1						
	75	Recorder	1								
	76	PanFlute 1		† PanFlut#	1						
	77	Bottle	2								
	78	Shakhchi	2								
	79	Whistle	1								
Synth Lead	80	Ocarina	1								
	81	SquareLd 2					SquarLd2 1	LMSquare	2		
	82	Saw Ld	2				Saw Ld 2	1 ThickSaw 2			
	83	CaliopLd 2									
	84	Chiff Ld	2								
	85	CharanLd 2									
	86	Voice Ld	2								
	87	Fifth Ld	2					† FifthLdS	2		
Synth Pad	88	Bass&Ld 2									
	89	NewAgePd 2									
	90	Warm Pad	2								
	91	PolySyPd 2									
	92	ChoirPad 2									
	93	BowedPad 2									
	94	MetalPad 2									
	95	Halo Pad 2									
Synth Effects	96	SweepPad	2								
	97	Rain	2								
	98	SoundTrk 2									
	99	Crystal	2							SynDrCmp	2
	100	Atmosphr 2									
	101	Bright	2								
	102	Goblins	2								
	103	Echoes	2					Echoes 2 2			
Ethnic	104	Sci-Fi	2								
	105	Sitar	1								
	106	Banjo	1								
	107	Shamisen 1									
	108	Koto	1								
	109	Kalimba	1								
	110	Bagpipe	2								
	111	Fiddle	1								
Percussive	112	Shanai	1								
	113	TrnklBell	2								
	114	Agogo	2								
	115	SteelDrm 2									
	116	Woodblok 1									
	117	TaikoDrm 1									
	118	MelodTom 2									
	119	Syn Drum 1									
Sound Effects	120	RevCymb1	1								
	121	FretNoiz	2								
	122	BrthNoiz	2								
	123	Seashore 2									
	124	Tweet	2								
	125	Telephone 1									
	126	Helicptr	1								
	127	Applause 1									
128	Gunshot	1									

: Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

Switching between MU Basic and SW1000XG Native can be executed by Voice Map of the SW1000XG System bulk dump. (Refer to the MIDI Data Format)

Double Attack	Bright 1	Bright 2	Dark 1	Dark 2	Resonant	LFO-Cutoff Freq
0 14	0 16	0 17	0 18	0 19	0 20	0 21
E	E	E	E	E	E	E

Continued from page 3

			† ASax Lgt	1				
			Hollow	1	Shroud	2		
			Dyna Saw	1	Digi Saw	2	Big Lead	2
							Big&Low	2
			ThickPad	2	Soft Pad	2	Sine Pad	2
							Shwimmer	2
			Popcorn	2	TinyBell	2		
					WarmAtms	2	HollwRls	2
			Echo Pan	2				

XG Voice List (Normal voices)

Bank Select LSB = Bank number

		Vel-cutoff freq	Attack	Release	Sweep	Resonant Sweep
Bank Select MSB	0	0	0	0	0	0
Bank Select LSB	0	22	24	25	26	27
Instrument Group	Pgm # (1-128)	MU Basic	E	E	E	E

Continued from page 4

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							
	82	Saw Ld 2		HeavySyn 2	WaspySyn 2	Mondo *** 1	RezySaw *** 1		
	83	CaliopLd 2							
	84	Chiff Ld 2							
	85	CharanLd 2							
	86	Voice Ld 2		SynthAah 2					
	87	Fifth Ld 2							
	88	Bass&Ld 2							
Synth Pad	89	NewAgePd 2							
	90	Warm Pad 2							
	91	PolySyPd 2							
	92	ChoirPad 2							
	93	BowedPad 2							
	94	MetalPad 2							
	95	Halo Pad 2							
	96	SweepPad 2						Converge 2	
Synth Effects	97	Rain 2							
	98	SoundTrk 2						Prologue 2	
	99	Crystal 2							
	100	Atmosphr 2							
	101	Bright 2							
	102	Goblins 2							
	103	Echoes 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	TrnkBell 2							
	114	Agogo 2							
	115	SteelDrm 2							
	116	Woodblok 1							
	117	TaikoDrm 1							
	118	MelodTom 2							
	119	Syn Drum 1							
	120	RevCymb1 1							
Sound Effects	121	FretNoiz 2							
	122	BrthNoiz 2							
	123	Seashore 2							
	124	Tweet 2							
	125	Telephone 1							
	126	Helicptr 1							
	127	Applause 1							
	128	Gunshot 1							

☐ : Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

XG Voice List (Normal voices)

Bank Select LSB = Bank number

		5th 1	5th 2	Bend	Tutti 1	Tutti 2		
Bank Select MSB	0	0	0	0	0	0		
Bank Select LSB	0	37	38	39	40	41		
Instrument Group	Pgm # (1-128)	MU Basic	E	E	E	E	E	E
↓ Continued from page 6 ↓								
Reed	65	SprnoSax 1						
	66	Alto Sax 1				Sax Sect 2		
	67	TenorSax 1				BrthTnSx 2	SoftTenr	2
	68	Bari.Sax 1						
	69	Oboe 2						
	70	Eng.Horn 1						
	71	Bassoon 1						
	72	Clarinet 1				† Syn&Clr	2	
Pipe	73	Piccolo 1						
	74	Flute 1				† Brthy Fl 2		
	75	Recorder 1						
	76	PanFlute 1						
	77	Bottle 2						
	78	Shakhchi 2						
	79	Whistle 1						
	80	Ocarina 1						
Synth Lead	81	SquareLd 2						
	82	Saw Ld 2				PulseSaw 2	Dr.Lead	2
	83	CaliopLd 2				† Novice	2	
	84	Chiff Ld 2				† SaltLead	2	
	85	CharanLd 2						
	86	Voice Ld 2						
	87	Fifth Ld 2						
	88	Bass&Ld 2						
Synth Pad	89	NewAgePd 2						
	90	Warm Pad 2				† Vishnu	2	
	91	PolySyPd 2						
	92	ChoirPad 2						
	93	BowedPad 2						
	94	MetalPad 2						
	95	Halo Pad 2				† Tiu	2	
	96	SweepPad 2						
Synth Effects	97	Rain 2						
	98	SoundTrk 2						
	99	Crystal 2				GlockChi 2	ClearBel	2
	100	Atmosphr 2				Nylon EP 2		
	101	Bright 2						
	102	Goblins 2						
	103	Echoes 2						
	104	Sci-Fi 2						
Ethnic	105	Sitar 1				† Bhuj	2	
	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	RevCymb 1						
Sound Effects	121	FretNoiz 2						
	122	BrthNoiz 2						
	123	Seashore 2						
	124	Tweet 2						
	125	Telephone 1						
	126	Helicptr 1						
	127	Applause 1						
	128	Gunshot 1						

☐ : Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

XG Voice List (Normal voices)

Bank Select LSB = Bank number

		Other Waves 1		Other Waves 2		Other Waves 3		Other Waves 4		Other Waves 5				
Bank Select MSB	0	0	0	0	0	0	0	0	0	0	0			
Bank Select LSB	0	64	65	66	67	68								
Instrument Group	Pgrn # (1-128)	MU Basic	E	E	E	E	E	E	E	E	E			
↓ Continued from page 8 ↓														
Reed	65	SprnoSax 1	† Mdtation	1	† MdtatnRs	1								
	66	Alto Sax	1	† ASaxPwrd	1	† FakeAlto	1	† FakeAlt+	2	† FakeAltD	2			
	67	TenorSax 1		TnrSax 2	1	† SprTenor	1	† SprTnr +	2	† SprTnrSt	2	† Tnr&Alto	2	
	68	Bari.Sax	1											
	69	Oboe	2	† Heinz	1	† HeinzUni	2							
	70	Eng.Horn 1												
	71	Bassoon	1											
	72	Clarinet	1											
Pipe	73	Piccolo	1											
	74	Flute	1	† Boehm	1	† Boehm Br	2	† Pastoral	2	† Shepherd	2			
	75	Recorder 1		† Piplith	2	† Home	1							
	76	PanFlute 1		PanFlut2 **	1	† Meadow	1							
	77	Bottle	2	† BottLgt	2									
	78	Shakhchi	2											
	79	Whistle	1	† Reverie	2									
	80	Ocarina	1	† Opalina	1									
Synth Lead	81	SquareLd 2		Mellow	2	SoloSine	2	SineLead	1	Pulse Ld ***	1	SyncLead ***	1	
	82	Saw Ld	2	Digger ***	1	† Dunce	2	† BrassSaw	1	† SawRiver	2	† BrPulsDb	2	
	83	CaliopLd 2		Vent Syn **	2	PureLead	2	† ElPrintv	2					
	84	Chiff Ld	2	Rubby	2	HardSync ***	1							
	85	CharanLd 2		DistLead	2	WireLead	2	SynPluck ***	1					
	86	Voice Ld	2	Vox Lead	2	Br.Layer ***	2	† Cypher	1	1	† Cypher 2	1	† Cypher 3	2
	87	Fifth Ld	2											
	88	Bass&Ld	2	Fat&Prky	2	Soft Wrl	2	† Cant	2	† Mogul	1	† Distance	2	
Synth Pad	89	NewAgePd	2	Fantasy	2	† Libra	2							
	90	Warm Pad	2	Horn Pad	2	RotarStr	2							
	91	PolySyPd 2		PolyPd80	2	ClickPad	2	Ana. Pad	2	SquarPad	2	Snow Pad ***	2	
	92	ChoirPad	2	Heaven	2	Lite Pad **	2	Itopia	2	CC Pad	2	CosmicPd ***	2	
	93	BowedPad	2	Glacier	2	GlassPad	2	† SqrTwang	2					
	94	MetalPad	2	Tine Pad	2	Pan Pad	2	† Queever	2					
	95	Halo Pad	2	† Aries	2									
	96	SweepPad	2	PolarPad	2	Sweepy **	2	Celstial	2	† Monsoon	2	† lo	2	
Synth Effects	97	Rain	2	HrmoRain	2	AfrcnWnd	2	Carib	2					
	98	SoundTrk	2	Ancestrl	2	Rave **	2	Fairy ***	2	† Hermit	2			
	99	Crystal	2	SynMalet	1	SftCryst	2	LoudGlok	2	ChrstBel	2	VibeBell	2	
	100	Atmosphr	2	NylnHarp	2	Harp Vox	2	AtmosPad	2	Planet	2	† Lyra	2	
	101	Bright	2	FantaBel	2									
	102	Goblins	2	GobSynth	2	Creep	2	Ring Pad	2	Ritual	2	ToHeaven	2	
	103	Echoes	2	EchoBell	2	Big Pan	2	SynPiano	2	Creation	2	StarDust	2	
	104	Sci-Fi	2	Starz	2	Odin **	2							
Ethnic	105	Sitar	1	† Raga Syn	2									
	106	Banjo	1	† El Banjo	1									
	107	Shamisen	1											
	108	Koto	1	† FM Koto	2									
	109	Kalimba	1	BigKalim **	2									
	110	Bagpipe	2	† Thistle	2									
	111	Fiddle	1											
	112	Shanai	1	Shanai	2	1								
Percussive	113	TnklBell	2	† TcklBell	2									
	114	Agogo	2											
	115	SteelDrm	2											
	116	Woodblok	1											
	117	TaikoDrm	1											
	118	MelodTom	2	Mel Tom2	1	Real Tom	2	Rock Tom	2					
	119	Syn Drum	1	Ana Tom	1	ElecPerc	2							
	120	RevCymb	1	Rev Cym2 **	1									
Sound Effects	121	FretNoiz	2											
	122	BrthNoiz	2											
	123	Seashore	2											
	124	Tweet	2											
	125	Telephone	1											
	126	Helicptr	1											
	127	Applause	1											
	128	Gunshot	1											

□ : Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

XG Voice List (Normal voices)

Bank Select LSB = Bank number

Other Waves 13 Other Waves 14 Other Waves 15 Other Waves 16 Other Waves 17

Bank Select MSB	0	0	0	0	0	0
Bank Select LSB	0	76	77	78	79	80
Instrument Group	Pgm.# (1-128)	MU Basic	E	E	E	E
↓ Continued from page 10 ↓						
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				
Pipe	72	Clarinet 1				
	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	† Curse	2	† OctvBeep 1	
	82	Saw Ld 2	† FatOctav 1	† Overdose 2	† PWMDecay 1	† SawDecay 1
	83	CalliopLd 2				
	84	Chiff Ld 2				
	85	CharanLd 2				
	86	Voice Ld 2				
	87	Fifth Ld 2				
	88	Bass&Ld 2				
Synth Pad	89	NewAgePd 2				
	90	Warm Pad 2				
	91	PolySyPd 2				
	92	ChoirPad 2				
	93	BowedPad 2				
	94	MetalPad 2				
	95	Halo Pad 2				
	96	SweepPad 2				
Synth Effects	97	Rain 2				
	98	SoundTrk 2				
	99	Crystal 2				
	100	Atmosphr 2				
	101	Bright 2				
	102	Goblins 2	† Beacon 2			
	103	Echoes 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	RevCymb1 1				
Sound Effects	121	FretNoiz 2				
	122	BrthNoiz 2				
	123	Seashore 2				
	124	Tweet 2				
	125	Telephone 1				
	126	Helicptr 1				
	127	Applause 1				
	128	Gunshot 1				

: Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

XG Voice List (Normal voices)

Bank Select LSB = Bank number

Other Waves 25 Other Instrument 1 Other Instrument 2 Other Instrument 3 Other Instrument 4

Bank Select MSB	0	0	0	0	0	0	0	
Bank Select LSB	0	88	96	97	98	99		
Instrument Group	Pgm # (1-128)	MU Basic	E	E	E	E	E	
↓ Continued from page 12 ↓								
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						
Pipe	72	Clarinet 1		BassClar **	1			
	73	Piccolo 1						
	74	Flute 1						
	75	Recorder 1						
	76	PanFlute 1		Kawala **	2			
	77	Bottle 2						
	78	Shakhchi 2						
	79	Whistle 1						
	80	Ocarina 1						
	Synth Lead	81	SquareLd 2					
		82	Saw Ld 2		Seq Ana. 2			
83		CalliopLd 2						
84		Chiff Ld 2						
85		CharanLd 2						
86		Voice Ld 2						
87		Fifth Ld 2						
88		Bass&Ld 2						
Synth Pad	89	NewAgePd 2						
	90	Warm Pad 2						
	91	PolySyPd 2						
	92	ChoirPad 2						
	93	BowedPad 2						
	94	MetalPad 2						
	95	Halo Pad 2						
	96	SweepPad 2						
Synth Effects	97	Rain 2						
	98	SoundTrk 2						
	99	Crystal 2						
	100	Atmosphr 2						
	101	Bright 2		Smokey	2			
	102	Goblins 2		BelChoir	2	Dharma ***	2	
	103	Echoes 2						
	104	Sci-Fi 2						
Ethnic	105	Sitar 1		Tambra	2	Tamboura	2	
	106	Banjo 1		Rabab	2	Gopichnt	2	
	107	Shamisen 1		Tsugaru **	2			
	108	Koto 1		Taisho-k	2	Kanoon	2	
	109	Kalimba 1						
	110	Bagpipe 2						
	111	Fiddle 1						
	112	Shanai 1		Pungi	1	Hichriki	2	
Percussive	113	TrklBell 2		Bonang	2	Altair	2	
	114	Agogo 2		Atrigane **	2			
	115	SteelDrm 2		Tablas **	2	GlasPerc 2		
	116	Woodblok 1		Castanet	1	ThaiBell	2	
	117	TaikoDrm 1		Gr.Cassa	1			
	118	MelodTom 2						
	119	Syn Drum 1						
	120	RevCymb1 1		RevSnar1 **	1	RevSnar2 **	1	
	121	RevKick1 **	1					
	122	RevConBD **	1					
Sound Effects	121	FretNoiz 2						
	122	BrthNoiz 2						
	123	Seashore 2						
	124	Tweet 2						
	125	Telephone 1						
	126	Helicptr 1						
	127	Applause 1						
	128	Gunshot 1						

: Same as Bank 0.
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension
 E: Number of elements

XG Voice List (Normal voices)

Bank Select LSB = Bank number

MODEL EXCLUSIVE VOICE

Timbre Timbre, Poly Timbre, Looped Timbre, Looped, Poly Phrase, Looped Phrase, Looped, Poly SFX, Timbre

Bank Select MSB	0	48	48	48	48	48	48	48	48
Bank Select LSB	0	0	8	16	24	48	56	64	
Instrument Group	Pgm.# (1-128)	MU Basic	E	E	E	E	E	E	E
↓ Continued from page 14 ↓									
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							
Pipe	72	Clarinet 1							
	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						
82		Saw Ld 2							
83		CallioLd 2							
84		Chiff Ld 2							
85		CharanLd 2							
86		Voice Ld 2							
87		Fifth Ld 2							
88		Bass&Ld 2							
Synth Pad	89	NewAgePd 2							
	90	Warm Pad 2							
	91	PolySyPd 2							
	92	ChoirPad 2							
	93	BowedPad 2							
	94	MetalPad 2							
	95	Halo Pad 2							
	96	SweepPad 2							
Synth Effects	97	Rain 2							
	98	SoundTrk 2							
	99	Crystal 2							
	100	Atmosphr 2							
	101	Bright 2							
	102	Goblins 2							
	103	Echoes 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	SteelDrum 2							
	116	Woodblok 1							
	117	TaikoDrum 1							
	118	MelodTom 2							
	119	Syn Drum 1							
	120	RevCymb 1							
Sound Effects	121	FretNoiz 2							
	122	BrthNoiz 2							
	123	Seashore 2							
	124	Tweet 2							
	125	Telephone 1							
	126	Helicptr 1							
	127	Applause 1							
	128	Gunshot 1							

[] : No sound
 ** : MU80 Extension
 *** : MU90 Extension
 † : MU100 Extension

E: Number of elements

TG300B Voice List (Normal voices)

Bank Select MSB = Bank number, LSB = 000

Bank Select MSB	Bank 0	E	Bank 1	E	Bank 2	E	Bank 3	E	Bank 4	E	Bank 5	E	
Instrument Group	Pgm #												
Piano	1	GrandPno	1										
	2	BritePno	1										
	3	El.Grand	2	LayerCP1	2	LayerCP2	2						
	4	HnkyTonk	2										
	5	E.Piano1	2										
	6	E.Piano2	2										
	7	Harpsi.	1										
	8	Clavi	2										
Chromatic Percussion	9	Celesta	1										
	10	Glocken	1										
	11	MusicBox	2										
	12	Vibes	1	HardVibe	2								
	13	Marimba	1										
	14	Xylophon	1										
	15	TubulBel	1										
	16	Dulcimer	1	Dulcimer2	2								
Organ	17	DrawOrgn	1	70sDrOr1	2								
	18	PercOrgn	1	70sPcOr1	2								
	19	RockOrgn	2										
	20	ChrchOrg	2										
	21	ReedOrgn	1										
	22	Acordion	2										
	23	Harmnica	1	Harmo. 2	2								
	24	TangoAcid	2										
Guitar	25	NylonGtr	1										
	26	SteelGtr	1										
	27	Jazz Gtr	1	MelloGtr	1								
	28	CleanGtr	1										
	29	Mute Gtr	1	Mu.DstGt	2								
	30	Ovrdrive	1										
	31	Dist.Gtr	1	DistGtr2	2	DistGtr3	2						
	32	GtrHarmo	1										
Bass	33	Aco.Bass	1										
	34	FngrBass	1	FngBass2	2	Jazzy Ba	1						
	35	PickBass	1										
	36	Fretless	1	Fretles2	2	Fretles3	2	Fretles4	2	SynFretl	2	SmthFrtl	2
	37	SlapBas1	1										
	38	SlapBas2	1										
	39	SynBass1	1	SynBa1Dk	1								
	40	SynBass2	2	ClkSynBa	2	ModulrBa	2	Seq Bass	2				
Strings	41	Violin	1										
	42	Viola	1										
	43	Cello	1										
	44	Contrabs	1										
	45	Trem.Str	1										
	46	Pizz.Str	1										
	47	Harp	1										
	48	Timpani	1										
Ensemble	49	Strings1	1	Slow Str	1								
	50	Strings2	1	70s Str	1								
	51	Syn Str1	2	Syn Str4	2								
	52	Syn Str2	2										
	53	ChoirAah	1										
	54	VoiceDoo	1										
	55	SynVoice	1										
	56	Orch.Hit	2	OrchHit2	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	FrHorn 2	2								
	62	BrssSect	1										
	63	SynBrss1	2	PolyBrss	2								
	64	SynBrss2	1	Soft Brs	2								

Continued on page 34



Same as Bank 0

E: Number of elements

Bank 6	E	Bank 7	E	Bank 8	E	Bank 9	E	Bank 10	E	Bank 11	E	Bank 16	E
				GrndPnoK	1							MelloGrP	1
				BritPnoK	1								
				ElGrPnoK	2								
				HnkyTnkK	2								
				Chor.EP1	2							VX El.P1	2
				Chor.EP2	2							VX El.P2	2
				Harpsi.3	2							Harpsi.K	1
				Clavi K	1								
				Vibes K	1								
				MarimbaK	1							Balafon	2
				ChrchBel	2	Carillon	2						
				Cimbalom	2								
				DetDrwOr	2	70sDrOr2	2					60sDrOr1	2
				DetPrcoOr	2								
				RotaryOr	2							SloRotar	2
				ChurOrg2	2							ChurOrg3	2
				AccordIt	2								
				Ukulele	1							NylonGt3	2
				12StrGtr	2	Nyln&Stl	2					Mandolin	2
				PdlSteel	1								
				ChorusGt	2								
				FunkGtr1	2							FunkGtr2	2
				FeedbkGt	2	FeedbGt2	2					PowerGt1	2
				GiFeedbk	1							AcoHarmo	1
				MutePkBa	1								
				ResoSlap	1								
				AcidBass	1	FastResB	1	TechnoBa	2			ResoBass	1
				DX Bass	2	X WireBa	2					RubberBa	2
				Slow Vln	1								
				SlwTrStr	1	Susp.Str	2						
				Orchestr	2	Orchstr2	2	TremOrch	2	ChoirStr	2	S.Strngs	2
				LegatoSt	2	Warm Str	2	S.SlwStr	2				
				Syn Str3	2								
				S.Choir	2	MelChoir	2						
				SyVoice2	2								
				Impact	2	BrssStab	2	DoubleHit **	2			LoFi Hit	2
				FluglHrn	1								
				FrHrSolo	1							HornOrch	2
				BrssSec2	2							BrssFall	1
				SynBrss3	2	Quack Br	2					AnaBrss1	2
				SynBrss4	2							AnaBrss2	2

Continued on page 35

TG300B Voice List (Normal voices)

Bank Select MSB = Bank number, LSB = 000

Bank Select MSB	Bank 0	E	Bank 17	E	Bank 18	E	Bank 19	E	Bank 24	E	Bank 25	E
Instrument Group	Pgm #											
Piano	1	GrandPno	1									
	2	BritePno	1									
	3	El.Grand	2									
	4	HnkyTonk	2									
	5	E.Piano1	2						60sEl.P1	1	HardEl.P	2
	6	E.Piano2	2						DX Hard	2		
	7	Harpsi.	1						Harpsi.2	2		
	8	Clavi	2									
Chromatic Percussion	9	Celesta	1									
	10	Glocken	1									
	11	MusicBox	2									
	12	Vibes	1									
	13	Marimba	1	Balimba	2				Log Drum	2		
	14	Xylophon	1									
	15	TubulBel	1									
	16	Dulcimer	1									
Organ	17	DrawOrgn	1	60sDrOr2	2	60sDrOr3	2		CheezOrg	2		
	18	PercOrgn	1									
	19	RockOrgn	2						FstRotar	2		
	20	ChrchOrg	2						OrgFlute	2		
	21	ReedOrgn	1									
	22	Acordion	2									
	23	Harmnica	1									
	24	TangoAcid	2									
Guitar	25	NylonGtr	1						VelGtHrm	2		
	26	SteelGtr	1									
	27	Jazz Gtr	1									
	28	CleanGtr	1									
	29	Mute Gtr	1									
	30	Ovrdrive	1									
	31	Dist.Gtr	1	PowerGt2	2	Dst.5ths	2		RckRthm1	2	RckRthm2	2
	32	GtrHarmo	1									
Bass	33	Aco.Bass	1									
	34	FngrBass	1									
	35	PickBass	1									
	36	Fretless	1									
	37	SlapBas1	1									
	38	SlapBas2	1									
	39	SynBass1	1									
	40	SynBass2	2	SynBa2Dk	1	MelloSB1	1	SmthSynB	2			
Strings	41	Violin	1									
	42	Viola	1									
	43	Cello	1									
	44	Contrabs	1									
	45	Trem.Str	1									
	46	Pizz.Str	1									
	47	Harp	1									
	48	Timpani	1									
Ensemble	49	Strings1	1						Velo.Str	2		
	50	Strings2	1									
	51	Syn Str1	2									
	52	Syn Str2	2									
	53	ChoirAah	1									
	54	VoiceOoh	1									
	55	SynVoice	1									
	56	Orch.Hit	2									
Brass	57	Trumpet	1						BriteTrp	2	Warm Trp	2
	58	Trombone	1									
	59	Tuba	1									
	60	Mute Trp	1									
	61	Fr. Horn	2									
	62	BrssSect	1									
	63	SynBrss1	2									
	64	SynBrss2	1	AnVelBr2	2							

Continued on page 36



Same as Bank 0

E: Number of elements

Bank 26	E	Bank 32	E	Bank 33	E	Bank 40	E	Bank 126	E	Bank 127	E
								A-Piano1	2	a.piano1	1
								A-Piano2	2	a.piano2	1
								A-Piano3	2	a.piano3	1
								A-Piano4	2	e.piano1	1
MelloEP1	2	El.Pno1K	1					A-Piano5	1	e.piano2	1
		El.Pno2K	1					A-Piano6	1	e.piano3	1
								A-Piano7	1	e.piano4	1
								E-Piano1	2	hnkytnk	2
								E-Piano2	2	e.organ1	2
								E-Piano3	2	e.organ2	2
								A-Guitr1	1	e.organ3	1
								A-Guitr2	2	e.organ4	1
								A-Guitr3	2	pipeorg1	2
								E-Guitr1	2	pipeorg2	2
								E-Guitr2	1	pipeorg3	2
								Slap-1	2	acordion	2
		DrawOrg2	2	Even Bar	2	Organ Ba	1	Slap-2	2	harpsi1	1
		PercOrg2	2					Slap-3	2	harpsi2	2
								Slap-4	2	harpsi3	1
		TrmOrgFl	2					Slap-5	2	clavi1	1
								Slap-6	2	clavi2	1
								Slap-7	2	clavi3	1
								Slap-8	2	celesta1	1
								Finger-1	1	celesta2	1
		NylonGt2	1			Requinto	1	Finger-2	2	synbras1	2
		SteelGt2	1					Picked-1	1	synbras2	2
								Picked-2	2	synbras3	2
								FretsBs	1	synbras4	2
								A-Bass	2	synbass1	1
								Choir-1	1	synbass2	1
								Choir-2	1	synbass3	2
								Choir-3	2	synbass4	1
								Choir-4	2	newagepd	2
								Strngs-1	2	synharmo	2
								Strngs-2	2	choir pd	2
								Strngs-3	2	bowed pd	2
								Strngs-4	2	soundtrk	2
								E-Organ1	2	atmosphr	2
								E-Organ2	2	syn warm	2
								E-Organ3	2	synfunny	1
								E-Organ4	2	synecho1	2
								E-Organ5	2	rain	2
								E-Organ6	2	synoboe	2
								E-Organ7	2	synecho2	2
								E-Organ8	2	synsolo	2
								E-Organ9	2	synrdorg	2
								SoftTP-1	1	synbell	1
								SoftTP-2	1	squareld	2
								TP/TRB-1	1	strsect1	2
								TP/TRB-2	1	strsect2	2
								TP/TRB-3	1	strsect3	2
								TP/TRB-4	1	pizz.str	1
		Ch.Aahs2	2					TP/TRB-5	2	violin 1	2
								TP/TRB-6	2	violin 2	1
								Sax-1	1	cello 1	1
								Sax-2	1	cello 2	1
								Sax-3	1	contrabs	1
								Sax-4	2	harp 1	1
								Brass-1	1	harp 2	1
								Brass-2	1	guitar 1	1
								Brass-3	2	guitar 2	1
								Brass-4	2	elecgr1	2
								Brass-5	2	elecgr2	2
								Orch-Hit	1	sitar	1

↓ Continued on page 37 ↓

TG300B Voice List (Normal voices)

Bank Select MSB = Bank number, LSB = 000

Bank Select MSB	Bank 0	E	Bank 1	E	Bank 2	E	Bank 3	E	Bank 4	E	Bank 5	E	
Instrument Group	Pgm #												
↕ Continued from page 30 ↕													
Reed	65	SprnoSax	1										
	66	Alto Sax	1										
	67	TnrSax 2	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	SquarLd2	1	Hollow	1	Mellow	2	SoloSine	2	Shroud	2
	82	Saw Ld	2	Saw Ld 2	1	PulseSaw	2	ThickSaw	2	Big Lead	2	VeloLead	2
	83	CallioPd	2	Vent Syn	2	PureLead	2						
	84	Chiff Ld	2										
	85	CharanLd	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	Fantasy	2								
	90	Warm Pad	2	ThickPad	2	Horn Pad	2	RotarStr	2	Soft Pad	2		
	91	PolySyPd	2	PolyPd80	2								
	92	ChoirPad	2	Heaven	2								
	93	BowedPad	2										
	94	MetalPad	2	Tine Pad	2	Pan Pad	2						
	95	Halo Pad	2										
	96	SweepPad	2	PolarPad	2								
Synth Effects	97	Rain	2	HrmoRain	2	AfrcnWnd	2						
	98	SoundTrk	2	Ancestrl	2	Prologue	2						
	99	Crystal	2	SynMalet	1	SftCryst	2	RndGlock	2	LoudGlok	2	GlockChi	2
	100	Atmosphr	2	WarmAtms	2	NylnHarp	2	Harp Vox	2	HollwRls	2	Nylon EP	2
	101	Bright	2										
	102	Goblins	2	GobSynth	2	Creeper	2						
	103	Echoes	2	EchoBell	2	Echo Pan	2	Echoes 2	2	Big Pan	2	Reso&Pan	2
	104	Sci-Fi	2	Starz	2								
	Ethnic	105	Sitar	1	Sitar 2	2	DetSitar	2					
		106	Banjo	1	MuteBnjo	1							
107		Shamisen	1	Tsugaru	2								
108		Koto	1										
109		Kalimba	1										
110		Bagpipe	2										
111		Fiddle	1										
112		Shanai	1	Shanai 2	1								
Percussive		113	TnklBell	2									
		114	Agogo	2									
	115	SteelDrm	2										
	116	Woodblok	1										
	117	TaikoDrm	1										
	118	MelodTom	2	Real Tom	2								
	119	Syn Drum	1										
	120	RevCymb1	1	Rev Cym2	1								
Sound Effects	121	FretNoiz	2	CuttingNz	1	Str Slap	1	CtngNz2	2	DstCutNz	2	B.Slide	2
	122	BrthNoiz	2	Fl.KClk	1								
	123	Seashore	2	Shower	1	Thunder	1	Wind	1	Stream	2	Bubble	2
	124	Tweet	2	Dog	1	Horse	1	Tweet 2	1	Kitty	1	Growl	1
	125	Telphone	1	PhonCall	1	DoorSqek	1	DoorSlam	1	ScratchC	1	WindChim	1
	126	Helicptr	1	CarElgnt	1	CarTSqel	1	Car Pass	1	CarCrash	1	Siren	2
	127	Applause	1	Laugh	1	Scream	1	Punch	1	Heart	1	Footstep	1
	128	Gunshot	1	MchinGun	1	LaserGun	2	Xplosion	2				

Same as Bank 0

E: Number of elements

Bank 6	E	Bank 7	E	Bank 8	E	Bank 9	E	Bank 10	E	Bank 11	E	Bank 16	E
↓ Continued from page 31 ↓													
				HyprAlto	2								
				BrthTnSx	2								
				BassClar	1								
				Kawala	2								
LMSquare	2			SineLead	1								
HeavySyn	2	Dyna Saw	1	Dr.Lead	2						WaspySyn	2	
				DistLead	2								
				Converge	2	Shwimmer	2	Celstial	2				
				ClaviPad	2								
				Rave	2								
ClearBel	2	ChrstBel	2	VibeBell	2	DigiBell	2				ChorBell	2	
AtmosPad	2												
SynPiano	2												
				Tambra	2						Tamboura	2	
				Rabab	2						Gopichnt	2	
				Taisho-k	2						Kanoon	2	
				Pungi	1						Hichniki	2	
				Bonang	2	Altair	2	Gamelan	2	S.Gamlan	2	Rama Cym	2
				Atrigane	2								
				Castanet	1								
				Gr.Cassa	1								
				Mel Tom2	1	Rock Tom	2						
				Ana Tom	1	ElecPerc	2						
				RevSnar1	1	RevSnar2	1				RevKick1	1	
P.Scrape	1												
				ScratchS	2								
Train	1	JetPlane	2	Starship	2	Burst	2				Coaster	2	

TG300B Voice List (Normal voices)

Bank Select MSB = Bank number, LSB = 000

Bank Select MSB		Bank 0	E	Bank 17	E	Bank 18	E	Bank 19	E	Bank 24	E	Bank 25	E
Instrument Group	Pgm #												
↓ Continued from page 32 ↓													
Reed	65	SprnoSax	1										
	66	Alto Sax	1										
	67	TnrSax 2	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										
	82	Saw Ld	2										
	83	CaliopLd	2										
	84	Chiff Ld	2										
	85	CharanLd	2										
	86	Voice Ld	2										
	87	Fifth Ld	2										
	88	Bass&Ld	2										
Synth Pad	89	NewAgePd	2										
	90	Warm Pad	2										
	91	PolySyPd	2										
	92	ChoirPad	2										
	93	BowedPad	2										
	94	MetalPad	2										
	95	Halo Pad	2										
	96	SweepPad	2										
Synth Effects	97	Rain	2										
	98	SoundTrk	2										
	99	Crystal	2	AirBells	2	BellHarp	2	Gamelmba	2				
	100	Atmosphr	2										
	101	Bright	2										
	102	Goblins	2										
	103	Echoes	2										
	104	Sci-Fi	2										
Ethnic	105	Sitar	1										
	106	Banjo	1							Oud	2		
	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	RevCymb1	1	RevConBD	1					Rev Tom1	1	Rev Tom2	1
Sound Effects	121	FretNoiz	2										
	122	BrthNoiz	2										
	123	Seashore	2										
	124	Tweet	2										
	125	Telephone	1										
	126	Helicptr	1										
	127	Applause	1										
	128	Gunshot	1										

Same as Bank 0

E: Number of elements

Bank 26	E	Bank 32	E	Bank 33	E	Bank 40	E	Bank 126	E	Bank 127	E
↓ Continued from page 33 ↓											
								Silence		a.bass 1	1
								Silence		a.bass 2	1
								Silence		e.bass 1	1
								Silence		e.bass 2	1
								Silence		slapbas1	1
								Silence		slapbas2	1
								Silence		fretles1	1
								Silence		fretles2	1
								Silence		flute1	1
								Silence		flute2	1
								Silence		piccolo1	1
								Silence		piccolo2	2
								Silence		recorder	1
								Silence		panpipes	2
								Silence		sax1	2
								Silence		sax2	1
								Silence		sax3	1
								Silence		sax4	1
								Silence		clarint1	1
								Silence		clarint2	1
								Silence		oboe	1
								Silence		eng.horn	1
								Silence		bassoon	1
								Silence		harmnica	1
								Silence		trumpet1	1
								Silence		trumpet2	1
								Silence		trmbone1	2
								Silence		trmbone2	2
								Silence		fr.horn1	1
								Silence		fr.horn2	2
								Silence		tuba	2
								Silence		brssect1	1
								Silence		brssect2	2
								Silence		vibe1	1
								Silence		vibe2	1
								Silence		symallet	1
								Silence		maletwin	2
								Silence		glocken	2
								Silence		tubulbel	1
								Silence		xylophen	1
								Silence		marimba	2
								Silence		koto	1
								Silence		sho	2
								Silence		shakhchi	2
								Silence		whistle1	2
								Silence		whistle2	1
								Silence		bottle	2
								Silence		breath	2
								Silence		timpani	1
								Silence		melotom	1
								Silence		deepsnar	1
								Silence		e.perc1	1
								Silence		e.perc2	1
								Silence		taiko	1
								Silence		taikorim	1
								Silence		cymbal	2
								Silence		castanet	1
								Silence		triangle	1
								Silence		orchehit	1
								Silence		telephone	1
								Silence		bird	1
								Silence		jam	1
								Silence		efctwatr	2
								Silence		efctjngl	2

XG Drum Map (Drum voices)

Bank Select MSB	127		127		127		127		127		127		127		127			
Bank Select LSB	0		0		0		0		0		0		0		0			
Program	1		10		17		18		25		26		27		28		29	
Number	Note	Key Off	Group	Alternate	Standard Kit	Dark Room Kit ***	Rock Kit	Rock Kit 2 ***	Electro Kit	Analog Kit	Analog Kit 2 ***	Dance Kit ***	Hip Hop Kit ***					
13	Cir	-1	3		Surdo Mute	Surdo Mute V ***		Surdo Mute V ***			Surdo Mute V ***		Surdo Mute V ***					
14	D	-1	3		Surdo Open	Surdo Open V ***		Surdo Open V ***			Surdo Open V ***		Surdo Open V ***					
15	Dtr	-1			H Q													
16	E	-1			Whip Stap													
17	F	-1	4		Scratch H													
18	F#	-1	4		Scratch L													
19	G	-1			Finger Snap													
20	G#	-1			Click Noise													
21	A	-1			Metronome Click													
22	A#	-1			Metronome Bell													
23	B	-1			Seq Click L													
24	C	0			Seq Click H													
25	C#	0			Brush Tap	Brush Tap V ***		Brush Tap V ***			Brush Tap V ***		Brush Tap V ***					
26	D	0	0		Brush Swirl	Brush Swirl V ***		Brush Swirl V ***			Brush Swirl V ***		Brush Swirl V ***					
27	D#	0			Brush Slap	Brush Slap V ***		Brush Slap V ***			Brush Slap V ***		Brush Slap V ***					
28	E	0	0		Brush Tap Swirl	Brush Tap Swirl V ***		Brush Tap Swirl V ***	Reverse Cymbal	Reverse Cymbal	Reverse Cymbal ***	Reverse Cymbal ***	Brush Tap Swirl V ***					
29	F	0	0		Snare Roll	Snare Roll V ***		Snare Roll V ***			Snare Roll V ***		Snare Roll V ***					
30	F#	0			Castanet				H Q 2	H Q 2	H Q 2 ***	H Q 2 ***						
31	G	0			Snare Soft		Snare Noisy	Snare Noisy 5 ***	Snare Snappy Electro	Snare Noisy 4	Snare Analog 3 ***	Snare Techno 3 ***	Open Rim Shot 2 Soft ***					
32	G#	0			Sticks													
33	A	0			Kick Soft		Kick Tight 2	Kick Tight 3 ***	Kick 3	Kick Tight 2	Kick Techno Soft ***	Kick Techno Q ***	Kick Dry Soft 2 ***					
34	A#	0			Open Rim Shot					Open Rim Shot Dry V ***	Rm Gate ***	Open Rim Shot 2 ***						
35	B	0			Kick Tight	Kick Dark ***	Kick 2	Kick 4 ***	Kick Gate	Kick Analog Short	Kick Techno Tight ***	Kick Techno L ***	Kick Dim ***					
36	C	1			Kick	Kick Room Gate ***	Kick Gate	Kick Gate 2 ***	Kick Gate Heavy	Kick Analog	Kick Techno 2 ***	Kick Techno 2 ***	Kick Boom ***					
37	C#	1			Side Stick					Side Stick Analog	Side Stick Analog ***	Side Stick Analog ***	Side Stick Dry ***					
38	D	1			Snare	Snare Snappy 2 ***	Snare Rock	Snare Rock 2 ***	Snare Noisy 2	Snare Analog	Snare Techno ***	Snare Clap ***	Snare Dry Mute ***					
39	D#	1			Hand Clap													
40	E	1			Snare Tight	Snare Tight Snappy 2 ***	Snare Rock Rim	Snare Rock Rim Q ***	Snare Noisy 3	Snare Analog 2	Snare Techno 2 ***	Snare Dry 2 ***	Snare White ***					
41	F	1			Floor Tom L	Tom Room 1 Q	Tom Rock 1	Tom Rock 1 H ***	Tom Electro 1	Tom Analog 1	Tom Analog 1 ***	Tom Analog 1 ***	Floor Tom L Short ***					
42	F#	1	1		Hi-Hat Closed	Hi-Hat Closed Q ***				Hi-Hat Closed Analog	Hi-Hat Closed Analog ***	Hi-Hat Closed 3 ***	Hi-Hat Closed 2 H ***					
43	G	1			Floor Tom H	Room Tom 2 Q ***	Tom Rock 2	Tom Rock 2 H ***	Tom Electro 2	Tom Analog 2	Tom Analog 2 ***	Tom Analog 2 ***	Floor Tom H Short ***					
44	G#	1			Hi-Hat Pedal	Hi-Hat Pedal Q ***				Hi-Hat Closed Analog 2	Hi-Hat Closed Analog 2 ***	Hi-Hat Closed 3 ***	Hi-Hat Pedal 2 H ***					
45	A	1			Low Tom	Room Tom 3 Q ***	Tom Rock 3	Tom Rock 3 L Short ***	Tom Electro 3	Tom Analog 3	Tom Analog 3 ***	Tom Analog 3 ***	Low Tom Short ***					
46	A#	1	1		Hi-Hat Open	Hi-Hat Open L ***				Hi-Hat Open Analog	Hi-Hat Open Analog ***	Hi-Hat Open 3 ***	Hi-Hat Open 2 L ***					
47	B	1			Mid Tom L	Tom Room 4 Dark ***	Tom Rock 4	Tom Rock 4 L Short ***	Tom Electro 4	Tom Analog 4	Tom Analog 4 ***	Tom Analog 4 ***	Mid Tom L Short ***					
48	C	2			Mid Tom H	Tom Room 5 L Dark ***	Tom Rock 5	Tom Rock 5 L Short ***	Tom Electro 5	Tom Analog 5	Tom Analog 5 ***	Tom Analog 5 ***	Mid Tom H Short ***					
49	C#	2			Crash Cymbal 1					Crash Analog	Crash Analog ***	Crash Analog ***	Crash Cymbal 1 V ***					
50	D	2			High Tom	Tom Room 6 L Dark ***	Tom Rock 6	Tom Rock 6 L Short ***	Tom Electro 6	Tom Analog 6	Tom Analog 6 ***	Tom Analog 6 ***	High Tom Short ***					
51	D#	2			Ride Cymbal 1	Ride Cymbal 1 V ***		Ride Cymbal 1 V ***			Ride Cymbal 1 V ***		Ride Cymbal 1 V ***					
52	E	2			Chinese Cymbal	Chinese Cymbal V ***		Chinese Cymbal V ***			Chinese Cymbal V ***		Chinese Cymbal V ***					
53	F	2			Ride Cymbal Cup													
54	F#	2			Tambourine													
55	G	2			Splash Cymbal	Splash Cymbal V ***		Splash Cymbal V ***			Splash Cymbal V ***		Splash Cymbal V ***					
56	G#	2			Cowbell					Cowbell Analog	Cowbell Analog ***	Cowbell Analog ***						
57	A	2			Crash Cymbal 2	Crash Cymbal 2 V ***		Crash Cymbal 2 V ***			Crash Cymbal 2 V ***		Crash Cymbal 2 V ***					
58	A#	2			Woodblock													
59	B	2			Ride Cymbal 2	Ride Cymbal 2 V ***		Ride Cymbal 2 V ***			Ride Cymbal 2 V ***		Ride Cymbal 2 V ***					
60	C	3			Bongo H	Bongo LV ***		Bongo HV ***			Bongo LV ***		Bongo HV ***					
61	C#	3			Bongo L	Bongo LV ***		Bongo LV ***			Bongo LV ***		Bongo LV ***					
62	D	3			Conga H Mute	Conga H Mute V ***		Conga H Mute V ***		Conga Analog H	Conga Analog H ***	Conga Analog H ***	Conga H Mute V ***					
63	D#	3			Conga H Open	Conga H Open V ***		Conga H Open V ***		Conga Analog M	Conga Analog M ***	Conga Analog M ***	Conga H Open V ***					
64	E	3			Conga L	Conga LV ***		Conga LV ***		Conga Analog L	Conga Analog L ***	Conga Analog L ***	Conga LV ***					
65	F	3			Timbale H	Timbale HV ***		Timbale HV ***			Timbale HV ***		Timbale HV ***					
66	F#	3			Timbale L	Timbale LV ***		Timbale LV ***			Timbale LV ***		Timbale LV ***					
67	G	3			Agogo H	Agogo HV ***		Agogo HV ***			Agogo HV ***		Agogo HV ***					
68	G#	3			Agogo L	Agogo LV ***		Agogo LV ***			Agogo LV ***		Agogo LV ***					
69	A	3			Cabasa													
70	A#	3			Maracas					Maracas 2	Maracas 2 ***	Maracas 2 ***						
71	B	3	0		Samba Whistle H	Samba Whistle HV ***		Samba Whistle HV ***			Samba Whistle HV ***		Samba Whistle HV ***					
72	C	4	0		Samba Whistle L	Samba Whistle LV ***		Samba Whistle LV ***			Samba Whistle LV ***		Samba Whistle LV ***					
73	C#	4			Guitar Short													
74	D	4	0		Guitar Long													
75	D#	4			Claves					Claves 2	Claves 2 ***	Claves 2 ***						
76	E	4			Wood Block H													
77	F	4			Wood Block L													
78	F#	4			Cuica Mute	Cuica Mute V ***		Cuica Mute V ***	Scratch H 2	Scratch H 2	Scratch H 2 ***	Scratch H 2 ***	Cuica Mute V ***					
79	G	4			Cuica Open	Cuica Open V ***		Cuica Open V ***	Scratch L 2	Scratch L 3	Scratch L 3 ***	Scratch L 3 ***	Cuica Open V ***					
80	G#	4	2		Triangle Mute													
81	A	4	2		Triangle Open													
82	A#	4			Shaker													
83	B	4			Jingle Bells													
84	C	5			Bell Tree													
85	C#	5																
86	D	5																
87	D#	5																
88	E	5																
89	F	5																
90	F#	5																
91	G	5																

: Same as Standard Kit

: No sound

***: MU80 Extension
****: MU90 Extension
*****: MU100 Extension

E: Number of elements



Drum and percussion sounds assigned to the same Alternate Group number cannot be sounded simultaneously.

For example, the Hi-Hat Closed sound (group 1) and the Hi-Hat Open sound (also group 1) cannot be sounded at the same time.

XG Drum Map (Drum voices)

Bank Select MSB		127		127		127		127				
Bank Select LSB		0		0		0		0				
Program#		1		67		127		128				
Note#	Note	Key	Alt	Group	Standard Kit	E	Coffin Kit ****	E	Standard Kit MU100 Native****	E	Standard Kit MU Basic****	E
13	C#-1		3		Surdo Mute	1	Surdo Mute V ***	1				
14	D -1		3		Surdo Open	1	Surdo Open V ***	1				
15	D#-1				Hi Q	1						
16	E -1				Whip Stap	1						
17	F -1		4		Scratch H	1						
18	F# -1		4		Scratch L	1						
19	G -1				Finger Snap	1						
20	G#-1				Click Noise	1						
21	A -1				Metronome Click	1						
22	A#-1				Metronome Bell	1						
23	B -1				Seq Click L	1						
24	C 0				Seq Click H	1						
25	C# 0				Brush Tap	1	Brush Tap V ***	1				
26	D 0				Brush Swirl	1	Brush Swirl V ***	1				
27	D# 0				Brush Slap	1	Brush Slap V ***	1				
28	E 0				Brush Tap Swirl	1	Brush Tap Swirl L ***	1				
29	F 0				Snare Roll	1	Snare Roll V ***	1				
30	F# 0				Castanet	1			Castanet#	1		
31	G 0				Snare Soft	1	Rim Gate 4 ****	1	Snare Soft#	1		
32	G# 0				Sticks	1	Sticks Q ****	1				
33	A 0				Kick Soft	1	Kick Cough L ****	1				
34	A# 0				Open Rim Shot	1	Rim Gate 5 ****	1	Open Rim Shot#	1		
35	B 0				Kick Tight	1	Kick Comp 2 L ****	1				
36	C 1				Kick	1	Kick Comp 2 H ****	1				
37	C# 1				Side Stick	1	Side Stick Dry L ****	1	Side Stick#	1		
38	D 1				Snare	1	Snare Tin L ****	1	Snare#	1		
39	D# 1				Hand Clap	1	Hand Clap Dark ****	1				
40	E 1				Snare Tight	1	Snare Can L ****	1	Snare Tight#	1		
41	F 1				Floor Tom L	1	Floor Tom Tech L ****	1				
42	F# 1		1		Hi-Hat Closed	1	Hi-Hat Closed Tech ****	1	Hi-Hat Closed#	1		
43	G 1				Floor Tom H	1	Floor Tom Tech H ****	1				
44	G# 1		1		Hi-Hat Pedal	1	Hi-Hat Pedal Tech ****	1	Hi-Hat Pedal#	1		
45	A 1				Low Tom	1	Low Tom Tech ****	1				
46	A# 1		1		Hi-Hat Open	1	Hi-Hat Open 3 Dark ****	1	Hi-Hat Open#	1		
47	B 1				Mid Tom L	1	Mid Tom Tech L ****	1				
48	C 2				Mid Tom H	1	Mid Tom Tech H ****	1				
49	C# 2				Crash Cymbal 1	1	Crash Cymbal Dark 2 ****	1	Crash Cymbal 1#	1		
50	D 2				High Tom	1	High Tom Tech ****	1				
51	D# 2				Ride Cymbal 1	1	Ride Cymbal Hard 2 ****	1	Ride Cymbal 1#	1		
52	E 2				Chinese Cymbal	1	Chinese Cymbal Q ****	1	Chinese Cymbal#	1		
53	F 2				Ride Cymbal Cup	1	Ride Cymbal Cup 5 ****	1	Ride Cymbal Cup#	1		
54	F# 2				Tambourine	1	Tambourine Dark ****	1				
55	G 2				Splash Cymbal	1	Tech Splash Cymbal ****	1				
56	G# 2				Cowbell	1	Cowbell Lo-Fi ****	1	Cowbell#	1		
57	A 2				Crash Cymbal 2	1	Crash Cymbal 2 Q ****	1	Crash Cymbal 2#	1		
58	A# 2				Vibraslap	1						
59	B 2				Ride Cymbal 2	1	Ride Cymbal 5 ****	1	Ride Cymbal 2#	1		
60	C 3				Bongos	1	Bongos H V ***	1				
61	C# 3				Bongos	1	Bongos L V ***	1				
62	D 3				Conga H Mute	1	Conga H Mute V ***	1	Conga H Mute#	1		
63	D# 3				Conga H Open	1	Conga H Open V ***	1	Conga H Open#	1		
64	E 3				Conga L	1	Conga L 2 ****	1	Conga L#	1		
65	F 3				Timbale H	1	Timbale H V ***	1				
66	F# 3				Timbale L	1	Timbale L V ***	1				
67	G 3				Agogo H	1	Agogo H V ***	1				
68	G# 3				Agogo L	1	Agogo L V ***	1				
69	A 3				Cabasa	1						
70	A# 3				Maracas	1	Maracas Q ****	1				
71	B 3				Samba Whistle H	1	Samba Whistle H V ***	1				
72	C 4				Samba Whistle L	1	Samba Whistle L V ***	1				
73	C# 4				Guho Short	1						
74	D 4				Guho Long	1						
75	D# 4				Claves	1						
76	E 4				Wood Block H	1						
77	F 4				Wood Block L	1						
78	F# 4				Cuica Mute	1						
79	G 4				Cuica Open	1	Cuica Open H ***	1				
80	G# 4		2		Triangle Mute	1						
81	A 4		2		Triangle Open	1						
82	A# 4				Shaker	1						
83	B 4				Jingle Bells	1						
84	C 5				Bell Tree	1						
85	C# 5											
86	D 5											
87	D# 5											
88	E 5											
89	F 5											
90	F# 5											
91	G 5											

: Same as Standard Kit ** : MU80 Extension E: Number of elements
 : No sound *** : MU90 Extension
 : No sound **** : MU100 Extension

Drum and percussion sounds assigned to the same Alternate Group number cannot be sounded simultaneously.
 For example, the Hi-Hat Closed sound (group 1) and the Hi-Hat Open sound (also group 1) cannot be sounded at the same time.

XG Drum Map (Drum voices)

Bank Select MSB	126		126		126		126		126		126					
Bank Select LSB	0		0		0		0		0		0					
Program	1		2		17		18		19		33					
Notes	Key	Alt	Group	Group	Group	Group	Group	Group	Group	Group	Group	Group				
13	C#	-1	3													
14	D	-1	3													
15	D#	-1														
16	E	-1														
17	F	-1	4													
18	F#	-1	4													
19	G	-1														
20	G#	-1														
21	A	-1														
22	A#	-1														
23	B	-1														
24	C	0														
25	C#	0														
26	D	0														
27	D#	0														
28	E	0	Insects ****	2												
29	F	0	Bacteria ****	2												
30	F#	0														
31	G	0														
32	G#	0														
33	A	0														
34	A#	0														
35	B	0														
36	C	1	Cutting Noise	1	Phone Call **	1	Heavy Techno Kick 1 ****	1	Hyper Tom H 1 ****	1	Hyper Tom L 1 ****	1	Dora ****	1	Latin Cymbal Short ****	1
37	C#	1	Cutting Noise 2	2	Door Squeak	1	Heavy Techno Kick 2 ****	1	Asian Tom H ****	1	Asian Tom L ****	1	Tsuzumi Pon ****	1	Claves SL 1 ****	1
38	D	1	Distorted Cutting Noise **	2	Door Slam	1	Psychedelic Kick ****	1	Lo-Fi Tom H ****	1	Lo-Fi Tom L ****	1	Tsuzumi Pu ****	1	Claves SL 2 ****	1
39	D#	1	String Slap	1	Scratch Cut	1	Gate Tekno Kick ****	1	Hyper Tom H 2 ****	1	Hyper Tom L 2 ****	1	Tsuzumi Ta ****	1	Claves SL 3 ****	1
40	E	1	Bass Slide **	2	Scratch H 3	2	Rap Kick ****	1	Flanged Tom H ****	1	Flanged Tom L ****	1	Tsuzumi Chon ****	1	Claves SL 4 ****	1
41	F	1	Pick Scape **	1	Wind Chime	1	Heavy Techno Kick 3 ****	1	Minimal Tom H ****	1	Minimal Tom L ****	1	Tsuzumi Tsu ****	1	Claves SL 5 ****	1
42	F#	1			Telephone Ring 2	1	Heavy Techno Kick 4 ****	1	Vox Drum H ****	1	Vox Drum L ****	1	Shimelako Tau ****	1	Mixed Percussion SL 1 ****	1
43	G	1					Future Kick ****	1	Android Walk 1 H ****	1	Android Walk 1 L ****	1	Shimelako Tau ****	1	Mixed Percussion SL 2 ****	1
44	G#	1					Asian Kick ****	1	Android Walk 2 H ****	1	Android Walk 2 L ****	1	Yagura Open ****	1	Mixed Percussion SL 3 ****	1
45	A	1					Imbalance Kick ****	1	Electro Blop H ****	1	Electro Blop L ****	1	Ohdalko Rim ****	1	Mixed Percussion SL 4 ****	1
46	A#	1					Justice Kick ****	1	Wood Percussions H ****	1	Wood Percussions L ****	1	Oriental Tambourine ****	1	Pandero ****	1
47	B	1					Minimal Kick ****	1	Wood Door Open H ****	1	Wood Door Open L ****	1	Oriental Drum 1 ****	1	Surdo Mute SL 1 ****	1
48	C	2							Reso Noise Burst H ****	1	Reso Noise Burst L ****	1	Oriental Drum 2 ****	1	Surdo Mute SL 2 ****	1
49	C#	2							LFO Metal Attack H ****	1	LFO Metal Attack L ****	1	Oriental Drum 3 ****	1	Surdo Open SL ****	1
50	D	2							Steel Conga H ****	1	Steel Conga L ****	1	Oriental Rim 1 ****	1	Surdo Rim SL ****	1
51	D#	2							Raise Down Snare H ****	1	Raise Down Snare L ****	1	Oriental Rim 2 ****	1	Tamborin Mute ****	1
52	E	2	Flute Key Click	1	Car Engine Ignition	1	Pop Ambient H ****	1	Pop Ambient H ****	1	Pop Ambient L ****	1	Oriental Rim 3 ****	1	Tamborin Open ****	1
53	F	2			Car Times Squeal	1	Cold Dry Snare 1 ****	1	Tunnel Ambient H ****	1	Tunnel Ambient L ****	1	Oriental Rim 4 ****	1	TimbaleH Drum ****	1
54	F#	2			Car Passing	1	Slap Snare ****	1	Vibraslap H ****	1	Vibraslap L ****	1	Oriental Metal Rim 1 ****	1	TimbaleH Drum ****	1
55	G	2			Car Crash	1	Cold Dry Snare 2 ****	1	Gun Shot Slap H ****	1	Gun Shot Slap L ****	1	Oriental Metal Rim 2 ****	1	TimbaleH Rim ****	1
56	G#	2			Siren	2	Cold Dry Snare 3 ****	1	Punch Snare H ****	1	Punch Snare L ****	1	Oriental Metal Rim 3 ****	1	TimbaleH Rim ****	1
57	A	2			Train	1	Lo-Fi Metal Snare ****	1	Bomb Snare H ****	1	Bomb Snare L ****	1	Oriental Metal Rim 4 ****	1	Timbale Palla 1 ****	1
58	A#	2			Jet Plane	2			Splash Tambourine H ****	1	Splash Tambourine L ****	1	Oriental Metal Rim 5 ****	1	Timbale Palla 2 ****	1
59	B	2			Starship	2			Ambient Cow Bell H ****	1	Ambient Cow Bell L ****	1				
60	C	3			Burst	2			Chink Hat H ****	1	Chink Hat L ****	1				
61	C#	3			Roller Coaster	2			Coal Mine 1 H ****	1	Coal Mine 1 L ****	1				
62	D	3			Submarine	2			Coal Mine 2 H ****	1	Coal Mine 2 L ****	1				
63	D#	3			Connectivity ****	2			Hammer Hk 1 H ****	1	Hammer Hk 1 L ****	1				
64	E	3			Mystery ****	2			Hammer Hk 2 H ****	1	Hammer Hk 2 L ****	1				
65	F	3							Hammer Hk 3 H ****	1	Hammer Hk 3 L ****	1				
66	F#	3							Inseparable Hk H ****	1	Inseparable Hk L ****	1				
67	G	3							Robot 1 H ****	1	Robot 1 L ****	1				
68	G#	3	Shower	2	Laugh	1	Hk Pitch Slap H ****	1	Inseparable Fuh H ****	1	Inseparable Fuh L ****	1				
69	A	3	Thunder	1	Scrum	1	Hk Pitch Slap L ****	1	Robot 2 H ****	1	Robot 2 L ****	1				
70	A#	3	Wind	1	Punch	1			Rude Loop Cymbal H ****	1	Rude Loop Cymbal L ****	1				
71	B	3	Stream	2	Heart Beat	1			Noise Burst H ****	1	Noise Burst L ****	1				
72	C	4	Bubble	2	Foot Steps	1			Fizzer H ****	1	Fizzer L ****	1				
73	C#	4	Feed **	2	Applause 2 **	1			Lo-Fi Shaker H ****	1	Lo-Fi Shaker L ****	1				
74	D	4	Cave ****	2					Temple Gong H ****	1	Temple Gong L ****	1				
75	D#	4														
76	E	4														
77	F	4														
78	F#	4														
79	G	4														
80	G#	4														
81	A	4														
82	A#	4														
83	B	4														
84	C	5	Dog	1	Machine Gun	1										
85	C#	5	Horse	1	Laser Gun	2										
86	D	5	Bird Tweet 2	1	Explosion	2										
87	D#	5	Kitay **	1	Firework	2										
88	E	5	Growl **	1	Fireball ****	2										
89	F	5	Haunted **	2												
90	F#	5	Ghost	2												
91	G	5	Mouou **	2												

👉 Drum and percussion sounds assigned to the same Alternate Group number cannot be sounded simultaneously.
For example, the Hi-Hat Closed sound (group 1) and the Hi-Hat Open sound (also group 1) cannot be sounded at the same time.

A/D Input Preset List

		A/D1													
		A/D2													
BANK	Source	PGM CNG# = 0	1	2	3	4	5	6	7	8	9	10	11	12	
0	MIC	Preset Name input gain var type	Off mic -	Mic mic -	Reverb mic -	Chorus mic -	Chorus+Reverb mic -	Karaoke1 mic Karaoke1	Karaoke2 mic Karaoke2	Karaoke3 mic Karaoke3	Echo mic Echo	Vocal mic Stage1	Studio mic Exciter	Oct Up mic Pitch Change	Oct Down mic Pitch Change
1	GIUITAR (Note 1)	Preset Name input gain var type	Off mic -	Guitar mic -	Reverb mic -	Chorus mic -	Chorus+Reverb mic -	Tube mic Amp Sim.	Stack mic Amp Sim.	Flang Gtr mic Flanger	Clean Gtr mic Celeste	Funk Gtr mic Touch Wah	Tremolo mic Tremolo	Phaser mic Phaser	5th Guitar mic Pitch Change
2	KEYBOARD	Preset Name input gain var type	Off line -	Keyboard line -	Reverb line -	Chorus line -	Chorus+Reverb line -	Phaser EP line Phaser	Pan EP line Auto Pan	Wah Clavi line Touch Wah	Rotary Orgn line Rotary Speaker	Synth Str line Symphonic	Synth Pad line Flanger2	Synth Lead line Delay LCR	SFX line Pitch Change
3	AUDIO (Note 2)	Preset Name input gain var type	Off line -	Audio line -	Reverb line -	Chorus line -	Chorus+Reverb line -								
18	STEREO KEYBOARD (Note 3)	Preset Name input gain var type	Off line -	Keyboard line -	Reverb line -	Chorus line -	Chorus+Reverb line -	Phaser EP line Phaser	Pan EP line Auto Pan	Wah Clavi line Touch Wah	Rotary Orgn line Rotary Speaker	Synth Str line Symphonic	Synth Pad line Flanger2	Synth Lead line Delay LCR	SFX line Pitch Change
19	STEREO AUDIO (Note 3)	Preset Name input gain var type	Off line -	Audio line -	Reverb line -	Chorus line -	Chorus+Reverb line -								

(Note 1)
Depending on the guitar, the input may be distorted. Adjust the input level from your software or guitar.

(Note 2)
AUDIO sets PAN to Lch for A/D1 and Rch for A/D2.

(Note 3)
The Stereo setting can be selected only for A/D1.
The A/D1 and A/D2 inputs will be handled as the Lch and Rch respectively of a stereo signal.

Effect Type List

NOTE The letter "H" shown to the right of each Effect Type's MSB/LSB value means that the value is hexadecimal.

REVERB

No.	MSB	LSB	Effect Type	Remarks
0	00H	00H	NO EFFECT	Turn off the effect.
1	01H	00H	HALL 1	Reverb simulating the acoustics of a hall.
2	01H	01H	HALL 2	
3	02H	00H	ROOM 1	
4	02H	01H	ROOM 2	Reverb simulating the acoustics of a room.
5	02H	02H	ROOM 3	
6	03H	00H	STAGE 1	Reverb appropriate for a solo instrument.
7	03H	01H	STAGE 2	
8	04H	00H	PLATE	Reverb simulating a metal plate reverb device.
9	10H	00H	WHITE ROOM	Unique short reverb with a slight initial delay.
10	11H	00H	TUNNEL	Simulation of a cylindrical space extending to left and right.
11	12H	00H	CANYON	A hypothetical acoustic space which extends without limit.
12	13H	00H	BASEMENT	Reverb with distinctive resonance following a slight initial delay.

CHORUS

No.	MSB	LSB	Effect Type	Remarks
0	00H	00H	NO EFFECT	Turn off the effect.
1	41H	00H	CHORUS 1	A standard chorus effect, adding natural spaciousness to the sound.
2	41H	01H	CHORUS 2	
3	41H	02H	CHORUS 3	
4	41H	08H	CHORUS 4	An effect which uses a 3-phase LFO to add modulation and spaciousness to the sound.
5	42H	00H	CELESTE 1	
6	42H	01H	CELESTE 2	
7	42H	02H	CELESTE 3	
8	42H	08H	CELESTE 4	An effect reminiscent of a jet airplane taking off and landing.
9	43H	00H	FLANGER 1	
10	43H	01H	FLANGER 2	
11	43H	08H	FLANGER 3	A multi-stage version of CELESTE modulation.
12	44H	00H	SYMPHONIC	
13	57H	00H	ENSEMBLE DETUNE	Chorus effect without modulation, created by adding a slightly pitch-shifted sound.
14	48H	00H	PHASER 1	Cyclically changes the phase to modulate the sound.

VARIATION

No.	MSB	LSB	Effect Type	Remarks
0	00H	00H	NO EFFECT	Turns off the effect.
1	01H	00H	HALL 1	Reverb simulating the acoustics of a hall.
2	01H	01H	HALL 2	
3	02H	00H	ROOM 1	
4	02H	01H	ROOM 2	Reverb simulating the acoustics of a room.
5	02H	02H	ROOM 3	
6	03H	00H	STAGE 1	
7	03H	01H	STAGE 2	Reverb appropriate for a solo instrument.
8	04H	00H	PLATE	Reverb simulating a metal plate reverb device.
9	10H	00H	WHITE ROOM	Distinctive short reverb with a slight initial delay.
10	11H	00H	TUNNEL	Simulation of a cylindrical space extending to left and right.
11	12H	00H	CANYON	A hypothetical acoustic space which extends without limit.
12	13H	00H	BASEMENT	Reverb with distinctive resonance following a slight initial delay.
13	05H	00H	DELAY L,C,R	Three delay sounds L, R and C (center).
14	06H	00H	DELAY L,R	Two delay sounds L and R, with two feedback delays.
15	07H	00H	ECHO	Two delays L and R, with independent feedback delay for L and R.
16	08H	00H	CROSS DELAY	This effect crosses the feedback of two delays.
17	09H	00H	ER 1	This effect isolates only the early reflection components of the reverb.
18	09H	01H	ER 2	
19	0AH	00H	GATE REVERB	Simulation of gated reverb.
20	0BH	00H	REVERSE GATE	Simulation of gated reverb played back in reverse.
21	14H	00H	KARAOKE 1	Echo for karaoke.
22	14H	01H	KARAOKE 2	
23	14H	02H	KARAOKE 3	
24	41H	00H	CHORUS 1	Conventional chorus effect which gives natural spaciousness to the sound.
25	41H	01H	CHORUS 2	
26	41H	02H	CHORUS 3	
27	41H	08H	CHORUS 4	
28	42H	00H	CELESTE 1	A three-phase LFO is used to give modulation and spaciousness to the sound.
29	42H	01H	CELESTE 2	
30	42H	02H	CELESTE 3	
31	42H	08H	CELESTE 4	
32	43H	00H	FLANGER 1	
33	43H	01H	FLANGER 2	An effect reminiscent of a jet airplane taking off and landing.
34	43H	08H	FLANGER 3	
35	44H	00H	SYMPHONIC	A multi-stage version of CELESTE modulation.
36	57H	00H	ENSEMBLE DETUNE	Chorus effect without modulation, created by adding a slightly pitch-shifted sound.
37	58H	00H	AMBIENCE	An effect which adds spatial breadth by blurring the location of the sound.
38	45H	00H	ROTARY SPEAKER	Simulation of a rotary speaker. AC1 (assignable controller 1) etc. can be used to control the rotation speed.
39	56H	00H	2WAY ROTARY SPEAKER	Simulation of a rotary speaker. AC1 (assignable controller 1) etc. can be used to control the rotation speed.
40	46H	00H	TREMOLO	An effect which cyclically modulates the volume.
41	47H	00H	AUTO PAN	An effect which cyclically moves the sound between left/right and front/back.
42	48H	00H	PHASER 1	Cyclically changes the phase to modulate the sound.
43	48H	08H	PHASER 2	
44	49H	00H	DISTORTION	Adds distortion with an edge to the sound. Since a noise gate is included, this is suitable for use with A/D input as well.
45	49H	01H	COMP+DISTORTION	Since a compressor is included in the first stage, distortion can be applied evenly, regardless of the input level.
46	4AH	00H	OVER DRIVE	Adds mild distortion to the sound. Since a noise gate is included, this is suitable for A/D input as well.
47	4BH	00H	AMP SIMULATOR	Simulation of a guitar amp. Since a noise gate is included, this is suitable for use with A/D input as well.
48	4CH	00H	3BAND EQ(MONO)	Mono EQ with equalization of LOW, MID and HIGH.
49	4DH	00H	2BAND EQ(STEREO)	Stereo EQ with equalization of LOW and HIGH. Ideal for Drum Parts.
50	4EH	00H	AUTO WAH(LFO)	Cyclically changes the center frequency of a wah filter. Can also be used with AC1 etc. as a pedal wah.
51	4EH	01H	AUTO WAH+DIST	Applies DISTORTION to the output of AUTO WAH to distort the sound. Can also be used with AC1 etc. as a pedal wah.
52	4EH	02H	AUTO WAH+ODRV	Applies OVERDRIVE to the output of AUTO WAH to distort the sound. Can also be used with AC1 etc. as a pedal wah.
53	52H	00H	TOUCH WAH 1	Changes the center frequency of a wah filter according to the input level. Can also be used with AC1 etc. as a pedal wah.
54	52H	01H	TOUCH WAH 2	Applies DISTORTION to the output of TOUCH WAH to distort the sound. Can also be used with AC1 etc. as a pedal wah.
55	52H	02H	TOUCH WAH+DIST	Applies OVERDRIVE to the output of TOUCH WAH to distort the sound. Can also be used with AC1 etc. as a pedal wah.
56	52H	08H	TOUCH WAH+ODRV	Changes the center frequency of a wah filter according to the input level. Can also be used with AC1 etc. as a pedal wah.
57	50H	00H	PITCH CHANGE 1	This effect changes the pitch of the input signal.
58	50H	01H	PITCH CHANGE 2	
59	51H	00H	HARMONIC ENHANCER	This effect adds new overtones to the input signal to make the sound stand out.
60	53H	00H	COMPRESSOR	Holds down the output when the input exceeds a specified level. Can also be used to add a sense of attack to the sound.
61	54H	00H	NOISE GATE	Gates the input when the input signal falls below a specified level. Useful for cutting noise from the A/D input, etc.
62	55H	00H	VOICE CANCEL	Attenuates the vocal part from sources such as CDs.
63	5DH	00H	TALKING MODULATOR	Adds a vowel sound to the input signal.
64	5EH	00H	LO-FI	Degrades the audio quality of the input signal.
65	5FH	00H	DIST+DELAY	DISTORTION and DELAY are connected in series.
66	5FH	01H	OVERDRIVE+DELAY	OVERDRIVE and DELAY are connected in series.
67	60H	00H	COMP+DIST+DELAY	COMPRESSOR, DISTORTION and DELAY are connected in series.
68	60H	01H	COMP+OVERDRIVE+DELAY	COMPRESSOR, OVERDRIVE and DELAY are connected in series.
69	61H	00H	WAH+DIST+DELAY	TOUCH WAH, DISTORTION and DELAY are connected in series.
70	61H	01H	WAH+OVERDRIVE+DELAY	TOUCH WAH, OVERDRIVE and DELAY are connected in series.
71	40H	00H	THRU	Bypass without applying an effect.

INSERTION1,2

No.	MSB	LSB	Effect Type	Remarks
0	40H	00H	THRU	Bypass without applying an effect.
1	01H	00H	HALL 1	Reverb simulating the acoustics of a hall.
2	01H	01H	HALL 2	
3	02H	00H	ROOM 1	
4	02H	01H	ROOM 2	
5	02H	02H	ROOM 3	Reverb simulating the acoustics of a room.
6	03H	00H	STAGE 1	
7	03H	01H	STAGE 2	Reverb appropriate for a solo instrument.
8	04H	00H	PLATE	Reverb simulating a metal plate reverb device.
9	05H	00H	DELAY L,C,R	Three delay sounds L, R and C (center).
10	06H	00H	DELAY L,R	Two delay sounds L and R, with two feedback delays.
11	07H	00H	ECHO	Two delays L and R, with independent feedback delay for L and R.
12	08H	00H	CROSS DELAY	This effect crosses the feedback of two delays.
13	14H	00H	KARAOKE 1	Echo for karaoke.
14	14H	01H	KARAOKE 2	
15	14H	02H	KARAOKE 3	
16	41H	00H	CHORUS 1	Conventional chorus effect which gives natural spaciousness to the sound.
17	41H	01H	CHORUS 2	
18	41H	02H	CHORUS 3	
19	41H	08H	CHORUS 4	
20	42H	00H	CELESTE 1	A three-phase LFO is used to give modulation and spaciousness to the sound.
21	42H	01H	CELESTE 2	
22	42H	02H	CELESTE 3	
23	42H	08H	CELESTE 4	
24	43H	00H	FLANGER 1	An effect reminiscent of a jet airplane taking off and landing.
25	43H	01H	FLANGER 2	
26	43H	08H	FLANGER 3	
27	44H	00H	SYMPHONIC	A multi-stage version of CELESTE modulation.
28	57H	00H	ENSEMBLE DETUNE	Chorus effect without modulation, created by adding a slightly pitch-shifted sound.
29	45H	00H	ROTARY SPEAKER	Simulation of a rotary speaker. AC1 (assignable controller 1) etc. can be used to control the rotation speed.
30	46H	00H	TREMOLO	An effect which cyclically modulates the volume.
31	47H	00H	AUTO PAN	An effect which cyclically moves the sound between left/right and front/back.
32	48H	00H	PHASER 1	Cyclically changes the phase to modulate the sound.
33	49H	00H	DISTORTION	Adds distortion with an edge to the sound.
34	4AH	00H	OVER DRIVE	Adds mild distortion to the sound.
35	4BH	00H	AMP SIMULATOR	Simulation of a guitar amp.
36	4CH	00H	3BAND EQ(MONO)	Mono EQ with equalization of LOW, MID and HIGH.
37	4DH	00H	2BAND EQ(STEREO)	Stereo EQ with equalization of LOW and HIGH. Ideal for Drum Parts.
38	4EH	00H	AUTO WAH(LFO)	Cyclically changes the center frequency of a wah filter. Can also be used with AC1 etc. as a pedal wah.
39	52H	00H	TOUCH WAH 1	Changes the center frequency of a wah filter according to the input level. Can also be used with AC1 etc. as a pedal wah.
40	52H	08H	TOUCH WAH 2	Changes the center frequency of a wah filter according to the input level. Can also be used with AC1 etc. as a pedal wah.
41	51H	00H	HARMONIC ENHANCER	This effect adds new overtones to the input signal to make the sound stand out.
42	53H	00H	COMPRESSOR	Holds down the output when the input exceeds a specified level. Can also be used to add a sense of attack to the sound.
43	54H	00H	NOISE GATE	Gates the input when the input signal falls below a specified level. Useful for cutting noise from the A/D input, etc.

Effect MSB/LSB List

NOTE "DEC" means Decimal and "HEX" means Hexadecimal.

REVERB TYPE

TYPE MSB		TYPE LSB				
DEC	HEX	00	01	02	...	08
000	0	NO EFFECT				
001	1	HALL 1	HALL 2			
002	2	ROOM 1	ROOM 2	ROOM 3		
003	3	STAGE 1	STAGE 2			
004	4	PLATE				
005	5	NO EFFECT				
:	:	:				
015	F	NO EFFECT				
016	10	WHITE ROOM				
017	11	TUNNEL				
018	12	CANYON				
019	13	BASEMENT				
020	14	NO EFFECT				
:	:	:				
127	7F	NO EFFECT				

NO EFFECT

Same as basic effects (LSB = 00)

CHORUS TYPE

TYPE MSB		TYPE LSB				
DEC	HEX	00	01	02	...	08
000	0	NO EFFECT				
001	1	NO EFFECT				
:	:	:				
064	40	NO EFFECT				
065	41	CHORUS 1	CHORUS 2	CHORUS 3		CHORUS 4
066	42	CELESTE 1	CELESTE 2	CELESTE 3		CELESTE 4
067	43	FLANGER 1	FLANGER 2			FLANGER 3
068	44	SYMPHONIC				
069	45	NO EFFECT				
:	:	:				
071	47	NO EFFECT				
072	48	PHASER 1				
073	49	NO EFFECT				
:	:	:				
086	56	NO EFFECT				
087	57	ENSEMBLE DETUNE				
088	58	NO EFFECT				
:	:	:				
127	7F	NO EFFECT				

NO EFFECT

Same as basic effects (LSB = 00)

VARIATION TYPE (MSB=0 - 63)

TYPE MSB		TYPE LSB				
DEC	HEX	00	01	02	...	08
000	0	NO EFFECT				
001	1	HALL 1	HALL 2			
002	2	ROOM 1	ROOM 2	ROOM 3		
003	3	STAGE 1	STAGE 2			
004	4	PLATE				
005	5	DELAY L,C,R				
006	6	DELAY L,R				
007	7	ECHO				
008	8	CROSS DELAY				
009	9	ER 1	ER 2			
010	A	GATE REVERB				
011	B	REVERSE GATE				
012	C	NO EFFECT or THRU				
:	:	:				
015	F	NO EFFECT or THRU				
016	10	WHITE ROOM				
017	11	TUNNEL				
018	12	CANYON				
019	13	BASEMENT				
020	14	KARAOKE 1	KARAOKE 2	KARAOKE 3		
021	15	NO EFFECT or THRU				
:	:	:				
063	3F	NO EFFECT or THRU				

NO EFFECT (for SYS)or THRU (for INS)

Same as basic effects (LSB = 00)

VARIATION TYPE (MSB=64 - 127)

TYPE MSB		TYPE LSB				
DEC	HEX	00	01	02	...	08
064	40	THRU				
065	41	CHORUS 1	CHORUS 2	CHORUS 3		CHORUS 4
066	42	CELESTE 1	CELESTE 2	CELESTE 3		CELESTE 4
067	43	FLANGER 1	FLANGER 2			FLANGER 3
068	44	SYMPHONIC				
069	45	ROTARY SPEAKER				
070	46	TREMOLO				
071	47	AUTO PAN				
072	48	PHASER 1				PHASER 2
073	49	DISTORTION	COMP+DISTORTION			
074	4A	OVER DRIVE				
075	4B	AMP SIMULATOR				
076	4C	3-BAND EQ				
077	4D	2-BAND EQ				
078	4E	AUTO WAH(LFO)	AUTO WAH+DIST	AUTO WAH+OVERDRIVE		
079	4F	THRU				
080	50	PITCH CHANGE1	PITCH CHANGE2			
081	51	HARMONIC ENHANCER				
082	52	TOUCH WAH 1	TOUCH WAH+DIST	TOUCH WAH+OVERDRIVE		TOUCH WAH 2
083	53	COMPRESSOR				
084	54	NOISE GATE				
085	55	VOICE CANCEL				
086	56	2WAY ROTARY SPEAKER				
087	57	ENSEMBLE DETUNE				
088	58	AMBIENCE				
089	59	THRU				
:	:	:				
092	5C	THRU				
093	5D	TALKING MODULATOR				
094	5E	LO-FI				
095	5F	DIST+DELAY	OVERDRIVE+DELAY			
096	60	COMP+DIST+DELAY	COMP+OVERDRIVE+DELAY			
097	61	WAH+DIST+DELAY	WAH+OVERDRIVE+DELAY			
098	62	THRU				
:	:	:				
127	7F	THRU				

THRU

Same as basic effects (LSB = 00)

INSERTION TYPE

TYPE MSB		TYPE LSB				
DEC	HEX	00	01	02	...	08
000	0	THRU				
001	1	HALL 1	HALL 2			
002	2	ROOM 1	ROOM 2	ROOM 3		
003	3	STAGE 1	STAGE 2			
004	4	PLATE				
005	5	DELAY L,C,R				
006	6	DELAY L,R				
007	7	ECHO				
008	8	CROSS DELAY				
009	9	THRU				
:	:	:				
019	13	THRU				
020	14	KARAOKE 1	KARAOKE 2	KARAOKE 3		
021	15	THRU				
:	:	:				
063	3F	THRU				
064	40	THRU				
065	41	CHORUS 1	CHORUS 2	CHORUS 3		CHORUS 4
066	42	CELESTE 1	CELESTE 2	CELESTE 3		CELESTE 4
067	43	FLANGER 1	FLANGER 2			FLANGER 3
068	44	SYMPHONIC				
069	45	ROTARY SPEAKER				
070	46	TREMOLO				
071	47	AUTO PAN				
072	48	PHASER 1				
073	49	DISTORTION				
074	4A	OVER DRIVE				
075	4B	AMP SIMULATOR				
076	4C	3BAND EQ				
077	4D	2-BAND EQ				
078	4E	AUTO WAH(LFO)				
079	4F	THRU				
080	50	THRU				
081	51	HARMONIC ENHANCER				
082	52	TOUCH WAH 1				TOUCH WAH 2
083	53	COMPRESSOR				
084	54	NOISE GATE				
085	55	THRU				
086	56	THRU				
087	57	ENSEMBLE DETUNE				
088	58	THRU				
:	:	:				
127	7F	THRU				

THRU

Same as basic effects (LSB = 00)

Effect Parameter List

NOTE Parameters marked with a ● in the "Control" column can be controlled from an AC1 (assignable controller 1) etc. However, this is valid only for a Variation effect (when selected for Insertion) and for Insertion effects 1/2.

NOTE Dry/Wet is valid only for a Variation effect (when selected for Insertion) and for Insertion effects 1/2.

NOTE Abbreviations used in the effect block diagrams

- LPF = Low Pass Filter
- HPF = High Pass Filter
- LSF = Low Shelving Filter
- HSF = High Shelving Filter
- PDF = Peak Dip Filter
- EF = Envelope Follower
- ER = Early Reflection

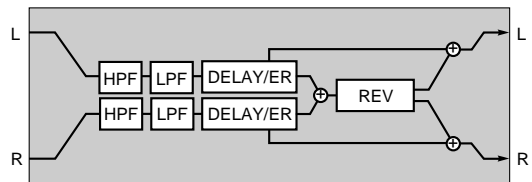
HALL1, HALL2, ROOM1, ROOM2, ROOM3, STAGE1, STAGE2, PLATE (Reverb, Variation, Insertion1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	Reverb Time	0.3-30.0s	0-69	table#4	
2	Diffusion	0-10	0-10		
3	Initial Delay	0.1-99.3ms	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	0-4 (reverb, variation block)	0-4		
13	E _r /Rev Balance	0-2 (insertion1,2 block)	0-2		
14	High Damp	E63>R - E=R - E<R63	1-127		
15	Feedback Level	0.1-1.0	1-10		
16		-63+63	1-127		

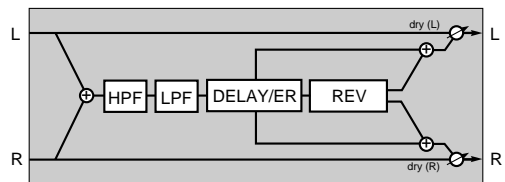
WHITE ROOM, TUNNEL, CANYON, BASEMENT (Reverb, Variation block)

No.	Parameter	Display	Value	See Table	Control
1	Reverb Time	0.3-30.0s	0-69	table#4	
2	Diffusion	0-10	0-10		
3	Initial Delay	0.1-99.3ms	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	Height	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	0-4	0-4		
13	E _r /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					

Reverb Block

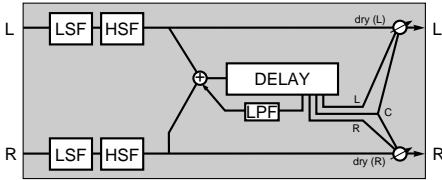


Variation, Insertion block



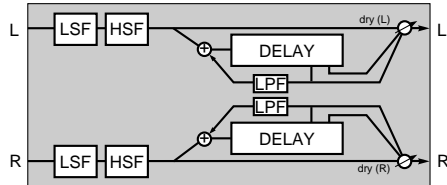
DELAY L, C, R (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	Lch Delay	0.1-1486.0ms (variation block)	1-14860		
2	Rch Delay	0.1-1486.0ms (variation block)	1-14860		
3	Cch Delay	0.1-1486.0ms (variation block)	1-14860		
4	Feedback Delay	0.1-1486.0ms (variation block)	1-14860		
5	Feedback Level	-63→+63	-127		
6	Cch Level	0-127	0-127		
7	High Damp	0.1-1.0	1-10		
9	Dry/Wet	D63>W - D=W - D<W63	1-127		●
13	EQ Low Frequency	32Hz-2.0kHz	4-40	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		



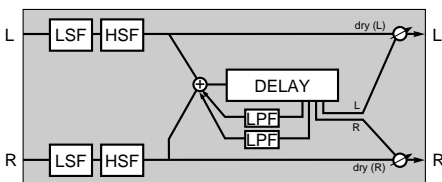
ECHO (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	Lch Delay1	0.1-743.0ms (variation block)	1-7430		
2	Lch Feedback Level	-63→+63	-127		
3	Rch Delay1	0.1-743.0ms (variation block)	1-7430		
4	Rch Feedback Level	-63→+63	-127		
5	High Damp	0.1-1.0	1-10		
6	Lch Delay2	0.1-743.0ms (variation block)	1-7430		
7	Rch Delay2	0.1-743.0ms (variation block)	1-7430		
8	Delay2 Level	0-127	0-127		
10	Dry/Wet	D63>W - D=W - D<W63	1-127		●
13	EQ Low Frequency	32Hz-2.0kHz	4-40	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		



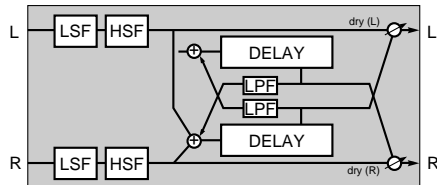
DELAY L, R (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	Lch Delay	0.1-1486.0ms (variation block)	1-14860		
2	Rch Delay	0.1-1486.0ms (variation block)	1-14860		
3	Feedback Delay 1	0.1-1486.0ms (variation block)	1-14860		
4	Feedback Delay 2	0.1-1486.0ms (variation block)	1-14860		
5	Feedback Level	-63→+63	-127		
6	High Damp	0.1-1.0	1-10		
10	Dry/Wet	D63>W - D=W - D<W63	1-127		●
13	EQ Low Frequency	32Hz-2.0kHz	4-40	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 (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	L->R Delay	0.1-743.0ms (variation block)	1-7430		
2	R->L Delay	0.1-743.0ms (variation block)	1-7430		
3	Feedback Level	-63→+63	-127		
4	Input Select	L,R,L&R	0-2		
5	High Damp	0.1-1.0	1-10		
10	Dry/Wet	D63>W - D=W - D<W63	1-127		●
13	EQ Low Frequency	32Hz-2.0kHz	4-40	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		

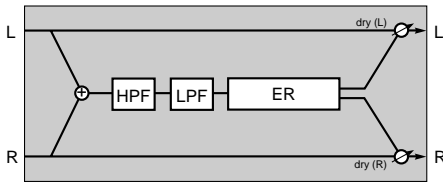


EARLY REF 1, EARLY REF 2 (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	Type	S=H, L=H, Rdm, Rvs, Ptt, Spr	0-5		
2	Room Size	0.1-7.0	0-44	table#6	
3	Diffusion	0-10	0-10		
4	Initial Delay	0.1-99.3ms	0-63	table#5	
5	Feedback Level	-63-+63	1-127		
6	HPF Cutoff	Thru-8.0kHz	0-52	table#3	
7	LPF Cutoff	1.0k-Thru	34-60	table#3	
8					
9	Dry/Wet	D63>W - D=W - D<W63	1-127		●
10					
11	Liveness	0-10	0-10		
12	Density	0-3	0-3		
13	High Damp	0.1-1.0	1-10		
14					
15					
16					

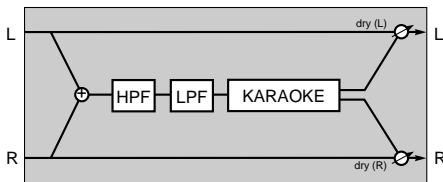
GATE REVERB, REVERSE GATE (Variation block)

No.	Parameter	Display	Value	See Table	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	0.1-99.3ms	0-63	table#5	
5	Feedback Level	-63-+63	1-127		
6	HPF Cutoff	Thru-8.0kHz	0-52	table#3	
7	LPF Cutoff	1.0k-Thru	34-60	table#3	
8					
9	Dry/Wet	D63>W - D=W - D<W63	1-127		●
10					
11	Liveness	0-10	0-10		
12	Density	0-3	0-3		
13	High Damp	0.1-1.0	1-10		
14					
15					
16					



KARAOKE1, 2, 3 (Variation, Insertion 1, 2 block)

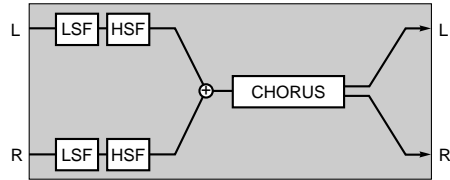
No.	Parameter	Display	Value	See Table	Control
1	Delay Time	0.1-400ms	0-127	table#7	
2	Feedback Level	-63-+63	1-127		
3	HPF Cutoff	Thru-8.0kHz	0-52	table#3	
4	LPF Cutoff	1.0k-Thru	34-60	table#3	
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W - D=W - D<W63	1-127		●
11					
12					
13					
14					
15					
16					



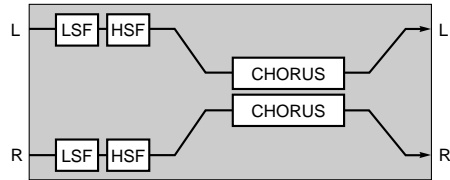
CHORUS 1,2,3,4 CELESTE 1,2,3,4 (Chorus, Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz-39.7Hz	0-127	table#1	
2	LFO Depth	0-127	0-127		
3	Feedback Level	-63-+63	1-127		
4	Delay Offset	0.0-50.0	0-127	table#2	
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	EQ Mid Frequency	100Hz-10.0kHz (variation block)	14-54	table#3	
12	EQ Mid Gain	-12-+12dB (variation block)	52-76		
13	EQ Mid Width	1.0-12.0 (variation block)	10-120		
14					
15	Input Mode	mono/stereo	0-1		
16					

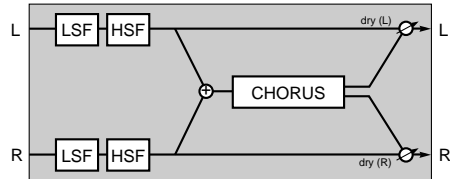
Chorus Block: when input mode = "mono"



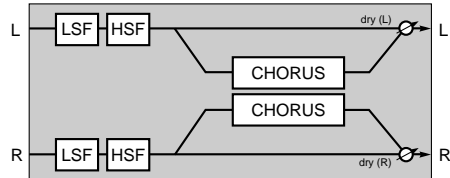
Chorus Block: when input mode = "stereo"



Variation, Insertion Block: when input mode = "mono"



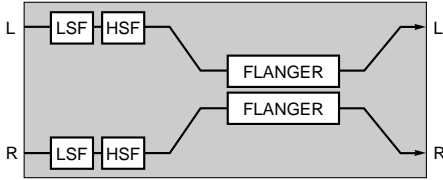
Variation, Insertion Block: when input mode = "stereo"



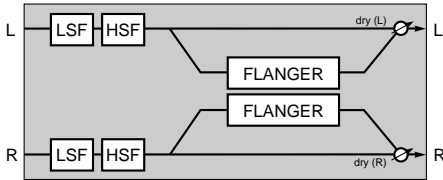
FLANGER 1, 2, 3 (Chorus, Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz~39.7Hz	0-127	table#1	
2	LFO Depth	0~127	0-127		
3	Feedback Level	-63~+63	1-127		
4	Delay Offset	0.0~50.0	0-127	table#2	
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	EQ Mid Frequency	100Hz~10.0kHz (variation block)	14-54	table#3	
12	EQ Mid Gain	-12~+12dB (variation block)	52-76		
13	EQ Mid Width	1.0~12.0 (variation block)	10-120		
14	LFO Phase Difference	-180~+180deg	4-124	resolution=3deg.	
15					
16					

Chorus Block



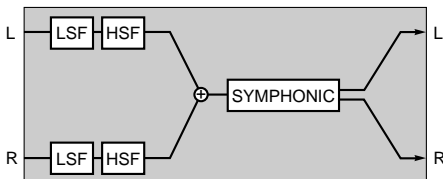
Variation, Insertion Block



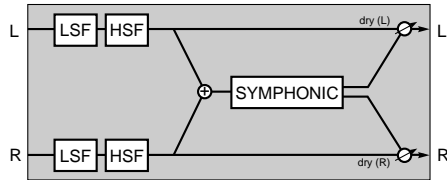
SYMPHONIC (Chorus, Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz~39.7Hz	0-127	table#1	
2	LFO Depth	0~127	0-127		
3	Delay Offset	0.0~50.0	0-127	table#2	
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	EQ Mid Frequency	100Hz~10.0kHz (variation block)	14-54	table#3	
12	EQ Mid Gain	-12~+12dB (variation block)	52-76		
13	EQ Mid Width	1.0~12.0 (variation block)	10-120		
14					
15					
16					

Chorus Block



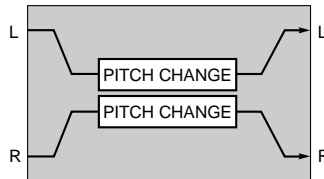
Variation, Insertion Block



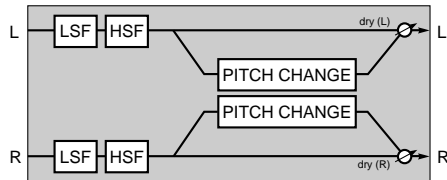
ENSEMBLE DETUNE (Chorus, Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	Detune	-50~+50cent	14-114		
2	Lch Init Delay	0.0~50.0	0-127	table#2	
3	Rch Init Delay	0.0~50.0	0-127	table#2	
4					
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W ~ D=W ~ D<W63	1-127		●
11	EQ Low Frequency	32Hz~2.0kHz (variation, insertion1,2 block)	4-40	table#3	
12	EQ Low Gain	-12~+12dB (variation, insertion1,2 block)	52-76		
13	EQ High Frequency	500Hz~16.0kHz (variation, insertion1,2 block)	28-58	table#3	
14	EQ High Gain	-12~+12dB (variation, insertion1,2 block)	52-76		
15					
16					

Chorus Block

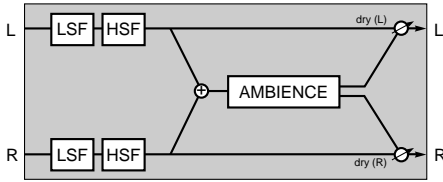


Variation, Insertion Block



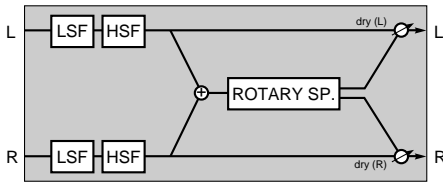
AMBIENCE (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	0.0~50.0	0-127	table#2	
2	Output Phase	normal/invers	0-1		
3					
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					
12					
13					
14					
15					
16					



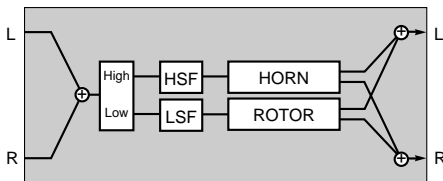
ROTARY SPEAKER (Variation, Insertion 1, 2 block)

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



2WAY ROTARY SPEAKER (Variation block)

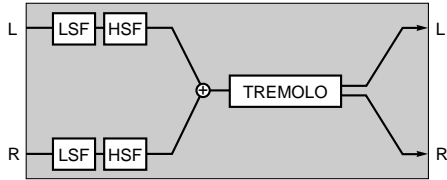
No.	Parameter	Display	Value	See Table	Control
1	Rotor Speed	0.0Hz-39.7Hz	0-127	table#1	●
2	Drive Low	0-127	0-127	table#1	
3	Drive High	0-127	0-127	table#1	
4	Low/High	L63-H - L=H - L<H63	1-127	table#1	
5					
6	EQ Low Frequency	32Hz-2.0kHz	4-40	table#3	
7	EQ Low Gain	-12-+12dB	52-76	table#3	
8	EQ High Frequency	500Hz-16.0kHz	28-58	table#3	
9	EQ High Gain	-12-+12dB	52-76	table#3	
10					
11	Crossover Frequency	100Hz-10.0kHz	14-54	table#3	
12	Mic L-R Angle	0deg-180deg	0-60	table#3	resolution=3deg.
13					
14					
15					
16					



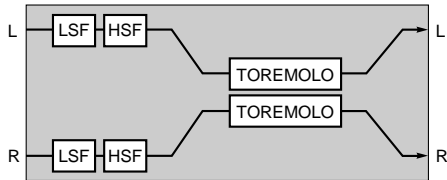
TREMOLO (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz-39.7Hz	0-127	table#1	●
2	AM Depth	0-127	0-127	table#1	
3	PM Depth	0-127	0-127	table#1	
4					
5					
6	EQ Low Frequency	32Hz-2.0kHz	4-40	table#3	
7	EQ Low Gain	-12-+12dB	52-76	table#3	
8	EQ High Frequency	500Hz-16.0kHz	28-58	table#3	
9	EQ High Gain	-12-+12dB	52-76	table#3	
10					
11	EQ Mid Frequency	100Hz-10.0kHz (variation block)	14-54	table#3	
12	EQ Mid Gain	-12-+12dB (variation block)	52-76	table#3	
13	EQ Mid Width	1.0-12.0 (variation block)	10-120	table#3	
14	LFO Phase Difference	-180-+180deg	4-124	table#3	resolution=3deg.
15	Input Mode	mono/stereo	0-1	table#3	
16					

When input mode="mono"

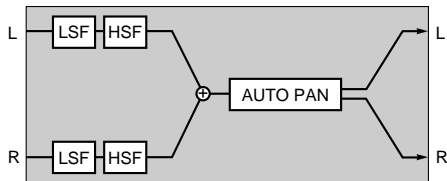


When input mode="stereo"



AUTO PAN (Variation, Insertion 1, 2 block)

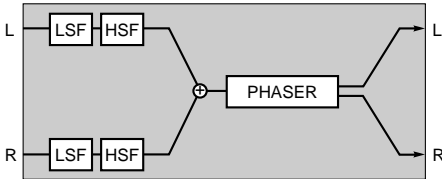
No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz-39.7Hz	0-127	table#1	●
2	L/R Depth	0-127	0-127	table#1	
3	F/R Depth	0-127	0-127	table#1	
4	PAN Direction	L->R,L->R,L<-R,Lturn,Rturn,L/R	0-5	table#1	
5					
6	EQ Low Frequency	32Hz-2.0kHz	4-40	table#3	
7	EQ Low Gain	-12-+12dB	52-76	table#3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



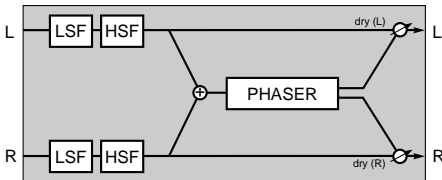
PHASER 1 (Chorus, Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz-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	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	Stage	4,5,6 (chorus, Insertion1,2 block)	4-6		
12	Diffusion	4-12 (variation block)	4-12		
13		mono/stereo	0-1		
14					
15					
16					

Chorus Block

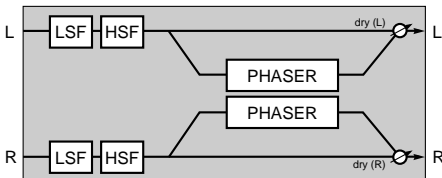


Variation, Insertion Block



PHASER 2 (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz-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	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	Stage	3,4,5,6	3-6		
12	LFO Phase Difference	-180deg+180deg	4-124	resolution=3deg.	
13					
14					
15					
16					



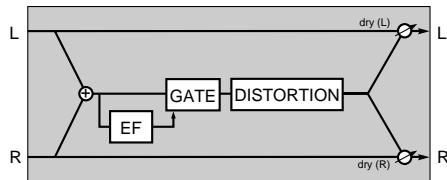
DISTORTION, OVERDRIVE (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	Drive	0-127	0-127		●
2	EQ Low Frequency	32Hz-2.0kHz	4-40	table#3	
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	100Hz-10.0kHz	14-54	table#3	
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	mid-sharp	
12					
13					
14					
15					
16					

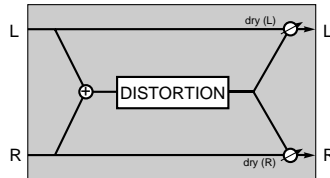
AMP SIMULATOR (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	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	mid-sharp	
12					
13					
14					
15					
16					

Variation Block

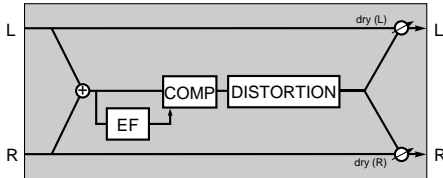


Insertion Block



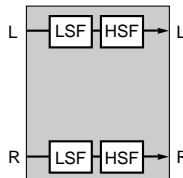
COMP+DIST (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	Drive	0-127	0-127		●
2	EQ Low Frequency	32Hz-2.0kHz	4-40	table#3	
3	EQ Low Gain	-12-+12dB	52-76		
4	LPF Cutoff	1.0k-1Thru	34-60	table#3	
5	Output Level	0-127	0-127		
6					
7	EQ Mid Frequency	100Hz-10.0kHz	14-54	table#3	
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	Attack	1ms-40ms	0-19	table#8	
13	Release	10ms-680ms	0-15	table#9	
14	Threshold	-48dB-6dB	79-121		
15	Ratio	1.0-20.0	0-7	table#10	
16					



2 BAND EQ (STEREO) (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	EQ Low Frequency	32Hz-2.0kHz	4-40	table#3	
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					
12					
13					
14					
15					
16					



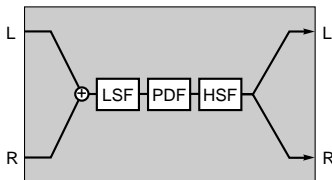
3 BAND EQ (MONO) (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	EQ Low Gain	-12-+12dB	52-76		
2	EQ Mid Frequency	100Hz-10.0kHz	14-54	table#3	
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	
7	EQ High Frequency	500Hz-16.0kHz	28-58	table#3	
8					
9					
10					
11					
12					
13					
14					
15	Input Mode	mono/stereo	0-1		
16					

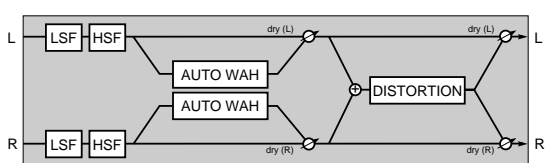
AUTO WAH (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz-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	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 (Variation block)	0-127	0-127		
12					
13					
14					
15					
16					

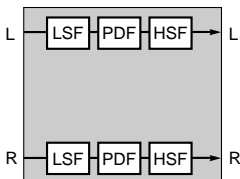
When input mode="mono"



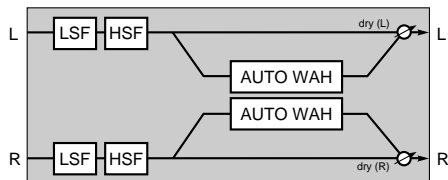
Variation Block



When input mode="stereo"

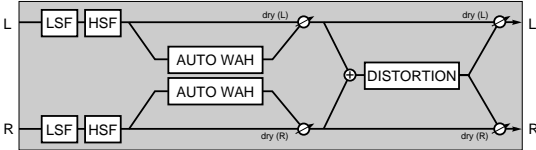


Insertion Block



AUTO WAH+DIST, AUTO WAH+ODRV (Variation block)

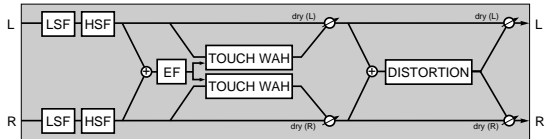
No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.00Hz~39.7Hz	0-127	table#1	
2	LFO Depth	0~127	0-127		
3	Cutoff Frequency Offset	0~127	0-127		
4	Resonance	1.0~12.0	10-120		●
5					
6	EQ Low Frequency	32Hz~2.0kHz	4-40	table#3	
7	EQ Low Gain	-12~+12dB	52-76		
8	EQ High Frequency	500Hz~16.0kHz	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 (Variation block)	0~127	0-127		
12					
13					
14					
15					
16					



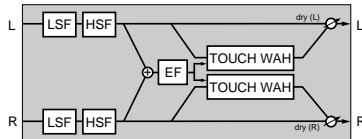
TOUCH WAH 1 (Variation, Insertion 1, 2 block) TOUCH WAH+DIST (Variation block)

No.	Parameter	Display	Value	See Table	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 (Variation block)	0~127	0-127		
12					
13					
14					
15					
16					

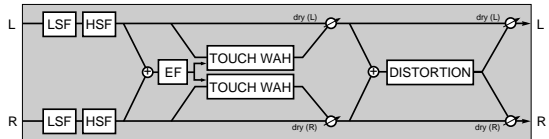
Variation Block: TOUCH WAH 1



Insertion Block: TOUCH WAH 1



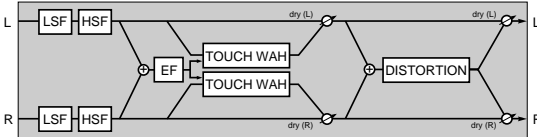
Variation Block: TOUCH WAH+DIST



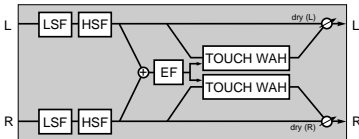
TOUCH WAH 2 (Variation, Insertion 1, 2 block) TOUCH WAH+ODRV (Variation block)

No.	Parameter	Display	Value	See Table	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 (Variation block)	0-127		
12	EQ Low Gain(distortion)	-12-+12dB (Variation block)	52-76		
13	EQ Mid Gain(distortion)	-12-+12dB (Variation block)	52-76		
14	LPF Cutoff	1.0kHz-thru (Variation block)	34-60	table#3	
15	Output Level	0-127	0-127		
16	Release	10-680ms	52-67		

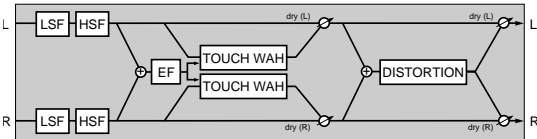
Variation Block: TOUCH WAH 2



Insertion Block: TOUCH WAH 2



Variation Block: TOUCH WAH+ODRV

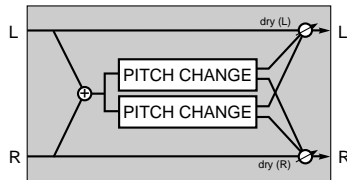


PITCH CHANGE 1 (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	Pitch	-24-+24	40-88		
2	Initial Delay	0.1-400.0	0-127	table#7	
3	Fine 1	-50-+50	14-114		
4	Fine 2	-50-+50	14-114		
5	Feedback Level	-63-+63	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					

PITCH CHANGE 2 (Variation block)

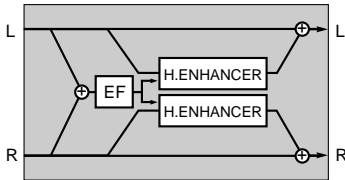
No.	Parameter	Display	Value	See Table	Control
1	Pitch	-24-+24	40-88		
2	Initial Delay	0.1-400.0	0-127	table#7	
3	Fine 1	-50-+50cent	14-114		
4	Fine 2	-50-+50cent	14-114		
5	Feedback Level	-63-+63	1-127		
6					
7					
8					
9					
10	Dry/Wet	D63>W - D=W - D<W63	1-127		●
11	Pan 1	L63-R63	1-127		
12	Output Level 1	0-127	0-127		
13	Pan 2	L63-R63	1-127		
14	Output Level 2	0-127	0-127		
15					
16					



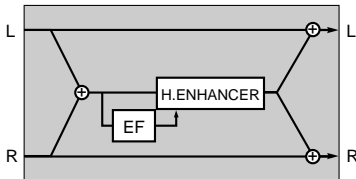
HARMONIC ENHANCER (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	HPF Cutoff	500Hz-16.0kHz	28-58	table#3	
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					

Variation Block



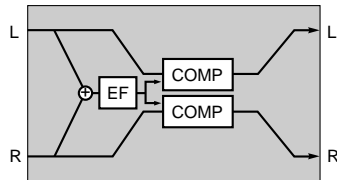
Insertion Block



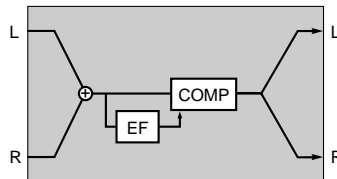
COMPRESSOR (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	Control
1	Attack	1-40ms	0-19		
2	Release	10-680ms	0-15	table#8	
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					

Variation Block



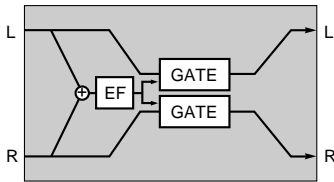
Insertion Block



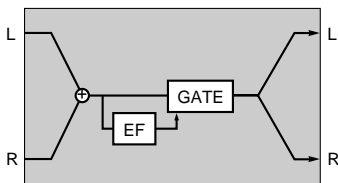
NOISE GATE (Variation, Insertion 1, 2 block)

No.	Parameter	Display	Value	See Table	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					
12					
13					
14					
15					
16					

Variation Block

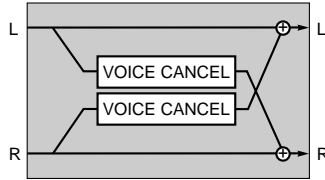


Insertion Block



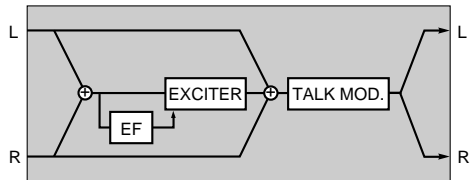
VOICE CANCEL (Variation block)

No.	Parameter	Display	Value	See Table	Control
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11	Low Adjust	0-26			
12	High Adjust	0-26	0-26		
13					
14					
15					
16					



TALKING MODULATOR (Variation block)

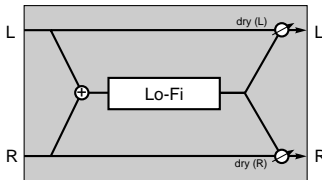
No.	Parameter	Display	Value	See Table	Control
1	Vowel	a,i,u,e,o	0-4		
2	Move speed	1-62	1-62		
3	Drive	0-127	0-127		
4	Output level	0-127	0-127		
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					



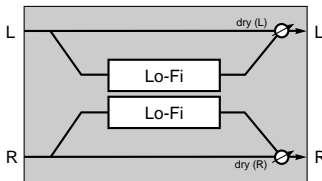
LO-FI (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	sampling freq control	44.1kHz~345Hz	0-127		
2	word length	1-127	1-127		
3	output gain	-6~+12dB	0-18		
4	LPF Cutoff	63Hz~1kHz	10-60		
5	filter type	Thru,PowerBass,Radio,Telephone,Clean,Low	0-5		
6	LPF resonance	1.0~12.0	10-120		
7	bit assign	0-6	0-6		
8	emphasis	off/on	0-1		
9	Dry/Wet	D63>W - D=W - D<W63	1-127		●
11					
12					
13					
14					
15					
16	Input Mode	mono/stereo	0-1		

When input mode="mono"

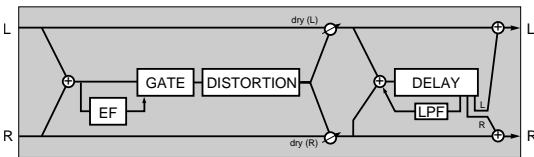


When input mode="stereo"



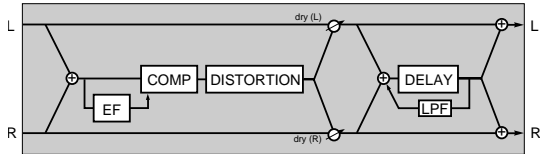
DIST+DELAY (Variation block) OVERDRIVE+DELAY (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	Lch Delay Time	0.1~1486.0ms	1-14860		
2	Rch Delay Time	0.1~1486.0ms	1-14860		
3	Delay Feedback Level	-63~+63	1-127		
4	Delay Mix	0~127	0-127		
5	Dist Drive	0~127	0-127		
6	Dist Output Level	-12~+12dB	52-76		
7	Dist EQ Low Gain	-12~+12dB	52-76		
8	Dist EQ Mid Gain	-12~+12dB	52-76		
9	Dry/Wet	D63>W - D=W - D<W63	1-127		●
11					
12					
13					
14					
15					
16					



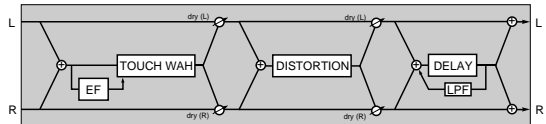
COMP+DIST+DELAY (Variation block) COMP+ODRV+DELAY (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	0.1~1486.0ms	1-14860		
2	Delay Feedback Level	-63~+63	1-127		
3	Delay Mix	0~127	0-127		
4	Dist Drive	0~127	0-127		
5	Dist Output Level	-12~+12dB	52-76		
6	Dist EQ Low Gain	-12~+12dB	52-76		
7	Dist EQ Mid Gain	-12~+12dB	52-76		
8					
9	Dry/Wet	D63>W - D=W - D<W63	1-127		●
11	Comp. Attack	1ms~40ms	0-19	table#8	
12	Comp. Release	10ms~680ms	0-15	table#9	
13	Comp. Threshold	-48dB~-6dB	79-121	table#10	
14	Comp. Ratio	1.0~20.0	0-7	table#10	
15					
16					



WAH+DIST+DELAY (Variation block) WAH+ODRV+DELAY (Variation block)

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	0.1~1486.0ms	1-14860		
2	Delay Feedback Level	-63~+63	1-127		
3	Delay Mix	0~127	0-127		
4	Dist Drive	0~127	0-127		
5	Dist Output Level	-12~+12dB	52-76		
6	Dist EQ Low Gain	-12~+12dB	52-76		
7	Dist EQ Mid Gain	-12~+12dB	52-76		
8					
9	Dry/Wet	D63>W - D=W - D<W63	1-127		●
11	Wah Sensitive	0~127	0-127		
12	Wah Cutoff Freq Offset	0~127	0-127		
13	Wah Resonance	1.0~12.0	10-120		
14	Wah Release	10~680ms	52-67		
15					
16					



Explanation of Effect Parameters

Parameter name	Effect types in which the parameter exists	Explanation of parameter
AM Depth	TREMLO	Depth of volume modulation
AMP Type	AMP SIMULATOR	Select the type of amp to be simulated
Attack	COMPRESSOR type NOISE GATE	Time until the compressor effect begins to apply Time until the gate begins to open
Bit Assign	LO-FI	Adjust the word length of the audio data
Cch Delay	DELAY L,C,R	Length of the center channel delay
Cch Level	DELAY L,C,R	Volume of the center channel
Crossover Frequency	2WAY ROTARY SPEAKER	Crossover frequency between the high-range and low-range speakers
Cutoff Frequency Offset	WAH type	Frequency offset value that will control the wah filter
Delay Mix	DIST+DELAY,OVERDRIVE+DELAY, COMP+DIST+DELAY,COMP+ODRV+DELAY, WAH+DIST+DELAY,WAH+ODRV+DELAY	Mixing amount of delay sound
Delay Offset	CHORUS type	Offset value of delay modulation
Delay Time	KARAOKE1,2,3 AMBIENCE	Spacing of reflections for karaoke echo Delay length
Delay2 Level	ECHO	Volume of second delay
Density	REVERB type, EARLY REF type	Density of reflections. Higher values produce closer spacing
Depth	REVERB type	Depth of the simulated room
Detune	ENSEMBLE DETUNE	Amount of pitch shift
Diffusion	REVERB type, EARLY REF type, PHASER	Control the spaciousness
Drive	DISTORTION type HARMONIC ENHANCER TALKING MODULATION	Depth of distortion Depth at which the exciter effect is applied Depth at which the exciter effect is applied
Drive High	2WAY ROTARY SPEAKER	Depth of modulation caused by rotation of the low-range speaker
Drive Low	2WAY ROTARY SPEAKER	Depth of modulation caused by rotation of the high-range speaker
Dry/Wet	All types	Balance between dry sound and effect sound
Edge(Clip Curve)	DISTORTION type	Curve of distortion characteristics (sharp(127) distorts suddenly, mild(0) distorts gradually)
Emphasis	LO-FI	Modify the character of the high range
EQ High Frequency	All types	Frequency at which the EQ will boost/cut the high range
EQ High Gain	All types	Gain amount by which the EQ will boost/cut the high range
EQ Low Frequency	All types	Frequency at which the EQ will boost/cut the low range
EQ Low Gain	All types	Gain amount by which the EQ will boost/cut the low range
EQ Mid Frequency	All types	Frequency at which the EQ will boost/cut the mid range
EQ Mid Gain	All types	Gain amount by which the EQ will boost/cut the mid range
EQ Mid Width	All types	Width of the area boosted/cut by the mid-range EQ
Er/Rev Balance	REVERB type	Level balance between the early reflections and the reverberation
F/R Depth	AUTO PAN	Depth of front/back panning (valid when PAN Direction=Lturn,Rturn)
Feedback Delay	DELAY L,C,R	Length of feedback delay
Feedback Delay 1	DELAY L,R	Length of feedback delay 1
Feedback Delay 2	DELAY L,R	Length of feedback delay 2
Feedback Level	REVERB type DELAY type,EARLY REF type,PITCH CHANGE type KARAOKE type CHORUS type, FLANGER type PHASER type	Feedback amount of initial delay Feedback amount Setting for repeated reflections Level at which delay output is again returned to the input (negative values invert the phase) Level at which phaser output is again returned to the input (negative values insert the phase)
Filter Type	LO-FI	Select the type of tonal effect
Fine 1	PITCH CHANGE type	Fine adjustment to pitch of first sound
Fine 2	PITCH CHANGE type	Fine adjustment to pitch of second sound
Height	REVERB type	Height of simulated room
High Adjust	VOICE CANCEL	Adjust the upper limit of the mid-frequency range that will be attenuated
High Damp	REVERB type,DELAY type,EARLY REF type	Attenuation of the high frequency range (lower values will cause the high range to decay more rapidly)
HPF Cutoff	REVERB type,EARLY REF type,KARAOKE type,HARMONIC ENHANCER	Frequency at which the high pass filter will cut the low range
Initial Delay	REVERB type EARLY REF type PITCH CHANGE type	Delay time until the early reflections Delay length until ER (GateReverb) sounds Delay length
Input Mode	All types	Mono/stereo switch for input
Input Select	CROSS DELAY	Input select
L/R Depth	AUTO PAN	Depth of left/right panning
L->R Delay	CROSS DELAY	Delay time from left (input) to right (output)
Lch Delay	DELAY type	Length of left channel delay
Lch Delay1	ECHO	Length of first left channel delay
Lch Delay2	ECHO	Length of second left channel delay
Lch Feedback Level	ECHO	Amount of left channel feedback
Lch Init Delay	ENSEMBLE DETUNE	Length of left channel delay
LFO Depth	CHORUS type,FLANGER type,SYMPHONIC ROTARY SPEAKER PHASER type WAH type	Depth of delay modulation Depth of modulation caused by speaker rotation Depth of phase modulation Depth at which the wah filter will be controlled
LFO Frequency	CHORUS type,FLANGER type,SYMPHONIC ROTARY SPEAKER TREMLO AUTO PAN PHASER type WAH type	Frequency of delay modulation Frequency at which the speaker will rotate Modulation frequency Autopan frequency Phase modulation frequency Frequency at which wah filter will be controlled

Parameter name	Effect types in which the parameter exists	Explanation of parameter
LFO Phase Difference	PHASER type, FLANGER type	L/R phase difference for modulation waveform (0 deg (=64) is no phase difference)
Liveness	EARLY REF type	ER decay. Lower values cause faster decay.
Low Adjust	VOICE CANCEL	Adjust the lower frequency limit of the mid-range that will be attenuated
Low/High	2WAY ROTARY SPEAKER	Volume balance between the high-range and low-range speakers
LPF Cutoff	All types	Frequency at which the low pass filter will cut the high frequency range
LPF Resonance	LO-FI	Add character to the low pass filter of the input
Mic L-R Angle	2WAY ROTARY SPEAKER	L/R angle of the mic that picks up the output
Mix Level	HARMONIC ENHANCER	Level of the effect sound that is mixed into the dry sound
Move Speed	TALKING MODULATOR	Time over which the sound specified by Vowel is reached
Output Gain	LO-FI	Output gain
Output Level	All types	Output level
Output Level 1	PITCH CHANGE type	Output level for first unit
Output Level 2	PITCH CHANGE type	Output level for second unit
Output Phase	AMBIENCE	Swap phase of the effect sound between L/R
Pan 1	PITCH CHANGE type	Pan of first unit
Pan 2	PITCH CHANGE type	Pan of second unit
PAN Direction	AUTO PAN	Autopan type (L<->R is sine wave, L/R is square wave)
Phase Shift Offset	PHASER type	Offset value for phase modulation
Pitch	PITCH CHANGE type	Pitch setting in semitones
PM Depth	TREMOLO	Depth of delay modulation
R->L Delay	CROSS DELAY	Delay time from right (input) to left (output)
Ratio	COMPRESSOR type	Compression ratio of the compressor
Rch Delay	DELAY type	Length of right channel delay
Rch Delay1	ECHO	Length of first right channel delay
Rch Delay2	ECHO	Length of second right channel delay
Rch Feedback Level	ECHO	Amount of right channel feedback
Rch Init Delay	ENSEMBLE DETUNE	Length of right channel delay
Release	COMPRESSOR type NOISE GATE TOUCH WAH2, TOUCH WAH+ODRV	Time until the sound is released from the compressor effect Time until the gate closes Time until the center frequency of the wah filter returns to normal
Resonance	WAH type	Bandwidth of the wah filter
Rev Delay	REVERB type	Delay time between the early reflections and the reverberation
Reverb Time	REVERB type	Length of reverb
Room Size	EARLY REF type	Size of room. Increasing this value will lengthen ER.
Rotor Speed	2WAY ROTARY SPEAKER	Frequency at which the speaker rotates
Sampling Freq Control	LO-FI	Sampling frequency control
Sensitive	WAH type	Sensitivity with which the wah filter will change in response to changes in the input
Stage	PHASER type	Number of steps for the phase shifter
Threshold	COMPRESSOR type NOISE GATE	Input level at which compression will begin Input level at which the gate will begin to open
Type	EARLY REF type	Type selection
Vowel	TALKING MODULATOR	Vowel selection
Wah Release	WAH+DIST+DELAY, WAH+ODRV+DELAY	Time until the center frequency of the wah filter returns to normal
Wall Vary	REVERB type	Condition of the walls of the simulated room (higher values produce more random reflections)
Width	REVERB type	Width of the simulated room
Word Length	LO-FI	Specify the roughness of the sound

Additional note:

In the preceding pages, indication of effect types such as REVERB-type respectively include the following effect types.

CHORUS type	CHORUS1, CHORUS2, CHORUS3, CHORUS4, CELESTE1, CELESTE2, CELESTE3, CELESTE4
COMPRESSOR type	COMPRESSOR, COMP+DIST, COMP+DIST+DELAY, COMP+OVERDRIVE+DELAY
DELAY type	DELAY L,C,R, DELAY L,R, ECHO, CROSS DELAY, DIST+DELAY, OVERDRIVE+DELAY, COMP+DIST+DELAY, COMP+DIST+DELAY, COMP+OVERDRIVE+DELAY, WAH+DIST+DELAY, WAH+OVERDRIVE+DELAY
DISTORTION type	DISTORTION, OVERDRIVE, AMP SIMULATOR, AUTO WAH+DIST, AUTO WAH+ODRV, TOUCH WAH+DIST, TOUCH WAH+ODRV, COMP+DIST, DIST+DELAY, OVERDRIVE+DELAY, COMP+DIST+DELAY, COMP+DIST+DELAY, COMP+OVERDRIVE+DELAY, WAH+DIST+DELAY, WAH+OVERDRIVE+DELAY
EARLY REF type	EARLY REF1, EARLY REF2, GATE REVERB, REVERSE GATE
FLANGER type	FLANGER1, FLANGER2, FLANGER3
KARAOKE type	KARAOKE1, KARAOKE2, KARAOKE3
PHASER type	PHASER1, PHASER2
PITCH CHANGE type	PITCH CHANGE1, PITCH CHANGE2
REVERB type	HALL1, HALL2, ROOM1, ROOM2, ROOM3, STAGE1, STAGE2, PLATE, WHITE ROOM, TUNNEL, CANYON, BASEMENT
WAH type	AUTO WAH, AUTO WAH+DIST, AUTO WAH+ODRV, TOUCH WAH1, TOUCH WAH2, TOUCH WAH+DIST, TOUCH WAH+ODRV, WAH+DIST+DELAY, WAH+OVERDRIVE+DELAY

Effect Data Assign Table

Table#1

LFO Frequency

Data	Value	Data	Value	Data	Value	Data	Value
0	0.00	32	1.34	64	2.69	96	8.41
1	0.08	33	1.43	65	2.77	97	8.74
2	0.08	34	1.43	66	2.86	98	9.08
3	0.16	35	1.51	67	2.94	99	9.42
4	0.16	36	1.51	68	3.02	100	9.75
5	0.25	37	1.59	69	3.11	101	10.0
6	0.25	38	1.59	70	3.19	102	10.7
7	0.33	39	1.68	71	3.28	103	11.4
8	0.33	40	1.68	72	3.36	104	12.1
9	0.42	41	1.76	73	3.44	105	12.7
10	0.42	42	1.76	74	3.53	106	13.4
11	0.50	43	1.85	75	3.61	107	14.1
12	0.50	44	1.85	76	3.70	108	14.8
13	0.58	45	1.93	77	3.86	109	15.4
14	0.58	46	1.93	78	4.03	110	16.1
15	0.67	47	2.01	79	4.20	111	16.8
16	0.67	48	2.01	80	4.37	112	17.4
17	0.75	49	2.10	81	4.54	113	18.1
18	0.75	50	2.10	82	4.71	114	19.5
19	0.84	51	2.18	83	4.87	115	20.8
20	0.84	52	2.18	84	5.04	116	22.2
21	0.92	53	2.27	85	5.21	117	23.5
22	0.92	54	2.27	86	5.38	118	24.8
23	1.00	55	2.35	87	5.55	119	26.2
24	1.00	56	2.35	88	5.72	120	27.5
25	1.09	57	2.43	89	6.05	121	28.9
26	1.09	58	2.43	90	6.39	122	30.2
27	1.17	59	2.52	91	6.72	123	31.6
28	1.17	60	2.52	92	7.06	124	32.9
29	1.26	61	2.60	93	7.40	125	34.3
30	1.26	62	2.60	94	7.73	126	37.0
31	1.34	63	2.69	95	8.07	127	39.7

Table#2

Modulation Delay Offset

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

Table#3
EQ Frequency

Data	Value	Data	Value
0	THRU(20)	32	800
1	22	33	900
2	25	34	1.0k
3	28	35	1.1k
4	32	36	1.2k
5	36	37	1.4k
6	40	38	1.6k
7	45	39	1.8k
8	50	40	2.0k
9	56	41	2.2k
10	63	42	2.5k
11	70	43	2.8k
12	80	44	3.2k
13	90	45	3.6k
14	100	46	4.0k
15	110	47	4.5k
16	125	48	5.0k
17	140	49	5.6k
18	160	50	6.3k
19	180	51	7.0k
20	200	52	8.0k
21	225	53	9.0k
22	250	54	10.0k
23	280	55	11.0k
24	315	56	12.0k
25	355	57	14.0k
26	400	58	16.0k
27	450	59	18.0k
28	500	60	THRU(20.0k)
29	560		
30	630		
31	700		

Table#4
Reverb time

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

Table#5
Delay Time(200.0ms)

Data	Value	Data	Value
0	0.1	32	50.5
1	1.7	33	52.0
2	3.2	34	53.6
3	4.8	35	55.2
4	6.4	36	56.8
5	8.0	37	58.3
6	9.5	38	59.9
7	11.1	39	61.5
8	12.7	40	63.1
9	14.3	41	64.6
10	15.8	42	66.2
11	17.4	43	67.8
12	19.0	44	69.4
13	20.6	45	70.9
14	22.1	46	72.5
15	23.7	47	74.1
16	25.3	48	75.7
17	26.9	49	77.2
18	28.4	50	78.8
19	30.0	51	80.4
20	31.6	52	81.9
21	33.2	53	83.5
22	34.7	54	85.1
23	36.3	55	86.7
24	37.9	56	88.2
25	39.5	57	89.8
26	41.0	58	91.4
27	42.6	59	93.0
28	44.2	60	94.5
29	45.7	61	96.1
30	47.3	62	97.7
31	48.9	63	99.3

Table#6
Room Size

Data	Value	Data	Value
0	0.1	32	5.1
1	0.3	33	5.3
2	0.4	34	5.4
3	0.6	35	5.6
4	0.7	36	5.7
5	0.9	37	5.9
6	1.0	38	6.1
7	1.2	39	6.2
8	1.4	40	6.4
9	1.5	41	6.5
10	1.7	42	6.7
11	1.8	43	6.8
12	2.0	44	7.0
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		

Table#7
Delay Time (400.0ms)

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

Table#8
Compressor Attack Time

Data	Value
0	1
1	2
2	3
3	4
4	5
5	6
6	7
7	8
8	9
9	10
10	12
11	14
12	16
13	18
14	20
15	23
16	26
17	30
18	35
19	40

Table#9
Compressor Release Time

Data	Value
0	10
1	15
2	25
3	35
4	45
5	55
6	65
7	75
8	85
9	100
10	115
11	140
12	170
13	230
14	340
15	680

Table#10
Compressor Ratio

Data	Value
0	1.0
1	1.5
2	2.0
3	3.0
4	5.0
5	7.0
6	10.0
7	20.0

Table#11
Reverb Width; Depth; Height

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

MIDI Data Format

1. Channel messages

1.1 Note on / Note off

These messages convey keyboard performance data. Note-on is transmitted when a note is pressed, and note-off is transmitted when a note is released. These messages contain a "note number" which indicates the key that was played, and a "velocity" which indicates how strongly it was played. When a note-on of velocity "0" is received, it has the same effect as a note-off.

Range of note numbers received = 0 (C-2)...60 (C3)...127 (G8)
Velocity range = 1...127 (Velocity is received only for note-on)

When the Multi Part parameter "Rcv NOTE MESSAGE" = OFF, that part will not receive these messages.
For a drum part*, key-off is not received if the DrumSetup parameter Rcv NOTE OFF = OFF.
For a drum part, key-on is not received if the DrumSetup parameter Rcv NOTE ON = OFF.

* Drum Part indicates that the Multi Part parameter PART MODE is "set to DRUM or DRUMS1...4."

1.2 Control changes

These messages control volume or pan etc. Their functions are differentiated by the control number (Ctrl#). If the Multi Part parameter Rcv CONTROL CHANGE = OFF, that part will not receive control changes.

1.2.1 Bank Select

This message selects the voice bank. The voice bank is selected by the combination of two control change messages: MSB and LSB. The function of the MSB and LSB will differ depending on the sound module mode. In the case of "XG," the MSB value will specify the major division of voices, and the LSB value will specify the detailed division. In the case of "TG300B," the LSB value is fixed, and only the MSB value will specify the detailed voice division.

Control#	Parameter	Data Range
0	Bank Select MSB	0...127
32	Bank Select LSB	0...127

The Bank Select data will be processed only after a Program Change is received, and then voice bank will change at that time. If you wish to change the voice bank as well as the voice, you must transmit Bank Select and Program Change messages as a set, in the order of Bank Select MSB, LSB, and Program Change.

1.2.2 Modulation

This message is used primarily to control the depth of vibrato, but the depth of the following 7 types of effect can be controlled. The effect of this message can be changed by the following parameters.

- Multi Part Parameter
 - MW PITCH CONTROL
 - MW FILTER CONTROL
 - MW AMPLITUDE CONTROL
 - MW LFO PMOD DEPTH
 - MW LFO FMOD DEPTH
 - MW LFO AMOD DEPTH
- Effect1 Parameter
 - MW VARIATION CONTROL DEPTH
(Valid when Variation Effect is assigned to a part as Insertion)

By default, an LFO Pitch Modulation (PMOD) effect will apply.

Control#	Parameter	Data Range
1	Modulation	0...127

If the Multi Part parameter Rcv MODULATION = OFF, that part will not receive Modulation.
If the receive channel is a drum part, effects 5 and 6 will not apply.

1.2.3 Portamento Time

This message controls the degree of Portamento (refer to 1.2.9).

Control#	Parameter	Data Range
5	Portamento Time	0...127

When Portamento (control number 065) is ON, this regulates the speed of the pitch change. A value of 0 is the shortest portamento time, and 127 is the longest portamento time.
If the receive channel is a drum part, Portamento Time is not received.

1.2.4 Data Entry

This message sets the value of the parameter which was specified by RPN MSB/LSB (see 1.2.22) and NRPN MSB/LSB (see 1.2.21).

Control#	Parameter	Data Range
6	Data Entry MSB	0...127
38	Data Entry LSB	0...127

1.2.5 Main Volume

This message controls the volume of each part. This is used to adjust the volume balance between parts.

Control#	Parameter	Data Range
7	Main Volume	0...127

When the Multi Part parameter Rcv VOLUME = OFF, that part will not receive Main Volume. With a value of 0 there will be no sound, and a value of 127 will be the maximum volume.

1.2.6 Panpot

This message control the panning (stereo location) of each part. This will be the location of the sound when heard in stereo.

Control#	Parameter	Data Range
10	Pan	0...64...127

When the Multi Part parameter Rcv PAN = OFF, that part will not receive Panpot. 0 is left, 64 is center, and 127 is right.

1.2.7 Expression

This message controls expression (dynamics within a musical line) for each part. It is used to create volume changes during a song.

Control#	Parameter	Data Range
11	Expression	0...127

If the Multi Part parameter Rcv EXPRESSION = OFF, that part will not receive Expression. With a value of 0 there will be no sound, and with a value of 127 the volume will be maximum.

1.2.8 Hold1

This message controls sustain pedal on/off. The notes that are sounding while the pedal is pressed will be sustained.

Control#	Parameter	Data Range
64	Hold1	0...63,64...127 (OFF, ON)

For data of 0...63 the sustain pedal will be OFF (released), and for data of 64...127 it will be on (pressed). When this is ON, currently-sounding notes will continue to sound even if note-off messages are received. If the Multi Part parameter Rcv HOLD1 = OFF, that part will not receive Hold1.

1.2.9 Portamento

This message controls portamento pedal on/off. When the pedal is pressed, a portamento effect will be applied.

Control#	Parameter	Data Range
65	Portamento	0...63,64...127 (OFF, ON)

For data of 0...63 the portamento pedal will be OFF (released), and for 64...127 it will be ON (pressed). When this is ON, the pitch will change smoothly between notes. The time over which the pitch changes is adjusted by Portamento Time (see 1.2.3). Also, when the Multi Part parameter MONO/POLY MODE = MONO, the tone will also change smoothly (legato) if Portamento = ON. If any of the following Multi Part parameter settings apply, that part will not receive Portamento.

- Rcv PORTAMENTO = OFF
- PART MODE = DRUM, DRUMS1...4

1.2.10 Sostenuto

This message controls sostenuto pedal on/off. Notes which were already pressed when the pedal was pressed will be sustained.

Control#	Parameter	Data Range
66	Sostenuto	0...63,64...127 (OFF, ON)

For data of 0...63, the sostenuto pedal will be OFF (released), and for 64...127 it will be ON (pressed). If sostenuto is turned on while a note is sounding, that note will be sustained until sostenuto is turned OFF. If the Multi Part parameter Rcv SOSTENUTO = OFF, that part will not receive Sostenuto.

1.2.11 Soft Pedal

This message controls soft pedal on/off. The sound will become more mellow while the pedal is pressed.

Control#	Parameter	Data Range
67	Soft Pedal	0...63,64...127 (OFF, ON)

For data of 0...63, the soft pedal is OFF (released), and for 64...127 it is ON (pressed). If any of the following Multi Part parameter settings apply, that part will not receive the Soft Pedal.

- Rcv SOFT PEDAL = OFF
- PART MODE = DRUM, DRUMS1...4

1.2.12 Harmonic Content

This message adjusts the resonance of the filter that is specified for the sound. The value of 0...127 is taken as -64...+63, and added as an offset value to the original sound data to modify the resonance.

Control#	Parameter	Data Range
71	Harmonic Content	0...64...127 (-64...0...+63)

Since this is a relative change parameter, it specifies a boost or cut relative to 64. Higher values will produce a more distinctive sound. For some sounds, the effective range may be less than the possible range of settings.

1.2.13 Release Time

This message adjusts the EG release time that was specified by the sound data. The value of 0...127 is taken as -64...+63, and added to the original sound data as an offset value to modify the release time.

Control#	Parameter	Data Range
72	Release Time	0...64...127 (-64...0...+63)

Since this is a relative change parameter, it specifies an increase or decrease relative to 64. Increasing this value will lengthen the release that follows a note-off.

1.2.14 Attack Time

This message adjusts the EG attack time that was specified by the sound data. The value of 0...127 is taken as -64...+63, and added to the original sound data as an offset value to modify the attack time.

Control#	Parameter	Data Range
73	Attack Time	0...64...127 (-64...0...+63)

Since this is a relative change parameter, it specifies an increase or decrease relative to 64. Increasing this value will make the attack more gradual, and decreasing this value will make the attack sharper.

1.2.15 Brightness

This message adjusts the cutoff frequency of the low pass filter specified by the sound data. The value of 0...127 is taken as -64...+63, and added to the original sound data as an offset value to modify the cutoff frequency.

Control#	Parameter	Data Range
74	Brightness	0...64...127 (-64...0...+63)

Since this is a relative change parameter, it specifies an increase or decrease relative to 64. Lower values will produce a more mellow sound. For some sounds, the effective range may be less than the possible range of settings.

1.2.16 Portamento Control

This message specifies the portamento source key number (the key number at which portamento will begin). Data of 0...127 specifies the portamento source key. When Portamento Control is received, the currently-sounding pitch will change at a Portamento Time of 0 to the key of the next-received note-on of the same channel.

Control#	Parameter	Data Range
84	Portamento Control	0...127 (C-2...G8)

This is received even if Rcv PORTAMENTO = OFF.

1.2.17 Effect1 Depth (Reverb Send Level)

This message specifies the send level for the reverb effect.

Control#	Parameter	Data Range
91	Effect1 Depth	0...127

Increasing this value will produce a richer reverb. The effect of the value will depend on the state of the reverb effect.

1.2.18 Effect3 Depth (Chorus Send Level)

This message specifies the send level for the chorus effect.

Control#	Parameter	Data Range
93	Effect3 Depth	0...127

Raising this value will increase the modulation or spaciousness. The effect of the value will depend on the state of the chorus effect.

1.2.19 Effect4 Depth (Variation Effect Send Level)

This message specifies the send level for the variation effect.

Control#	Parameter	Data Range
94	Effect4 Depth	0...127

However, this is not received if the Variation Effect parameter Variation Connection = 0 (Insertion).

1.2.20 Data Increment / Decrement (for RPN)

After RPN (see 1.2.22) is used to specify a parameter such as Pitch Bend Sensitivity, Fine Tune, or Coarse Tune, this message is used to increment or decrement the respective parameter value in steps of 1.

Control#	Parameter	Data Range
96	RPN Increment	-
97	RPN Decrement	-

The data byte is ignored.

1.2.21 NRPN (Non-registered parameter number)

This message is used to specify a sound parameter (such as vibrato, filter, EG, drum setup etc.) as an offset value. Use NRPN MSB and NRPN LSB to specify the parameter that you wish to modify, and then use Data Entry (see 1.2.4) to set the value for the specified parameter.

Control#	Parameter	Data Range
98	NRPN LSB	0...127
99	NRPN MSB	0...127

If the Multi Part parameter Rcv NRPN = OFF, that part will not receive NRPN.

The following NRPN messages can be received.

NRPN	Data Entry*1		Parameter name and value range
	MSB	LSB	
01	08	mm - *2	Vibrato rate mm: 00 - 64 - 127 (-64...0...+63)
01	09	mm -	Vibrato depth mm: 00 - 64 - 127 (-64...0...+63)
01	10	mm - *3	Vibrato delay mm: 00 - 64 - 127 (-64...0...+63)
01	32	mm -	Low pass filter cutoff frequency mm: 00 - 64 - 127 (-64...0...+63)
01	33	mm -	Low pass filter resonance mm : 00 - 64 - 127 (-64...0...+63)
01	36	mm -	High pass filter cutoff frequency mm: 00 - 64 - 127 (-64...0...+63)
01	48	mm - *4	EQ bass gain mm: 00 - 64 - 127 (-64...0...+63)
01	49	mm - *4	EQ treble gain mm: 00 - 64 - 127 (-64...0...+63)
01	52	mm - *4	EQ bass frequency mm: 04 - 40 (32...2.0k [Hz])
01	53	mm - *4	EQ treble frequency mm: 28 - 58 (500...16.0k [Hz])
01	99	mm -	EG attack time mm: 00 - 64 - 127 (-64...0...+63)
01	100	mm -	EG decay time mm: 00 - 64 - 127 (-64...0...+63)
01	102	mm -	EG release time mm: 00 - 64 - 127 (-64...0...+63)
20	rr	mm -	Drum low pass filter cutoff frequency rr: drum instrument note number mm: 00 - 64 - 127 (-64...0...+63)
21	rr	mm -	Drum low pass filter resonance rr: drum instrument note number mm: 00 - 64 - 127 (-64...0...+63)

22	rr	mm -	Drum EG attack rate rr: drum instrument note number mm: 00 - 64 - 127 (-64...0...+63)
23	rr	mm -	Drum EG decay rate rr: drum instrument note number mm: 00 - 64 - 127 (-64...0...+63) The effect will apply both to Decay1 and 2.
24	rr	mm -	Drum instrument pitch coarse rr: drum instrument note number mm: 00 - 64 - 127 (-64...0...+63)
25	rr	mm -	Drum instrument pitch fine rr: drum instrument note number mm: 00 - 64 - 127 (-64...0...+63)
26	rr	mm -	Drum instrument level rr: drum instrument note number mm: 00 - 127 (0...maximum)
28	rr	mm -	Drum instrument panpot rr: drum instrument note number mm: 00, 01-64-127 (RND, L63...C...R63)
29	rr	mm -	Drum instrument reverb send level rr: drum instrument note number mm: 00 - 127 (0...maximum)
30	rr	mm -	Drum instrument chorus send level rr: drum instrument note number mm: 00 - 127 (0...maximum)
31	rr	mm -	Drum instrument variation send level rr: drum instrument note number mm: 00 - 127(0...maximum) (when Variation Connection = SYSTEM) mm: 00, 01-127 (OFF,ON) (when Variation Connection = INSERTION)
36	rr	mm -	Drum high pass filter cutoff frequency mm: 00 - 64 - 127 (-64...0...+63)
48	rr	mm -	Drum EQ bass gain mm: 00 - 64 - 127 (-64...0...+63)
49	rr	mm -	Drum EQ treble gain mm: 00 - 64 - 127 (-64...0...+63)
52	rr	mm -	Drum EQ bass frequency mm: 04 - 40 (32...2.0k [Hz])
53	rr	mm -	Drum EQ treble frequency mm: 28 - 58 (500...16.0k [Hz])

MSB 20-53 (for drums) is received when Multi Part parameter PART MODE = DRUMS1...4.

*1 Refer to 1.2.4

*2 '-' indicates that the setting value is ignored.

*3 Adjusts the time after the note is played until vibrato begins to take effect. The effect will begin more quickly for lower values, and more slowly for higher values. No effect if Bank Select MSB=127 is selected.

*4 No effect if Multi Part parameter PART MODE = DRUM, DRUMS1...4.

1.2.22 RPN (Registered parameter number)

This message is used to specify part parameters such as Pitch Bend Sensitivity or Tuning etc. as an offset value. Use RPN MSB and RPN LSB to specify the parameter that you wish to modify, and then use Data Entry (see 1.2.4) to set the value of the specified parameter.

Control#	Parameter	Data Range
100	RPN LSB	0...127
101	RPN MSB	0...127

If the Multi Part parameter Rcv RPN = OFF, that part will not receive this message.

The following RPN messages can be received.

RPN MSB	RPN LSB	Data Entry*1		Parameter name and value range
		MSB	LSB	
00	00	mm	- *2	Pitch bend sensitivity mm: 00-24 (0...+24 semitones) Specify up to 2 octaves in semitone steps
00	01	mm	11	Fine tuning mm 11: 00 00 (= -100) cents : : mm 11: 64 00 (= 0) cents : : mm 11: 127 127 (= +100) cents [Note] mm 11: 00 127 (= -87.5) cents is followed by 01 00 (= -87.4) cents.
00	02	mm	-	Coarse tuning mm: 40 - 64 - 88 (-24...0...+24 semitones)
127	127	-	-	RPN Null This sets RPN and NRPN numbers to an unset state. Internal data is not affected.

*1 Refer to 1.2.4

*2 '-' indicates that the setting value is ignored.

1.2.23 Assignable controller

By assigning a control change number of 0...95 to a part, the specified effect can be controlled. This device allows two control change numbers (AC1 and AC2) to be specified for each part.

The following parameters specify the effect of AC1 and AC2.

- Multi Part Parameter
 - AC1, AC2 PITCH CONTROL
 - AC1, AC2 FILTER CONTROL
 - AC1, AC2 AMPLITUDE CONTROL
 - AC1, AC2 LFO PMOD DEPTH
 - AC1, AC2 LFO FMOD DEPTH
 - AC1, AC2 LFO AMOD DEPTH
- Effect1 Parameter
 - AC1, AC2 VARIATION CONTROL DEPTH
(Valid if Variation Effect is assigned to a part as Insertion)

The AC1 control change number is specified by the Multi Part or Audio Part parameter AC1 CONTROLLER NUMBER, and the AC2 control change number is specified by the Multi Part or Audio Part parameter AC2 CONTROLLER NUMBER.

1.3 Channel mode messages

These messages specify the basic operation of a part.

1.3.1 All Sound Off

This message silences all currently-sounding notes on the corresponding channel.

However, the state of channel messages such as Note-on and Hold-on will be maintained.

Control#	Parameter	Data Range
120	All Sound Off	0

1.3.2 Reset All Controllers

This message resets the following controllers to their default values.

Controller	Value
Pitch bend change	+/-0 (center)
Channel pressure	0 (off)
Polyphonic key pressure	0 (off)
Modulation	0 (off)
Expression	127 (maximum)
Hold	0 (off)
Portamento	0 (off)
Sostenuto	0 (off)
Soft pedal	0 (off)
Portamento control	Reset the portamento source note number that was received
RPN	Number unset, internal data is not affected.
NRPN	Number unset, internal data is not affected.

The following data is not changed

Parameter values specified by program change, bank select MSB/LSB, volume, pan, effect send levels 1, 3, 4, RPN and NRPN.

Control#	Parameter	Data Range
121	Reset All Controllers	0

1.3.3 All Note Off

This message turns off all notes which are currently on for the corresponding part.

However, if Hold 1 or Sostenuto are on, notes will continue to sound until these are turned off.

Control#	Parameter	Data Range
123	All Note Off	0

1.3.4 Omni Off

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

Control#	Parameter	Data Range
124	Omni Off	0

1.3.5 Omni On

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

Control#	Parameter	Data Range
125	Omni On	0

1.3.6 Mono

Perform the same processing as when All Sound Off is received, and if the value (mono number) is in the range of 0...16, set the corresponding channel to Mode4* (m = 1).

Control#	Parameter	Data Range
126	Mono	0...16

* Mode4 is a state in which only channel messages on the specified channel will be received, and notes will be sounded individually (monophonically).

1.3.7 Poly

Perform the same processing as when All Sound Off is received, and set the corresponding channel to Mode3*.

Control#	Parameter	Data Range
127	Poly	0

* Mode3 is when channel messages will be received only on the specified channel, and will be sounded polyphonically.

1.4 Program change

This message is used to select voices.

When this is transmitted in conjunction with Bank Select (see 1.2.1), voices can be selected not only from the basic voice bank but also from the extended voice bank.

If the Multi Part parameter Rcv PROGRAM CHANGE = OFF, that part will not receive program changes.

1.5 Pitch bend

This message conveys movements of the pitch bender.

This message is generally used to modify the pitch of a part, but the depth of the following seven effects can be controlled.

The effect of this message can be modified by the following parameters.

- Multi Part Parameter
 1. BEND PITCH CONTROL
 2. BEND FILTER CONTROL
 3. BEND AMPLITUDE CONTROL
 4. BEND LFO PMOD DEPTH
 5. BEND LFO FMOD DEPTH
 6. BEND LFO AMOD DEPTH
- Effect1 Parameter
 7. BEND VARIATION CONTROL DEPTH(Valid when Variation Effect is assigned to a part as Insertion)

By default, the Pitch Control effect is applied.

If the receive channel is a drum part, effects 5 and 6 will not apply.

If the Multi Part parameter Rcv PITCH BEND CHANGE = OFF, that part will not receive pitch bend messages.

1.6 Channel aftertouch

This message conveys the pressure which is applied to the keyboard after playing a note in order to create tonal changes (for an entire MIDI channel). The pressure can be controlled for each part. This message will affect the currently-sounding notes.

The effect of this message will be determined by the settings of the following parameters.

- Multi Part Parameter
 1. CAT PITCH CONTROL
 2. CAT FILTER CONTROL
 3. CAT AMPLITUDE CONTROL
 4. CAT LFO PMOD DEPTH
 5. CAT LFO FMOD DEPTH
 6. CAT LFO AMOD DEPTH
- Effect1 Parameter
 7. CAT VARIATION CONTROL DEPTH(Valid when the Variation Effect is assigned to a part as Insertion)

By default, there will be no effect.

If the receive channel is a drum part, effects 5 and 6 will not apply.

If the Multi Part parameter Rcv CHANNEL AFTER TOUCH = OFF, that part will not receive Channel Aftertouch.

1.7 Polyphonic aftertouch

This message conveys the pressure that is applied to the keyboard after playing a note (for individual note numbers).

The pressure can be controlled independently for each note. This message will affect currently-sounding notes.

The effect of this message is determined by the following Multi Part parameters.

1. PAT PITCH CONTROL
2. PAT FILTER CONTROL
3. PAT AMPLITUDE CONTROL
4. PAT LFO PMOD DEPTH
5. PAT LFO FMOD DEPTH
6. PAT LFO AMOD DEPTH

By default, there will be no effect.

The effect will apply to note numbers 36...97.

In the case of either of the following Multi Part parameter settings, that part will not receive Polyphonic Aftertouch.

Rcv CHANNEL AFTER TOUCH = OFF
PART MODE = DRUM, DRUMS1...4

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 System On

[XG PARAMETER CHANGE]
1) XG System on
2) XG System parameter change
3) Multi Effect1 parameter change
4) Multi EQ parameter change
5) Multi Effect2 parameter change
6) Multi Part parameter change
7) Audio Part parameter change
8) Audio Part Configuration parameter change
9) Drums Setup parameter change

[SW1000XG NATIVE PARAMETER CHANGE]
1) System parameter change

[Others]
1) Master tuning
2) TG300 System parameter change
3) TG300 Multi Effect parameter change
4) TG300 Multi Part parameter change
```

2.1.1 Universal realtime messages

2.1.1.1 Master Volume

```
11110000 F0H Exclusive status
01111111 7FH Universal Real Time
01111111 7FH ID of target device
00000100 04H Sub-ID #1 = Device Control Message
00000001 01H Sub-ID #2 = Master Volume
*0sssssss SSH Volume LSB
0ttttttt TTH Volume MSB
11110111 F7H End of Exclusive

or,
11110000 F0H Exclusive status
01111111 7FH Universal Real Time
0xxxxnnn XNH Device Number, xxx = don't care
00000100 04H Sub-ID #1 = Device Control Message
00000001 01H Sub-ID #2 = Master Volume
0sssssss SSH Volume LSB
0ttttttt TTH Volume MSB
11110111 F7H End of Exclusive
```

When this is received, the Volume MSB will be reflected by the System parameter MASTER VOLUME.

- * The binary expression 0sssssss is expressed in hexadecimal as SSH. The same applies elsewhere.

2.1.2 Universal non-realtime messages

2.1.2.1 General MIDI System On

```
11110000 F0H Exclusive status
01111110 7EH Universal Non-Real Time
01111111 7FH ID of target device
00001001 09H Sub-ID #1 = General MIDI Message
00000001 01H Sub-ID #2 = General MIDI On
11110111 F7H End of Exclusive

or,
11110000 F0H Exclusive status
01111110 7EH Universal Non-Real Time
0xxxxnnn XNH N:Device Number, X:don't care
00001001 09H Sub-ID #1 = General MIDI Message
00000001 01H Sub-ID #2 = General MIDI On
11110111 F7H End of Exclusive
```

When this message is received, the SOUND MODULE MODE is set to XG, and all MIDI messages defined by GM will be received.

All data except for MIDI Master Tuning will be restored to the default value. However this message will not be received in any of the following cases.

- XG Model System Parameter (see table 2-2) Rcv SYSTEM ON MESSAGE= OFF

Since approximately 50[ms] is required in order to process this message, be sure to allow an appropriate interval before sending the next message.

2.1.3 XG parameter change

This message sets XG-related parameters. Each message can set a single parameter.

The message format is as follows.

```
11110000    F0H    Exclusive status
01000011    43H    YAMAHA ID
0001nnnn    1NH    N:device Number
01001100    4CH    Model ID
0ggggggg    GGH    Address High
0mmmmmmmm    MMH    Address Mid
01111111    LLH    Address Low
0sssssss    SSH    Data
:           :
11110111    F7H    End of Exclusive
```

For parameters whose Data Size is 2 or 4, the appropriate amount of data will be transmitted as indicated by Size.

2.1.3.1 XG System On

This system exclusive message causes the SW1000XG to function as an "XG"-compatible tone generator.

```
11110000    F0H    Exclusive status
01000011    43H    YAMAHA ID
0001nnnn    1NH    N:device Number
01001100    4CH    Model ID
00000000    00H    Address High
00000000    00H    Address Mid
01111110    7EH    Address Low
00000000    00H    Data
11110111    F7H    End of Exclusive
```

When On is received, the SOUND MODULE MODE will be set to XG, and all MIDI messages defined by XG such as NRPN or bank select etc. can be received.

Since approximately 50[ms] are required in order to execute this message, please allow an appropriate interval before transmitting the next message.

2.1.3.2 XG System parameter change

This message sets the XG SYSTEM block (refer to tables <1 - 1>, <1 - 2>).

2.1.3.3 Multi Effect1 parameter change

This message sets the MULTI EFFECT1 block (refer to tables <1 - 1>, <1 - 3>).

2.1.3.4 Multi EQ parameter change

This message sets the MULTI EQ block (refer to tables <1 - 1>, <1 - 4>).

2.1.3.5 Multi Effect2 parameter change

This message sets the MULTI EFFECT2 block (refer to tables <1 - 1>, <1 - 5>).

2.1.3.6 Multi Part parameter change

This message sets the MULTI PART block (refer to tables <1 - 1>, <1 - 6>).

2.1.3.7 Audio Part parameter change

This message sets the AUDIO PART block (refer to tables <1 - 1>, <1 - 7>).

2.1.3.8 Audio Part Configuration parameter change

This message sets the AUDIO PART CONFIGURATION block (refer to tables <1 - 1>, <1 - 8>).

2.1.3.9 Drums Setup parameter change

This message sets the DRUMS SETUP block (refer to tables <1 - 1>, <1 - 9>).

2.1.4 SW1000XG native parameter change

This message sets parameters unique to the SW1000XG. Each message sets a single parameter.

As indicated below, the message format is in common with the MU50, MU80, and MU90.

```
11110000    F0H    Exclusive status
01000011    43H    YAMAHA ID
0001nnnn    1NH    N:Device Number
01001001    49H    Model ID
0ggggggg    GGH    Address High
0mmmmmmmm    MMH    Address Mid
01111111    LLH    Address Low
0vvvvvvv    VVH    Data
:           :
11110111    F7H    End of Exclusive
```

For parameters whose Data Size is 2 or 4, the number of data bytes indicated by Size are transmitted.

2.1.4.1 System parameter change

This message sets the SYSTEM block (refer to tables <2 - 1>, <2 - 2>).

2.1.5 Other parameter changes

2.1.5.1 Master tuning

This message simultaneously modifies the tuning of all channels.

```
11110000    F0H    Exclusive status
01000011    43H    YAMAHA ID
0001nnnn    1NH    N:device Number
00100111    27H    Model ID
00110000    30H    Address High
00000000    00H    Address Mid
00000000    00H    Address Low
0000mmmm    0MH    Master Tune MSB
00001111    0LH    Master Tune LSB
0xxxxxxx    XXH    don't care
11110111    F7H    End of Exclusive
```

Normally, the XG SYSTEM message MASTER TUNE should be used (refer to table <1-2>).

2.2 Bulk dump

This device uses the following bulk dump messages.

```
[XG BULK DUMP]
1) XG System bulk dump
2) Multi Effect1 bulk dump
3) Multi EQ bulk dump
4) Multi Effect2 bulk dump
5) Multi Part bulk dump
6) Audio Part bulk dump
7) Drums Setup bulk dump
```

```
[SW1000XG NATIVE BULK DUMP]
1) System bulk dump
```

2.2.1 XG bulk dump

This message sets XG-related parameters. Unlike parameter change messages, a single message can modify multiple parameters. The message format is as follows.

```
11110000    F0H    Exclusive status
01000011    43H    YAMAHA ID
0000nnnn    0NH    N:Device Number
01001100    4CH    Model ID
0sssssss    SSH    ByteCountMSB
0ttttttt    TTH    ByteCountLSB
0ggggggg    GGH    Address High
0mmmmmmmm    MMH    Address Mid
01111111    LLH    Address Low
0vvvvvvv    VVH    Data
:           :
0kkkkkkkk    KKH    Check-sum
11110111    F7H    End of Exclusive
```

Address and Byte Count are given in tables 1-n. Byte Count is indicated by the total size of the Data in tables 1-n.

Bulk dump and dump request messages are received when the beginning of the block is specified as the 'Address'.

'Block' indicates the unit of the data string that is indicated in tables 1-n as 'Total size'.

Check sum is the value that produces a lower 7 bits of 0 when the Start Address, Byte Count, Data, and the Check-sum itself are added.

2.2.1.1 XG System bulk dump

This message sets the XG SYSTEM block (refer to tables <1 - 1>, <1 - 2>).

2.2.1.2 Multi Effect1 bulk dump

This message sets the MULTI EFFECT1 block (refer to tables <1 - 1>, <1 - 3>).

2.2.1.3 Multi EQ bulk dump

This message sets the MULTI EQ block (refer to tables <1 - 1>, <1 - 4>).

2.2.1.4 Multi Effect2 bulk dump

This message sets the MULTI EFFECT2 block (refer to tables <1 - 1>, <1 - 5>).

2.2.1.5 Multi Part bulk dump

This message sets the MULTI PART block (refer to tables <1 - 1>, <1 - 6>).

2.2.1.6 Audio Part bulk dump

This message sets the Audio PART block (refer to tables <1 - 1>, <1 - 7>).

2.2.1.7 Drums Setup bulk dump

This message sets the DRUMS SETUP block (refer to tables <1 - 1>, <1 - 9>).

2.2.2 SW1000XG native bulk dump

This message modifies parameters unique to the SW1000XG. Unlike parameter change messages, a single message will modify multiple parameters.

11110000	F0H	Exclusive status
01000011	43H	YAMAHA ID
0000nnnn	0NH	N:Device Number
01001001	49H	Model ID
0sssssss	SSH	ByteCountMSB
0ttttttt	TTH	ByteCountLSB
0ggggggg	GGH	Address High
0mmmmmmm	MMH	Address Mid
01111111	LLH	Address Low
0vvvvvvv	VVH	Data
:	:	
0kkkkkkk	KKH	Check-sum
11110111	F7H	End of Exclusive

Details are the same as for 2.2.1 XG Bulk Dump. However, refer to table 2-n for the address, byte count, and block.

2.2.2.1 System bulk dump

This message sets the SYSTEM block (refer to tables <2 - 1>, <2 - 2>).

3. Realtime messages

3.1 Active sensing

- Transmission
not transmitted.
- Reception
Once FE has been received, failure to receive any MIDI message for an interval longer than approximately 300 msec will cause processing to be performed as if ALL SOUND OFF, ALL NOTE OFF, and RESET ALL CONTROLLERS messages were received, and the unit will reset to a condition in which FE was never received.

< Table 1 - 1 >

Parameter Bass Address
Model ID = 4C

Parameter	Address			Description
	(H)	(M)	(L)	
XG SYSTEM	00	00	00	System
	00	00	7D	Drum setup Reset
	00	00	7E	XG System On
	00	00	7F	All Parameter Reset
EFFECT 1	02	01	00	Effect1(Reverb,Chorus,Variation)
	02	40	00	Multi EQ
EFFECT 2	03	00	00	Insertion Effect 1
	03	01	00	Insertion Effect 2
MULTI PART	08	00	00	Multi Part 1 :
	08	0F	00	Multi Part 16
	08	10	00	Multi Part 17 :
	08	1F	00	Multi Part 32
MULTI PART (additional)	0A	00	00	Multi Part 1 :
	0A	0F	00	Multi Part 16
	0A	10	00	Multi Part 17 :
Audio PART	10	00	00	Audio Part 1 :
	10	0D	00	Audio Part 14
Audio Config	11	00	00	Audio Config 1 :
	11	0D	00	Audio Config 14
DRUM	30	0D	00	Drum Setup 1
	31	0D	00	Drum Setup 2
	32	0D	00	Drum Setup 3
	33	0D	00	Drum Setup 4

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

< Table 1 - 2 >

MIDI Parameter Change table (XG SYSTEM)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
00 00 00	40	00 - 0F	MASTER TUNE	-102.4...0...+102.3[cent]	00 04 00 00
01	1	00 - 0F		1st bit3-0→bit15-12	
02	1	00 - 0F		2nd bit3-0→bit11-8	
03	1	00 - 0F		3rd bit3-0→bit7-4	
04	1	00 - 7F	MASTER VOLUME	4th bit3-0→bit3-0	7F
05	1	00 - 7F	MASTER ATTENUATOR	0...127	00
06	1	28 - 58	TRANSPOSE	0...127	40
7D	1	N	DRUM SETUP RESET	-24...0...+24[semitones]	-
7E	1	00	XG SYSTEM ON	N:Drum setup number(receive only)	00-XG system ON (receive only)
7F	1	00	ALL PARAMETER RESET	00=ON (receive only)	-
TOTAL	SIZE	07			

< Table 1 - 3 >

MIDI Parameter Change table (EFFECT 1)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
02 01 00	2	00 - 7F	REVERB TYPE MSB	refer to Effect Program List	01(=HALL1)
		00 - 7F	REVERB TYPE LSB	"	00
02	1	00 - 7F	REVERB PARAMETER 1	"	12(depends on reverb type)
03	1	00 - 7F	REVERB PARAMETER 2	"	0A(")
04	1	00 - 7F	REVERB PARAMETER 3	"	08(")
05	1	00 - 7F	REVERB PARAMETER 4	"	0D(")
06	1	00 - 7F	REVERB PARAMETER 5	"	31(")
07	1	00 - 7F	REVERB PARAMETER 6	"	00(")
08	1	00 - 7F	REVERB PARAMETER 7	"	00(")
09	1	00 - 7F	REVERB PARAMETER 8	"	00(")
0A	1	00 - 7F	REVERB PARAMETER 9	"	00(")
0B	1	00 - 7F	REVERB PARAMETER 10	"	00(")
0C	1	00 - 7F	REVERB RETURN	-∞dB...0dB...+6dB(0...127)	40
0D	1	01 - 7F	REVERB PAN	L63...C...R63	40
TOTAL	SIZE	0E			
02 01 10	1	00 - 7F	REVERB PARAMETER 11	refer to Effect Parameter List	00(depends on reverb type)
11	1	00 - 7F	REVERB PARAMETER 12	"	04(")
12	1	00 - 7F	REVERB PARAMETER 13	"	32(")
13	1	00 - 7F	REVERB PARAMETER 14	"	08(")
14	1	00 - 7F	REVERB PARAMETER 15	"	40(")
15	1	00 - 7F	REVERB PARAMETER 16	"	00(")
TOTAL	SIZE	06			

02 01 20 2	00 - 7F	CHORUS TYPE MSB	refer to Effect Program List	41(=CHORUS1)
	00 - 7F	CHORUS TYPE LSB	"	00
22 1	00 - 7F	CHORUS PARAMETER 1	"	06(depends on chorus type)
23 1	00 - 7F	CHORUS PARAMETER 2	"	36(")
24 1	00 - 7F	CHORUS PARAMETER 3	"	4D(")
25 1	00 - 7F	CHORUS PARAMETER 4	"	6A(")
26 1	00 - 7F	CHORUS PARAMETER 5	"	00(")
27 1	00 - 7F	CHORUS PARAMETER 6	"	1C(")
28 1	00 - 7F	CHORUS PARAMETER 7	"	40(")
29 1	00 - 7F	CHORUS PARAMETER 8	"	2E(")
2A 1	00 - 7F	CHORUS PARAMETER 9	"	40(")
2B 1	00 - 7F	CHORUS PARAMETER 10	"	40(")
2C 1	00 - 7F	CHORUS RETURN	-∞dB...0dB...+6dB(0...96...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...96...127)	00
TOTAL	SIZE 0F			
02 01 30 1	00 - 7F	CHORUS PARAMETER 11	refer to Effect Parameter List	2E(depends on chorus type)
31 1	00 - 7F	CHORUS PARAMETER 12	"	40(")
32 1	00 - 7F	CHORUS PARAMETER 13	"	0A(")
33 1	00 - 7F	CHORUS PARAMETER 14	"	00(")
34 1	00 - 7F	CHORUS PARAMETER 15	"	00(")
35 1	00 - 7F	CHORUS PARAMETER 16	"	00(")
TOTAL	SIZE 06			
02 01 40 2	00 - 7F	VARIATION TYPE MSB	refer to Effect Program List	05(=DELAY L,C,R)
	00 - 7F	VARIATION TYPE LSB	"	00
42 2	00 - 7F	VARIATION PARAMETER 1 MSB	"	1A(depends on variation type)
	00 - 7F	VARIATION PARAMETER 1 LSB	"	05(")
44 2	00 - 7F	VARIATION PARAMETER 2 MSB	"	0D(")
	00 - 7F	VARIATION PARAMETER 2 LSB	"	03(")
46 2	00 - 7F	VARIATION PARAMETER 3 MSB	"	27(")
	00 - 7F	VARIATION PARAMETER 3 LSB	"	08(")
48 2	00 - 7F	VARIATION PARAMETER 4 MSB	"	27(")
	00 - 7F	VARIATION PARAMETER 4 LSB	"	08(")
4A 2	00 - 7F	VARIATION PARAMETER 5 MSB	"	00(")
	00 - 7F	VARIATION PARAMETER 5 LSB	"	4A(")
4C 2	00 - 7F	VARIATION PARAMETER 6 MSB	"	00(")
	00 - 7F	VARIATION PARAMETER 6 LSB	"	64(")
4E 2	00 - 7F	VARIATION PARAMETER 7 MSB	"	00(")
	00 - 7F	VARIATION PARAMETER 7 LSB	"	0A(")
50 2	00 - 7F	VARIATION PARAMETER 8 MSB	"	00(")
	00 - 7F	VARIATION PARAMETER 8 LSB	"	00(")
52 2	00 - 7F	VARIATION PARAMETER 9 MSB	"	00(")
	00 - 7F	VARIATION PARAMETER 9 LSB	"	00(")
54 2	00 - 7F	VARIATION PARAMETER 10 MSB	"	00(")
	00 - 7F	VARIATION PARAMETER 10 LSB	"	20(")
56 1	00 - 7F	VARIATION RETURN	-∞dB...0dB...+6dB(0...96...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...96...127)	00
59 1	00 - 7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB(0...96...127)	00
5A 1	00 - 01	VARIATION CONNECTION	INSERTION , SYSTEM	00
5B 1	00 - 7F	VARIATION PART NUMBER	Part1...32(0...31) Audio1-14(64-67) OFF(127)	7F
5C 1	00 - 7F	MW VARIATION CONTROL DEPTH	-64...0...+63	40
5D 1	00 - 7F	BEND VARIATION CONTROL DEPTH	-64...0...+63	40
5E 1	00 - 7F	CAT VARIATION CONTROL DEPTH	-64...0...+63	40
5F 1	00 - 7F	AC1 VARIATION CONTROL DEPTH	-64...0...+63	40
60 1	00 - 7F	AC2 VARIATION CONTROL DEPTH	-64...0...+63	40
TOTAL	SIZE 21			
02 01 70 1	00 - 7F	VARIATION PARAMETER 11	refer to Effect Parameter List	00(depends on variation type)
71 1	00 - 7F	VARIATION PARAMETER 12	"	3C(")
72 1	00 - 7F	VARIATION PARAMETER 13	"	1C(")
73 1	00 - 7F	VARIATION PARAMETER 14	"	40(")
74 1	00 - 7F	VARIATION PARAMETER 15	"	2E(")
75 1	00 - 7F	VARIATION PARAMETER 16	"	40(")
TOTAL	SIZE 06			

< Table 1 - 4 >

MIDI Parameter Change table (MULTI EQ)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
02 40 00	1	00 - 04	EQ TYPE	flat, jazz, pops, rock, classic	00
01 1	1	34 - 4C	EQ GAIN1	-12...0...+12[dB]	40(depends on EQ type)
02 1	1	04 - 28	EQ FREQUENCY1	32...2.0k[Hz]	0C(“)
03 1	1	01 - 78	EQ Q1	0.1...12.0	07(“)
04 1	1	00 - 01	EQ SHAPE1	shelving , peaking	00(“)
05 1	1	34 - 4C	EQ GAIN2	-12...0...+12[dB]	40(“)
06 1	1	0E - 36	EQ FREQUENCY2	100...10.0k[Hz]	1C(“)
07 1	1	01 - 78	EQ Q2	0.1...12.0	07(“)
08 1			NOT USED		-
09 1	1	34 - 4C	EQ GAIN3	-12...0...+12[dB]	40(“)
0A 1	1	0E - 36	EQ FREQUENCY3	100...10.0k[Hz]	22(“)
0B 1	1	01 - 78	EQ Q3	0.1...12.0	07(“)
0C 1			NOT USED		-
0D 1	1	34 - 4C	EQ GAIN4	-12...0...+12[dB]	40(“)
0E 1	1	0E - 36	EQ FREQUENCY4	100...10.0k[Hz]	2E(“)
0F 1	1	01 - 78	EQ Q4	0.1...12.0	07(“)
10 1			NOT USED		-
11 1	1	34 - 4C	EQ GAIN5	-12...0...+12[dB]	40(“)
12 1	1	1C - 3A	EQ FREQUENCY5	0.5k...16.0k[Hz]	34(“)
13 1	1	01 - 78	EQ Q5	0.1...12.0	07(“)
14 1	1	00 - 01	EQ SHAPE5	shelving , peaking	00(“)
TOTAL	SIZE	15			

< Table 1 - 5 >

MIDI Parameter Change table (EFFECT 2)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
03 00 00	2	00 - 7F	INSERTION EFFECT1 TYPE MSB	refer to Effect Program List	49(=DISTORTION)
		00 - 7F	INSERTION EFFECT1 TYPE LSB	“	00
02 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER1	“	28(depends on insertion effect1 type)
03 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER2	“	14(“)
04 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER3	“	48(“)
05 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER4	“	35(“)
06 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER5	“	40(“)
07 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER6	“	00(“)
08 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER7	“	2B(“)
09 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER8	“	4A(“)
0A 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER9	“	0A(“)
0B 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER10	“	7F(“)
0C 1	1	00 - 7F	INSERTION EFFECT1 PART NUMBER	Part1...32(0...31) Audiol-14(64-67) OFF(127)	7F
0D 1	1	00 - 7F	MW INSERTION CONTROL DEPTH	-64...0...+63	40
0E 1	1	00 - 7F	BEND INSERTION CONTROL DEPTH	-64...0...+63	40
0F 1	1	00 - 7F	CAT INSERTION CONTROL DEPTH	-64...0...+63	40
10 1	1	00 - 7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63	40
11 1	1	00 - 7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63	40
TOTAL	SIZE	12			
20 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER11	refer to Effect Parameter List	78(depends on insertion effect1 type)
21 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER12	“	00(“)
22 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER13	“	00(“)
23 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER14	“	00(“)
24 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER15	“	00(“)
25 1	1	00 - 7F	INSERTION EFFECT1 PARAMETER16	“	00(“)
TOTAL	SIZE	06			
30 2	2	00 - 7F	INSERTION EFFECT1 PARAMETER1 MSB	refer to Effect Parameter List	00(depends on insertion effect1 type)
		00 - 7F	INSERTION EFFECT1 PARAMETER1 LSB	“	28(“)
32 2	2	00 - 7F	INSERTION EFFECT1 PARAMETER2 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETER2 LSB	“	14(“)
34 2	2	00 - 7F	INSERTION EFFECT1 PARAMETER3 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETER3 LSB	“	48(“)
36 2	2	00 - 7F	INSERTION EFFECT1 PARAMETER4 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETER4 LSB	“	35(“)
38 2	2	00 - 7F	INSERTION EFFECT1 PARAMETERS5 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETERS5 LSB	“	40(“)
3A 2	2	00 - 7F	INSERTION EFFECT1 PARAMETER6 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETER6 LSB	“	00(“)
3C 2	2	00 - 7F	INSERTION EFFECT1 PARAMETER7 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETER7 LSB	“	2B(“)
3E 2	2	00 - 7F	INSERTION EFFECT1 PARAMETERS8 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETERS8 LSB	“	4A(“)
40 2	2	00 - 7F	INSERTION EFFECT1 PARAMETERS9 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETERS9 LSB	“	0A(“)
42 2	2	00 - 7F	INSERTION EFFECT1 PARAMETER10 MSB	“	00(“)
		00 - 7F	INSERTION EFFECT1 PARAMETER10 LSB	“	7F(“)
TOTAL	SIZE	14			

When using an EFFECT TYPE which does not require the MSB, parameters of addresses 02...0B are received, and parameters of addresses 30...42 are not received.

When using an EFFECT TYPE which requires the MSB, parameters of addresses 30...42 are received, and parameters of addresses 02...0B are not received. Bulk data which includes the EFFECT TYPE is always transmitted with the parameters of addresses 02...0B, but in the case of an EFFECT TYPE which requires the MSB, parameters of addresses 02...0B are not received even for bulk reception.

03	01	00	2	00 - 7F	INSERTION EFFECT2 TYPE MSB	refer to Effect Program List	49(=DISTORTION)
				00 - 7F	INSERTION EFFECT2 TYPE LSB	"	00
	02	1	00 - 7F	INSERTION EFFECT2 PARAMETER1	"	28(depends on insertion effect2 type)	
	03	1	00 - 7F	INSERTION EFFECT2 PARAMETER2	"	14(")	
	04	1	00 - 7F	INSERTION EFFECT2 PARAMETER3	"	48(")	
	05	1	00 - 7F	INSERTION EFFECT2 PARAMETER4	"	35(")	
	06	1	00 - 7F	INSERTION EFFECT2 PARAMETER5	"	40(")	
	07	1	00 - 7F	INSERTION EFFECT2 PARAMETER6	"	00(")	
	08	1	00 - 7F	INSERTION EFFECT2 PARAMETER7	"	2B(")	
	09	1	00 - 7F	INSERTION EFFECT2 PARAMETER8	"	4A(")	
	0A	1	00 - 7F	INSERTION EFFECT2 PARAMETER9	"	0A(")	
	0B	1	00 - 7F	INSERTION EFFECT2 PARAMETER10	"	7F(")	
	0C	1	00 - 7F	INSERTION EFFECT2 PART NUMBER	Part1...32(0...31)	7F	
					Audiol-14(64-67)		
					OFF(127)		
	0D	1	00 - 7F	MW INSERTION CONTROL DEPTH	-64...0...+63	40	
	0E	1	00 - 7F	BEND INSERTION CONTROL DEPTH	-64...0...+63	40	
	0F	1	00 - 7F	CAT INSERTION CONTROL DEPTH	-64...0...+63	40	
	10	1	00 - 7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63	40	
	11	1	00 - 7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63	40	
TOTAL	SIZE	12					
	20	1	00 - 7F	INSERTION EFFECT2 PARAMETER11	refer to Effect Parameter List	78(depends on insertion effect2 type)	
	21	1	00 - 7F	INSERTION EFFECT2 PARAMETER12	"	00(")	
	22	1	00 - 7F	INSERTION EFFECT2 PARAMETER13	"	00(")	
	23	1	00 - 7F	INSERTION EFFECT2 PARAMETER14	"	00(")	
	24	1	00 - 7F	INSERTION EFFECT2 PARAMETER15	"	00(")	
	25	1	00 - 7F	INSERTION EFFECT2 PARAMETER16	"	00(")	
TOTAL	SIZE	06					
	30	2	00 - 7F	INSERTION EFFECT2 PARAMETER1 MSB	refer to Effect Parameter List	00(depends on insertion effect2 type)	
				00 - 7F	INSERTION EFFECT2 PARAMETER1 LSB	28(")	
	32	2	00 - 7F	INSERTION EFFECT2 PARAMETER2 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER2 LSB	14(")	
	34	2	00 - 7F	INSERTION EFFECT2 PARAMETER3 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER3 LSB	48(")	
	36	2	00 - 7F	INSERTION EFFECT2 PARAMETER4 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER4 LSB	35(")	
	38	2	00 - 7F	INSERTION EFFECT2 PARAMETER5 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER5 LSB	40(")	
	3A	2	00 - 7F	INSERTION EFFECT2 PARAMETER6 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER6 LSB	00(")	
	3C	2	00 - 7F	INSERTION EFFECT2 PARAMETER7 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER7 LSB	2B(")	
	3E	2	00 - 7F	INSERTION EFFECT2 PARAMETER8 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER8 LSB	4A(")	
	40	2	00 - 7F	INSERTION EFFECT2 PARAMETER9 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER9 LSB	0A(")	
	42	1	00 - 7F	INSERTION EFFECT2 PARAMETER10 MSB	"	00(")	
				00 - 7F	INSERTION EFFECT2 PARAMETER10 LSB	7F(")	
TOTAL	SIZE	14					

When using an EFFECT TYPE which does not require the MSB, parameters of addresses 02...0B are received, and parameters of addresses 30...42 are not received.

When using an EFFECT TYPE which requires the MSB, parameters of addresses 30...42 are received, and parameters of addresses 02...0B are not received. Bulk data which includes the EFFECT TYPE is always transmitted with the parameters of addresses 02...0B, but in the case of an EFFECT TYPE which requires the MSB, parameters of addresses 02...0B are not received even for bulk reception.

< Table 1 - 6 >

MIDI Parameter Change table (MULTI PART)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)	
08 nm	00	1	00 - 40	ELEMENT RESERVE	0...64	
	nm	01	1	00 - 7F	BANK SELECT MSB	0...127
					part10, 26=0 other parts =2 part10,26=7F other parts=0	
	nm	02	1	00 - 7F	BANK SELECT LSB	0...127
	nm	03	1	00 - 7F	PROGRAM NUMBER	1...128
	nm	04	1	00-1F,7F	Rcv CHANNEL	A1...A16, B1...B16, OFF
					Part No.	
	nm	05	1	00 - 01	MONO/POLY MODE	MONO , POLY
	nm	06	1	00 - 02	SAME NOTE NUMBER KEY ON ASSIGN	01 01
	nm	07	1	00 - 05	PART MODE	NORMAL, DRUM, DRUMS1...4
					Part10=2, Part26=4 other parts=0	
	nm	08	1	28 - 58	NOTE SHIFT	-24...0...+24[semitones]
	nm	09	2	00 - 0F	DETUNE	-12.8...0...+12.7[Hz]
	nm	0A	00 - 0F		1st bit3-0→bit7-4 2nd bit3-0→bit3-0	
	nm	0B	1	00 - 7F	VOLUME	0...127
	nm	0C	1	00 - 7F	VELOCITY SENSE DEPTH	0...127
	nm	0D	1	00 - 7F	VELOCITY SENSE OFFSET	0...127
	nm	0E	1	00 - 7F	PAN	RND, L63...C...R63
	nm	0F	1	00 - 7F	NOTE LIMIT LOW	C-2...G8
	nm	10	1	00 - 7F	NOTE LIMIT HIGH	C-2...G8
	nm	11	1	00 - 7F	DRY LEVEL	0...127
	nm	12	1	00 - 7F	CHORUS SEND	0...127
	nm	13	1	00 - 7F	REVERB SEND	0...127
	nm	14	1	00 - 7F	VARIATION SEND	0...127
	nm	15	1	00 - 7F	VIBRATO RATE	-64...0...+63
	nm	16	1	00 - 7F	VIBRATO DEPTH	-64...0...+63
	nm	17	1	00 - 7F	VIBRATO DELAY	-64...0...+63
	nm	18	1	00 - 7F	LOW PASS FILTER CUTOFF FREQUENCY	-64...0...+63
	nm	19	1	00 - 7F	LOW PASS FILTER RESONANCE	-64...0...+63
	nm	1A	1	00 - 7F	EG ATTACK TIME	-64...0...+63
	nm	1B	1	00 - 7F	EG DECAY TIME	-64...0...+63
	nm	1C	1	00 - 7F	EG RELEASE TIME	-64...0...+63
	nm	1D	1	28 - 58	MW PITCH CONTROL	-24...0...+24[semitones]
	nm	1E	1	00 - 7F	MW LOW PASS FILTER CONTROL	-9600...0...+9450[cent]
	nm	1F	1	00 - 7F	MW AMPLITUDE CONTROL	-100...0...+100[%]
	nm	20	1	00 - 7F	MW LFO PMOD DEPTH	0...127
	nm	21	1	00 - 7F	MW LFO FMOD DEPTH	0...127
	nm	22	1	00 - 7F	MW LFO AMOD DEPTH	0...127

nn 23	1	28 - 58	BEND PITCH CONTROL	-24...0...+24[semitones]	42
nn 24	1	00 - 7F	BEND LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 25	1	00 - 7F	BEND AMPLITUDE CONTROL	-100...0...+100[%]	40
nn 26	1	00 - 7F	BEND LFO FMOD DEPTH	0...127	00
nn 27	1	00 - 7F	BEND LFO FMOD DEPTH	0...127	00
nn 28	1	00 - 7F	BEND LFO AMOD DEPTH	0...127	00
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	XGmode=01, GMmode=00
nn 38	1	00 - 01	Rcv MODULATION	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	XGmode=01, GMmode=00
nn 41	1	00 - 7F	SCALE TUNING C	-64...0...+63[cent]	40
nn 42	1	00 - 7F	SCALE TUNING C#	-64...0...+63[cent]	40
nn 43	1	00 - 7F	SCALE TUNING D	-64...0...+63[cent]	40
nn 44	1	00 - 7F	SCALE TUNING D#	-64...0...+63[cent]	40
nn 45	1	00 - 7F	SCALE TUNING E	-64...0...+63[cent]	40
nn 46	1	00 - 7F	SCALE TUNING F	-64...0...+63[cent]	40
nn 47	1	00 - 7F	SCALE TUNING F#	-64...0...+63[cent]	40
nn 48	1	00 - 7F	SCALE TUNING G	-64...0...+63[cent]	40
nn 49	1	00 - 7F	SCALE TUNING G#	-64...0...+63[cent]	40
nn 4A	1	00 - 7F	SCALE TUNING A	-64...0...+63[cent]	40
nn 4B	1	00 - 7F	SCALE TUNING A#	-64...0...+63[cent]	40
nn 4C	1	00 - 7F	SCALE TUNING B	-64...0...+63[cent]	40
nn 4D	1	28 - 58	CAT PITCH CONTROL	-24...0...+24[semitones]	40
nn 4E	1	00 - 7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 4F	1	00 - 7F	CAT AMPLITUDE CONTROL	-100...0...+100[%]	40
nn 50	1	00 - 7F	CAT LFO FMOD 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...0...+24[semitones]	40
nn 54	1	00 - 7F	PAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 55	1	00 - 7F	PAT AMPLITUDE CONTROL	-100...0...+100[%]	40
nn 56	1	00 - 7F	PAT LFO FMOD 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...0...+24[semitones]	40
nn 5B	1	00 - 7F	AC1 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 5C	1	00 - 7F	AC1 AMPLITUDE CONTROL	-100...0...+100[%]	40
nn 5D	1	00 - 7F	AC1 LFO FMOD 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...0...+24[semitones]	40
nn 62	1	00 - 7F	AC2 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 63	1	00 - 7F	AC2 AMPLITUDE CONTROL	-100...0...+100[%]	40
nn 64	1	00 - 7F	AC2 LFO FMOD 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	OFF, ON	00
nn 68	1	00 - 7F	PORTAMENTO TIME	0...127	00
nn 69	1	00 - 7F	PITCH EG INITIAL LEVEL	-64...0...+63	40
nn 6A	1	00 - 7F	PITCH EG ATTACK TIME	-64...0...+63	40
nn 6B	1	00 - 7F	PITCH EG RELEASE LEVEL	-64...0...+63	40
nn 6C	1	00 - 7F	PITCH EG RELEASE TIME	-64...0...+63	40
nn 6D	1	01 - 7F	VELOCITY LIMIT LOW	1...127	01
nn 6E	1	01 - 7F	VELOCITY LIMIT HIGH	1...127	7F
TOTAL SIZE	3F				
nn 70	1		NOT USED		-
nn 71	1		NOT USED		-
nn 72	1	00 - 7F	EQ BASS GAIN	-12 - +12[db]	40
nn 73	1	00 - 7F	EQ TREBLE GAIN	-12 - +12[db]	40
TOTAL SIZE	04				
nn 74	1		NOT USED		-
nn 75	1		NOT USED		-
nn 76	1	04 - 28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C
nn 77	1	1C - 3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36
nn 78	1		NOT USED		-
nn 79	1		NOT USED		-
nn 7A	1		NOT USED		-
nn 7B	1		NOT USED		-
nn 7C	1		NOT USED		-
nn 7D	1		NOT USED		-
nn 7E	1		NOT USED		-
nn 7F	1		NOT USED		-
TOTAL SIZE	0C				
0A nn 10	1	00,08,09,0A,28,29,2A,2B,2C,2D	OUTPUT SELECT	0:stereo out, 8:indiv1+2, 9:indiv3+4, 10:indiv5+6,40:indiv1,41:indiv2,42:indiv3, 43:indiv4, 44:indiv5,45:indiv6	00
TOTAL SIZE	01				

If data other than the above is received, 0:stereo out will be selected.

Note: In the case of OUTPUT SELECT, if the received value exceeds the number that can be supported, the parameter value will be 0.

```

0A nn 20 1 00 - 7F HIGH PASS FILTER CUTOFF FREQUENCY -64...0...+63 40
nn 21 1 NOT USED -
TOTAL SIZE 02

```

nn = PART NUMBER

In the case of a DRUM PART, the following parameters will have no effect.

- BANK SELECT LSB
- MONO/POLY MODE
- SCALE TUNING
- PORTAMENTO
- PITCH EG
- FILTER MODULATION DEPTH (FMOD DEPTH)
- AMPLITUDE MODULATION DEPTH (AMOD DEPTH)
- OUTPUT SELECT

< Table 1 - 7 >

MIDI Parameter Change table (Audio PART)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
10 0n 00	1	00 - 01	INPUT GAIN	MIC , LINE (Effective only for Analog Device)	00
01	1	00 - 7F	BANK SELECT MSB	0...127	00
02	1	00 - 7F	BANK SELECT LSB	0...127	00
03	1	00 - 7F	PROGRAM NUMBER	1...128	00
04	1	00-1F, 7F	Rcv CHANNEL	A1...A16,B1...B16, OFF	7F
05	1		NOT USED		-
06	1		NOT USED		-
07	1		NOT USED		-
08	1		NOT USED		-
09	1		NOT USED		-
0A	1		NOT USED		-
0B	1	00 - 7F	VOLUME	0...127 (Default value for Analog Device is 0)	64
0C	1		NOT USED		-
0D	1		NOT USED		-
0E	1	01 - 7F	PAN	L63...C...R63	40
0F	1		NOT USED		-
10	1		NOT USED		-
11	1	00 - 7F	DRY LEVEL	0...127	7F
12	1	00 - 7F	CHORUS SEND	0...127	00
13	1	00 - 7F	REVERB SEND	0...127	00
14	1	00 - 7F	VARIATION SEND	0...127	00
TOTAL	SIZE	15			
10 0n 30	1		NOT USED		-
31	1		NOT USED		-
32	1	00 - 01	Rcv PROGRAM CHANGE	OFF , ON	00
33	1	00 - 01	Rcv CONTROL CHANGE	OFF , ON	01
34	1		NOT USED		-
35	1	00 - 01	MUTE	ON, OFF	01
36	1		NOT USED		-
37	1		NOT USED		-
38	1		NOT USED		-
39	1	00 - 01	Rcv VOLUME	OFF , ON	01
3A	1	00 - 01	Rcv PAN	OFF , ON	01
3B	1	00 - 01	Rcv EXPRESSION	OFF , ON	01
3C	1		NOT USED		-
3D	1		NOT USED		-
3E	1		NOT USED		-
3F	1		NOT USED		-
40	1	00 - 01	Rcv BANK SELECT	OFF , ON	00
41	1		NOT USED		-
42	1		NOT USED		-
43	1		NOT USED		-
44	1		NOT USED		-
45	1		NOT USED		-
46	1		NOT USED		-
47	1		NOT USED		-
48	1		NOT USED		-
49	1		NOT USED		-
4A	1		NOT USED		-
4B	1		NOT USED		-
4C	1		NOT USED		-
4D	1		NOT USED		-
4E	1		NOT USED		-
4F	1		NOT USED		-
50	1		NOT USED		-
51	1		NOT USED		-
52	1		NOT USED		-
53	1		NOT USED		-
54	1		NOT USED		-
55	1		NOT USED		-
56	1		NOT USED		-
57	1		NOT USED		-
58	1		NOT USED		-
59	1	00 - 5F	AC1 CONTROLLER NUMBER	0...95	10
5A	1		NOT USED		-
5B	1		NOT USED		-
5C	1		NOT USED		-
5D	1		NOT USED		-
5E	1		NOT USED		-
5F	1		NOT USED		-
60	1	00 - 5F	AC2 CONTROLLER NUMBER	0...95	11
TOTAL	SIZE	31			


```

12 nn 10 1 00,08,09,0A OUTPUT SELECT 0:stereo out, 8:indiv1+2, 9:indiv3+4,
28,29,2A,2B, 10:indiv5+6,40:indiv1,41:indiv2,42:indiv3,
2C,2D 43:indiv4, 44:indiv5,45:indiv6
TOTAL SIZE 01

```

If data other than the above is received, 0:stereo out will be selected.

Note: In the case of OUTPUT SELECT, if the received value exceeds the number that can be supported, the parameter value will be 0.

n:Audio Part number(0 - D)

< Table 1 - 8 >

MIDI Parameter Change table (Audio Part Configuration)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
11 0n 00	1	00 - 01	Stereo/Monaural	Switch between Stereo and Monaural (Effective only for even numbered parts)	00

TOTAL SIZE 01

11 0n 01	3	00 -	Input Category	Indicate input type, depending on the shape of the connector. 0:No Connection 1-63:Connection to external device 1:Analog,others: Reserve 64-126:Connection to internal Bus 64:PCI,others: Reserve 127:Reserve	00
		00 -	Input Sub Category	Indicate input sub-type. Not used at present. Set to 0.	00
		00 -	Input Serial Number	Serial number in the same input category.	00

TOTAL SIZE 03

n:Audio Part number(0 - D)

< Table 1 - 9 >

MIDI Parameter Change table (DRUM SETUP)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
3n rr 00	1	00 - 7F	PITCH COARSE	-64...0...+63	40
01	1	00 - 7F	PITCH FINE	-64...0...+63[cent]	40
02	1	00 - 7F	LEVEL	0...127	depend on the note
03	1	00 - 7F	ALTERNATE GROUP	OFF,1...127	"
04	1	00 - 7F	PAN	RND,L63...C...R63	"
05	1	00 - 7F	REVERB SEND	0...127	"
06	1	00 - 7F	CHORUS SEND	0...127	"
07	1	00 - 7F	VARIATION SEND	0...127	7F
08	1	00 - 01	KEY ASSIGN	SINGLE , MULTI	00
09	1	00 - 01	Rcv NOTE OFF	OFF , ON	depend on the note
0A	1	00 - 01	Rcv NOTE ON	OFF , ON	01
0B	1	00 - 7F	LOW PASS FILTER CUTOFF FREQUENCY	-64...0...63	40
0C	1	00 - 7F	LOW PASS FILTER RESONANCE	-64...0...63	40
0D	1	00 - 7F	EG ATTACK RATE	-64...0...63	40
0E	1	00 - 7F	EG DECAY1 RATE	-64...0...63	40
0F	1	00 - 7F	EG DECAY2 RATE	-64...0...63	40

TOTAL SIZE 10

3n rr 20	1	00 - 7F	EQ BASS GAIN	-12 - +12[dB]	40
21	1	00 - 7F	EQ TREBLE GAIN	-12 - +12[dB]	40
22	1		NOT USED		-
23	1		NOT USED		-
24	1	04 - 28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C
25	1	1C - 3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36
26	1		NOT USED		-
27	1		NOT USED		-
28	1		NOT USED		-
29	1		NOT USED		-
2A	1		NOT USED		-
2B	1		NOT USED		-
2C	1		NOT USED		-
2D	1		NOT USED		-

TOTAL SIZE 0E

```

3n rr 40 1 00,08,09,0A OUTPUT SELECT 0:stereo out, 8:indiv1+2, 9:indiv3+4,
28,29,2A,2B, 10:indiv5+6,40:indiv1,41:indiv2,42:indiv3,
2C,2D 43:indiv4, 44:indiv5,45:indiv6
TOTAL SIZE 01

```

When data other than the above is received, 0:stereo out will be selected.

3n rr 50	1	00 - 7F	HIGH PASS FILTER CUTOFF FREQUENCY	-64...0...63	40
51	1		NOT USED		-

TOTAL SIZE 02

3n rr 60	1	30 - 50	VELOCITY SENSE PITCH	-16...0...16	depend on the note
61	1	30 - 50	VELOCITY SENSE LPF CUTOFF	-16...0...16	"

TOTAL SIZE 02

n:Drum Setup Number(0 - 3)

rr:note number(0D - 5B)

In the following cases, the SW1000XG will initialize all Drum Setups.

- XG SYSTEM ON received
- GM SYSTEM ON received
- DRUM SETUP RESET received (when in XG mode)

[Note]

When a part to which a Drum Setup is assigned receives a program change, the assigned Drum Setup will be initialized.

If the same Drum Setup is assigned to two or more parts, changes in Drum Setup parameters (including program changes) will apply to all parts to which it is assigned.

< Table 2 - 1 >

Parameter Bass Address
Model ID = 49

Parameter	Address			Description
	(H)	(M)	(L)	
	SW1000XG SYSTEM	00	00	

< Table 2 - 2 >

MIDI Parameter Change table (SYSTEM)

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
00 00 00	1	00 - 01	MUTE LOCK	OFF , ON	00
01 1	1	00 - 01	Audio LOCK	OFF , ON	00
02 1	1	00 - 01	EQ LOCK	OFF , ON	00
03 1	1	00 - 01	Rcv SYSTEM ON MESSAGE	OFF , ON	01
04 1	1	00 - 01	Rcv BANK SELECT	OFF , ON	01
05			Not Used		
06			Not Used		
07			Not Used		
08			Not Used		
09			Not Used		
TOTAL SIZE	0A				
00 00 10	1	00 - 01	DRUM EDIT Rcv NOTE	OFF , ON	01
TOTAL SIZE	01				
00 00 11	1	00 - 01	OUTPUT SELECT LOCK	OFF , ON	00
TOTAL SIZE	01				
00 00 12	1	00 - 01	Voice Map	MU Basic/SW1000XG Native Voice	00
TOTAL SIZE	01				

