

Clavinova[®]

CLP-380

DATA LIST Complete Version

Vollständige Version der DATENLISTE

Version complète de la LISTE DES DONNEES

Versión completa de la LISTA DE DATOS

Table of contents
Inhaltsverzeichnis
Table des matières
Índice de contenido

Normal (Default) Setting List / Liste der Grundeinstellungen (Default) / Liste des réglages normaux (par défaut) / Lista de ajustes normales (predeterminados)	3
XG Voice List / XG Voice-Liste / Liste des voix XG / Lista de sonidos XG	5
XG Drum Kit List / Liste der Drum Kits (Schlagzeug-Sets) / Liste des kits de percussion XG / Lista del kit de batería XG	9
Effect Type List / Liste der Effektypen / Liste des types d'effets / Lista de tipos de efectos	11
Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos	13
Effect Data Assign Table / Effektdaten-Zuordnungstabelle / Tableau d'assignation des données d'effets / Tabla de asignación de datos para efectos	23
MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI	26
MIDI Implementation Chart / MIDI Implementierung stabelle / Tableau d'implémentation MIDI / Gráfico de implementación MIDI	41

Normal (Default) Setting List / Liste der Grundeinstellungen (Default) / Liste des réglages normaux (par défaut) / Lista de ajustes normales (predeterminados)

Parameter name	Value
Voice selection	Grand Piano 1
Split mode	Off
Split point	F#2
Reverb On/Off	ON
Chorus On/Off	per voice
Brilliance mode	Normal
Tempo	120
Song balance	Song balance slider value at power-on

■ FILE/SONG SETTING

Parameter name	Settings	Value
SongAutoOpen	Automatically selecting a song in storage media	On
CharCode	Changing the type of characters on screen	International
SongRepeat	Playing back a song/all songs repeatedly	RepeatOff
PhraseMark	Playing back the phrase specified by the phrase number	
Quantize Strength	Correcting note timing Determining how strongly the notes will be quantized	1/16 50%
QuickPlay	Specifying whether playback starts immediately along with the first voicing	On
ChannelListen	Auditioning the channels	Ch1
ChannelClear	Deleting data from each channel	Ch1
RecStart	Selecting a record starting method	Normal
RecEnd	Selecting a record ending method	Replace
RecExtraPartsCh	Recording parts 3-16 (Extra Parts)	Ch5

■ METRONOME SETTING

Parameter name	Settings	Value
TimeSignature	Setting the metronome time signature	4/4
MetronomeVolume	Setting the metronome volume level	100
MetronomeSound	Setting the metronome voice	BellOff

■ VOICE SETTING

The default value of each parameter is different for each voice.

■ iAFC SETTING

Parameter name	Settings	Value
iAFC	Turning iAFC on/off	On
DynDmpFX Depth	Adjusting the Dynamic Damper Effect depth	98
SpatialFX Depth	Adjusting the Spatial Effect depth	14

■ FUNCTION

Parameter name	Settings	Value
Transpose	Changing the key Transposition amount	Master 0
TouchResponse	Selecting a touch response Fixed volume	Medium 64
Tune	Fine tuning the pitch	A3=440.0Hz
PianoTuningCurve	Selecting a tuning curve for a piano voice	Stretch
Scale	Selecting a scale Root note	Equal C
SplitPoint	Specifying the Split Point	F#2
RPedalFunc	Setting the right pedal function	per voice
CPedalFunc	Setting the center pedal function	per voice
LPedalFunc	Setting the left pedal function	per voice
AuxPedalFunc	Setting the auxiliary pedal function	per voice
RPedalOnOff	Turning the right pedal function on/off	per voice
CPedalOnOff	Turning the center pedal function on/off	per voice
LPedalOnOff	Turning the left pedal function on/off	per voice
AuxPedalOnOff	Turning the auxiliary pedal function on/off	per voice
PedalPlay/Pause	Assigning the SONG [PLAY/PAUSE] function to the pedal	All pedals: Off
AuxPedalType	Selecting a type of auxiliary pedal	Make
HalfPedalPoint	Setting the point at which the damper pedal starts to affect the sound	0
SoftPedalDepth	Adjusting the depth of the Soft pedal	5
StringResonanceDepth	Setting the depth of string resonance	5
SustainSamplingDepth	Setting the depth of sustain sampling for the damper pedal	5
KeyOffSamplingDepth	Specifying the volume of the key-off sound	5
PitchBendRange	Setting the range of pitch bend	2
Speaker	Switching the speaker on/off	Normal (HeadphoneSW)
MidiOutChannel	Setting the MIDI transmit channel	Main: Midi/Usb1 Ch1 Left: Midi/Usb1 Ch2 Layer: Midi/Usb1 Ch3 LeftLayer: Midi/Usb1 Ch4
MidiInChannel	Setting the MIDI receive channel	Midi/Usb1 Ch1 – 16: Song Usb2 Ch1: Keyboard Usb2 Ch2: Main Usb2 Ch3: Left Usb2 Ch4: Layer Usb2 Ch5: LeftLayer Others: Off
LocalControl	Turning local control on/off	On
MidiOutSelect	Selecting performance from the keyboard or song data for MIDI transmission	Keyboard
ReceiveParameter	Selecting a type of data received via MIDI	All data: On
TransmitParameter	Selecting a type of data transmitted via MIDI	All data: On
MemoryBackup	Selecting items saved at shutdown	Transpose, Main/LeftVoice, MetronomeSetting, Function (except for Transpose, SplitPoint and Midi settings): Off, Others: On
FactorySet	Restoring the normal (default) settings	MemorySongExcluded

XG Voice List / XG Voice-Liste / Liste des voix XG / Lista de sonidos XG

Voice group	Voice name	MSB	LSB	PRG	Element
Piano	GrandPiano	0	0	1	2*
	GrndPianoKSP	0	1	1	1
	MellowGrPno	0	18	1	2
	PianoStrings	0	40	1	2
	Dream	0	41	1	2
	BrightPiano	0	0	2	2
	BritePnoKSP	0	1	2	1
	ElecGrandPno	0	0	3	2
	ElecGrPnoKSP	0	1	3	2
	DetunedCP80	0	32	3	2
	LayeredCP1	0	40	3	2
	LayeredCP2	0	41	3	2
	Honkytonk	0	0	4	2
	HonkytonkKSP	0	1	4	2
	EI.Piano1	0	0	5	2
	EI.Piano1KSP	0	1	5	1
	MellowEP1	0	18	5	2
	ChorusEP1	0	32	5	2
	HardEI.Piano	0	40	5	2
	VXfadeEI.P1	0	45	5	2
	60sEI.Piano1	0	64	5	1
	EI.Piano2	0	0	6	2
	EI.Piano2KSP	0	1	6	1
	ChorusEP2	0	32	6	2
	DXEPHard	0	33	6	2
	DXLegend	0	34	6	2
	DXPhaseEP	0	40	6	2
	DX+AnalogEP	0	41	6	2
	DXKotoEP	0	42	6	2
	VXfadeEI.P2	0	45	6	2
	Harpsichord	0	0	7	1
	Harpsi.KSP	0	1	7	1
	Harpsichord2	0	25	7	2
	Harpsichord3	0	35	7	2
	Clavi.	0	0	8	1
	Clavi.KSP	0	1	8	1
	Clavi.Wah	0	27	8	2
	PulseClavi.	0	64	8	1
	PierceClavi.	0	65	8	2
	Chromatic Percussion	Celesta	0	0	9
Glockenspiel		0	0	10	1
MusicBox		0	0	11	2
Orgel		0	64	11	2
Vibraphone		0	0	12	1
VibesKSP		0	1	12	1
HardVibes		0	45	12	2
Marimba		0	0	13	1
MarimbaKSP		0	1	13	1
SineMarimba		0	64	13	2
Balimba		0	97	13	2
LogDrums		0	98	13	2
Xylophone		0	0	14	1
TubularBells		0	0	15	1
ChurchBells		0	96	15	2
Carillon		0	97	15	2
Dulcimer		0	0	16	1
Dulcimer2		0	35	16	2
Cimbalom		0	96	16	2
Santur		0	97	16	2
Organ	DrawbarOrgan	0	0	17	1
	DetDrawOrgan	0	32	17	2
	60sDrawOrg1	0	33	17	2
	60sDrawOrg2	0	34	17	2
	70sDrawOrg1	0	35	17	2
	DrawbarOrg2	0	36	17	2
	60sDrawOrg3	0	37	17	2
	EvenBarOrg	0	38	17	2
	16+2'2_3Org	0	40	17	2
	OrganBass	0	64	17	1

* The number of Elements becomes 4 when the damper pedal is pressed.

Voice group	Voice name	MSB	LSB	PRG	Element	
Organ	70sDrawOrg2	0	65	17	2	
	CheezyOrgan	0	66	17	2	
	DrawbarOrg3	0	67	17	2	
	Perc.Organ	0	0	18	1	
	70sPercOrg1	0	24	18	2	
	DetPercOrgan	0	32	18	2	
	LightOrgan	0	33	18	2	
	Perc.Organ2	0	37	18	2	
	RockOrgan	0	0	19	1	
	RotaryOrgan	0	64	19	2	
	SlowRotary	0	65	19	2	
	FastRotary	0	66	19	2	
	ChurchOrgan	0	0	20	2	
	ChurchOrgan3	0	32	20	2	
	ChurchOrgan2	0	35	20	2	
	NotreDame	0	40	20	2	
	OrganFlute	0	64	20	2	
	Trem.OrganFl	0	65	20	2	
	ReedOrgan	0	0	21	1	
	PuffOrgan	0	40	21	2	
	Accordion	0	0	22	1	
	AccordIt	0	32	22	2	
	Harmonica	0	0	23	1	
	Harmonica2	0	32	23	2	
	TangoAccord	0	0	24	1	
	TangoAccord2	0	64	24	2	
	Guitar	NylonGuitar	0	0	25	1
		NylonGuitar2	0	16	25	1
		NylonGuitar3	0	25	25	2
		VelGtrHarmo	0	43	25	1
		Ukulele	0	96	25	1
		SteelGuitar	0	0	26	1
		SteelGuitar2	0	16	26	1
12StrGuitar		0	35	26	2	
Nylon&Steel		0	40	26	2	
Steel&Body		0	41	26	2	
Mandolin		0	96	26	2	
JazzGuitar		0	0	27	1	
MellowGuitar		0	18	27	1	
JazzAmp		0	32	27	2	
CleanGuitar		0	0	28	1	
ChorusGuitar		0	32	28	2	
MutedGuitar		0	0	29	1	
FunkGuitar1		0	40	29	2	
MuteSteelGtr		0	41	29	2	
FunkGuitar2		0	43	29	1	
JazzMan		0	45	29	2	
Overdriven		0	0	30	1	
GuitarPinch		0	43	30	1	
Distortion		0	0	31	1	
FeedbackGtr		0	40	31	2	
FeedbackGtr2		0	41	31	2	
GtrHarmonics		0	0	32	1	
GtrFeedback	0	65	32	1		
GtrHarmonic2	0	66	32	1		
Bass	AcousticBass	0	0	33	1	
	JazzRhythm	0	40	33	2	
	VXUprghtBass	0	45	33	2	
	FingerBass	0	0	34	1	
	FingerDark	0	18	34	2	
	FlangeBass	0	27	34	2	
	Bass&DistEG	0	40	34	2	
	FingerSlap	0	43	34	1	
	FingerBass2	0	45	34	2	
	Mod.Bass	0	65	34	2	
	PickBass	0	0	35	1	
	MutePickBass	0	28	35	1	
	FretlessBass	0	0	36	1	
	Fretless2	0	32	36	2	

Voice group	Voice name	MSB	LSB	PRG	Element	
Bass	Fretless3	0	33	36	2	
	Fretless4	0	34	36	2	
	Syn.Fretless	0	96	36	2	
	SmthFretless	0	97	36	2	
	SlapBass1	0	0	37	1	
	ResonantSlap	0	27	37	1	
	PunchThumb	0	32	37	2	
	SlapBass2	0	0	38	1	
	Velo.Sw.Slap	0	43	38	1	
	SynthBass1	0	0	39	1	
	SynBass1Dark	0	18	39	1	
	FastResoBass	0	20	39	1	
	AcidBass	0	24	39	1	
	ClaviBass	0	35	39	2	
	TechnoBass	0	40	39	2	
	Orbiter	0	64	39	2	
	SquareBass	0	65	39	1	
	RubberBass	0	66	39	2	
	Hammer	0	96	39	2	
	SynthBass2	0	0	40	2	
	MellowSyBass	0	6	40	1	
	SequenceBass	0	12	40	2	
	ClickSynBass	0	18	40	2	
	SynBass2Dark	0	19	40	1	
	SmoothSyBass	0	32	40	2	
	ModulrSyBass	0	40	40	2	
	DXBass	0	41	40	2	
	XWireBass	0	64	40	2	
	Strings	Violin	0	0	41	1
		SlwAtkViolin	0	8	41	1
		Viola	0	0	42	1
		Cello	0	0	43	1
		Contrabass	0	0	44	1
Trem.Strings		0	0	45	1	
SlwAtTremStr		0	8	45	1	
SuspenseStr		0	40	45	2	
PizzicatoStr		0	0	46	1	
Orch.Harp		0	0	47	1	
YangChin		0	40	47	2	
Timpani		0	0	48	1	
Ensemble		Strings1	0	0	49	1
	StereoStrngs	0	3	49	2	
	SlwAtkStrngs	0	8	49	1	
	ArcoStrngs	0	24	49	2	
	60'sStrngs	0	35	49	2	
	Orchestra	0	40	49	2	
	Orchestra2	0	41	49	2	
	TremOrchestra	0	42	49	2	
	Velo.Strngs	0	45	49	2	
	Strings2	0	0	50	1	
	S.SlowStrngs	0	3	50	2	
	LegatoStrngs	0	8	50	2	
	WarmStrngs	0	40	50	2	
	Kingdom	0	41	50	2	
	70'sStrngs	0	64	50	1	
	Strings3	0	65	50	1	
	SynStrings1	0	0	51	2	
	ResoStrings	0	27	51	2	
	SynStrings4	0	64	51	2	
	SynStrings5	0	65	51	2	
	SynStrings2	0	0	52	2	
	ChoirAahs	0	0	53	1	
	StereoChoir	0	3	53	2	
	ChoirAahs2	0	16	53	2	
	MellowChoir	0	32	53	2	
	ChoirStrings	0	40	53	2	
	VoiceOohs	0	0	54	1	
	SynthVoice	0	0	55	1	
	SynthVoice2	0	40	55	2	

Voice group	Voice name	MSB	LSB	PRG	Element
Ensemble	Choral	0	41	55	2
	AnalogVoice	0	64	55	1
	OrchestraHit	0	0	56	2
	OrchestrHit2	0	35	56	2
	Impact	0	64	56	2
Brass	Trumpet	0	0	57	1
	Trumpet2	0	16	57	1
	BriteTrumpet	0	17	57	2
	WarmTrumpet	0	32	57	2
	Trombone	0	0	58	1
	Trombone2	0	18	58	2
	Tuba	0	0	59	1
	Tuba2	0	16	59	1
	MutedTrumpet	0	0	60	1
	FrenchHorn	0	0	61	1
	Fr.HornSolo	0	6	61	1
	FrenchHorn2	0	32	61	2
	HornOrchestr	0	37	61	2
	BrassSection	0	0	62	1
	Tp&TbSection	0	35	62	2
	BrassSect2	0	40	62	2
	HighBrass	0	41	62	2
	MellowBrass	0	42	62	2
	SynthBrass1	0	0	63	2
	QuackBrass	0	12	63	2
	ResoSynBrass	0	20	63	2
	PolyBrass	0	24	63	2
	SynthBrass3	0	27	63	2
	JumpBrass	0	32	63	2
	AnaVelBrass1	0	45	63	2
	AnalogBrass1	0	64	63	2
	SynthBrass2	0	0	64	1
SoftBrass	0	18	64	2	
SynthBrass4	0	40	64	2	
ChoirBrass	0	41	64	2	
AnaVelBrass2	0	45	64	2	
AnalogBrass2	0	64	64	2	
Reed	SopranoSax	0	0	65	1
	AltoSax	0	0	66	1
	SaxSection	0	40	66	2
	HyperAltoSax	0	43	66	1
	TenorSax	0	0	67	1
	BreathyTenor	0	40	67	2
	SoftTenorSax	0	41	67	2
	TenorSax2	0	64	67	1
	BaritoneSax	0	0	68	1
	Oboe	0	0	69	1
	EnglishHorn	0	0	70	1
	Bassoon	0	0	71	1
Clarinet	0	0	72	1	
Pipe	Piccolo	0	0	73	1
	Flute	0	0	74	1
	Recorder	0	0	75	1
	PanFlute	0	0	76	1
	BlownBottle	0	0	77	2
	Shakuhachi	0	0	78	1
	Whistle	0	0	79	1
	Ocarina	0	0	80	1
Synth. Lead	SquareLead	0	0	81	2
	SquareLead2	0	6	81	1
	LMSquare	0	8	81	2
	Hollow	0	18	81	1
	Shroud	0	19	81	2
	Mellow	0	64	81	2
	SoloSine	0	65	81	2
	SineLead	0	66	81	1
	SawtoothLead	0	0	82	2
	SawtoothLd2	0	6	82	1
ThickSaw	0	8	82	2	

Voice group	Voice name	MSB	LSB	PRG	Element
Synth. Lead	DynamicSaw	0	18	82	1
	DigitalSaw	0	19	82	2
	BigLead	0	20	82	2
	HeavySynth	0	24	82	2
	WaspySynth	0	25	82	2
	PulseSaw	0	40	82	2
	Dr.Lead	0	41	82	2
	VelocityLead	0	45	82	2
	Seq.Analog	0	96	82	2
	CalliopeLead	0	0	83	2
	PureLead	0	65	83	2
	ChiffLead	0	0	84	2
	Rubby	0	64	84	2
	CharangLead	0	0	85	2
	DistortedLd	0	64	85	2
	WireLead	0	65	85	2
	VoiceLead	0	0	86	2
	SynthAahs	0	24	86	2
	VoxLead	0	64	86	2
	FifthsLead	0	0	87	2
	BigFive	0	35	87	2
	Bass&Lead	0	0	88	2
	Big&Low	0	16	88	2
Fat&Perky	0	64	88	2	
SoftWhirl	0	65	88	2	
Synth. Pad	NewAgePad	0	0	89	2
	Fantasy	0	64	89	2
	WarmPad	0	0	90	2
	ThickPad	0	16	90	2
	SoftPad	0	17	90	2
	SinePad	0	18	90	2
	HornPad	0	64	90	2
	RotaryStrngs	0	65	90	2
	PolySynthPad	0	0	91	2
	PolyPad80	0	64	91	2
	ClickPad	0	65	91	2
	AnalogPad	0	66	91	2
	SquarePad	0	67	91	2
	ChoirPad	0	0	92	2
	Heaven	0	64	92	2
	Itopia	0	66	92	2
	CCPad	0	67	92	2
	BowedPad	0	0	93	2
	Glacier	0	64	93	2
	GlassPad	0	65	93	2
	MetallicPad	0	0	94	2
	TinePad	0	64	94	2
	PanPad	0	65	94	2
	HaloPad	0	0	95	2
	SweepPad	0	0	96	2
	Shwimmer	0	20	96	2
	Converge	0	27	96	2
	PolarPad	0	64	96	2
Celestial	0	66	96	2	
Synth. Effects	Rain	0	0	97	2
	ClaviPad	0	45	97	2
	HarmoRain	0	64	97	2
	AfricanWind	0	65	97	2
	Carib	0	66	97	2
	SoundTrack	0	0	98	2
	Prologue	0	27	98	2
	Ancestral	0	64	98	2
	Crystal	0	0	99	2
	SynthDr.Comp	0	12	99	2
	Popcorn	0	14	99	2
	TinyBells	0	18	99	2
	RoundGlocken	0	35	99	2
	GlockenChime	0	40	99	2
	ClearBells	0	41	99	2

Voice group	Voice name	MSB	LSB	PRG	Element
Synth. Effects	ChorusBells	0	42	99	2
	SynthMallet	0	64	99	1
	SoftCrystal	0	65	99	2
	LoudGlocken	0	66	99	2
	ChristmasBel	0	67	99	2
	VibeBells	0	68	99	2
	DigitalBells	0	69	99	2
	AirBells	0	70	99	2
	BellHarp	0	71	99	2
	Gamelimba	0	72	99	2
	Atmosphere	0	0	100	2
	WarmAtmos.	0	18	100	2
	HollwRelease	0	19	100	2
	NylonElPiano	0	40	100	2
	NylonHarp	0	64	100	2
	HarpVox	0	65	100	2
	Atmos.Pad	0	66	100	2
	Planet	0	67	100	2
	Brightness	0	0	101	2
	FantasyBells	0	64	101	2
	Smokey	0	96	101	2
	Goblins	0	0	102	2
	GoblinsSynth	0	64	102	2
	Creeper	0	65	102	2
	RingPad	0	66	102	2
	Ritual	0	67	102	2
	ToHeaven	0	68	102	2
	Night	0	70	102	2
	Glisten	0	71	102	2
	BellChoir	0	96	102	2
Echoes	0	0	103	2	
Echoes2	0	8	103	2	
EchoPan	0	14	103	2	
EchoBells	0	64	103	2	
BigPan	0	65	103	2	
SynthPiano	0	66	103	2	
Creation	0	67	103	2	
StarDust	0	68	103	2	
Reso&Panning	0	69	103	2	
Sci-Fi	0	0	104	2	
Starz	0	64	104	2	
Ethnic	Sitar	0	0	105	1
	DetunedSitar	0	32	105	2
	Sitar2	0	35	105	2
	Tambra	0	96	105	2
	Tamboura	0	97	105	2
	Banjo	0	0	106	1
	MutedBanjo	0	28	106	1
	Rabab	0	96	106	2
	Gopichant	0	97	106	2
	Oud	0	98	106	2
	Shamisen	0	0	107	1
	Koto	0	0	108	1
	Taisho-kin	0	96	108	2
	Kanoon	0	97	108	2
	Kalimba	0	0	109	1
Bagpipe	0	0	110	2	
Fiddle	0	0	111	1	
Shanai	0	0	112	1	
Shanai2	0	64	112	1	
Pungi	0	96	112	1	
Hichiriki	0	97	112	2	
Percussive	TinkleBell	0	0	113	2
	Bonang	0	96	113	2
	Altair	0	97	113	2
	GamelanGongs	0	98	113	2
	StereoGamlan	0	99	113	2
	RamaCymbal	0	100	113	2
	AsianBells	0	101	113	2

Voice group	Voice name	MSB	LSB	PRG	Element
Percussive	Agogo	0	0	114	2
	SteelDrums	0	0	115	1
	GlassPerc.	0	97	115	2
	ThaiBells	0	98	115	2
	Woodblock	0	0	116	1
	Castanets	0	96	116	1
	TaikoDrum	0	0	117	1
	GranCassa	0	96	117	1
	MelodicTom	0	0	118	2
	MelodicTom2	0	64	118	1
	RealTom	0	65	118	2
	RockTom	0	66	118	2
	SynthDrum	0	0	119	1
	AnalogTom	0	64	119	1
	ElectroPerc.	0	65	119	2
Rev.Cymbal	0	0	120	1	
Sound Effects	GtrFretNoise	0	0	121	1
	BreathNoise	0	0	122	1
	Seashore	0	0	123	2
	BirdTweet	0	0	124	2
	TelephonRing	0	0	125	1
	Helicopter	0	0	126	1
	Applause	0	0	127	1
	Gunshot	0	0	128	1
SFX	CuttingNoise	64	0	1	1
	CuttingNoiz2	64	0	2	2
	StringSlap	64	0	4	1
	Fl.KeyClick	64	0	17	1
	Shower	64	0	33	1
	Thunder	64	0	34	1
	Wind	64	0	35	1
	Stream	64	0	36	2
	Bubble	64	0	37	2
	Feed	64	0	38	2
	Dog	64	0	49	1
	Horse	64	0	50	1
	BirdTweet2	64	0	51	1
	Ghost	64	0	55	2
	Maou	64	0	56	2
	PhoneCall	64	0	65	1
	DoorSqueak	64	0	66	1
	DoorSlam	64	0	67	1
	ScratchCut	64	0	68	1
	ScratchSplit	64	0	69	2
	WindChime	64	0	70	1
	TelephonRing2	64	0	71	1
	CarEngineIgn	64	0	81	1
	CarTiresSql	64	0	82	1
	CarPassing	64	0	83	1
	CarCrash	64	0	84	1
	Siren	64	0	85	2
	Train	64	0	86	1
	JetPlane	64	0	87	2
	Starship	64	0	88	2
	Burst	64	0	89	2
	RollrCoaster	64	0	90	2
	Submarine	64	0	91	1
	Laugh	64	0	97	1
Scream	64	0	98	1	
Punch	64	0	99	1	
Heartbeat	64	0	100	1	
FootSteps	64	0	101	1	
MachineGun	64	0	113	1	
LaserGun	64	0	114	2	
Explosion	64	0	115	2	
Firework	64	0	116	2	

XG Drum Kit List / Liste der Drum Kits (Schlagzeug-Sets) / Liste des kits de percussion XG / Lista del kit de batería XG

- Key Off: Keys marked "O" stop sounding the instant they are released.
- Alternate Group: Playing any instrument within a numbered group will immediately stop the sound of any other instrument in the same group of the same number.

Same as Standard Kit 1
 No Sound

Bank Select MSB (0-127)			127	127	127	127	127	127	127
Bank Select LSB (0-127)			0	0	0	0	0	0	0
Program Change (0-127)			0	1	8	16	24	25	27
Program Change (1-128)			1	2	9	17	25	26	28
MIDI	Key	Alternate	Standard Kit1	Standard Kit2	Room Kit	Rock Kit	Electro Kit	Analog Kit	Dance Kit
Note#	Note	Off	Group						
13	C#-1		3	Surdo Mute					
14	D-1		3	Surdo Open					
15	D#-1			Hi Q					
16	E-1			Whip Slap					
17	F-1		4	Scratch 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	C0			Seq Click H					
25	C#0			Brush Tap					
26	D0	O		Brush Swirl					
27	D#0			Brush Slap					
28	E0	O		Brush Tap Swirl				Reverse Cymbal	Reverse Cymbal
29	F0	O		Snare Roll					Reverse Cymbal
30	F#0			Castanet			Hi Q 2	Hi Q 2	Hi Q 2
31	G0			Snare Soft	Snare Soft 2	Snare Noisy	Snare Snappy Electro	Snare Noisy 4	Snare Techno
32	G#0			Sticks					
33	A0			Kick Soft			Kick 3	Kick 3	Kick Techno Q
34	A#0			Open Rim Shot	Open Rim Shot H Short				Rim Gate
35	B0			Kick Tight					Kick Techno L
36	C1			Kick	Kick Short	Kick 2	Kick Gate	Kick Analog Short	Kick Techno
37	C#1			Side Stick	Side Stick Light	Kick Gate	Kick Gate Heavy	Kick Analog	Kick Techno
38	D1			Snare	Snare Short	Snare Snappy	Snare Rock	Side Stick Analog	Side Stick Analog
39	D#1			Hand Clap			Snare Noisy 2	Snare Analog	Snare Clap
40	E1			Snare Tight	Snare Tight H	Snare Tight Snappy	Snare Rock Tight	Snare Noisy 3	Snare Dry
41	F1			Floor Tom L		Tom Room 1	Tom Rock 1	Snare Analog 2	Snare Analog 2
42	F#1		1	Hi-Hat Closed				Tom Electro 1	Tom Analog 1
43	G1			Floor Tom H		Tom Room 2	Tom Rock 2	Hi-Hat Closed Analog	Hi-Hat Closed 3
44	G#1		1	Hi-Hat Pedal				Tom Analog 2	Tom Analog 2
45	A1			Low Tom		Tom Room 3	Tom Rock 3	Hi-Hat Closed Analog 2	Hi-Hat Closed Analog 3
46	A#1		1	Hi-Hat Open				Tom Analog 3	Tom Analog 3
47	B1			Mid Tom L		Tom Room 4	Tom Rock 4	Hi-Hat Open Analog	Hi-Hat Open 3
48	C2			Mid Tom H		Tom Room 5	Tom Rock 5	Tom Analog 4	Tom Analog 4
49	C#2			Crash Cymbal 1				Tom Electro 5	Tom Analog 5
50	D2			High Tom		Tom Room 6	Tom Rock 6	Crash Analog	Crash Analog
51	D#2			Ride Cymbal 1				Tom Electro 6	Tom Analog 6
52	E2			Chinese Cymbal					
53	F2			Ride Cymbal Cup					
54	F#2			Tambourine					
55	G2			Splash Cymbal					
56	G#2			Cowbell				Cowbell Analog	Cowbell Analog
57	A2			Crash Cymbal 2					
58	A#2			Vibraslap					
59	B2			Ride Cymbal 2					
60	C3			Bongo H					
61	C#3			Bongo L					
62	D3			Conga H Mute				Conga Analog H	Conga Analog H
63	D#3			Conga H Open				Conga Analog M	Conga Analog M
64	E3			Conga L				Conga Analog L	Conga Analog L
65	F3			Timbale H					
66	F#3			Timbale L					
67	G3			Agogo H					
68	G#3			Agogo L					
69	A3			Cabasa					
70	A#3			Maracas				Maracas 2	Maracas 2
71	B3	O		Samba Whistle H					
72	C4	O		Samba Whistle L					
73	C#4			Guiro Short					
74	D4	O		Guiro Long					
75	D#4			Claves				Claves 2	Claves 2
76	E4			Wood Block H					
77	F4			Wood Block L					
78	F#4			Cuica Mute			Scratch H 2	Scratch H 2	Scratch H 2
79	G4			Cuica Open			Scratch L 2	Scratch L 2	Scratch L 2
80	G#4		2	Triangle Mute					
81	A4		2	Triangle Open					
82	A#4			Shaker					
83	B4			Jingle Bells					
84	C5			Bell Tree					
85	C#5								
86	D5								
87	D#5								
88	E5								
89	F5								
90	F#5								
91	G5								

XG Drum Kit List / Liste der Drum Kits (Schlagzeug-Sets) / Liste des kits de percussion XG / Lista del kit de batería XG

Bank Select MSB (0-127)			127	127	127	126	126
Bank Select LSB (0-127)			0	0	0	0	0
Program Change (0-127)			32	40	48	0	1
Program Change (1-128)			33	41	49	1	2
MIDI	Key	Alternate	Jazz Kit	Brush Kit	Symphony Kit	SFX Kit1	SFX Kit2
Notes#	Note	Off	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	C0						
25	C#0						
26	D0	O					
27	D#0						
28	E0	O					
29	F0	O					
30	F#0						
31	G0		Snare Jazz H	Brush Slap 2			
32	G#0						
33	A0				Kick Soft 2		
34	A#0			Open Rim Shot Light			
35	B0				Gran Cassa		
36	C1		Kick Jazz	Kick Jazz	Gran Cassa Mute	Cutting Noise	Phone Call
37	C#1		Side Stick Light	Side Stick Light		Cutting Noise 2	Door Squeak
38	D1		Snare Jazz L	Brush Slap 3	Band Snare		Door Slam
39	D#1					String Slap	Scratch Cut
40	E1		Snare Jazz M	Brush Tap 2	Band Snare 2		Scratch H 3
41	F1			Tom Brush 1			Wind Chime
42	F#1	1					Telephone Ring 2
43	G1			Tom Brush 2			
44	G#1	1					
45	A1			Tom Brush 3			
46	A#1	1					
47	B1			Tom Brush 4			
48	C2			Tom Brush 5			
49	C#2				Hand Cymbal		
50	D2			Tom Brush 6			
51	D#2				Hand Cymbal Short		
52	E2					Flute Key Click	Car Engine Ignition
53	F2						Car Tires Squeal
54	F#2						Car Passing
55	G2						Car Crash
56	G#2						Siren
57	A2				Hand Cymbal 2		Train
58	A#2						Jet Plane
59	B2				Hand Cymbal 2 Short		Starship
60	C3						Burst
61	C#3						Roller Coaster
62	D3						Submarine
63	D#3						
64	E3						
65	F3						
66	F#3						
67	G3						
68	G#3					Shower	Laugh
69	A3					Thunder	Scream
70	A#3					Wind	Punch
71	B3	O				Stream	Heart Beat
72	C4	O				Bubble	Foot Steps
73	C#4					Feed	
74	D4	O					
75	D#4						
76	E4						
77	F4						
78	F#4						
79	G4						
80	G#4	2					
81	A4	2					
82	A#4						
83	B4						
84	C5					Dog	Machine Gun
85	C#5					Horse	Laser Gun
86	D5					Bird Tweet 2	Explosion
87	D#5						Firework
88	E5						
89	F5						
90	F#5					Ghost	
91	G5					Maou	

Effect Type List / Liste der Effekttypen / Liste des types d'effets / Lista de tipos de efectos

■ Reverb Block

Reverb types that can be selected by [VOICE SETTING]

Effect Name	MSB	LSB
Hall1	1	0
Hall2	1	17
Room	2	17
Stage	3	17
Plate	4	16

All reverb types

XG Effect Name	MSB	LSB
HALL1	1	0
HALL2	1	1
LARGE HALL	1	2
MEDIUM HALL	1	3
HALL M	1	6
HALL L	1	7
(HALL)	1	16
(HALL)	1	17
(HALL)	1	18
ROOM1	2	0
ROOM2	2	1
ROOM3	2	2
WARM ROOM	2	3
WOODY ROOM	2	4
ROOM S	2	5
ROOM M	2	6
ROOM L	2	7
(ROOM)	2	16
(ROOM)	2	17
(ROOM)	2	18
(ROOM)	2	19
STAGE1	3	0
STAGE2	3	1
(STAGE)	3	16
(STAGE)	3	17
PLATE	4	0
RICH PLATE	4	1
GM PLATE	4	7
(PLATE)	4	16
(PLATE)	4	17
WHITE ROOM	16	0
TUNNEL	17	0
CANYON	18	0
BASEMENT	19	0
NO EFFECT	0	0

■ Chorus Block

Chorus types that can be selected by [VOICE SETTING]

Effect Name	MSB	LSB
Chorus	65	8
Celeste	66	8
Flanger	67	1

All chorus types

XG Effect Name	MSB	LSB
CHORUS1	65	0
CHORUS2	65	1
CHORUS3	65	2
GM CHORUS1	65	3
GM CHORUS2	65	4
GM CHORUS3	65	5
GM CHORUS4	65	6
FB CHORUS	65	7
CHORUS4	65	8
CELESTE1	66	0
CELESTE2	66	1
CELESTE3	66	2
CELESTE4	66	8
(CELESTE)	66	16
(CELESTE)	66	17
(CELESTE)	66	18
FLANGER1	67	0
FLANGER2	67	1
GM FLANGER	67	7
FLANGER3	67	8
(FLANGER)	67	16
(FLANGER)	67	17
SYMPHONIC	68	0
(SYMPHONIC)	68	16
PHASER1	72	0
(PHASER)	72	16
(PHASER)	72	17
(PHASER)	72	18
ENS DETUNE	87	0
NO EFFECT	0	0

■ DSP Block

DSP effects that can be selected by [VOICE SETTING]

Effect Name	MSB	LSB
DelayLCR	5	16
DelayLR	6	0
Echo	7	0
CrossDelay	8	0
Symphonic	68	16
Rotary	66	18
Tremolo	70	18
VibeRotor	119	0
AutoPan	71	21
Phaser	72	17
AutoWah	78	16
SoundBoard	3	0

All variation/insertion effects

XG Effect Name	MSB	LSB
HALL1	1	0
HALL2	1	1
HALL M	1	6
HALL L	1	7
(HALL)	1	16
(HALL)	1	17
(HALL)	1	18
ROOM1	2	0
ROOM2	2	1
ROOM3	2	2
ROOM S	2	5
ROOM M	2	6
ROOM L	2	7
(ROOM)	2	16
(ROOM)	2	17
(ROOM)	2	18
(ROOM)	2	19
STAGE1	3	0
STAGE2	3	1
(STAGE)	3	16
(STAGE)	3	17
PLATE	4	0
GM PLATE	4	7
(PLATE)	4	16
(PLATE)	4	17
DELAY LCR	5	0
(DELAY LCR)	5	16
DELAY LR	6	0
ECHO	7	0
CROSS DELAY	8	0
ER1	9	0
ER2	9	1
GATE REVERB	10	0
REVERS GATE	11	0
WHITE ROOM	16	0
TUNNEL	17	0
CANYON	18	0
BASEMENT	19	0
KARAOKE1	20	0
KARAOKE2	20	1
KARAOKE3	20	2
TEMPO DELAY	21	0
TEMPO ECHO	21	8

Effect Type List / Liste der Effekttypen / Liste des types d'effets / Lista de tipos de efectos

XG Effect Name	MSB	LSB
TEMPO CROSS	22	0
CHORUS1	65	0
CHORUS2	65	1
CHORUS3	65	2
GM CHORUS1	65	3
GM CHORUS2	65	4
GM CHORUS3	65	5
GM CHORUS4	65	6
FB CHORUS	65	7
CHORUS4	65	8
CELESTE1	66	0
CELESTE2	66	1
CELESTE3	66	2
CELESTE4	66	8
(CELESTE)	66	16
(CELESTE)	66	17
(CELESTE)	66	18
FLANGER1	67	0
FLANGER2	67	1
GM FLANGER	67	7
FLANGER3	67	8
(FLANGER)	67	16
(FLANGER)	67	17
SYMPHONIC	68	0
(SYMPHONIC)	68	16
ROTARY SP	69	0
DST+ROT SP	69	1
OD+ROT SP	69	2
AMP+ROT SP	69	3
(ROTARY SP)	69	16
TREMOLO	70	0
(TREMOLO)	70	16
(TREMOLO)	70	17
(TREMOLO)	70	18
(TREMOLO)	70	19
AUTO PAN1	71	0
AUTO PAN2	71	1
(AUTO PAN)	71	16
(AUTO PAN)	71	17
(AUTO PAN)	71	18
(AUTO PAN)	71	19
(AUTO PAN)	71	20
(AUTO PAN)	71	21
(AUTO PAN)	71	22
PHASER1	72	0
PHASER2	72	8
(PHASER)	72	16
(PHASER)	72	17
(PHASER)	72	18
DISTORTION	73	0
COMP+DIST	73	1
STEREO DIST	73	8
(COMP+DIST)	73	16
OVERDRIVE	74	0
STEREO OD	74	8
AMP SIM1	75	0
AMP SIM2	75	1
STEREO AMP	75	8
(AMP SIM)	75	16
(AMP SIM)	75	17

XG Effect Name	MSB	LSB
(AMP SIM)	75	18
(AMP SIM)	75	19
(AMP SIM)	75	20
(AMP SIM)	75	21
(AMP SIM)	75	22
(AMP SIM)	75	23
(AMP SIM)	75	24
(AMP SIM)	75	25
(AMP SIM)	75	26
3BAND EQ	76	0
(3BAND EQ)	76	16
(3BAND EQ)	76	17
(3BAND EQ)	76	18
2BAND EQ	77	0
AUTO WAH	78	0
AT WAH+DST	78	1
AT WAH+OD	78	2
(AUTO WAH)	78	16
(AT WAH+DST)	78	17
(AT WAH+OD)	78	18
PITCH CHG	80	0
PITCH CHG2	80	1
(PITCH CHG)	80	16
HM ENHANCE	81	0
(HM ENHANCE)	81	16
TOUCH WAH	82	0
TC WAH+DST	82	1
TC WAH+OD	82	2
TOUCH WAH2	82	8
(TC WAH+DST)	82	16
(TC WAH+OD)	82	17
(TOUCH WAH2)	82	18
(TOUCH WAH)	82	19
COMPRESSOR	83	0
NOISE GATE	84	0
VCE CANCEL	85	0
2WAY ROT SP	86	0
DST+2ROT SP	86	1
OD+2ROT SP	86	2
AMP+2ROT SP	86	3
ENS DETUNE	87	0
AMBIENCE	88	0
TALKING MOD	93	0
LO-FI	94	0
DST+DELAY	95	0
OD+DELAY	95	1
(DST+DELAY)	95	16
(OD+DELAY)	95	17
CMP+DST+DLY	96	0
CMP+OD+DLY	96	1
(CMP+DST+DLY)	96	16
(CMP+OD+DLY)	96	17
WH+DST+DLY	97	0
WH+OD+DLY	97	1
(WH+DST+DLY)	97	16
(WH+OD+DLY)	97	17
V_DIST HARD	98	0
V_DIST H+DLY	98	1
V_DIST SOFT	98	2
V_DIST S+DLY	98	3

XG Effect Name	MSB	LSB
DUAL ROT SP1	99	0
DUAL ROT SP2	99	1
DST+TDLY	100	0
OD+TDLY	100	1
CMP+DST+TDL	101	0
CMP+OD+TDLY	101	1
(CMP+OD+TDLY)	101	16
(CMP+OD+TDLY)	101	17
(CMP+OD+TDLY)	101	18
(CMP+OD+TDLY)	101	19
(CMP+OD+TDLY)	101	20
WH+DST+TDLY	102	0
WH+OD+TDLY	102	1
(WH+OD+TDLY)	102	16
V_DIST H+TDLY	103	0
V_DIST S+TDLY	103	1
V_FLANGER	104	0
MBAND COMP	105	0
T_FLANGER	107	0
T_PHASER	108	0
DYN FILTER	109	0
DYN FLANGER	110	0
DYN PHASER	111	0
DYN RINGMOD	112	0
RING MOD	113	0
ISOLATOR	115	0
VIBE VIBRATE	119	0
NO EFFECT	0	0
THRU	64	0

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

Parameters marked with a ● in the "Control" column can be controlled from an AC1 (assignable controller 1) etc. However, these only affect insertion type effects. Only the effect names which appear in the display are described above each chart. For details on effects which are not displayed but can be selected by using MSB/LSB numbers, refer to the Effect Type List.

Reverb block
Hall1, Hall2
Room
Stage
Plate
DSP block
Sound Board

MSB = 01
LSB = 0, 1, 6, 7, 16, 17, 18
MSB = 02
LSB = 0, 1, 2, 5, 6, 7, 16, 17, 18, 19
MSB = 03
LSB = 0, 1, 16, 17
MSB = 04
LSB = 0, 7, 16, 17

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	0.1mS – 200.0mS (*1) 0.1mS – 99.3mS (*2, 3)	0 – 127 0 – 63	table#5	
4	HPF Cutoff	Thru – 8.0kHz	0 – 52	table#3	
5	LPF Cutoff	1.0kHz – Thru	34 – 60	table#3	
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11	Rev Delay	0.1mS – 200.0mS (*1) 0.1mS – 99.3mS (*2, 3)	0 – 127 0 – 63	table#5	
12	Density	0 – 4 (*1, 2) 0 – 2 (*3)	0 – 4 0 – 2		
13	Er/Rev Balance	E63>R – E=R – E<R63	1 – 127		
14	High Damp	0.1 – 1.0	1 – 10		
15	Feedback Level	-63 – +63	1 – 127	(table#16)	
16					

MSB = 01, LSB = 2, 3
MSB = 02, LSB = 3, 4
MSB = 04, LSB = 1

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	0.1mS – 200.0mS	0 – 127	table#5	
4	HPF Cutoff	Thru – 8.0kHz	0 – 52	table#3	
5	LPF Cutoff	1.0kHz – Thru	34 – 60	table#3	
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11					
12					
13					
14	High Damp	0.1 – 1.0	1 – 10		
15					
16					

DSP block
Delay LCR

MSB = 05

No.	Parameter	Display	Value	See Table	Control
1	Lch Delay	0.1 – 1638.3ms (*2) 0.1 – 1486.0ms (*3)	1 – 16383 1 – 14860		
2	Rch Delay	0.1 – 1638.3ms (*2) 0.1 – 1486.0ms (*3)	1 – 16383 1 – 14860		
3	Cch Delay	0.1 – 1638.3ms (*2) 0.1 – 1486.0ms (*3)	1 – 16383 1 – 14860		
4	Feedback Delay	0.1 – 1638.3ms (*2) 0.1 – 1486.0ms (*3)	1 – 16383 1 – 14860		
5	Feedback Level	-63 – +63	1 – 127	(table#16)	
6	Cch Level	0 – 127	0 – 127	(table#18)	
7	High Damp	0.1 – 1.0	1 – 10		
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11					
12					
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		

DSP block
Delay LR

MSB = 06

No.	Parameter	Display	Value	See Table	Control
1	Lch Delay	0.1 – 1638.3ms (*2) 0.1 – 1486.0ms (*3)	1 – 16383 1 – 14860		
2	Rch Delay	0.1 – 1638.3ms (*2) 0.1 – 1486.0ms (*3)	1 – 16383 1 – 14860		
3	Feedback Delay 1	0.1 – 1638.3ms (*2) 0.1 – 1486.0ms (*3)	1 – 16383 1 – 14860		
4	Feedback Delay 2	0.1 – 1638.3ms (*2) 0.1 – 1486.0ms (*3)	1 – 16383 1 – 14860		
5	Feedback Level	-63 – +63	1 – 127	(table#16)	
6	High Damp	0.1 – 1.0	1 – 10		
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11					
12					
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		

DSP block
Echo

MSB = 07

No.	Parameter	Display	Value	See Table	Control
1	Lch Delay1	0.1 – 1486.0ms (*2) 0.1 – 743.0ms (*3)	1 – 14860 1 – 7430		
2	Lch Feedback Level	-63 – +63	1 – 127	(table#16)	
3	Rch Delay1	0.1 – 1486.0ms (*2) 0.1 – 743.0ms (*3)	1 – 14860 1 – 7430		
4	Rch Feedback Level	-63 – +63	1 – 127	(table#16)	
5	High Damp	0.1 – 1.0	1 – 10		
6	Lch Delay2	0.1 – 1486.0ms (*2) 0.1 – 743.0ms (*3)	1 – 14860 1 – 7430		
7	Rch Delay2	0.1 – 1486.0ms (*2) 0.1 – 743.0ms (*3)	1 – 14860 1 – 7430		
8	Delay2 Level	0 – 127	0 – 127	(table#18)	
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11					
12					
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		

DSP block
Cross Delay

MSB = 08

No.	Parameter	Display	Value	See Table	Control
1	L->R Delay	0.1 – 1486.0ms (*2) 0.1 – 743.0ms (*3)	1 – 14860 1 – 7430		
2	R->L Delay	0.1 – 1486.0ms (*2) 0.1 – 743.0ms (*3)	1 – 14860 1 – 7430		
3	Feedback Level	-63 – +63	1 – 127	(table#16)	
4	Input Select	L, R, L&R	0 – 2		
5	High Damp	0.1 – 1.0	1 – 10		
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11					
12					
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		

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

MSB = 09

No.	Parameter	Display	Value	See Table	Control
1	Type	S-H, L-H, Rdm, Rvs, PIt, Spr	0 - 5		
2	Room Size	0.1 - 20.0	0 - 127	table#6	
3	Diffusion	0 - 10	0 - 10		
4	Initial Delay	0.1mS - 200.0mS	0 - 127	table#5	
5	Feedback Level	-63 - +63	1 - 127	(table#16)	
6	HPF Cutoff	Thru - 8.0kHz	0 - 52	table#3	
7	LPF Cutoff	1.0kHz - Thru	34 - 60	table#3	
8					
9					
10	Dry/Wet	D63>W - D=W - D<W63	1 - 127	(table#15)	●
11	Liveness	0 - 10	0 - 10		
12	Density	0 - 3	0 - 3		
13	High Damp	0.1 - 1.0	1 - 10		
14					
15					
16					

MSB = 21

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	64th/3 - 4thx6	0 - 19	table#14	
2	Feedback Level	-63 - +63	1 - 127	(table#16)	
3	Feedback High Dump	0.1 - 1.0	1 - 10		
4	L/R Diffusion	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
5	Lag	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
6					
7					
8					
9					
10	Dry/Wet	D63>W - D=W - D<W=63	1 - 127	(table#15)	●
11					
12					
13	EQ Low Frequency	32Hz - 2.0kHz	4 - 40		
14	EQ Low Gain	-12 - +12dB	52 - 76		
15	EQ High Frequency	500Hz - 16.0kHz	28 - 58		
16	EQ High Gain	-12 - +12dB	52 - 76		

MSB = 10
MSB = 11

No.	Parameter	Display	Value	See Table	Control
1	Type	TypeA, TypeB	0 - 1		
2	Room Size	0.1 - 20.0	0 - 127	table#6	
3	Diffusion	0 - 10	0 - 10		
4	Initial Delay	0.1mS - 200.0mS	0 - 127	table#5	
5	Feedback Level	-63 - +63	1 - 127	(table#16)	
6	HPF Cutoff	Thru - 8.0kHz	0 - 52	table#3	
7	LPF Cutoff	1.0kHz - Thru	34 - 60	table#3	
8					
9					
10	Dry/Wet	D63>W - D=W - D<W63	1 - 127	(table#15)	●
11	Liveness	0 - 10	0 - 10		
12	Density	0 - 3	0 - 3		
13	High Damp	0.1 - 1.0	1 - 10		
14					
15					
16					

MSB = 22

No.	Parameter	Display	Value	See Table	Control
1	Delay Time L>R	64th/3 - 4thx6	0 - 19	table#14	
2	Delay Time R>L	64th/3 - 4thx6	0 - 19	table#14	
3	Feedback Level	-63 - +63	1 - 127	(table#16)	
4	Input Select	L, R, L&R	0 - 2		
5	Feedback High Dump	0.1 - 1.0	1 - 10		
6	Lag	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
7					
8					
9					
10	Dry/Wet	D63>W - D=W - D<W=63	1 - 127	(table#15)	●
11					
12					
13	EQ Low Frequency	32Hz - 2.0kHz	4 - 40		
14	EQ Low Gain	-12 - +12dB	52 - 76		
15	EQ High Frequency	500Hz - 16.0kHz	28 - 58		
16	EQ High Gain	-12 - +12dB	52 - 76		

MSB = 16
MSB = 17
MSB = 18
MSB = 19

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	0.1mS - 200.0mS (*1) 0.1mS - 99.3mS (*2)	0 - 127	table#5	
4	HPF Cutoff	Thru - 8.0kHz	0 - 52	table#3	
5	LPF Cutoff	1.0kHz - Thru	34 - 60	table#3	
6	Width	0.5 - 30.2m (*1) 0.5 - 10.2m (*2)	0 - 104	table#11	
7	Height	0.5 - 30.2m (*1) 0.5 - 20.2m (*2)	0 - 104	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	(table#15)	●
11	Rev Delay	0.1mS - 200.0mS (*1) 0.1mS - 99.3mS (*2)	0 - 127	table#5	
12	Density	0 - 4	0 - 4		
13	Er/Rev Balance	E63>R - E=R - E<R63	1 - 127		
14	High Damp	0.1 - 1.0	1 - 10		
15	Feedback Level	-63 - +63	1 - 127	(table#16)	
16					

DSP block
Rotary
Chorus block
Chorus
Celeste

MSB = 65
LSB = 66

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#19)	
3	Feedback Level	-63 - +63	1 - 127	(table#17)	
4	Delay Offset	0.0mS - 50mS	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	(table#15)	●
11	EQ Mid Frequency (*4)	100Hz - 10.0kHz	14 - 54	table#3	
12	EQ Mid Gain (*4)	-12 - +12dB	52 - 76		
13	EQ Mid Width (*4)	0.1 - 12.0	1 - 120		
14					
15	Input Mode	mono/stereo	0 - 1		
16					

MSB = 20

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	0.1mS - 400.0mS	0 - 127	table#7	
2	Feedback Level	-63 - +63	1 - 127	(table#16)	
3	HPF Cutoff	Thru - 8.0kHz	0 - 52	table#3	
4	LPF Cutoff	1.0kHz - Thru	34 - 60	table#3	
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W - D=W - D<W63	1 - 127	(table#15)	●
11	Density	0 - 3	0 - 3		
12					
13					
14					
15					
16					

Chorus block
Flanger

MSB = 67

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#19)	
3	Feedback Level	-63 - +63	1 - 127	(table#17)	
4	Delay Offset	0.0mS - 50mS	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	(table#15)	●
11	EQ Mid Frequency (*4)	100Hz - 10.0kHz	14 - 54	table#3	
12	EQ Mid Gain (*4)	-12 - +12dB	52 - 76		
13	EQ Mid Width (*4)	0.1 - 12.0	1 - 120		
14	LFO Phase Difference	-180 - +180deg (resolution=3deg.)	4 - 124		
15					
16					

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

DSP block
Symphonic

MSB = 68

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#19)	
3	Delay Offset	0.0mS – 50mS	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	(table#15)	●
11	EQ Mid Frequency (*4)	100Hz – 10.0kHz	14 – 54	table#3	
12	EQ Mid Gain (*4)	-12 – +12dB	52 – 76		
13	EQ Mid Width (*4)	0.1 – 12.0	1 – 120		
14					
15					
16					

MSB = 69, LSB = 0, 16

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#19)	
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	(table#15)	
11	EQ Mid Frequency (*4)	100Hz – 10.0kHz	14 – 54	table#3	
12	EQ Mid Gain (*4)	-12 – +12dB	52 – 76		
13	EQ Mid Width (*4)	0.1 – 12.0	1 – 120		
14					
15					
16					

MSB = 69, LSB = 1
MSB = 69, LSB = 2

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.0 – 39.7Hz	0 – 127	table#1	●
2	LFO Depth	0 – 127	0 – 127	(table#19)	
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<W=63	1 – 127	(table#15)	
11					
12					
13					
14	Drive	0 – 127	0 – 127		
15	LPF Cutoff	1kHz – Thru	34 – 60	table#3	
16	Output Level	0 – 127	0 – 127	(table#18)	

MSB = 69, LSB = 3

No.	Parameter	Display	Value	See Table	Control
1	LFO Frequency	0.0 – 39.7Hz	0 – 127	table#1	●
2	LFO Depth	0 – 127	0 – 127	(table#19)	
3	AMP Type	Off, Stack, Combo, Tube	0 – 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<W=63	1 – 127	(table#15)	
11					
12					
13					
14	Drive	0 – 127	0 – 127		
15	LPF Cutoff	1kHz – Thru	34 – 60	table#3	
16	Output Level	0 – 127	0 – 127	(table#18)	

DSP block
Tremolo

MSB = 70

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		
3	PM Depth	0 – 127	0 – 127		
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					
11	EQ Mid Frequency (*4)	100Hz – 10.0kHz	14 – 54	table#3	
12	EQ Mid Gain (*4)	-12 – +12dB	52 – 76		
13	EQ Mid Width (*4)	0.1 – 12.0	1 – 120		
14	LFO Phase Difference	-180 – +180deg (resolution=3deg.)	4 – 124		
15	Input Mode	mono/stereo	0 – 1		
16					

DSP block
AutoPan

MSB = 71
LSB = 0,16,17,18,19, 20, 21, 22

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		
3	F/R Depth	0 – 127	0 – 127		
4	PAN Direction	L<->R, L>R, L<-R, Lturn, Rturn, L/R	0 – 5		
5					
6	EQ Low Frequency	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					
11	EQ Mid Frequency (*4)	100Hz – 10.0kHz	14 – 54	table#3	
12	EQ Mid Gain (*4)	-12 – +12dB	52 – 76		
13	EQ Mid Width (*4)	0.1 – 12.0	1 – 120		
14					
15					
16					

MSB = 71, LSB = 1

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		
3	F/R Depth	0 – 127	0 – 127		
4	PAN Direction	L<->R, L>R, L<-R, Lturn, Rturn, L/R	0 – 5		
5	LFO Wave	0 – 28	0 – 28		
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					
11	EQ Mid Frequency (*4)	100Hz – 10.0kHz	14 – 54	table#3	
12	EQ Mid Gain (*4)	-12 – +12dB	52 – 76		
13	EQ Mid Width (*4)	0.1 – 12.0	1 – 120		
14					
15	Input Mode	Mono, Stereo	0 – 1		
16					

DSP block
Phaser

MSB = 72, LSB = 0, 16, 17, 18

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#19)	
3	Phase Shift Offset	0 – 127	0 – 127		
4	Feedback Level	-63 – +63	1 – 127	(table#16)	
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	(table#15)	●
11	Stage	4 – 22 (*2) 4 – 12 (*3)	4 – 22 4 – 12		
12	Diffusion	mono/stereo	0 – 1		
13					
14					
15					
16					

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

MSB = 72, LSB = 8

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#19)	
3	Phase Shift Offset	0 – 127	0 – 127		
4	Feedback Level	-63 – +63	1 – 127	(table#16)	
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	(table#15)	●
11	Stage	3 – 11	3 – 11		
12					
13	LFO Phase Difference	-180deg – +180deg (resolution=3deg.)	4 – 124		
14					
15					
16					

MSB = 75, LSB = 0,16,17, 22, 23
MSB = 75, LSB = 21 (*3)

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	1.0kHz – Thru	34 – 60	table#3	
4	Output Level	0 – 127	0 – 127	(table#18)	
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11	Edge (Clip Curve)	0 – 127 (mild – sharp)	0 – 127		
12					
13					
14					
15					
16					

MSB = 73, LSB = 0
MSB = 74, LSB = 0

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	1.0kHz – Thru	34 – 60	table#3	
5	Output Level	0 – 127	0 – 127	(table#18)	
6					
7	EQ Mid Frequency	100Hz – 10.0kHz	14 – 54	table#3	
8	EQ Mid Gain	-12 – +12dB	52 – 76		
9	EQ Mid Width	0.1 – 12.0	1 – 120		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11	Edge (Clip Curve)	0 – 127 (mild – sharp)	0 – 127		
12					
13					
14					
15					
16					

MSB = 75, LSB = 1

No.	Parameter	Display	Value	See Table	Control
1	Drive	0 – 127	0 – 127		●
2	AMP Type	Off, Stack, Combo, Tube, Crunch, Hi gain, British	0 – 6		
3	LPF Cutoff	1.0kHz – Thru	34 – 60	table#3	
4	Output Level	0 – 127	0 – 127	(table#18)	
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11					
12					
13					
14					
15					
16					

MSB = 73, LSB = 1, 16

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	1.0kHz – Thru	34 – 60	table#3	
5	Output Level	0 – 127	0 – 127	(table#18)	
6					
7	EQ Mid Frequency	100Hz – 10.0kHz	14 – 54	table#3	
8	EQ Mid Gain	-12 – +12dB	52 – 76		
9	EQ Mid Width	0.1 – 12.0	1 – 120		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11	Edge (Clip Curve)	0 – 127 (mild – sharp)	0 – 127		
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					

MSB = 75, LSB = 8, 18, 19, 20
MSB = 75, LSB = 21 (*2)

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	1kHz – Thru	34 – 60	table#3	
4	Output Level	0 – 127	0 – 127	(table#18)	
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11	Edge (Clip Curve)	0 – 127 (mild – sharp)	0 – 127		
12					
13					
14					
15					
16					

MSB = 73, LSB = 8
MSB = 74, LSB = 8

No.	Parameter	Display	Value	See Table	Control
1	Drive	0 – 127	0 – 127		●
2	EQ Low Frequency	32 – 2.0kHz	4 – 40	table#3	
3	EQ Low Gain	-12 – +12dB	52 – 76		
4	LPF Cutoff	1kHz – Thru	34 – 60		
5	Output Level	0 – 127	0 – 127	(table#18)	
6					
7	EQ Mid Frequency	100 – 10.0kHz	14 – 54	table#3	
8	EQ Mid Gain	-12 – +12dB	52 – 76		
9	EQ Mid Width	0.1 – 12.0	1 – 120		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11	Edge (Clip Curve)	0 – 127	0 – 127		
12					
13					
14					
15					
16					

MSB = 76

No.	Parameter	Display	Value	See Table	Control
1	EQ Low Gain	-12 – +12dB	52 – 76		
2	EQ Mid Frequency	100Hz – 16.0kHz	14 – 58	table#3	
3	EQ Mid Gain	-12 – +12dB	52 – 76		
4	EQ Mid Width	0.1 – 12.0	1 – 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					

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

MSB = 77

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					

MSB = 80, LSB = 1

No.	Parameter	Display	Value	See Table	Control
1	Pitch	-24 – +24	40 – 88		
2	Initial Delay	0.1mS – 400.0mS	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	(table#15)	●
11	Pan 1	L63 – R63	1 – 127		
12	Output Level 1	0 – 127	0 – 127	(table#18)	
13	Pan 2	L63 – R63	1 – 127		
14	Output Level 2	0 – 127	0 – 127	(table#18)	
15					
16					

DSP block
AutoWah

MSB = 78, LSB = 0, 16

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#19)	
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	(table#15)	
11	Drive (*4)	0 – 127	0 – 127		
12					
13					
14					
15					
16					

MSB = 81

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

MSB = 78, LSB = 1, 2, 17, 18

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#19)	
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	(table#15)	
11	Drive	0 – 127	0 – 127		
12	EQ Low Gain (distortion)	-12 – +12dB	52 – 76		
13	EQ Mid Gain (distortion)	-12 – +12dB	52 – 76		
14	LPF Cutoff	1.0kHz – thru	34 – 60	table#3	
15	Output Level	0 – 127	0 – 127	(table#18)	
16					

MSB = 82, LSB = 0

No.	Parameter	Display	Value	See Table	Control
1	Sensitivity	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	(table#15)	
11	Drive (*4)	0 – 127	0 – 127		
12					
13					
14					
15					
16					

MSB = 80, LSB = 0, 16

No.	Parameter	Display	Value	See Table	Control
1	Pitch	-24 – +24	40 – 88		
2	Initial Delay	0.1mS – 400.0mS	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	(table#15)	●
11	Pan 1	L63 – R63	1 – 127		
12	Output Level 1	0 – 127	0 – 127	(table#18)	
13	Pan 2	L63 – R63	1 – 127		
14	Output Level 2	0 – 127	0 – 127	(table#18)	
15					
16					

MSB = 82, LSB = 1, 16

No.	Parameter	Display	Value	See Table	Control
1	Sensitivity	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	(table#15)	
11	Drive	0 – 127	0 – 127		
12					
13					
14					
15					
16					

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

MSB = 82, LSB = 8, 18, 19

No.	Parameter	Display	Value	See Table	Control
1	Sensitivity	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	(table#15)	
11	Drive (*4)	0 – 127	0 – 127		
12	EQ Low Gain (*4) (distortion)	-12 – +12dB	52 – 76		
13	EQ Mid Gain (*4) (distortion)	-12 – +12dB	52 – 76		
14	LPF Cutoff (*4)	1.0kHz – thru	34 – 60	table#3	
15	Output Level (*4)	0 – 127	0 – 127	(table#18)	
16	Release	10 – 680mS	52 – 67	table#12	

MSB = 85

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

MSB = 82, LSB = 2, 17

No.	Parameter	Display	Value	See Table	Control
1	Sensitivity	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	(table#15)	
11	Drive	0 – 127	0 – 127		
12	EQ Low Gain (distortion)	-12 – +12dB	52 – 76		
13	EQ Mid Gain (distortion)	-12 – +12dB	52 – 76		
14	LPF Cutoff	1.0kHz – thru	34 – 60	table#3	
15	Output Level	0 – 127	0 – 127	(table#18)	
16	Release	10 – 680mS	52 – 67	table#12	

MSB = 86, LSB = 0

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		
3	Drive High	0 – 127	0 – 127		
4	Low/High	L63>H – L=H – L<H63	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					
11	Crossover Frequency	100Hz – 10.0kHz	14 – 54	table#3	
12	Mic L-R Angle	0deg – 180deg (resolution=3deg.)	0 – 60		
13					
14					
15					
16					

MSB = 83

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	-48 – -6dB	79-121		
4	Ratio	1.0 – 20.0	0 – 7	table#10	
5	Output Level	0 – 127	0 – 127	(table#18)	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

MSB = 86, LSB = 1
MSB = 86, LSB = 2

No.	Parameter	Display	Value	See Table	Control
1	Rotor Speed	0.0 – 39.7Hz	0 – 127	table#1	●
2	Drive Low	0 – 127	0 – 127		
3	Drive High	0 – 127	0 – 127		
4	Low/High Balance	L63>H – L=H – L<H=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					
11	Crossover Frequency	100Hz – 10.0kHz	14 – 54	table#3	
12	Mic L-R Angle	0 – 180deg	0 – 60		
13					
14	Drive	0 – 127	0 – 127		
15	LPF Cutoff	1kHz – Thru	34 – 60		
16	Output Level	0 – 127	0 – 127	(table#18)	

MSB = 84

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	(table#18)	
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

MSB = 86, LSB = 3

No.	Parameter	Display	Value	See Table	Control
1	Rotor Speed	0.0 – 39.7Hz	0 – 127	table#1	●
2	Drive Low	0 – 127	0 – 127		
3	Drive High	0 – 127	0 – 127		
4	Low/High Balance	L63>H – L=H – L<H=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					
11	Crossover Frequency	100Hz – 10.0kHz	14 – 54	table#3	
12	Mic L-R Angle	0 – 180deg	0 – 60		
13	AMP Type	Off, Stack, Combo, Tube	0 – 3		
14	Drive	0 – 127	0 – 127		
15	LPF Cutoff	1kHz – Thru	34 – 60		
16	Output Level	0 – 127	0 – 127	(table#18)	

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

MSB = 87

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

MSB = 95

No.	Parameter	Display	Value	See Table	Control
1	Lch Delay Time	0.1 – 1638.3ms	1 – 16383		
2	Rch Delay Time	0.1 – 1638.3ms	1 – 16383		
3	Delay Feedback Time	0.1 – 1638.3ms	1 – 16383		
4	Delay Feedback Level	-63 – +63	1 – 127	(table#16)	
5	Delay Mix	0 – 127	0 – 127		
6	Dist Drive	0 – 127	0 – 127		
7	Dist Output Level	0 – 127	0 – 127	(table#18)	
8	Dist EQ Low Gain	-12 – +12dB	52 – 76		
9	Dist EQ Mid Gain	-12 – +12dB	52 – 76		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11					
12					
13					
14					
15					
16					

MSB = 88

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	0.0mS – 50mS	0 – 127	table#2	
2	Output Phase	normal/inverse	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	(table#15)	●
11					
12					
13					
14					
15					
16					

MSB = 96

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	0.1 – 1638.3ms	1 – 16383		
2	Delay Feedback Level	-63 – +63	1 – 127	(table#16)	
3	Delay Mix	0 – 127	0 – 127		
4	Dist Drive	0 – 127	0 – 127		
5	Dist Output Level	0 – 127	0 – 127	(table#18)	
6	Dist EQ Low Gain	-12 – +12dB	52 – 76		
7	Dist EQ Mid Gain	-12 – +12dB	52 – 76		
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
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		
14	Comp. Ratio	1.0 – 20.0	0 – 7	table#10	
15					
16					

MSB = 93

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	(table#18)	
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

MSB = 97

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	0.1 – 1638.3ms	1 – 16383		
2	Delay Feedback Level	-63 – +63	1 – 127	(table#16)	
3	Delay Mix	0 – 127	0 – 127		
4	Dist Drive	0 – 127	0 – 127		
5	Dist Output Level	0 – 127	0 – 127	(table#18)	
6	Dist EQ Low Gain	-12 – +12dB	52 – 76		
7	Dist EQ Mid Gain	-12 – +12dB	52 – 76		
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11	Wah Sensitivity	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	table#12	
15					
16					

MSB = 94

No.	Parameter	Display	Value	See Table	Control
1	Sampling Freq Control	44.1kHz – 345Hz	0 – 127	table#13	
2	Word Length	1 – 127	1 – 127		
3	Output Gain	-6 – +36dB	0 – 42		
4	LPF Cutoff	63Hz – Thru	10 – 60	table#3	
5	Filter Type	Thru, PowerBass, Radio, Tel, 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					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11					
12					
13					
14					
15	Input Mode	mono/stereo			
16					

MSB = 98, LSB = 0
MSB = 98, LSB = 2

No.	Parameter	Display	Value	See Table	Control
1	Overdrive	0 – 100%	0 – 100		
2	Device	Transistor/Vintage Tube/ Dist1/Dist2/Fuzz	0 – 4		
3	Speaker	Flat/Stack/Combo/Twin/ Radio/Megaphone	0 – 5		
4	Presence	0 – 20	0 – 20		
5	Output Level	0 – 100%	0 – 100		
6					
7					
8					
9					
10	Dry/Wet Balance	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11					
12					
13					
14					
15					
16					

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

MSB = 98, LSB = 1
MSB = 98, LSB = 3

No.	Parameter	Display	Value	See Table	Control
1	Overdrive	0 - 100%	0 - 100		
2	Device	Transistor/Vintage Tube/ Dist1/Dist2/Fuzz	0 - 4		
3	Speaker	Flat/Stack/Combo/Twin/ Radio/Megaphone	0 - 5		
4	Presence	0 - 20	0 - 20		
5	Output Level	0 - 100%	0 - 100		
6	Delay Time L	0.1 - 1638.3ms	1 - 16383		
7	Delay Time R	0.1 - 1638.3ms	1 - 16383		
8	Delay Feedback Time	0.1 - 1638.3ms	1 - 16383		
9	Delay Feedback Level	-63 - +63	1 - 127	(table#16)	
10	Dry/Wet Balance	D63>W - D=W - D<W=63	1 - 127	(table#15)	●
11	Delay Mix	0 - 127	0 - 127		
12	Feedback High Dump	0.1 - 1.0	1 - 10		
13					
14					
15					
16					

MSB = 99

No.	Parameter	Display	Value	See Table	Control
1	Rotor Speed Slow	0.0Hz - 2.65Hz	0 - 63	table#1	
2	Horn Speed Slow	0.0Hz - 2.65Hz	0 - 63	table#1	
3	Rotor Speed Fast	2.69Hz - 39.7Hz	64 - 127	table#1	
4	Horn Speed Fast	2.69Hz - 39.7Hz	64 - 127	table#1	
5	Slow-Fast Time of R	0 - 127	0 - 127		
6	Slow-Fast Time of H	0 - 127	0 - 127		
7	Drive Low	0 - 127	0 - 127		
8	Drive High	0 - 127	0 - 127		
9	Low/High Balance	L63>H - L=H - L<H=63	1 - 127		
10					
11	EQ Low Frequency	32Hz - 2.0kHz	4 - 40	table#3	
12	EQ Low Gain	-12 - +12dB	52 - 76		
13	EQ High Frequency	500Hz - 16.0kHz	28 - 58	table#3	
14	EQ High Gain	-12 - +12dB	52 - 76		
15	Mic L-R Angle	0 - 180deg	0 - 60		
16	Speed Control	Slow/Fast	0/1		●

MSB = 100

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	64th/3 - 4thx6	0 - 19	table#14	
2	Delay Feedback Level	-63 - +63	1 - 127	(table#16)	
3	Delay Mix	0 - 127	0 - 127		
4	Dist Drive	0 - 127	0 - 127		
5	Dist Output Level	0 - 127	0 - 127	(table#18)	
6	Dist EQ Low Gain	-12 - +12dB	52 - 76		
7	Dist EQ High Gain	-12 - +12dB	52 - 76		
8	L/R Diffusion	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
9	Lag	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
10	Dry/Wet	D63>W - D=W - D<W=63	1 - 127	(table#15)	●
11					
12					
13					
14					
15					
16					

MSB = 101

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	64th/3 - 4thx6	0 - 19	table#14	
2	Delay Feedback Level	-63 - +63	1 - 127	(table#16)	
3	Delay Mix	0 - 127	0 - 127		
4	Dist Drive	0 - 127	0 - 127		
5	Dist Output Level	0 - 127	0 - 127	(table#18)	
6	Dist EQ Low Gain	-12 - +12dB	52 - 76		
7	Dist EQ High Gain	-12 - +12dB	52 - 76		
8	L/R Diffusion	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
9	Lag	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
10	Dry/Wet	D63>W - D=W - D<W=63	1 - 127	(table#15)	●
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		
14	Comp. Ratio	1.0 - 20.0	0 - 7	table#10	
15					
16					

MSB = 102

No.	Parameter	Display	Value	See Table	Control
1	Delay Time	64th/3 - 4thx6	0 - 19	table#14	
2	Delay Feedback Level	-63 - +63	1 - 127	(table#16)	
3	Delay Mix	0 - 127	0 - 127		
4	Dist Drive	0 - 127	0 - 127		
5	Dist Output Level	0 - 127	0 - 127	(table#18)	
6	Dist EQ Low Gain	-12 - +12dB	52 - 76		
7	Dist EQ High Gain	-12 - +12dB	52 - 76		
8	L/R Diffusion	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
9	Lag	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
10	Dry/Wet	D63>W - D=W - D<W=63	1 - 127	(table#15)	●
11	Wah Sensitivity	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	table#12	
15					
16					

MSB = 103

No.	Parameter	Display	Value	See Table	Control
1	Overdrive	0 - 100%	0 - 100		
2	Device	Transistor/Vintage Tube/ Dist1/Dist2/Fuzz	0 - 4		
3	Speaker	Flat/Stack/Combo/Twin/ Radio/Megaphone	0 - 5		
4	Presence	0 - 20	0 - 20		
5	Output Level	0 - 100%	0 - 100		
6	Delay Time	64th/3 - 4thx6	0 - 19	table#14	
7	Delay Feedback Level	-63 - +63	1 - 127	(table#16)	
8	L/R Diffusion	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
9	Lag	1(-63ms) - 64(0ms) - 127(63ms)	1 - 127		
10	Dry/Wet Balance	D63>W - D=W - D<W=63	1 - 127	(table#15)	●
11	Delay Mix	0 - 127	0 - 127		
12	Feedback High Dump	0.1 - 1.0	1 - 10		
13					
14					
15					
16					

MSB = 104

No.	Parameter	Display	Value	See Table	Control
1	LFO Freq	0.0 - 39.70[Hz]	0 - 127	table#1	
2	LFO Depth	0 - 127	0 - 127	(table#19)	
3	LFO Wave	Triangle, Sine, Random	0 - 2		
4	Delay Offset	0.09 - 36.2[ms]	0 - 139	table#23	
5	Feedback Level	-100 - +100[%]	0 - 200		
6	EQ Low Frequency	32[Hz] - 2.0[kHz]	4 - 40	table#3	
7	EQ Low Gain	-12 - +12[dB]	52 - 76		
8	EQ High Frequency	500[Hz] - 16.0[kHz]	28 - 58	table#3	
9	EQ High Gain	-12 - +12[dB]	52 - 76		
10	Dry/Wet	D63>W - D=W - D<W=63	1 - 127	(table#15)	●
11	EQ mid frequency	100[Hz] - 10.0[kHz]	14 - 54	table#3	
12	EQ mid gain	-12 - +12[dB]	52 - 76		
13	EQ mid width	0.1 - 12.0	1 - 120		
14	Modulation Phase	-180 - +180[deg]	0 - 16	table#24	
15	Feedback High Damp	0.1 - 1.0	1 - 10		
16	Analog Feel	0 - 10	0 - 10		

MSB = 105

No.	Parameter	Display	Value	See Table	Control
1	Type	Normal, Low, Mid, High, Low/High, Low/Mid, Mid/ High, Full Bit, Wild, Attacky, Low End, Hard, Basic	0 - 12		●
2	Threshold Offset	-32 - +32	32 - 96		
3	Low Gain Offset	-63 - +63	1 - 127		
4	Mid Gain Offset	-63 - +63	1 - 127		
5	High Gain Offset	-63 - +63	1 - 127		
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

MSB = 107

No.	Parameter	Display	Value	See Table	Control
1	LFO Freq	16th – 4thx8	5 – 21	table#14	
2	LFO Depth	0 – 127	0 – 127	(table#19)	
3	Feedback Level	-63 – +63	1 – 127	(table#17)	
4	Delay Offset	0.0 – 50.0[ms]	0 – 127	table#2	
5					
6	EQ Low Frequency	32[Hz] – 2.0[kHz]	4 – 40	table#3	
7	EQ Low Gain	-12 – +12[dB]	52 – 76		
8	EQ High Frequency	500[Hz] – 16.0[kHz]	28 – 58	table#3	
9	EQ High Gain	-12 – +12[dB]	52 – 76		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11	EQ mid frequency	100[Hz] – 10.0[kHz]	14 – 54	table#3	
12	EQ mid gain	-12 – +12[dB]	52 – 76		
13	EQ mid width	0.1 – 12.0	1 – 120		
14	LFO phase difference	-180 – +180[deg]	4 – 124		
15					
16					

MSB = 111

No.	Parameter	Display	Value	See Table	Control
1	Sensitivity	0 – 127	0 – 127		●
2	Dyna Level Offset	0 – 127	0 – 127		
3	Feedback Level	-63 – +63	1 – 127	(table#16)	
4	Attack Time	0.3 – 227[ms]	0 – 127	table#20	
5	Release Time	2.6 – 2171[ms]	0 – 127	table#21	
6	Release Curve	0 – 127	0 – 127		
7	Direction	Up, Down	0 – 1		
8	Dyna Threshold Level	0 – 127	0 – 127		
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11	Stage	4, 5, 6	4 – 6		
12					
13	EQ Low Frequency	32[Hz] – 2.0[kHz]	4 – 40	table#3	
14	EQ Low Gain	-12 – +12dB	52 – 76		
15	EQ High Frequency	500[Hz] – 16.0[kHz]	28 – 58	table#3	
16	EQ High Gain	-12 – +12[dB]	52 – 76		

MSB = 108

No.	Parameter	Display	Value	See Table	Control
1	LFO Freq	16th – 4thx8	5 – 21	table#14	
2	LFO Depth	0 – 127	0 – 127	(table#19)	
3	Phase Shift Offset	0 – 127	0 – 127		
4	Feedback Level	-63 – +63	1 – 127	(table#16)	
5					
6	EQ Low Frequency	32[Hz] – 2.0[kHz]	4 – 40	table#3	
7	EQ Low Gain	-12 – +12[dB]	52 – 76		
8	EQ High Frequency	500[Hz] – 16.0[kHz]	28 – 58	table#3	
9	EQ High Gain	-12 – +12[dB]	52 – 76		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	●
11	Stage	3 – 11	3 – 11		
12					
13	LFO phase difference	-180 – +180[deg]	4 – 124		
14					
15					
16					

MSB = 112

No.	Parameter	Display	Value	See Table	Control
1	Sensitivity	0 – 127	0 – 127		●
2	HPF Cutoff Frequency	Thru (20[Hz]) – 8.0[kHz]	0 – 52	table#3	
3	LPF Cutoff Frequency	1.0[kHz] – Thru (20.0[kHz])	34 – 60	table#3	
4	Attack Time	0.3 – 227[ms]	0 – 127	table#20	
5	Release Time	2.6 – 2171[ms]	0 – 127	table#21	
6	Release Curve	0 – 127	0 – 127		
7	Direction	Up, Down	0 – 1		
8	Dyna Threshold Level	0 – 127	0 – 127		
9	Dyna Level Offset	0 – 127	0 – 127		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11					
12					
13	EQ Low Frequency	32[Hz] – 2.0[kHz]	4 – 40	table#3	
14	EQ Low Gain	-12 – +12dB	52 – 76		
15	EQ High Frequency	500[Hz] – 16.0[kHz]	28 – 58	table#3	
16	EQ High Gain	-12 – +12[dB]	52 – 76		

MSB = 109

No.	Parameter	Display	Value	See Table	Control
1	Filter Type	LPF (12dB), LPF (18dB), LPF (24dB), HPF, BPF, BEF	0 – 5		●
2	Sensitivity	0 – 127	0 – 127		
3	Dyna Level Offset	0 – 127	0 – 127		
4	Resonance	-16 – +111	0 – 127		
5	Attack Time	0.3 – 227[ms]	0 – 127	table#20	
6	Release Time	2.6 – 2171[ms]	0 – 127	table#21	
7	Release Curve	0 – 127	0 – 127		
8	Direction	Up, Down	0 – 1		
9	Dyna Threshold Level	0 – 127	0 – 127		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11					
12					
13	EQ Low Frequency	32[Hz] – 2.0[kHz]	4 – 40	table#3	
14	EQ Low Gain	-12 – +12[dB]	52 – 76		
15	EQ High Frequency	500[Hz] – 16.0[kHz]	28 – 58	table#3	
16	EQ High Gain	-12 – +12[dB]	52 – 76		

MSB = 113

No.	Parameter	Display	Value	See Table	Control
1	Carrier Freq Coarse	0.7[Hz] – 5[kHz]	0 – 127	table#22	●
2	Carrier Freq Fine	0 – 127	0 – 127		
3	LFO Wave	Triangle, Sine	0 – 1		
4	LFO Depth	0 – 127	0 – 127	(table#19)	
5	LFO Freq	0.0 – 39.70[Hz]	0 – 127	table#1	
6	HPF Cutoff Frequency	Thru (20[Hz]) – 8.0[kHz]	0 – 52	table#3	
7	LPF Cutoff Frequency	1.0[kHz] – Thru (20.0[kHz])	34 – 60	table#3	
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11					
12					
13	EQ Low Frequency	32[Hz] – 2.0[kHz]	4 – 40	table#3	
14	EQ Low Gain	-12 – +12dB	52 – 76		
15	EQ High Frequency	500[Hz] – 16.0[kHz]	28 – 58	table#3	
16	EQ High Gain	-12 – +12[dB]	52 – 76		

MSB = 110

No.	Parameter	Display	Value	See Table	Control
1	Sensitivity	0 – 127	0 – 127		●
2	Delay Time Offset	0 – 127	0 – 127		
3	Feedback Level	-63 – +63	1 – 127	(table#17)	
4	Attack Time	0.3 – 227[ms]	0 – 127	table#20	
5	Release Time	2.6 – 2171[ms]	0 – 127	table#21	
6	Release Curve	0 – 127	0 – 127		
7	Direction	Up, Down	0 – 1		
8	Dyna Threshold Level	0 – 127	0 – 127		
9	Dyna Level Offset	0 – 127	0 – 127		
10	Dry/Wet	D63>W – D=W – D<W63	1 – 127	(table#15)	
11					
12					
13	EQ Low Frequency	32[Hz] – 2.0[kHz]	4 – 40	table#3	
14	EQ Low Gain	-12 – +12dB	52 – 76		
15	EQ High Frequency	500[Hz] – 16.0[kHz]	28 – 58	table#3	
16	EQ High Gain	-12 – +12[dB]	52 – 76		

MSB = 115

No.	Parameter	Display	Value	See Table	Control
1	On/off SW	Off, On	0 – 1		●
2	Low Level	0 – 127	0 – 127		
3	Mid Level	0 – 127	0 – 127		
4	High Level	0 – 127	0 – 127		
5	Low Mute	Off, On	0 – 1		
6	Mid Mute	Off, On	0 – 1		
7	High Mute	Off, On	0 – 1		
8					
9					
10					
11					
12					
13					
14					
15					
16					

DSP block
VibeRotor

MSB = 119

No.	Parameter	Display	Value	See Table	Control
1	Vibrate Speed	0.00Hz – 39.7Hz	0 – 127	table#1	
2	Vibrate Depth (AM)	0 – 127	0 – 127		
3	Vibrate Depth (PM)	0 – 127	0 – 127		
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 Balance	D63>W – D=W – D<W63	1 – 127	(table#15)	
11	EQ Mid Frequency (*)	100Hz – 10.0kHz	14 – 54	table#3	
12	EQ Mid Gain (*)	-12 – +12dB	52 – 76		
13	EQ Mid Width (*)	0.1 – 12.0	1 – 120		
14	LFO Phase Difference	-180 – +180deg (resolution=3deg.)	4 – 124		
15	Input Mode	mono/stereo	0 – 1		
16	Vibrate SW	Off, On	0 – 1		●

MSB = 0

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

MSB = 64

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

(Parameter 10 Dry/Wet only affects DSP type effects.)

- (*1) Reverb Block
- (*2) DSP Block
- (*3) Chorus Block
- (*4) DSP Block only

Effect Data Assign Table / Effektdaten-Zuordnungstabelle / Tableau d'assignation des données d'effets / Tabla de asignación de datos para efectos

table#1
LFO Frequency

Data	Value	Data	Value	Data	Value	Data	Value
0	0.00	32	1.35	64	2.69	96	8.41
1	0.04	33	1.39	65	2.78	97	8.75
2	0.08	34	1.43	66	2.86	98	9.08
3	0.13	35	1.47	67	2.94	99	9.42
4	0.17	36	1.51	68	3.03	100	9.76
5	0.21	37	1.56	69	3.11	101	10.1
6	0.25	38	1.60	70	3.20	102	10.8
7	0.29	39	1.64	71	3.28	103	11.4
8	0.34	40	1.68	72	3.37	104	12.1
9	0.38	41	1.72	73	3.45	105	12.8
10	0.42	42	1.77	74	3.53	106	13.5
11	0.46	43	1.81	75	3.62	107	14.1
12	0.51	44	1.85	76	3.70	108	14.8
13	0.55	45	1.89	77	3.87	109	15.5
14	0.59	46	1.94	78	4.04	110	16.2
15	0.63	47	1.98	79	4.21	111	16.8
16	0.67	48	2.02	80	4.37	112	17.5
17	0.72	49	2.06	81	4.54	113	18.2
18	0.76	50	2.10	82	4.71	114	19.5
19	0.80	51	2.15	83	4.88	115	20.9
20	0.84	52	2.19	84	5.05	116	22.2
21	0.88	53	2.23	85	5.22	117	23.6
22	0.93	54	2.27	86	5.38	118	24.9
23	0.97	55	2.31	87	5.55	119	26.2
24	1.01	56	2.36	88	5.72	120	27.6
25	1.05	57	2.40	89	6.06	121	28.9
26	1.09	58	2.44	90	6.39	122	30.3
27	1.14	59	2.48	91	6.73	123	31.6
28	1.18	60	2.52	92	7.07	124	33.0
29	1.22	61	2.57	93	7.40	125	34.3
30	1.26	62	2.61	94	7.74	126	37.0
31	1.30	63	2.65	95	8.08	127	39.7

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#5
Delay Time (0.1 – 200.0 [ms])

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

table#7
Delay Time (0.1 – 400.0 [ms])

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#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#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		

Effect Data Assign Table / Effektdaten-Zuordnungstabelle / Tableau d'assignation des données d'effets / Tabla de asignación de datos para efectos

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		

table#14
Tempo

Data	Value	Data	Value	Data	Value
0	64th/3	32	4thX19	64	4thX51
1	64th	33	4thX20	65	4thX52
2	32th	34	4thX21	66	4thX53
3	32th/3	35	4thX22	67	4thX54
4	32th	36	4thX23	68	4thX55
5	16th	37	4thX24	69	4thX56
6	16th/3	38	4thX25	70	4thX57
7	16th	39	4thX26	71	4thX58
8	8th	40	4thX27	72	4thX59
9	8th/3	41	4thX28	73	4thX60
10	8th	42	4thX29	74	4thX61
11	4th	43	4thX30	75	4thX62
12	4th/3	44	4thX31	76	4thX63
13	4th	45	4thX32	77	4thX64
14	2nd	46	4thX33		
15	2nd/3	47	4thX34		
16	2nd	48	4thX35		
17	4thX4	49	4thX36		
18	4thX5	50	4thX37		
19	4thX6	51	4thX38		
20	4thX7	52	4thX39		
21	4thX8	53	4thX40		
22	4thX9	54	4thX41		
23	4thX10	55	4thX42		
24	4thX11	56	4thX43		
25	4thX12	57	4thX44		
26	4thX13	58	4thX45		
27	4thX14	59	4thX46		
28	4thX15	60	4thX47		
29	4thX16	61	4thX48		
30	4thX17	62	4thX49		
31	4thX18	63	4thX50		

table#16
Feedback Level (Reverb, Delay type, Flanger type)

Data	Value (%)	Data	Value (%)	Data	Value (%)
1	-99.20654297	44	-31.49414063	87	36.21826172
2	-97.63183594	45	-29.91943359	88	37.79296875
3	-96.05712891	46	-28.34472656	89	39.36767578
4	-94.48242188	47	-26.77001953	90	40.94238281
5	-92.90771484	48	-25.1953125	91	42.51708984
6	-91.33300781	49	-23.62060547	92	44.09179688
7	-89.75830078	50	-22.04589844	93	45.66650391
8	-88.18359375	51	-20.47119141	94	47.24121094
9	-86.60888672	52	-18.89648438	95	48.81591797
10	-85.03417969	53	-17.32177734	96	50.390625
11	-83.45947266	54	-15.74707031	97	51.96533203
12	-81.88476563	55	-14.17236328	98	53.54003906
13	-80.31005859	56	-12.59765625	99	55.11474609
14	-78.73535156	57	-11.02294922	100	56.68945313
15	-77.16064453	58	-9.448242188	101	58.26416016
16	-75.5859375	59	-7.873535156	102	59.83886719
17	-74.01123047	60	-6.298828125	103	61.41357422
18	-72.43652944	61	-4.724121094	104	62.98828125
19	-70.86181641	62	-3.149414063	105	64.56298828
20	-69.28710938	63	-1.574707031	106	66.13769531
21	-67.71240234	64	0	107	67.71240234
22	-66.13769531	65	1.574707031	108	69.28710938
23	-64.56298828	66	3.149414063	109	70.86181641
24	-62.98828125	67	4.724121094	110	72.43652944
25	-61.41357422	68	6.298828125	111	74.01123047
26	-59.83886719	69	7.873535156	112	75.5859375
27	-58.26416016	70	9.448242188	113	77.16064453
28	-56.68945313	71	11.02294922	114	78.73535156
29	-55.11474609	72	12.59765625	115	80.31005859
30	-53.54003906	73	14.17236328	116	81.88476563
31	-51.96533203	74	15.74707031	117	83.45947266
32	-50.390625	75	17.32177734	118	85.03417969
33	-48.81591797	76	18.89648438	119	86.60888672
34	-47.24121094	77	20.47119141	120	88.18359375
35	-45.66650391	78	22.04589844	121	89.75830078
36	-44.09179688	79	23.62060547	122	91.33300781
37	-42.51708984	80	25.1953125	123	92.90771484
38	-40.94238281	81	26.77001953	124	94.48242188
39	-39.36767578	82	28.34472656	125	96.05712891
40	-37.79296875	83	29.91943359	126	97.63183594
41	-36.21826172	84	31.49414063	127	99.20654297
42	-34.64355469	85	33.06884766		
43	-33.06884766	86	34.64355469		

table#12
Wah Release Time

Data	Value
52	10
53	15
54	25
55	35
56	45
57	55
58	65
59	75
60	85
61	100
62	115
63	140
64	170
65	230
66	340
67	680

table#15
Dry/Wet

Data	Dry (dB)	Wet (dB)	Data	Dry (dB)	Wet (dB)	Data	Dry (dB)	Wet (dB)
1	0.00	--	44	0.00	-6.63	87	-7.89	0.00
2	0.00	-71.97	45	0.00	-6.24	88	-8.33	0.00
3	0.00	-59.93	46	0.00	-5.85	89	-8.78	0.00
4	0.00	-62.89	47	0.00	-5.46	90	-9.25	0.00
5	0.00	-47.89	48	0.00	-5.09	91	-9.72	0.00
6	0.00	-44.01	49	0.00	-4.72	92	-10.21	0.00
7	0.00	-40.85	50	0.00	-4.37	93	-10.71	0.00
8	0.00	-38.17	51	0.00	-4.01	94	-11.23	0.00
9	0.00	-35.85	52	0.00	-3.67	95	-11.77	0.00
10	0.00	-33.80	53	0.00	-3.33	96	-12.32	0.00
11	0.00	-31.97	54	0.00	-3.00	97	-12.89	0.00
12	0.00	-30.32	55	0.00	-2.68	98	-13.48	0.00
13	0.00	-28.81	56	0.00	-2.36	99	-14.09	0.00
14	0.00	-27.42	57	0.00	-2.05	100	-14.72	0.00
15	0.00	-26.13	58	0.00	-1.74	101	-15.37	0.00
16	0.00	-24.93	59	0.00	-1.44	102	-16.06	0.00
17	0.00	-23.81	60	0.00	-1.14	103	-16.77	0.00
18	0.00	-22.76	61	0.00	-0.85	104	-17.50	0.00
19	0.00	-21.76	62	0.00	-0.56	105	-18.28	0.00
20	0.00	-20.82	63	0.00	-0.28	106	-19.08	0.00
21	0.00	-19.93	64	0.00	0.00	107	-19.93	0.00
22	0.00	-19.08	65	-0.28	0.00	108	-20.82	0.00
23	0.00	-18.26	66	-0.56	0.00	109	-21.76	0.00
24	0.00	-17.50	67	-0.85	0.00	110	-22.76	0.00
25	0.00	-16.77	68	-1.14	0.00	111	-23.81	0.00
26	0.00	-16.06	69	-1.44	0.00	112	-24.93	0.00
27	0.00	-15.37	70	-1.74	0.00	113	-26.13	0.00
28	0.00	-14.72	71	-2.05	0.00	114	-27.42	0.00
29	0.00	-14.09	72	-2.36	0.00	115	-28.81	0.00
30	0.00	-13.48	73	-2.68	0.00	116	-30.32	0.00
31	0.00	-12.89	74	-3.00	0.00	117	-31.97	0.00
32	0.00	-12.32	75	-3.33	0.00	118	-33.80	0.00
33	0.00	-11.77	76	-3.67	0.00	119	-35.85	0.00
34	0.00	-11.23	77	-4.01	0.00	120	-38.17	0.00
35	0.00	-10.71	78	-4.37	0.00	121	-40.85	0.00
36	0.00	-10.21	79	-4.72	0.00	122	-44.01	0.00
37	0.00	-9.72	80	-5.09	0.00	123	-47.89	0.00
38	0.00	-9.25	81	-5.46	0.00	124	-52.89	0.00
39	0.00	-8.78	82	-5.85	0.00	125	-59.93	0.00
40	0.00	-8.33	83	-6.24	0.00	126	-71.97	0.00
41	0.00	-7.89	84	-6.63	0.00	127	--	0.00
42	0.00	-7.46	85	-7.04	0.00			
43	0.00	-7.04	86	-7.46	0.00			

table#17
Feedback Level (Chorus type)

Data	Value (%)	Data	Value (%)	Data	Value (%)	Data	Value (%)
1	-72.29	33	-35.57	65	1.15	97	37.87
2	-71.14	34	-34.42	66	2.29	98	39.01
3	-70.00	35	-33.28	67	3.44	99	40.16
4	-68.85	36	-32.13	68	4.59	100	41.31
5	-67.70	37	-30.98	69	5.74	101	42.46
6	-66.55	38	-29.83	70	6.88	102	43.60
7	-65.41	39	-28.69	71	8.03	103	44.75
8	-64.26	40	-27.54	72	9.18	104	45.90
9	-63.11	41	-26.39	73	10.33	105	47.05
10	-61.96	42	-25.24	74	11.47	106	48.19
11	-60.82	43	-24.10	75	12.62	107	49.34
12	-59.67	44	-22.95	76	13.77	108	50

Effect Data Assign Table / Effektdaten-Zuordnungstabelle / Tableau d'assignation des données d'effets / Tabla de asignación de datos para efectos

table#18

Level							
Data	dB	Data	dB	Data	dB	Data	dB
0	-∞	32	-23.95	64	-11.90	96	-4.86
1	-84.15	33	-23.41	65	-11.64	97	-4.68
2	-72.11	34	-22.89	66	-11.37	98	-4.50
3	-65.07	35	-22.39	67	-11.11	99	-4.33
4	-60.07	36	-21.90	68	-10.85	100	-4.15
5	-56.19	37	-21.42	69	-10.60	101	-3.98
6	-53.03	38	-20.96	70	-10.35	102	-3.81
7	-50.35	39	-20.51	71	-10.10	103	-3.64
8	-48.03	40	-20.07	72	-9.86	104	-3.47
9	-45.98	41	-19.64	73	-9.62	105	-3.30
10	-44.15	42	-19.22	74	-9.38	106	-3.14
11	-42.50	43	-18.81	75	-9.15	107	-2.98
12	-40.98	44	-18.41	76	-8.92	108	-2.82
13	-39.59	45	-18.02	77	-8.69	109	-2.66
14	-38.31	46	-17.64	78	-8.47	110	-2.50
15	-37.11	47	-17.27	79	-8.25	111	-2.34
16	-35.99	48	-16.90	80	-8.03	112	-2.18
17	-34.93	49	-16.54	81	-7.81	113	-2.03
18	-33.94	50	-16.19	82	-7.60	114	-1.88
19	-33.00	51	-15.85	83	-7.39	115	-1.72
20	-32.11	52	-15.51	84	-7.18	116	-1.57
21	-31.26	53	-15.18	85	-6.98	117	-1.42
22	-30.46	54	-14.86	86	-6.77	118	-1.28
23	-29.68	55	-14.54	87	-6.57	119	-1.13
24	-28.94	56	-14.22	88	-6.37	120	-0.98
25	-28.23	57	-13.92	89	-6.18	121	-0.84
26	-27.55	58	-13.62	90	-5.98	122	-0.70
27	-26.90	59	-13.32	91	-5.79	123	-0.56
28	-26.27	60	-13.03	92	-5.60	124	-0.42
29	-25.66	61	-12.74	93	-5.41	125	-0.28
30	-25.07	62	-12.46	94	-5.23	126	-0.14
31	-24.50	63	-12.18	95	-5.04	127	0.00

table#20

Dyna Attack Time (ms)							
Data	Value	Data	Value	Data	Value	Data	Value
0	0.3	32	54.0	64	112	96	170
1	0.9	33	56.0	65	114	97	172
2	1.8	34	58.0	66	116	98	174
3	2.7	35	60.0	67	118	99	176
4	3.6	36	61.0	68	120	100	178
5	5.4	37	63.0	69	121	101	180
6	7.2	38	65.0	70	123	102	181
7	9.0	39	67.0	71	125	103	183
8	10.0	40	69.0	72	127	104	185
9	12.0	41	70.0	73	129	105	187
10	14.0	42	72.0	74	130	106	189
11	16.0	43	74.0	75	132	107	190
12	18.0	44	76.0	76	134	108	192
13	20.0	45	78.0	77	136	109	194
14	21.0	46	80.0	78	138	110	196
15	23.0	47	81.0	79	140	111	198
16	25.0	48	83.0	80	141	112	200
17	27.0	49	85.0	81	143	113	201
18	29.0	50	87.0	82	145	114	203
19	30.0	51	89.0	83	147	115	205
20	32.0	52	90.0	84	149	116	207
21	34.0	53	92.0	85	150	117	209
22	36.0	54	94.0	86	152	118	210
23	38.0	55	96.0	87	154	119	212
24	40.0	56	98.0	88	156	120	214
25	41.0	57	100.0	89	158	121	216
26	43.0	58	101.0	90	160	122	218
27	45.0	59	103.0	91	161	123	220
28	47.0	60	105.0	92	163	124	221
29	49.0	61	107.0	93	165	125	223
30	50.0	62	109.0	94	167	126	225
31	52.0	63	110.0	95	169	127	227

table#22

Ring Mod Carrier Freq Course (Hz)							
Data	Value	Data	Value	Data	Value	Data	Value
0	0.7	32	25.6	64	151.4	96	895.0
1	1.3	33	26.9	65	160.2	97	946.1
2	2.0	34	28.9	66	169.6	98	1000.7
3	2.7	35	30.3	67	179.0	99	1057.2
4	3.4	36	32.3	68	189.1	100	1117.7
5	4.0	37	33.6	69	199.9	101	1181.7
6	4.7	38	35.7	70	211.3	102	1249.0
7	5.4	39	37.7	71	223.4	103	1320.3
8	6.1	40	39.7	72	236.2	104	1395.7
9	6.7	41	42.4	73	249.7	105	1475.1
10	7.4	42	44.4	74	263.8	106	1559.2
11	8.1	43	47.1	75	279.3	107	1648.7
12	8.7	44	49.8	76	294.7	108	1742.9
13	9.4	45	52.5	77	311.6	109	1841.8
14	10.1	46	55.9	78	329.7	110	1947.5
15	10.8	47	59.2	79	348.6	111	2058.5
16	11.4	48	62.6	80	368.1	112	2175.6
17	12.1	49	65.9	81	389.6	113	2300.1
18	12.8	50	70.0	82	411.8	114	2431.3
19	13.5	51	73.3	83	435.4	115	2569.9
20	14.1	52	78.1	84	459.6	116	2716.6
21	14.8	53	82.1	85	485.9	117	2871.4
22	15.5	54	86.8	86	514.1	118	3035.6
23	16.2	55	92.2	87	543.1	119	3208.5
24	16.8	56	96.9	88	574.0	120	3391.6
25	17.5	57	103.0	89	607.0	121	3585.4
26	18.2	58	108.3	90	642.0	122	3790.0
27	19.5	59	115.1	91	678.3	123	4006.6
28	20.9	60	121.1	92	717.3	124	4234.8
29	21.5	61	128.5	93	757.7	125	4477.0
30	22.9	62	135.9	94	801.5	126	4732.1
31	24.2	63	143.3	95	847.2	127	5002.6

table#23

V-Flinger Delay Offset			
Data	Value	Data	Value
0	0.7	70	6.4
1	0.1	71	6.7
2	0.1	72	7.0
3	0.2	73	7.4
4	0.2	74	7.7
5	0.2	75	8.1
6	0.2	76	8.5
7	0.2	77	9.0
8	0.3	78	9.4
9	0.3	79	9.9
10	0.3	80	10.3
11	0.3	81	10.7
12	0.4	82	11.2
13	0.4	83	11.6
14	0.4	84	12.1
15	0.4	85	12.5
16	0.4	86	12.9
17	0.5	87	13.4
18	0.5	88	13.8
19	0.5	89	14.2
20	0.5	90	14.7
21	0.6	91	15.1
22	0.6	92	15.6
23	0.6	93	16.0
24	0.7	94	16.4
25	0.7	95	16.9
26	0.7	96	17.3
27	0.8	97	17.8
28	0.8	98	18.2
29	0.8	99	18.6
30	0.9	100	19.1
31	0.9	101	19.5
32	1.0	102	20.0
33	1.0	103	20.4
34	1.1	104	20.8
35	1.1	105	21.3
36	1.2	106	21.7
37	1.2	107	22.2
38	1.3	108	22.6
39	1.4	109	23.0
40	1.4	110	23.5
41	1.5	111	23.9
42	1.6	112	24.4
43	1.7	113	24.8
44	1.8	114	25.2
45	1.8	115	25.7
46	1.9	116	26.1
47	2.0	117	26.5
48	2.1	118	27.0
49	2.3	119	27.4
50	2.4	120	27.9
51	2.5	121	28.3
52	2.6	122	28.7
53	2.7	123	29.2
54	2.9	124	29.6
55	3.0	125	30.1
56	3.2	126	30.5
57	3.3	127	30.9
58	3.5	128	31.4
59	3.7	129	31.8
60	3.9	130	32.3
61	4.1	131	32.7
62	4.3	132	33.1
63	4.5	133	33.6
64	4.7	134	34.0
65	5.0	135	34.5
66	5.2	136	34.9
67	5.5	137	35.3
68	5.8	138	35.8
69	6.0	139	36.2

table#19

LFO Depth							
Data	Value (%)	Data	Value (%)	Data	Value (%)	Data	Value (%)
0	0.00	32	25.20	64	50.39	96	75.59
1	0.78	33	25.98	65	51.17	97	76.37
2	1.56	34	26.76	66	51.95	98	77.15
3	2.34	35	27.54	67	52.73	99	77.93
4	3.13	36	28.32	68	53.52	100	78.71
5	3.91	37	29.10	69	54.30	101	79.49
6	4.69	38	29.88	70	55.08	102	80.27
7	5.47	39	30.66	71	55.86	103	81.05
8	6.25	40	31.45	72	56.64	104	81.84
9	7.03	41	32.23	73	57.42	105	82.62
10	7.81	42	33.01	74	58.20	106	83.40
11	8.59	43	33.79	75	58.98	107	84.18
12	9.38	44	34.57	76	59.77	108	84.96
13	10.16	45	35.35	77	60.55	109	85.74
14	10.94	46	36.13	78	61.33	110	86.52
15	11.72	47	36.91	79	62.11	111	87.30
16	12.50	48	37.70	80	62.89	112	88.09
17	13.28	49	38.48	81	63.67	113	88.87
18	14.06	50	39.26	82	64.45	114	89.65
19	14.84	51	40.04	83	65.23	115	90.43
20	15.63	52	40.82	84	66.02	116	91.21
21	16.41	53	41.60	85	66.80	117	91.99
22	17.19	54	42.38	86	67.58	118	92.77
23	17.97	55	43.16	87	68.36	119	93.55
24	18.75	56	43.95	88	69.14	120	94.34
25	19.53	57	44.73	89	69.92	121	95.12
26	20.31	58	45.51	90	70.70	122	95.90
27	21.09	59	46.29	91	71.48	123	96.68
28	21.88	60	47.07	92	72.27	124	97.46
29	2						

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

Many MIDI messages listed in the MIDI Data Format are expressed in decimal numbers, binary numbers and hexadecimal numbers. Hexadecimal numbers may include the letter "H" as a suffix.

Also, "n" can freely be defined as any whole number. To enter data/values, refer to the table below.

decimal	hexadecimal	binary
0	00	0000 0000
1	01	0000 0001
2	02	0000 0010
3	03	0000 0011
4	04	0000 0100
5	05	0000 0101
6	06	0000 0110
7	07	0000 0111
8	08	0000 1000
9	09	0000 1001
10	0A	0000 1010
11	0B	0000 1011
12	0C	0000 1100
13	0D	0000 1101
14	0E	0000 1110
15	0F	0000 1111
16	10	0001 0000
17	11	0001 0001
18	12	0001 0010
19	13	0001 0011
20	14	0001 0100
21	15	0001 0101
22	16	0001 0110
23	17	0001 0111
24	18	0001 1000
25	19	0001 1001
26	1A	0001 1010
27	1B	0001 1011
28	1C	0001 1100
29	1D	0001 1101
30	1E	0001 1110
31	1F	0001 1111

decimal	hexadecimal	binary
32	20	0010 0000
33	21	0010 0001
34	22	0010 0010
35	23	0010 0011
36	24	0010 0100
37	25	0010 0101
38	26	0010 0110
39	27	0010 0111
40	28	0010 1000
41	29	0010 1001
42	2A	0010 1010
43	2B	0010 1011
44	2C	0010 1100
45	2D	0010 1101
46	2E	0010 1110
47	2F	0010 1111
48	30	0011 0000
49	31	0011 0001
50	32	0011 0010
51	33	0011 0011
52	34	0011 0100
53	35	0011 0101
54	36	0011 0110
55	37	0011 0111
56	38	0011 1000
57	39	0011 1001
58	3A	0011 1010
59	3B	0011 1011
60	3C	0011 1100
61	3D	0011 1101
62	3E	0011 1110
63	3F	0011 1111

decimal	hexadecimal	binary
64	40	0100 0000
65	41	0100 0001
66	42	0100 0010
67	43	0100 0011
68	44	0100 0100
69	45	0100 0101
70	46	0100 0110
71	47	0100 0111
72	48	0100 1000
73	49	0100 1001
74	4A	0100 1010
75	4B	0100 1011
76	4C	0100 1100
77	4D	0100 1101
78	4E	0100 1110
79	4F	0100 1111
80	50	0101 0000
81	51	0101 0001
82	52	0101 0010
83	53	0101 0011
84	54	0101 0100
85	55	0101 0101
86	56	0101 0110
87	57	0101 0111
88	58	0101 1000
89	59	0101 1001
90	5A	0101 1010
91	5B	0101 1011
92	5C	0101 1100
93	5D	0101 1101
94	5E	0101 1110
95	5F	0101 1111

decimal	hexadecimal	binary
96	60	0110 0000
97	61	0110 0001
98	62	0110 0010
99	63	0110 0011
100	64	0110 0100
101	65	0110 0101
102	66	0110 0110
103	67	0110 0111
104	68	0110 1000
105	69	0110 1001
106	6A	0110 1010
107	6B	0110 1011
108	6C	0110 1100
109	6D	0110 1101
110	6E	0110 1110
111	6F	0110 1111
112	70	0111 0000
113	71	0111 0001
114	72	0111 0010
115	73	0111 0011
116	74	0111 0100
117	75	0111 0101
118	76	0111 0110
119	77	0111 0111
120	78	0111 1000
121	79	0111 1001
122	7A	0111 1010
123	7B	0111 1011
124	7C	0111 1100
125	7D	0111 1101
126	7E	0111 1110
127	7F	0111 1111

• Except the table above, for example 144-159(decimal)/9nH/1001 0000-1001 1111(binary) denotes the Note On Message for each channel (1-16). 176-191/BnH/1011 0000-1011 1111 denotes the Control Change Message for each channel (1-16). 192-207/CnH/1100 0000-1100 1111 denotes the Program Change Message for each channel (1-16). 240/FOH/1111 0000 denotes the start of a System Exclusive Message. 247/F7H/1111 0111 denotes the end of a System Exclusive Message.

- aaH (hexidecimal)/0aaaaaaa (binary) denotes the data address. The address contains High, Mid, and Low.
- bbH/0bbbbbbb denotes the byte count.
- ccH/0ccccccc denotes the check sum.
- ddH/0ddddddd denotes the data/value.

■ Preset Voice List

Program change numbers are often specified as numbers "0 -127." Since this list uses a "1 - 128" numbering system, in such cases it is necessary to subtract 1 from the transmitted program change numbers to select the appropriate sound: e.g. to select No. 2 in the list below, transmit program change number 1.

Voice group	Voice name	Bank MSB	Bank LSB	Program Change (1-128)
GRANDPIANO1	GrandPiano1	0	122	1
	MellowPiano	0	123	1
	RockPiano	0	122	3
	HonkyTonkPiano	0	122	4
GRANDPIANO2	GrandPiano2	0	112	1
	BrightPiano	0	112	2
E.PIANO1	E.Piano1	0	122	6
	SynthPiano	0	122	89
E.PIANO2	E.Piano2	0	122	5
	Vintage E.Piano	0	123	5
HARPSICHORD	Harpsichord8'	0	122	7
	Harpsichord8'+4'	0	123	7
E.CLAVICHORD	E.Clavichord	0	122	8
	Wah Clavi.	0	123	8
VIBRAPHONE	Vibraphone	0	122	12
	Marimba	0	122	13
	Celesta	0	122	9
GUITAR	NylonGuitar	0	122	25
	SteelGuitar	0	122	26

Voice group	Voice name	Bank MSB	Bank LSB	Program Change (1-128)
CHURCHORGAN	PipeOrganPrincipal	0	123	20
	PipeOrganTutti	0	122	20
	PipeOrganFlute1	0	124	20
	PipeOrganFlute2	0	125	20
JAZZORGAN	JazzOrgan	0	122	17
	RotaryOrgan	0	124	17
	MellowOrgan	0	125	17
STRINGS	Strings	0	122	49
	SynthStrings	0	122	51
	SlowStrings	0	125	50
CHOIR	Choir	0	122	53
	SlowChoir	0	123	53
	Scat	0	122	54
SYNTH.PAD	SynthPad1	0	122	90
	SynthPad2	0	123	89
WOOD BASS	WoodBass	0	122	33
	Bass&Cymbal	0	124	33
E.BASS	ElectricBass	0	122	34
	FretlessBass	0	122	36

MIDI CHANNEL MESSAGE (1)

MIDI Events	[MIDI (CLP)]															[Internal Sequencer]				
	Status byte		1st Data byte			2nd Data byte			MIDI Reception (respond/ignored)			MIDI Transmission (generated data)			PLAY		REC			
	Status	Data (Hex)	Parameter	Data (Hex)	Parameter	Song	Main Layer Left	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel						
Key Off [GM1] [GM2]	8nH (n: Channel Number)	kk	Key no. (0-127)	vv	Velocity (0-127)	○	○	○	○	○	○	○	○	○	○	○	○			
Key On [GM1] [GM2]	9nH (n: Channel Number)	kk	Key no. (0-127)	vv	Key On: vv=1-127 Key Off: vv=0	○	○	○	○ (Keyboard)	○	○	○	○	○	○	○	○			
Control Change	BnH	0 (00H)	Bank Select MSB [GM2]	0 (00H) 64 (40H) 118 (76H) 119 (77H) 120 (78H) 121 (79H) 126 (7EH) 127 (7FH)	Normal SFX voice GS Rhythm GS Normal GM2 Rhythm GM2 Normal SFX kit Drum kit	○	○	○ (Main)	○ (Voice)	○	○	○	○	○	○	○	○			
		1 (01H)	Modulation [GM1] [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○		
		5 (05H)	Portamento Time [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○	
		6 (06H)	Data Entry MSB [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○	
		7 (07H)	Main Volume [GM1] [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○	
		10 (0AH)	Panpot [GM1] [GM2]	0-127 (00H...7FH)	L64...C...R63	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○	○
		11 (0BH)	Expression [GM1] [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Pedal)	○	○	○	○	○	○	○	○	○	○	
		32 (20H)	Bank Select LSB [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice)	○	○	○	○	○	○	○	○	○	○	
		38 (26H)	Data Entry LSB [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○	
		64 (40H)	Sustain (Damper) [GM1] [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Pedal)	○	○	○	○	○	○	○	○	○	○	
		65 (41H)	Portamento [GM2]	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○	
		66 (42H)	Sostenuto [GM2]	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	○	○	○ (All manually played parts)	○ (Pedal)	○	○	○	○	○	○	○	○	○	○	
		67 (43H)	Soft Pedal [GM2]	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	○	○	○ (All manually played parts)	○ (Pedal)	○	○	○	○	○	○	○	○	○	○	
		71 (47H)	Harmonic Content [GM2]	0-127 (00H...7FH)	-64...0...+63	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○	
		72 (48H)	Release Time [GM2]	0-127 (00H...7FH)	-64...0...+63	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○	
		73 (49H)	Attack Time [GM2]	0-127 (00H...7FH)	-64...0...+63	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○	
		74 (4AH)	Brightness [GM2]	0-127 (00H...7FH)	-64...0...+63	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○	
		75 (4BH)	Decay Time [GM2]	0-127 (00H...7FH)	-64...0...+63	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○	
		76 (4CH)	Vibrate Rate [GM2]	0-127 (00H...7FH)	-64...0...+63	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○	
		77 (4DH)	Vibrate Depth [GM2]	0-127 (00H...7FH)	-64...0...+63	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○	
		78 (4EH)	Vibrate Delay [GM2]	0-127 (00H...7FH)	-64...0...+63	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○	
		84 (54H)	Portamento Control	0-127 (00H...7FH)	Key no. (0-127)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		91 (5BH)	Effect1 Depth (Reverb Send Level) [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○	
		93 (5DH)	Effect3 Depth (Chorus Send Level) [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○	
		94 (5EH)	Effect4 Depth (Variation Send Level)	0-127 (00H...7FH)	Data	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
96 (60H)	RPN Increment	-	-	The data byte is ignored.	○	○	○	○	○	○	○	○	○	○	○	○	○			
97 (61H)	RPN Decrement	-	-	The data byte is ignored.	○	○	○	○	○	○	○	○	○	○	○	○	○			
98 (62H)	NRPN LSB	0-127 (00H...7FH)	Data	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
99 (63H)	NRPN MSB	0-127 (00H...7FH)	Data	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
100 (64H)	RPN LSB [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○			
101 (65H)	RPN MSB [GM2]	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	○	○	○	○	○	○	○	○	○			
120 (78H)	All Sound Off [GM2]	0 (00H)	Data	○	○	○ (All manually played parts)	○	○	○	○	○	○	○	○	○	○	○			
121 (79H)	Reset All Controllers [GM1] [GM2]	0 (00H)	Data	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
122 (7AH)	Local Control	0 (00H) 127 (7FH)	OFF ON	○	○	○	○	○	○	○	○	○	○	○	○	○	○			

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

MIDI Events	Status byte	1st Data byte			2nd Data byte			[MIDI (CLP)]			[Internal Sequencer]					
	Status	Data	(Hex)	Parameter	Data	(Hex)	Parameter	MIDI Reception (respond/ignored)			MIDI Transmission (generated data)			PLAY		REC
								Song	Main Layer Left	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel
Mode Message	BnH (n: Channel Number)	123	(7BH)	All Note Off [GM1] [GM2]	0	(00H)	Data	○	○	○ (All manually played parts)	×	○	×	○	×	×
		124	(7CH)	Omni Off [GM2]	0	(00H)	Data	○	×	×	×	○	×	○	×	×
		125	(7DH)	Omni On [GM2]	0	(00H)	Data	○	×	×	×	○	×	○	×	×
		126	(7EH)	Mono [GM2]	0-16	(00H...10H)	Data	○	×	×	×	○	×	○	×	×
		127	(7FH)	Poly [GM2]	0	(00H)	Data	○	×	×	×	○	×	○	×	×
Program Change [GM1] [GM2]	CnH (n: Channel Number)	pp	(00H...7FH)	Voice number (0-127)	-	-	-	○	○	○ (Main)	○ (Voice)	○	×	○	○	○
Channel After Touch [GM1] [GM2]	DnH (n: Channel Number)	vv	(00H...7FH)	Data	-	-	-	○	○	○ (All manually played parts)	×	○	×	○	×	×
Polyphonic After Touch	AnH (n: Channel Number)	kk	(00H...7FH)	Key no. (0-127)	vv	(00H...7FH)	Data	○	×	×	×	○	×	○	×	×
Pitch Bend Change [GM1] [GM2]	EnH (n: Channel Number)	cc	(00H...7FH)	LSB	dd	(00H...7FH)	MSB	○	○	○ (All manually played parts)	○ (Pedal)	○	×	○	○	○
Realtime Message	F8H MIDI Clock	-	-	-	-	-	-	-	-	×	○	-	-	-	-	×
	FAH Start	-	-	-	-	-	-	-	-	○	○	-	-	-	-	×
	FBH Continue	-	-	-	-	-	-	-	-	×	×	-	-	-	-	×
	FCH Stop	-	-	-	-	-	-	-	-	○	○	-	-	-	-	×
	FEH Active Sens [GM2]	-	-	-	-	-	-	-	-	○	○	-	-	-	-	×
	FFH System Reset	-	-	-	-	-	-	-	-	×	×	-	-	-	-	×

MIDI CHANNEL MESSAGE (2)

Parameters controlled by NRPN (Non-Registered Parameter Numbers)

NRPN				Data Entry		Parameter	Data Range	[MIDI (CLP)]			[Internal Sequencer]				
MSB	LSB	MSB	LSB	MIDI Reception (respond/ignore)				MIDI Transmission (generated data)			PLAY		REC		
				Song	Main Layer Left Layer			Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel	
01H	08H	mmH	-	Vibrato Rate	mm: 00H-40H-7FH (-64...0...+63)	○	○	×	×	○	×	○	○	×	
01H	09H	mmH	-	Vibrato Depth	mm: 00H-40H-7FH (-64...0...+63)	○	○	×	×	○	×	○	○	×	
01H	0AH	mmH	-	Vibrato Delay	mm: 00H-40H-7FH (-64...0...+63)	○	○	×	×	○	×	○	○	×	
01H	20H	mmH	-	Low Pass Filter Cutoff Frequency	mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×	
01H	21H	mmH	-	Low Pass Filter Resonance	mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×	
01H	30H	mmH	-	EQ BASS	mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×	
01H	31H	mmH	-	EQ TREBLE	mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×	
01H	34H	mmH	-	EQ BASS Frequency	mm: 04H-28H (32...2.0k[Hz])	○	×	×	×	○	×	○	○	×	
01H	35H	mmH	-	EQ TREBLE Frequency	mm: 1CH-3AH (500...16.0k[Hz])	○	×	×	×	○	×	○	○	×	
01H	63H	mmH	-	EG Attack Time	mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×	
01H	64H	mmH	-	EG Decay Time	mm: 00H-40H-7FH (-64...0...+63)	○	○	×	×	○	×	○	○	×	
01H	66H	mmH	-	EG Release	mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×	
14H	rrH	mmH	-	Drum Low Pass Filter Cutoff Frequency	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×	
15H	rrH	mmH	-	Drum Low Pass Filter Resonance	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×	
16H	rrH	mmH	-	Drum EG Attack Rate	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×	
17H	rrH	mmH	-	Drum EG Decay Rate	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×	
18H	rrH	mmH	-	Drum Pitch Coarse	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×	
19H	rrH	mmH	-	Drum Pitch Fine	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×	
1AH	rrH	mmH	-	Drum Level	rr: drum instrument note number mm: 00H-7FH (0...127)	○	×	×	×	○	×	○	×	×	
1CH	rrH	mmH	-	Drum Pan	rr: drum instrument note number mm: 00H, 01H-40H-7FH (RND, L63...C...R63)	○	×	×	×	○	×	○	×	×	
1DH	rrH	mmH	-	Drum Reverb Send Level	rr: drum instrument note number mm: 00H-7FH (0...127)	○	×	×	×	○	×	○	×	×	
1EH	rrH	mmH	-	Drum Chorus Send Level	rr: drum instrument note number mm: 00H-7FH (0...127)	○	×	×	×	○	×	○	×	×	
1FH	rrH	mmH	-	Drum Variation Send Level	rr: drum instrument note number mm: 00H-7FH (0...127) (Variation Connection = SYSTEM) mm: 00H, 01H-7FH (OFF, ON) (Variation Connection = INSERTION)	○	×	×	×	○	×	○	×	×	
24H	rrH	mmH	-	Drum HPF Cutoff Frequency	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	×	×	×	×	×	×	×	×	×	
30H	rrH	mmH	-	Drum EQ Bass Gain	rr: drum instrument note number mm: 00H-7FH (0...127)	×	×	×	×	×	×	×	×	×	
31H	rrH	mmH	-	Drum EQ Treble Gain	rr: drum instrument note number mm: 00H-7FH (0...127)	×	×	×	×	×	×	×	×	×	
34H	rrH	mmH	-	Drum EQ Bass Frequency	rr: drum instrument note number mm: 04H-28H (32...2.0k[Hz])	×	×	×	×	×	×	×	×	×	
35H	rrH	mmH	-	Drum EQ Treble Frequency	rr: drum instrument note number mm: 1CH-3AH (500...16.0k[Hz])	×	×	×	×	×	×	×	×	×	
40H	rrH	mmH	-	Drum VELOCITY PITCH SENS.	rr: drum instrument note number mm: 00H-0FH (0...15)	×	×	×	×	×	×	×	×	×	
41H	rrH	mmH	-	Drum VELOCITY LPF CUTOFF SENS.	rr: drum instrument note number mm: 00H-0FH (0...15)	×	×	×	×	×	×	×	×	×	

NRPN MSB: 14H-1FH (for drums) message is accepted as long as the channel is set with a drum voice.

Data Entry LSB: Ignored.

Parameters controlled by RPN (Registered Parameter Numbers)

NRPN				Data Entry		Parameter	Data Range	[MIDI (CLP)]			[Internal Sequencer]				
MSB	LSB	MSB	LSB	MIDI Reception (respond/ignore)				MIDI Transmission (generated data)			PLAY		REC		
				Song	Main Layer Left Layer			Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel	
00H	00H	mmH	-	Pitch Bend Sensitivity [GM1] [GM2]	mm: 00H-18H (0...+24[semitones])	○	○	○ (All manually played parts)	○ (Function)	○	×	○	○	○	
00H	01H	mmH	llH	Fine Tune [GM1] [GM2]	mm ll: 00H 00H -100[cent] ... mm ll: 40H 00H 0[cent] ... mm ll: 7FH 7FH 100[cent]	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○	
00H	02H	mmH	-	Coarse Tune [GM1] [GM2]	mm: 28H-40H-58H (-24...0...+24[semitones])	○	○	○ (All manually played parts)	×	○	×	○	○	×	
00H	05H	mmH	llH	Modulation Sensitivity [GM2]	mm: Specified in semitone steps ll: Specified in 100/128 cent steps	○	×	×	×	○	×	○	×	×	
7FH	7FH	-	-	Null [GM2]	-	○	×	×	×	○	×	○	×	×	

MIDI PARAMETER CHANGE TABLE

* Not Received when Receive Parameter SysEx is set to off.
 * Not transmitted when Transmit Parameter SysEx is set to on.

MIDI Parameter Change table (XG SYSTEM)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]										
						MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC					
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel					
00	00	00 01 02 03	4	00-0F MASTER TUNE	-102.4...0...+102.3[cent] 1st bit3-0→bit15-12 2nd bit3-0→bit11-8 3rd bit3-0→bit7-4 4th bit3-0→bit3-0	*Panel setting value													
	04	1	00-7F	MASTER VOLUME	0...127	7F		X	X	X	X								
	05	1	00-7F	MASTER ATTENUATOR	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
	06	1	28-58	TRANPOSE	-24...0...+24[semitones]	40		X	X	X									
	7D	1	N	DRUM SETUP RESET	N: Drum setup number	-		X	X	X	X	X	X	X	X	X	X	X	X
	7E	1	00	XG SYSTEM ON	00=XG system ON	-		X	X	X	X								
	7F	1	00	ALL PARAMETER RESET	00=ON	-		X	X	X	X								

TOTAL SIZE 07

MIDI Parameter Change table (SYSTEM INFORMATION)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]										
						MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC					
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel					
01	00	00 ... 0D	E	20-7F Model Name 1 ... Model Name 14	32...127 (ASCII CHARACTER) ...	-	-	-	X	X	O	X	X	X	X				
	0E	1		NOT USED															
	0F	1		NOT USED															

TOTAL SIZE 10
 Transmitted in response to Dump Request. Not received.

MIDI Parameter Change table (EFFECT1)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]										
						MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC					
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel					
02	01	00	2	00-7F REVERB TYPE MSB REVERB TYPE LSB	Refer to Effect Parameter List *	01(=HALL1) 00													
		02	1	00-7F REVERB PARAMETER 1	"	Depends on Reverb Type													
		03	1	00-7F REVERB PARAMETER 2	"	Depends on Reverb Type													
		04	1	00-7F REVERB PARAMETER 3	"	Depends on Reverb Type													
		05	1	00-7F REVERB PARAMETER 4	"	Depends on Reverb Type													
		06	1	00-7F REVERB PARAMETER 5	"	Depends on Reverb Type													
		07	1	00-7F REVERB PARAMETER 6	"	Depends on Reverb Type													
		08	1	00-7F REVERB PARAMETER 7	"	Depends on Reverb Type													
		09	1	00-7F REVERB PARAMETER 8	"	Depends on Reverb Type													
		0A	1	00-7F REVERB PARAMETER 9	"	Depends on Reverb Type													
		0B	1	00-7F REVERB PARAMETER 10	"	Depends on Reverb Type													
		0C	1	00-7F REVERB RETURN	→dB...0dB...+6dB (0...64...127)	40													
		0D	1	01-7F REVERB PAN	L63...C...R63	40													

TOTAL SIZE 0E

		02	01	10	1	00-7F REVERB PARAMETER 11	Refer to Effect Parameter List	Depends on Reverb Type											
				11	1	00-7F REVERB PARAMETER 12	"	Depends on Reverb Type											
				12	1	00-7F REVERB PARAMETER 13	"	Depends on Reverb Type											
				13	1	00-7F REVERB PARAMETER 14	"	Depends on Reverb Type											
				14	1	00-7F REVERB PARAMETER 15	"	Depends on Reverb Type											
				15	1	00-7F REVERB PARAMETER 16	"	Depends on Reverb Type											

TOTAL SIZE 06

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]										
						MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC					
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel					
02	01	20	2	00-7F CHORUS TYPE MSB CHORUS TYPE LSB	Refer to Effect Parameter List *	01 (=CHORUS1) 00													
		22	1	00-7F CHORUS PARAMETER 1	"	Depends on Chorus Type													
		23	1	00-7F CHORUS PARAMETER 2	"	Depends on Chorus Type													

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]				
						MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)		PLAY		REC
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW
	24	1	00-7F	CHORUS PARAMETER 3	"	Depends on Chorus Type	○ (Depends on Chorus Type)	○	×	○	○	○	×
	25	1	00-7F	CHORUS PARAMETER 4	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
	26	1	00-7F	CHORUS PARAMETER 5	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
	27	1	00-7F	CHORUS PARAMETER 6	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
	28	1	00-7F	CHORUS PARAMETER 7	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
	29	1	00-7F	CHORUS PARAMETER 8	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
	2A	1	00-7F	CHORUS PARAMETER 9	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
	2B	1	00-7F	CHORUS PARAMETER 10	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
	2C	1	00-7F	CHORUS RETURN	--dB...0dB...+6dB (0...64...127)	40	○	×	○	×	○	○	×
	2D	1	01-7F	CHORUS PAN	L63...C...R63	40	○	×	○	×	○	○	×
	2E	1	00-7F	SEND CHORUS TO REVERB	--dB...0dB...+6dB (0...64...127)	00	○	×	○	×	○	○	×
TOTAL SIZE		0F											

02	01	30	1	00-7F	CHORUS PARAMETER 11	Refer to Effect Parameter List	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
		31	1	00-7F	CHORUS PARAMETER 12	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
		32	1	00-7F	CHORUS PARAMETER 13	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
		33	1	00-7F	CHORUS PARAMETER 14	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
		34	1	00-7F	CHORUS PARAMETER 15	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
		35	1	00-7F	CHORUS PARAMETER 16	"	Depends on Chorus Type	○ (Depends on Chorus Type)	×	○	×	○	○	×
TOTAL SIZE		06												

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]					
						MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)		PLAY		REC	
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel
02	01	40	2	00-7F 00-7F	VARIATION TYPE MSB VARIATION TYPE LSB	Refer to Effect Parameter List	05 (=DELAY L, C, R) 00	○	×	○	×	○	○	×
		42	2	00-7F 00-7F	VARIATION PARAMETER 1 MSB VARIATION PARAMETER 1 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		44	2	00-7F 00-7F	VARIATION PARAMETER 2 MSB VARIATION PARAMETER 2 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		46	2	00-7F 00-7F	VARIATION PARAMETER 3 MSB VARIATION PARAMETER 3 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		48	2	00-7F 00-7F	VARIATION PARAMETER 4 MSB VARIATION PARAMETER 4 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		4A	2	00-7F 00-7F	VARIATION PARAMETER 5 MSB VARIATION PARAMETER 5 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		4C	2	00-7F 00-7F	VARIATION PARAMETER 6 MSB VARIATION PARAMETER 6 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		4E	2	00-7F 00-7F	VARIATION PARAMETER 7 MSB VARIATION PARAMETER 7 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		50	2	00-7F 00-7F	VARIATION PARAMETER 8 MSB VARIATION PARAMETER 8 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		52	2	00-7F 00-7F	VARIATION PARAMETER 9 MSB VARIATION PARAMETER 9 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		54	2	00-7F 00-7F	VARIATION PARAMETER 10 MSB VARIATION PARAMETER 10 LSB	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		56	1	00-7F	VARIATION RETURN	--dB...0dB...+6dB (0...64...127)	40	○	×	○	×	○	○	×
		57	1	01-7F	VARIATION PAN	L63...C...R63	40	○	×	○	×	○	○	×
		58	1	00-7F	SEND VARIATION TO REVERB	--dB...0dB...+6dB (0...64...127)	00	○	×	○	×	○	○	×
		59	1	00-7F	SEND VARIATION TO CHORUS	--dB...0dB...+6dB (0...64...127)	00	○	×	○	×	○	○	×
		5A	1	00-01	VARIATION CONNECTION	INSERTION, SYSTEM	00	○	×	○	×	○	○	×
		5B	1	00-7F	VARIATION PART NUMBER	Reception: Part1...16 (0...15) Transmission: Part1...16 (0...15) AD (64) 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	30	1	00-7F	VARIATION PARAMETER 11	Refer to Effect Parameter List	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		31	1	00-7F	VARIATION PARAMETER 12	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		32	1	00-7F	VARIATION PARAMETER 13	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		33	1	00-7F	VARIATION PARAMETER 14	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		34	1	00-7F	VARIATION PARAMETER 15	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
		35	1	00-7F	VARIATION PARAMETER 16	"	Depends on Variation Type	○ (Depends on Variation Type)	×	○	×	○	○	×
TOTAL SIZE		06												

MIDI Parameter Change table (MULTI EQ)

Address (H)	Size (H)	Data (H)	Parameter	Description	[MIDI (CLP)]			[Internal Sequencer]							
					MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)		PLAY		REC			
					Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel		
02	40	00	1	00-04	EQ TYPE	flat, jazz, pops, rock, classic	X			X	X	X	X	X	X
		01	1	34-4C	EQ GAIN1	-12...0...+12[dB]	X			X	X	X	X	X	X
		02	1	04-2B	EQ FREQUENCY1	32...2.0k[Hz]	X			X	X	X	X	X	X
		03	1	01-78	EQ Q1	0.1...12.0	X			X	X	X	X	X	X
		04	1	00-01	EQ SHAPE1	shelving, peaking	X			X	X	X	X	X	X
		05	1	34-4C	EQ GAIN2	-12...0...+12[dB]	X			X	X	X	X	X	X
		06	1	0E-36	EQ FREQUENCY2	100...10.0k[Hz]	X			X	X	X	X	X	X
		07	1	01-78	EQ Q2	0.1...12.0	X			X	X	X	X	X	X
		08	1		NOT USED	-	-			-	-	-	-	-	-
		09	1	34-4C	EQ GAIN3	-12...0...+12[dB]	X			X	X	X	X	X	X
		0A	1	0E-36	EQ FREQUENCY3	100...10.0k[Hz]	X			X	X	X	X	X	X
		0B	1	01-78	EQ Q3	0.1...12.0	X			X	X	X	X	X	X
		0C	1		NOT USED	-	-			-	-	-	-	-	-
		0D	1	34-4C	EQ GAIN4	-12...0...+12[dB]	X			X	X	X	X	X	X
		0E	1	0E-36	EQ FREQUENCY4	100...10.0k[Hz]	X			X	X	X	X	X	X
		0F	1	01-78	EQ Q4	0.1...12.0	X			X	X	X	X	X	X
		10	1		NOT USED	-	-			-	-	-	-	-	-
		11	1	34-4C	EQ GAIN5	-12...0...+12[dB]	X			X	X	X	X	X	X
		12	1	1C-3A	EQ FREQUENCY5	0.5k...16.0k[Hz]	X			X	X	X	X	X	X
		13	1	01-78	EQ Q5	0.1...12.0	X			X	X	X	X	X	X
		14	1	00-01	EQ SHAPE5	shelving, peaking	X			X	X	X	X	X	X

TOTAL SIZE 15

*The MULTI EQ Parameter cannot be reset to its factory setting with XG SYSTEM ON.

MIDI Parameter Change table (EFFECT2)

*The EFFECT2 Parameter cannot be reset to its factory setting with XG SYSTEM ON.

Address (H)	Size (H)	Data (H)	Parameter	Description	[MIDI (CLP)]			[Internal Sequencer]							
					MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)		PLAY		REC			
					Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from Panel		
03	n	00	2	00-7F 00-7F	INSERTION EFFECT TYPE MSB INSERTION EFFECT TYPE LSB	Refer to Effect Parameter List				○ (Voice Setting)	○	×	○	○	○
		02	1	00-7F	INSERTION EFFECT PARAMETER 1	"	○ (Depends on Insertion Type)			○ (Voice Setting)	○	×	○	○	○
		03	1	00-7F	INSERTION EFFECT PARAMETER 2	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		04	1	00-7F	INSERTION EFFECT PARAMETER 3	"	○ (Depends on Insertion Type)			○ (Voice Setting)	○	×	○	○	○
		05	1	00-7F	INSERTION EFFECT PARAMETER 4	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		06	1	00-7F	INSERTION EFFECT PARAMETER 5	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		07	1	00-7F	INSERTION EFFECT PARAMETER 6	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		08	1	00-7F	INSERTION EFFECT PARAMETER 7	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		09	1	00-7F	INSERTION EFFECT PARAMETER 8	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	"	○ (Depends on Insertion Type)			○ (Voice Setting)	○	×	○	○	○
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	Reception: Part1...16 (0...15) Transmission: Part1...16 (0...15) AD (64) OFF (127)	○			○ (Voice)	○	×	○	○	○
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63	○			×	○	×	○	○	×
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63	○			×	○	×	○	○	×
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63	○			×	○	×	○	○	×
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63	○			×	○	×	○	○	×
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63	○			×	○	×	○	○	×

TOTAL SIZE 12

02	01	20	1	00-7F	INSERTION EFFECT PARAMETER 11	Refer to Effect Parameter List	○ (Depends on Insertion Type)			×	○	×	○	○	×
		21	1	00-7F	INSERTION EFFECT PARAMETER 12	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		22	1	00-7F	INSERTION EFFECT PARAMETER 13	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		23	1	00-7F	INSERTION EFFECT PARAMETER 14	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		24	1	00-7F	INSERTION EFFECT PARAMETER 15	"	○ (Depends on Insertion Type)			×	○	×	○	○	×
		25	1	00-7F	INSERTION EFFECT PARAMETER 16	"	○ (Depends on Insertion Type)			○ (Voice Setting)	○	×	○	○	○

TOTAL SIZE 6

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]						
						MIDI Reception (effective or no for each part)			MIDI Transmission (generated data)		PLAY		REC		
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel	
	30	1	00-01	Rcv PITCH BEND	OFF, ON	01	○	×	×	×	○	×	○	×	×
	31	1	00-01	Rcv CH AFTER TOUCH (CAT)	OFF, ON	01	○	×	×	×	○	×	○	×	×
	32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	01	○	×	×	×	○	×	○	×	×
	33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	01	○	×	×	×	○	×	○	×	×
	34	1	00-01	Rcv POLY AFTER TOUCH (PAT)	OFF, ON	01	○	×	×	×	○	×	○	×	×
	35	1	00-01	Rcv NOTE MESSAGE	OFF, ON	01	○	×	×	×	○	×	○	×	×
	36	1	00-01	Rcv RPN	OFF, ON	01	○	×	×	×	○	×	○	×	×
	37	1	00-01	Rcv NRPN	OFF, ON	XGmode=01, GMmode=00	○	×	×	×	○	×	○	×	×
	38	1	00-01	Rcv MODULATION	OFF, ON	01	○	×	×	×	○	×	○	×	×
	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	00-01	Rcv HOLD1	OFF, ON	01	○	×	×	×	○	×	○	×	×
	3D	1	00-01	Rcv PORTAMENTO	OFF, ON	01	○	×	×	×	○	×	○	×	×
	3E	1	00-01	Rcv SOSTENUTO	OFF, ON	01	○	×	×	×	○	×	○	×	×
	3F	1	00-01	Rcv SOFT PEDAL	OFF, ON	01	○	×	×	×	○	×	○	×	×
	40	1	00-01	Rcv BANK SELECT	OFF, ON	01	○	×	×	×	○	×	○	×	×
	41	1	00-7F	SCALE TUNING C	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	42	1	00-7F	SCALE TUNING C#	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	43	1	00-7F	SCALE TUNING D	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	44	1	00-7F	SCALE TUNING D#	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	45	1	00-7F	SCALE TUNING E	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	46	1	00-7F	SCALE TUNING F	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	47	1	00-7F	SCALE TUNING F#	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	48	1	00-7F	SCALE TUNING G	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	49	1	00-7F	SCALE TUNING G#	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	4A	1	00-7F	SCALE TUNING A	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	4B	1	00-7F	SCALE TUNING A#	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	4C	1	00-7F	SCALE TUNING B	-63...0...+63[cent]	40	○	○	×	○ (Function)	○	×	○	○	○
	4D	1	28-58	CAT PITCH CONTROL	-24...0...+24[semitones]	40	○	×	×	×	○	×	○	×	×
	4E	1	00-7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	○	×	×	×	○	×	○	×	×
	4F	1	00-7F	CAT AMPLITUDE CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	×	×
	50	1	00-7F	CAT LFO PMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	51	1	00-7F	CAT LFO FMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	52	1	00-7F	CAT LFO AMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	53	1	28-58	PAT PITCH CONTROL	-24...0...+24[semitones]	40	○	×	×	×	○	×	○	×	×
	54	1	00-7F	PAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	○	×	×	×	○	×	○	×	×
	55	1	00-7F	PAT AMPLITUDE CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	×	×
	56	1	00-7F	PAT LFO PMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	57	1	00-7F	PAT LFO FMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	58	1	00-7F	PAT LFO AMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	59	1	00-5F	AC1 CONTROLLER NUMBER	0...95	10	○	×	×	×	○	×	○	×	×
	5A	1	28-58	AC1 PITCH CONTROL	-24...0...+24[semitones]	40	○	×	×	×	○	×	○	×	×
	5B	1	00-7F	AC1 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	○	×	×	×	○	×	○	×	×
	5C	1	00-7F	AC1 AMPLITUDE CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	×	×
	5D	1	00-7F	AC1 LFO PMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	5E	1	00-7F	AC1 LFO FMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	5F	1	00-7F	AC1 LFO AMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	60	1	00-5F	AC2 CONTROLLER NUMBER	0...95	11	○	×	×	×	○	×	○	×	×
	61	2	28-58	AC2 PITCH CONTROL	-24...0...+24[semitones]	40	○	×	×	×	○	×	○	×	×
	62	1	00-7F	AC2 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	○	×	×	×	○	×	○	×	×
	63	1	00-7F	AC2 AMPLITUDE CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	×	×
	64	1	00-7F	AC2 LFO PMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	65	1	00-7F	AC2 LFO FMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	66	1	00-7F	AC2 LFO AMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	67	1	00-01	PORTAMENTO SWITCH	OFF, ON	00	○	○	×	×	○	×	○	○	×
	68	1	00-7F	PORTAMENTO TIME	0...127	00	○	○	×	×	○	×	○	○	×
	69	1	00-7F	PITCH EG INITIAL LEVEL	-64...0...+63	40	○	×	×	×	○	×	○	×	×
	6A	1	00-7F	PITCH EG ATTACK TIME	-64...0...+63	40	○	×	×	×	○	×	○	×	×
	6B	1	00-7F	PITCH EG RELEASE LEVEL	-64...0...+63	40	○	×	×	×	○	×	○	×	×
	6C	1	00-7F	PITCH EG RELEASE TIME	-64...0...+63	40	○	×	×	×	○	×	○	×	×
	6D	1	00-7F	VELOCITY LIMIT LOW	1...127	01	○	×	×	×	○	×	○	×	×
	6E	1	00-7F	VELOCITY LIMIT HIGH	1...127	7F	○	×	×	×	○	×	○	×	×
TOTAL SIZE		3F													

	70	1		NOT USED		-	-	-	-	-	-	-	-	-	-
	71	1		NOT USED		-	-	-	-	-	-	-	-	-	-
	72	1	00-7F	EQ BASS GAIN	-12dB...+12dB	40	○	○	×	○ (Voice Setting)	○	×	○	○	○
	73	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	40	○	○	×	○ (Voice Setting)	○	×	○	○	○
TOTAL SIZE		04													

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]					
						MIDI Reception (effective or no for each part)			MIDI Transmission (generated data)		PLAY		REC	
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel
	74	1		NOT USED	-	-	-	-	-	-	-	-	-	
	75	1		NOT USED	-	-	-	-	-	-	-	-	-	
	76	1	04-28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C	○	○	×	○	○	○	○	○
	77	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	○	○	×	○	○	○	○	○
	78	1		NOT USED	-	-	-	-	-	-	-	-	-	
	78	1		NOT USED	-	-	-	-	-	-	-	-	-	
	7A	1		NOT USED	-	-	-	-	-	-	-	-	-	
	7B	1		NOT USED	-	-	-	-	-	-	-	-	-	
	7C	1		NOT USED	-	-	-	-	-	-	-	-	-	
	7D	1		NOT USED	-	-	-	-	-	-	-	-	-	
	7E	1		NOT USED	-	-	-	-	-	-	-	-	-	
	7F	1		NOT USED	-	-	-	-	-	-	-	-	-	
TOTAL SIZE		0C												

0A	nn	40	1	00-7F	MW OFFSET LEVEL CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	○	×
		41	1	00-7F	BEND OFFSET LEVEL CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	○	×
		42	1	00-7F	CAT OFFSET LEVEL CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	○	×
		43	1	00-7F	PAT OFFSET LEVEL CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	○	×
		44	1	00-7F	AC1 OFFSET LEVEL CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	○	×
		45	1	00-7F	AC2 OFFSET LEVEL CONTROL	-100...0...+100[%]	40	○	×	×	×	○	×	○	○	×
TOTAL SIZE		06														

nn = PART NUMBER
 If there is a Drum Voice assigned to the part, the following parameters are ineffective.
 • BANK SELECT LSB
 • PORTAMENTO
 • MONO/POLY
 • SCALE TUNING
 • POLY AFTER TOUCH
 • PITCH EG

MIDI Parameter Change table (DRUM SETUP)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (CLP)]			[Internal Sequencer]							
						MIDI Reception (effective or no for each part)			MIDI Transmission (generated data)		PLAY		REC			
						Song	Main Layer Left Left-layer	Keyboard	Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel		
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	Depends on the note	○	×	×	×	○	×	○	×	×
		03	1	00-7F	ALTERNATE GROUP	OFF, 1...127	Depends on the note	○	×	×	×	○	×	○	×	×
		04	1	00-7F	PAN	RND, L63...C...R63	Depends on the note	○	×	×	×	○	×	○	×	×
		05	1	00-7F	REVERB SEND	0...127	Depends on the note	○	×	×	×	○	×	○	×	×
		06	1	00-7F	CHORUS SEND	0...127	Depends on the note	○	×	×	×	○	×	○	×	×
		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	Depends 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														

		20	1	00-7F	EQ BASS GAIN	-12dB...+12dB	40	×	×	×	×	×	×	×	×	×
		21	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	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														

n: Drum Setup Number (0-1)
 rr: note number (0D-5B)
 In the following cases, the Clavinova will initialize all Drum Setups.
 XG SYSTEM ON received
 GM SYSTEM ON received
 GM LEVEL 2 SYSTEM ON received
 GS RESET received
 DRUM SETUP RESET received (only when in XG mode)

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.

System Exclusive Messages (1)

* Not Received when Receive Parameter System Exclusive is set to off.
 * Not transmitted when Transmit Parameter System Exclusive is set to on.

System Exclusive Messages (Universal Realtime messages)

○: available

MIDI Event	Data Format	[MIDI (CLP)]			[Internal Sequencer]						
		MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)			PLAY		REC
		Song	Main Layer Left	Keyboard		Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel
Master Volume [GM2]	F0 7F XN 04 01 SS TT F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnn XN = When N is received N=0-F, whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000001 01 = Sub-ID #2=Master Volume 0sssssss SS = Volume LSB 0ttttttt TT = Volume MSB 11110111 F7 = End of Exclusive	○	×	×	×	×	×	○	○	×	
Master Fine Tuning [GM2]	F0 7F XN 04 03 SS TT F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnn XN = When N is received N=0-F, whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000011 03 = Sub-ID #2=Master Fine Tuning 0sssssss SS = Volume LSB 0ttttttt TT = Volume MSB 11110111 F7 = End of Exclusive	○	×	×	×	×	○	×	○	×	
Master Coarse Tuning [GM2]	F0 7F XN 04 04 00 TT F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnn XN = When N is received N=0-F, whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000100 04 = Sub-ID #2=Master Fine Tuning 00000000 00 0ttttttt TT = Coarse Tuning MSB 11110111 F7 = End of Exclusive	○	×	×	×	×	○	×	○	×	
Reverb Parameter [GM2]	F0 7F XN 04 05 01 01 01 01 01 PP VV ... F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnn XN = When N is received N=0-F, whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000101 05 = Sub-ID #2=Global Parameter Control 00000001 01 = Slot path length = 1 00000001 01 = Parameter ID width = 1 00000001 01 = Value width = 1 00000001 01 = Slot path MSB = 1 (Reverb) 00000001 01 = Slot path LSB = 1 0ppppppp PP = Parameter to be controlled. 0vvvvvvv VV = Value for the Parameter. ... 11110111 F7 = End of Exclusive Parameter (pp) Value (vv) Display ----- pp=0 Reverb Type 0..8 0: RoomS 1: RoomM 2: RoomL 3: HallM 4: HallL (default) 8: GM Plate pp=1 Reverb Time 0..128 0..11.0s		○		○	×	○	×	○	○	×
Chorus Parameter [GM2]	F0 7F XN 04 05 01 01 01 01 02 PP VV ... F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnn XN = When N is received N=0-F, whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000101 05 = Sub-ID #2=Global Parameter Control 00000001 01 = Slot path length = 1 00000001 01 = Parameter ID width = 1 00000001 01 = Value width = 1 00000001 01 = Slot path MSB = 1 (Chorus) 00000010 02 = Slot path LSB = 2 0ppppppp PP = Parameter to be controlled. 0vvvvvvv VV = Value for the Parameter. ... 11110111 F7 = End of Exclusive Parameter (pp) Value (vv) Display ----- pp=0 Chorus Type 0..5 0: GM Chorus1 1: GM Chorus2 2: GM Chorus3 (default) 3: GM Chorus4 4: FB Chorus 5: GM Flanger pp=1 Mod Rate 0..127 0..15.5Hz pp=2 Mod Depth 0..127 pp=3 Feedback 0..127 pp=4 Send to Reverb 0..127		○		○	×	○	×	○	○	×

MIDI Event	Data Format	[MIDI (CLP)]				[Internal Sequencer]					
		MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)			PLAY		REC
		Song	Main Layer Left Layer	Keyboard		Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel
Channel Pressure (Aftertouch) [GM2]	FO 7F XN 09 01 0M PP RR ... F7 11110000 FO = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnn XN = When N is received N=0-F, whichever is received. X=ignored 00001001 09 = Sub-ID #1=Controller Destination Setting 00000001 01 = Sub-ID #2=Controller Type: 01 (Channel Pressure) 0000mmmm OM = MIDI Channel (00-0F) 0ppppppp PP = Controlled Parameter 0rrrrrrr RR = Data ... 11110111 F7 = End of Exclusive Control Parameter (pp) Data (RR) Description Default value ----- pp=00 Pitch Control 28H-58H -24...0...+24 semitones 40H pp=01 Filter Cutoff Control 00H-7FH -9600...0...+9450 cents 40H pp=02 Amplitude Control 00H-7FH -100...0...+100% 40H pp=03 LFO Pitch Depth 00H-7FH 0...127 00H pp=04 LFO Filter Depth 00H-7FH 0...127 00H pp=05 LFO Amplitude Depth 00H-7FH 0...127 00H	○	×	×	×	×	○	×	○	×	×
Controller (Control Change) [GM2]	FO 7F XN 09 03 0M CC PP RR ... F7 11110000 FO = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnn XN = When N is received N=0-F, whichever is received. X=ignored 00001001 09 = Sub-ID #1=Controller Destination Setting 00000011 03 = Sub-ID #2=Controller Type: 03 (Control Change) 0000mmmm OM = MIDI Channel (00-0F) 0ccccc CC = Controller Number (01H-1FH, 40H-5FH) 0ppppppp PP = Controlled Parameter 0rrrrrrr RR = Data ... 11110111 F7 = End of Exclusive Make sure to set both the controlled parameter and the range. Parameters not set will be restored to their default values. Control Parameter (pp) Data (RR) Description Default value ----- pp=00 Pitch Control 28H-58H -24...0...+24 semitones 40H pp=01 Filter Cutoff Control 00H-7FH -9600...0...+9450 cents 40H pp=02 Amplitude Control 00H-7FH -100...0...+100% 40H pp=03 LFO Pitch Depth 00H-7FH 0...127 00H pp=04 LFO Filter Depth 00H-7FH 0...127 00H pp=05 LFO Amplitude Depth 00H-7FH 0...127 00H	○	×	×	×	×	○	×	○	×	×
Key-Based Instrument Control [GM2]	FO 7F XN 0A 01 0M KK CC VV ... F7 11110000 FO = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnn XN = When N is received N=0-F, whichever is received. X=ignored 00001010 0A = Sub-ID #1=Key-Based Instrument Control 00000011 01 = Sub-ID #2=Controller 0000mmmm OM = MIDI Channel (00-0F) 0kkkkkkk KK = Key Number 0ccccc CC = Controller Number 0vvvvvvv VV = Value ... 11110111 F7 = End of Exclusive Make sure to set both the controlled number and the value. Control Number (CC) Value (VV) Description Default value ----- CC=07H Volume 00H-7FH -100...0...+100% 40 CC=0AH Pan 00H-7FH L63...C...R63 (Preset value) (absolute) CC=5BH Reverb Send Level 00H-7FH 0...Max (Preset value) (absolute) CC=5DH Chorus Send Level 00H-7FH 0...Max (Preset value) (absolute)	○	×	×	×	×	○	×	○	×	×

System Exclusive Messages (Universal Non Realtime messages)

MIDI Event	Data Format	[MIDI (CLP)]			[Internal Sequencer]						
		MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)			PLAY		REC
		Song	Main Layer Left Left-layer	Keyboard		Panel (main generation method)	Song	MIDI	PLAY	REW	Recorded from panel
GM1 System On [GM1] [GM2]	F0 7E XN 09 01 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxxnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001001 09 = Sub-ID #1=General MIDI Message 00000001 01 = Sub-ID #2=General MIDI On 11110111 F7 = End of Exclusive	○	×	×	○ (Voice Setting, Reverb Type, Chorus Type)	×	○	×	○	×	○
GM2 System On [GM2]	F0 7E XN 09 03 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxxnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001001 09 = Sub-ID #1=General MIDI Message 00000011 03 = Sub-ID #2=General MIDI2 On 11110111 F7 = End of Exclusive	○	×	×	×	×	○	×	○	×	×
General MIDI System Off [GM1] [GM2]	F0 7E XN 09 02 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxxnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001001 09 = Sub-ID #1=General MIDI Message 00000010 02 = Sub-ID #2=General MIDI Off 11110111 F7 = End of Exclusive	○	×	×	○ (Voice Setting, Reverb Type, Chorus Type)	×	○	×	○	×	×
Scale/Octave Tuning [GM2]	F0 7E XN 08 08 JJ GG MM SS ... F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxxnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001000 08 = Sub-ID #1=MIDI Tuning Standard 00001000 08 = Sub-ID #2=scale/octave tuning 1byte form 0jjjjjjjj JJ = Channel/option byte1 bits 0 to 1 = channel 15 to 16 bits 2 to 6 = reserved 0ggggggg GG = Channel byte 2 - bits 0 to 6 = channel 8 to 14 0mmmmmmm MM = Channel byte 2 - bits 0 to 6 = channel 1 to 7 0sssssss SS = 12 byte tuning offset of 12 semitones from C to B 00H means -64cent 40H means 0cent 7FH means +63cent ... 11110111 F7 = End of Exclusive	○	×	×	×	×	○	×	○	×	×

*If the song data to be loaded contains a GM2 System On event, the Bank MSB/LSB values will be removed.

System Exclusive Messages (2)

* Not Received when Receive Parameter System Exclusive is set to off.
 * Not transmitted when Transmit Parameter System Exclusive is set to on.

System Exclusive Messages (XG)

MIDI Event	Data Format	[MIDI (CLP)]			[Internal Sequencer]		
		MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)	
		Song	Main Layer Left Left-layer	Keyboard		Panel (main generation method)	Song
XG Parameter Change	F0 43 1n 4C hh mm ll dd ... F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0001nnnn 1n = Device Number n=always 0 (when transmit), n=0-F (when receive) 01001100 4C = Model ID 0hhhhhhh hh = Address High 0mmmmmmm mm = Address Mid 01111111 ll = Address Low 0ddddd dd = Data ... 11110111 F7 = End of Exclusive		○		–	○	* Refer to Parameter Change Table
XG Bulk Dump	F0 43 0n 4C aa bb hh mm ll dd ... dd cc F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0001nnnn 1n = Device Number n=always 0 (when transmit), n=0-F (when receive) 01001100 4C = Model ID 0aaaaaaa aa = Byte Count MSB 0bbbbbbb bb = Byte Count LSB 0hhhhhhh hh = Address High 0mmmmmmm mm = Address Mid 01111111 ll = Address Low 0ddddd dd = Data . 0ddddd dd = Data 0ccccc cc = Checksum 11110111 F7 = End of Exclusive		○		–	○	* Refer to Parameter Change Table
XG Parameter Request	F0 43 3n 4C hh mm ll F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0011nnnn 3n = Device Number n=always 0 (when transmit), n=0-F (when receive) 01001100 4C = Model ID 0hhhhhhh hh = Address High 0mmmmmmm mm = Address Mid 01111111 ll = Address Low 11110111 F7 = End of Exclusive		○		–	×	
XG Dump Request	F0 43 2n 4C hh mm ll F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0010nnnn 2n = Device Number n=always 0 (when transmit), n=0-F (when receive) 01001100 4C = Model ID 0hhhhhhh hh = Address High 0mmmmmmm mm = Address Mid 01111111 ll = Address Low 11110111 F7 = End of Exclusive		○		–	×	

System Exclusive Messages (Others)

MIDI Event	Data Format	[MIDI (CLP)]			[Internal Sequencer]		
		MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)	
		Song	Main Layer Left Left-layer	Keyboard		Panel (main generation method)	Song
MIDI Master Tuning	F0 43 1n 27 30 00 00 0m 0l cc F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0001nnnn 1n = always 0 (when transmit), n=0-F (when receive) 00100111 27 = Model ID of TG100 00110000 30 = Address High 00000000 00 = Address Mid 00000000 00 = Address Low 0000mmmm 0m = Master Tune MSB 00001111 0l = Master Tune LSB 0ccccc cc = don't care 11110111 F7 = End of Exclusive		○		○ (Function)	×	×

System Exclusive Messages (Preset voice)

MIDI Event	Data Format	[MIDI (CLP)]			[Internal Sequencer]		
		MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)	
		Song	Main Layer Left Left-layer	Keyboard		Panel (main generation method)	Song
String Resonance Depth	F0 43 73 01 50 11 0n 02 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Clavinova ID 00000001 01 = Model ID (Clavinova common ID) 01010000 50 = SubID 00010001 11 = SubID 0000mnmn 0n = Channel (00-0F) 00000010 02 = SubID (String Resonance Depth) 0d000000 dd = Depth (00-48) 11110111 F7 = End of Exclusive	○	○	×	○ (Function)	○ (Function)	○
Sustain Sample Depth	F0 43 73 01 50 11 0n 03 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Clavinova ID 00000001 01 = Model ID (Clavinova common ID) 01010000 50 = SubID 00010001 11 = SubID 0000mnmn 0n = Channel (00-0F) 00000011 03 = SubID (Sustain Sample Depth) 0d000000 dd = Depth (00-48) 11110111 F7 = End of Exclusive	○	○	×	○ (Function)	○ (Function)	○
Key Off Sampling Depth	F0 43 73 01 50 11 0n 04 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Clavinova ID 00000001 01 = Model ID (Clavinova common ID) 01010000 50 = SubID 00010001 11 = SubID 0000mnmn 0n = Channel (00-0F) 00000100 04 = SubID (Key Off Sampling Depth) 0d000000 dd = Depth (00-50) 11110111 F7 = End of Exclusive	○	○	×	○ (Function)	○ (Function)	○
Soft Pedal Depth	F0 43 73 01 50 11 0n 05 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Clavinova ID 00000001 01 = Model ID (Clavinova common ID) 01010000 50 = SubID 00010001 11 = SubID 0000mnmn 0n = Channel (00-0F) 00000101 04 = SubID (Soft Pedal Depth) 0d000000 dd = Depth (00-7F) 11110111 F7 = End of Exclusive	○	○	×	○ (Function)	○ (Function)	○

*For each Depth value, the reset value is 40H = voice parameter.

Function...	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 - 16 1 - 16	
Mode	Default Messages Altered	3 X *****	
Note Number : True voice		0 - 127 *****	
Velocity	Note ON Note OFF	O 9nH,v=1-127 X 9nH,v=0	
After Touch	Key's Ch's	X X	
Pitch Bend		O	O 0 - 24 semi
Control Change	0,32 1,5 7,10,11 6,38 64,66,67 65 71,74 72,73 84,94 91,93 96-97 98-99 100-101	O X O O O X O X X O O X X O	Bank Select Data Entry Portament Sound Controller Sound Controller RPN Inc,Dec NRPN LSB,MSB RPN LSB,MSB
Prog Change : True #		O 0 - 127 *****	
System Exclusive		O	
Common : Song Pos. : Song Sel. : Tune	X X X	X X X	
System : Clock Real Time : Commands	O O	X O	
Aux : All Sound Off : Reset All Cntrls : Local ON/OFF Mes- : All Notes OFF sages: Active Sense : Reset	X X X X O X	O (120,126,127) O (121) O (122) O (123-125) O X	
Notes:			

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

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

O : Yes
 X : No

