



Hybrid Piano
NU1

MIDI Channel Message

- : Can be transmitted and recognized.
- ▲ : Cannot be transmitted by the panel operations, but can be transmitted by song playback data.
- × : Cannot be transmitted or received.

MIDI Events	Status byte		1st Data byte		2nd Data byte		Transmitted	Recognized
	Status		Data (HEX)	Parameter	Data (HEX)	Parameter		
Key Off	8nH	(n: channel no.)	kk	Key no. (0 - 127)	vv	Velocity (0 - 127)	●	●
Key On	9nH		kk	Key no. (0 - 127)	vv	Key On: vv = 1 - 127 Key Off: vv = 0	●	●
Control Change	BnH		0 (00H)	Bank Select MSB	0 (00H)	Normal	●	●
			32 (20H)	Bank Select LSB	0 - 127		●	●
			1 (01H)	Modulation	0 - 127 (...7FH)		●	●
			6 (06H)	Data Entry MSB	0 - 127 (...7FH)		▲	●
			38 (26H)	Data Entry LSB	0 - 127 (...7FH)			
			7 (07H)	Main Volume	0 - 127 (...7FH)		●	●
			10 (0AH)	Panpot	0 - 127 (...7FH)		▲	●
			11 (0BH)	Expression	0 - 127 (...7FH)		▲	●
			64 (40H)	Damper (Sustain)	0 - 127 (...7FH)		●	●
			66 (42H)	Sostenuto	0 - 127 (...7FH)		●	●
			67 (43H)	Soft Pedal	0 - 127 (...7FH)		●	●
			71 (47H)	Harmonic Content	0 - 127 (...7FH)		▲	●
			72 (48H)	Release Time	0 - 127 (...7FH)		▲	●
			73 (49H)	Attack Time	0 - 127 (...7FH)		▲	●
			74 (4AH)	Brightness	0 - 127 (...7FH)		▲	●
			84 (54H)	Portamento Control	0 - 127 (...7FH)		▲	●
			91 (5BH)	Effect1 Depth (Reverb Send Level)	0 - 127 (...7FH)		●	●
93 (5DH)	Effect3 Depth (Chorus Send Level)	0 - 127 (...7FH)		▲	●			
96 (60H)	Increment	0 - 127 (...7FH)		▲	●			
97 (61H)	Decrement	0 - 127 (...7FH)						
100 (64H)	RPN LSB	0 - 127 (...7FH)		●	●			
101 (65H)	RPN MSB	0 - 127 (...7FH)						
Mode Message	BnH		120 (78H)	All Sound Off	0		▲	●
			121 (79H)	Reset All Controller	0		▲	●
			122 (7AH)	Local Control	0: OFF 7F: ON		×	●
			123 (7BH)	All Note Off	0		▲	●
			124 (7CH)	OMNI OFF	0		×	●
			125 (7DH)	OMNI ON	0		×	●
			126 (7EH)	MONO	0 - 16 (...10H)		×	●
127 (7FH)	POLY	0		×	●			
Note This instrument is fixed to Multi-timbral Mode and Poly Mode, since these modes do not change even when Omni on/ omni off/ Mono/Poly Mode messages are received.								
Program Change	CnH		pp	0 - 127	-	-	●	●
Channel After Touch	DnH		vv		-		×	×
Polyphonic After Touch	AnH		kk		vv		●	●
Pitch Bend Change	EnH		cc	LSB	dd	MSB	▲	●
Realtime Message	F8H	MIDI Clock	-		-		●	×
	FAH	Start	-		-		●	●
	FBH	Continue	-		-		×	×
	FCH	Stop	-		-		●	●
	FEH	Active Sens	-		-		●	●
	FFH	System Reset	-		-		×	×
Note When an Overrun or Framing error occurs, the Damper, Sostenuto and Soft are set to off in all channels, and All Notes Off is executed.								

Preset Voice List

Voice Name	MSB (0-127)	LSB (0-127)	Program Change # (1-128)
GrandPiano 1	108	0	1
GrandPiano 2	108	0	2
E. Piano 1	108	0	6
E. Piano 2	108	0	5
Harpsichord	108	0	7

Parameters controlled by RPN (Registered Parameter Numbers)

RPN		Data Entry		Parameter	Data Range	Transmitted	Recognized
MSB	LSB	MSB	LSB				
00H	00H	mmH	--	Pitch Bend Sensitivity*	mm: 00H-18H (0...+24[semitones])	x	x
00H	01H	mmH	llH	Fine Tune	mm ll: 00H 00H -100[cent] ... mm ll: 40H 00H 0[cent] ... mm ll: 7FH 7FH 100[cent]	▲	●
00H	02H	mmH	--	Coarse Tune	mm: 28H-40H-58H (-24...0...+24[semitones])	▲	●
7FH	7FH	--	--	Null	--	▲	●

*For some Piano and Harpsichord Voices, the pitch may not be changed according to the pitch bend setting range.

MIDI Parameter Change Table

MIDI PARAMETER CHANGE TABLE (XG SYSTEM)

Address (H)			Size (H)	Data (H)	Parameter	Transmitted	Recognized	Description	Default value (H)
00	00	00 01 02 03	4	0000 - 07FF	MASTER TUNE	▲	●	-102.4 - +102.3[cent] 1st bit3 - 0 → bit15 - 12 2nd bit3 - 0 → bit11 - 8 3rd bit3 - 0 → bit7 - 4 4th bit3 - 0 → bit3 - 0	00 04 00 00
		04	1	00 - 7F	MASTER VOLUME	×	●	0 - 127	7F
		05	1	00 - 7F	(MASTER ATTENUATOR)	×	×		
		06	1	28 - 58	TRANSCOPE	×	×	-12 - +12[semitones] (MIDI value = 34H - 4CH)	40
		7D		n	DRUM SETUP RESET	×	×	n = Drum setup number	
		7E		00	XG SYSTEM ON	▲	●	00 = XG sytem ON	
		7F		00	ALL PARAMETER RESET	×	●*	00 = ON	

TOTAL SIZE

7

* When "XG ALL PARAMETER RESET" message is received, generates "XG SYSTEM ON" on the tone generator and generates reinitialization of the tuning value on the panel.

MIDI PARAMETER CHANGE TABLE (EFFECT 1)

Address (H)			Size (H)	Data (H)	Parameter	Transmitted	Recognized	Description	Default
02	01	00	2	00 - 7F 00 - 7F	REVERB TYPE MSB REVERB TYPE LSB	●	●		01 (= HALL1) 00
02	01	20	2	00 - 7F 00 - 7F	CHORUS TYPE MSB CHORUS TYPE LSB	▲	●		41 (= CHORUS1) 00
		22	1	00 - 7F	CHORUS PARAMETER 1	▲	●		
		24	1	00 - 7F	CHORUS PARAMETER 3	▲	●		

MIDI PARAMETER CHANGE TABLE (EFFECT 2)

Address (H)			Size (H)	Data (H)	Parameter	Transmitted	Recognized	Description	Default
03	n	00	2	00-7F 00-7F	INSERTION EFFECT TYPE MSB INSERTION EFFECT TYPE LSB	●	●		05(=DELAY L.C.R)(*9) 00
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	●	●		
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	●	●		
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	●	●		

MIDI PARAMETER CHANGE TABLE (MULTI PART)

Address (H)			Size (H)	Data (H)	Parameter	Transmitted	Recognized	Description	Default value (H)
8	nn	07	1	00 - 05	PART MODE	●	●		
00	00	0C	1	00 - 7F	VELOCITY SENSE DEPTH	●	●	0 - 127	
		0D	1	00 - 7F	VELOCITY SENSE OFFSET	●	●	0 - 127	
		11	1	00 - 7F	DRY LEVEL	▲	●	0 - 127	7F
		41	1	00 - 7F	SCALE TUNING C	●	●		
		42	1	00 - 7F	SCALE TUNING C#	●	●		
		43	1	00 - 7F	SCALE TUNING D	●	●		
		44	1	00 - 7F	SCALE TUNING D#	●	●		
		45	1	00 - 7F	SCALE TUNING E	●	●		
		46	1	00 - 7F	SCALE TUNING F	●	●		
		47	1	00 - 7F	SCALE TUNING F#	●	●		
		48	1	00 - 7F	SCALE TUNING G	●	●		
		49	1	00 - 7F	SCALE TUNING G#	●	●		
		4A	1	00 - 7F	SCALE TUNING A	●	●		
		4B	1	00 - 7F	SCALE TUNING A#	●	●		
		4C	1	00 - 7F	SCALE TUNING B	●	●		
		59	1	00 - 5F	AC1 CONTROLLER NUMBER	●	●	0...95	

System Exclusive Messages

MIDI EVENT		Data Format	Transmitted	Recognized
Universal System Exclusive	MIDI Master Volume	F0H 7FH 7FH 04H 01H 11 mm F7H ll mm Volume (mm = MSB, ll = LSB) or F0H 7FH XN 04H 01H 11 mm F7H XN When N is received N = 0 - F, whichever is received. X = Ignored ll mm Volume (mm = MSB , ll = LSB)	×	●
		GM System On	×	●
XG	XG Parameter Change	F0H 43H 1nH 4CH hh mm ll dd ... F7H hh mm ll Address dd Data	●	●
	XG Bulk Dump	F0H 43H 0nH 4CH aa bb hh mm ll dd ... dd cc F7H 0n Device Number n = 0 (send), 0 - f (receive) aa bb Byte Count (aa << 7) + bb hh mm ll Address dd Data cc Check SUM	×	●
Others	Master Tune	F0H 43H 1n 27H 30H 00H 00H mm ll cc F7H 1n Channel (0 (Send), 0 - f (receive)) mm ll cc (mm << 4) + ll (1step/1cent), cc = Ignored	×	●
		Internal Clock	F0H 43H 73H 01H 02H F7H	×
	External Clock	F0H 43H 73H 01H 03H F7H	×	×
	String Resonance Depth	F0H 43H 73H 01H 50H 11H 0nH 02H dd F7 0n = Channel 00H ~ 0FH dd = Depth 00H ~ 48H	▲	●
	Sustain Sample Depth	F0H 43H 73H 01H 50H 11H 0nH 03H dd F7 0n = Channel 00H ~ 0FH dd = Depth 00H ~ 48H	▲	●
	Key Off Sampling Depth	F0H 43H 73H 01H 50H 11H 0nH 04H dd F7 0n = Channel 00H ~ 0FH dd = Depth 00H ~ 50H	▲	●

Function...	Transmitted	Recognized	Remarks
Basic Channel Default Changed	1,3 - 16 X	1,2 X	
Mode Default Messages Altered	3 X *****	3 X X	
Note Number : True voice	0 - 127 *****	0 - 127 0 - 127	
Velocity Note ON Note OFF	○ 9nH, v=1-127 ○ 8nH, v=64	○ 9nH, v=1-127 ○ 9nH, v=0 or 8nH	
After Touch Key's Ch's	○ X	○ X	
Pitch Bend	X	○ -2 - 2 semitones	
Control Change 0,32 1 7 10 11 6,38 64,66,67 71-74 84 91 93 96-97 100-101	○ X ○ X ○ ○ X ○ X * ○ X * X X *	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Bank Select Modulation Main Volume Panpot Expression Data Entry Pedal Portamento Control Effect Depth 1 Effect Depth 3 RPN Inc,Dec RPN LSB,MSB
Prog Change : True #	○ 0 - 127 *****	○ 0 - 127 0,1,4,5,6	
System Exclusive	○	○	
Common : Song Pos. : Song Sel. : Tune	X X X	X X X	
System : Clock Real Time : Commands	○ ○	X ○	
Aux : All Sound Off : Reset All Cntrls : Local ON/OFF Mes- : All Notes OFF sages: Active Sense : Reset	X X X X ○ X	○ (120,126,127) ○ (121) ○ (122) ○ (123-125) ○ X	
Notes:	* These Control Change messages cannot be transmitted by panel operations, but can be transmitted by song playback data.		

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

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

○ : Yes
X : No