



AVANT GRAND

N3/N2

Data List
Daten-Liste
Liste des données
Lista de datos

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	decimal	hexadecimal	binary	decimal	hexadecimal	binary	decimal	hexadecimal	binary
0	00	0000 0000	32	20	0010 0000	64	40	0100 0000	96	60	0110 0000
1	01	0000 0001	33	21	0010 0001	65	41	0100 0001	97	61	0110 0001
2	02	0000 0010	34	22	0010 0010	66	42	0100 0010	98	62	0110 0010
3	03	0000 0011	35	23	0010 0011	67	43	0100 0011	99	63	0110 0011
4	04	0000 0100	36	24	0010 0100	68	44	0100 0100	100	64	0110 0100
5	05	0000 0101	37	25	0010 0101	69	45	0100 0101	101	65	0110 0101
6	06	0000 0110	38	26	0010 0110	70	46	0100 0110	102	66	0110 0110
7	07	0000 0111	39	27	0010 0111	71	47	0100 0111	103	67	0110 0111
8	08	0000 1000	40	28	0010 1000	72	48	0100 1000	104	68	0110 1000
9	09	0000 1001	41	29	0010 1001	73	49	0100 1001	105	69	0110 1001
10	0A	0000 1010	42	2A	0010 1010	74	4A	0100 1010	106	6A	0110 1010
11	0B	0000 1011	43	2B	0010 1011	75	4B	0100 1011	107	6B	0110 1011
12	0C	0000 1100	44	2C	0010 1100	76	4C	0100 1100	108	6C	0110 1100
13	0D	0000 1101	45	2D	0010 1101	77	4D	0100 1101	109	6D	0110 1101
14	0E	0000 1110	46	2E	0010 1110	78	4E	0100 1110	110	6E	0110 1110
15	0F	0000 1111	47	2F	0010 1111	79	4F	0100 1111	111	6F	0110 1111
16	10	0001 0000	48	30	0011 0000	80	50	0101 0000	112	70	0111 0000
17	11	0001 0001	49	31	0011 0001	81	51	0101 0001	113	71	0111 0001
18	12	0001 0010	50	32	0011 0010	82	52	0101 0010	114	72	0111 0010
19	13	0001 0011	51	33	0011 0011	83	53	0101 0011	115	73	0111 0011
20	14	0001 0100	52	34	0011 0100	84	54	0101 0100	116	74	0111 0100
21	15	0001 0101	53	35	0011 0101	85	55	0101 0101	117	75	0111 0101
22	16	0001 0110	54	36	0011 0110	86	56	0101 0110	118	76	0111 0110
23	17	0001 0111	55	37	0011 0111	87	57	0101 0111	119	77	0111 0111
24	18	0001 1000	56	38	0011 1000	88	58	0101 1000	120	78	0111 1000
25	19	0001 1001	57	39	0011 1001	89	59	0101 1001	121	79	0111 1001
26	1A	0001 1010	58	3A	0011 1010	90	5A	0101 1010	122	7A	0111 1010
27	1B	0001 1011	59	3B	0011 1011	91	5B	0101 1011	123	7B	0111 1011
28	1C	0001 1100	60	3C	0011 1100	92	5C	0101 1100	124	7C	0111 1100
29	1D	0001 1101	61	3D	0011 1101	93	5D	0101 1101	125	7D	0111 1101
30	1E	0001 1110	62	3E	0011 1110	94	5E	0101 1110	126	7E	0111 1110
31	1F	0001 1111	63	3F	0011 1111	95	5F	0101 1111	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 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

MIDI CHANNEL MESSAGE

MIDI Events	[MIDI] [Internal Sequencer]										
	Status byte		1st Data byte		2nd Data byte		MIDI Reception	MIDI Transmission		PLAY	REC
	Status	Data (HEX)	Parameter	Data (HEX)	Parameter	Keyboard/Song (Main)	Keyboard (Main)	Song	PLAY	Recorded from panel	
Key Off [GM1] [GM2]	8nH (n:Channel Number)	kk	Key no. (0-127)	vv	Velocity (0-127)	O	X	O	O	X	
Key On [GM1] [GM2]	9nH (n:Channel Number)	kk	Key no. (0-127)	vv	Key On: vv=1-127 Key Off: vv=0	O	O (Keyboard)	O	O	O	
Control Change	BnH	0 (00H)	Bank Select MSB [GM2]	0-127 (00H...7FH)	Data	O	O (Voice)	O	O	O	
		1 (01H)	Modulation [GM1] [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		5 (05H)	Portamento Time [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		6 (06H)	Data Entry MSB [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		7 (07H)	Main Volume [GM1] [GM2]	0-127 (00H...7FH)	Data	O	O (Voice Setting)	O	O	O	
		10 (0AH)	Panpot [GM1] [GM2]	0-127 (00H...7FH)	L64...C...R63	X	X	X	X	X	
		11 (0BH)	Expression [GM1] [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		32 (20H)	Bank Select LSB [GM2]	0-127 (00H...7FH)	Data	O	O (Voice)	O	O	O	
		38 (26H)	Data Entry LSB [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		64 (40H)	Sustain(Damper) [GM1] [GM2]	0-127 (00H...7FH)	Data	O	O (Pedal)	O	O	O	
		65 (41H)	Portamento [GM2]	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	X	X	X	X	X	
		66 (42H)	Sostenuto [GM2]	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	O	O (Pedal)	O	O	O	
		67 (43H)	Soft Pedal [GM2]	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	O	O (Pedal)	O	O	O	
		71 (47H)	Harmonic Content [GM2]	0-127 (00H...7FH)	-64...0...+63	X	X	X	X	X	
		72 (48H)	Release Time [GM2]	0-127 (00H...7FH)	-64...0...+63	X	X	X	X	X	
		73 (49H)	Attack Time [GM2]	0-127 (00H...7FH)	-64...0...+63	X	X	X	X	X	
		74 (4AH)	Brightness [GM2]	0-127 (00H...7FH)	-64...0...+63	X	X	X	X	X	
		75 (4BH)	Decay Time [GM2]	0-127 (00H...7FH)	-64...0...+63	X	X	X	X	X	
		76 (4CH)	Vibrate Rate [GM2]	0-127 (00H...7FH)	-64...0...+63	X	X	X	X	X	
		77 (4DH)	Vibrate Depth [GM2]	0-127 (00H...7FH)	-64...0...+63	X	X	X	X	X	
		78 (4EH)	Vibrate Delay [GM2]	0-127 (00H...7FH)	-64...0...+63	X	X	X	X	X	
		84 (54H)	Portamento Control	0-127 (00H...7FH)	Key no. (0-127)	X	X	X	X	X	
		91 (5BH)	Effect1 Depth (Reverb Send Level) [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		93 (5DH)	Effect3 Depth (Chorus Send Level) [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		94 (5EH)	Effect4 Depth (Variation Send Level)	0-127 (00H...7FH)	Data	X	X	X	X	X	
		96 (60H)	RPN Increment	-	The data byte is ignored.	X	X	X	X	X	
		97 (61H)	RPN Decrement	-	The data byte is ignored.	X	X	X	X	X	
		98 (62H)	NRPN LSB	0-127 (00H...7FH)	Data	X	X	X	X	X	
		99 (63H)	NRPN MSB	0-127 (00H...7FH)	Data	X	X	X	X	X	
		100 (64H)	RPN LSB [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		101 (65H)	RPN MSB [GM2]	0-127 (00H...7FH)	Data	X	X	X	X	X	
		Mode Message	BnH (n:Channel Number)	120 (78H)	All Sound Off [GM2]	0 (00H)	Data	O	X	O	O
121 (79H)	Reset All Controllers [GM1] [GM2]			0 (00H)	Data	X	X	O	O	X	
122 (7AH)	Local Control			0 (00H) 127 (7FH)	OFF ON	O	X	X	X	X	
123 (7BH)	All Note Off [GM1] [GM2]			0 (00H)	Data	O	X	O	O	X	
124 (7CH)	Omni Off [GM2]			0 (00H)	Data	X	X	X	X	X	
125 (7DH)	Omni On [GM2]			0 (00H)	Data	X	X	X	X	X	
126 (7EH)	Mono [GM2]			0-16 (00H...10H)	Data	X	X	X	X	X	
127 (7FH)	Poly [GM2]	0 (00H)	Data	X	X	X	X	X			
Program Change [GM1] [GM2]	CnH (n:Channel Number)	pp (00H...7FH)	Voice number (0-127)	-	-	O (Main)	O (Voice)	O	O	O	
Channel After Touch [GM1] [GM2]	DnH (n:Channel Number)	vv (00H...7FH)	Data	-	-	X	X	X	X	X	
Polyphonic After Touch (Release Control)	AnH (n:Channel Number)	kk (00H...7FH)	Key no. (0-127)	vv (00H...7FH)	Data	O	O (Keyboard)	O	O	O	
Pitch Bend Change [GM1] [GM2]	EnH (n:Channel Number)	cc (00H...7FH)	LSB	dd (00H...7FH)	MSB	X	X	X	X	X	

MIDI Events	Status byte		1st Data byte		2nd Data byte		[MIDI] MIDI Reception	[Internal Sequencer] MIDI Transmission		PLAY	REC
	Status		Data (HEX)	Parameter	Data (HEX)	Parameter	Keyboard/Song (Main)	Keyboard (Main)	Song	PLAY	Recorded from panel
Realtime Message	F8H	MIDI Clock	-	-	-	-	X	O		-	X
	FAH	Start	-	-	-	-	X	O		-	X
	FBH	Continue	-	-	-	-	X	X		-	X
	FCH	Stop	-	-	-	-	X	O		-	X
	FEH	Active Sens [GM2]	-	-	-	-	X	O		-	X
	FFH	System Reset	-	-	-	-	X	X		-	X

MIDI PARAMETER CHANGE TABLE

MIDI Parameter Change table (MULTI PART)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI (N3/N2)] MIDI Reception	[Internal Sequencer] MIDI Transmission		PLAY	REC	
						Keyboard/Song (Main)	Keyboard (Main)	Song	PLAY	Recorded from panel	
08	nn	0C	1	00-7F	VELOCITY SENSE DEPTH	0...127	40	O	O	O	O
		0D	1	00-7F	VELOCITY SENSE OFFSET	0...127	40	O	O	O	O

System Exclusive Messages

System Exclusive Messages (XG)

MIDI Event	Data Format	[MIDI (N3/N2)] MIDI Reception	[Internal Sequencer] MIDI Transmission	
		Keyboard/Song (Main)	Keyboard (Main)	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 0llllllll ll = Address Low 0ddddd dd = Data : 11110111 F7 = End of Exclusive	O		O
XG Bulk Dump	F0 43 0n 4C aa bb hh mm ll dd ... dd cc F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0000nnnn 0n = 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 0llllllll ll = Address Low 0ddddd dd = Data : 0ddddd dd = Data 0ccccc cc = Checksum 11110111 F7 = End of Exclusive	O		O
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 0llllllll ll = Address Low 11110111 F7 = End of Exclusive	O		X
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 0llllllll ll = Address Low 11110111 F7 = End of Exclusive	O		X

Function...	Transmitted	Recognized	Remarks
Basic Default Channel Changed	1 1	1,2 1,2	
Mode Default Messages Altered	3 x *****	3 x x	
Note Number : True voice	0 - 127 *****	0 - 127 0 - 127	
Velocity Note ON Note OFF	o 90H,v=1-127 x 90H,v=0	o 9nH,v=1-127 x	
After Key's Touch Ch's	o x	o x	
Pitch Bend	x	x	
Control Change	0,32 o 1,5,10,11 x 7 o 6,38 x 65 x 64,66,67 o 71,72,73,74 x 80,81 x 84 x 91,93,94 x 96,97 x 98,99 x 100,101 x	o x o x x o x x x x x x x x	Bank Select Main Volume Data Entry Portamento Sound Controller Portament Cntrl Effect Depth RPN Inc,Dec NRPN LSB,MSB RPN LSB,MSB
Prog Change : True #	o 0 - 127 *****	o 0 - 127	
System Exclusive	o	o	
: Song Pos. Common : Song Sel. : Tune	x x x	x x x	
System : Clock Real Time: Commands	o o	o 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) o(121) o(122) o(123) o x	
Notes:			

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON , MONO o : Yes
 Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO x : No