YAMAHA

电　子　钢　琴

P-128

MIDI参考指南

目录

ZH

MIDI功能

可对MIDI设置进行详细调整。

注

- 有关将本乐器连接到计算机的说明，请参见Yamaha Downloads网站下载的“Computer-related Operations”（计算机相关操作）。

MIDI传送/接收通道选择

在任何MIDI控制设定中，发送和接收设备的MIDI通道必须匹配，以便正确传送数据。使用此参数可指定本乐器传送或接收MIDI数据所使用的通道。

设置传送通道

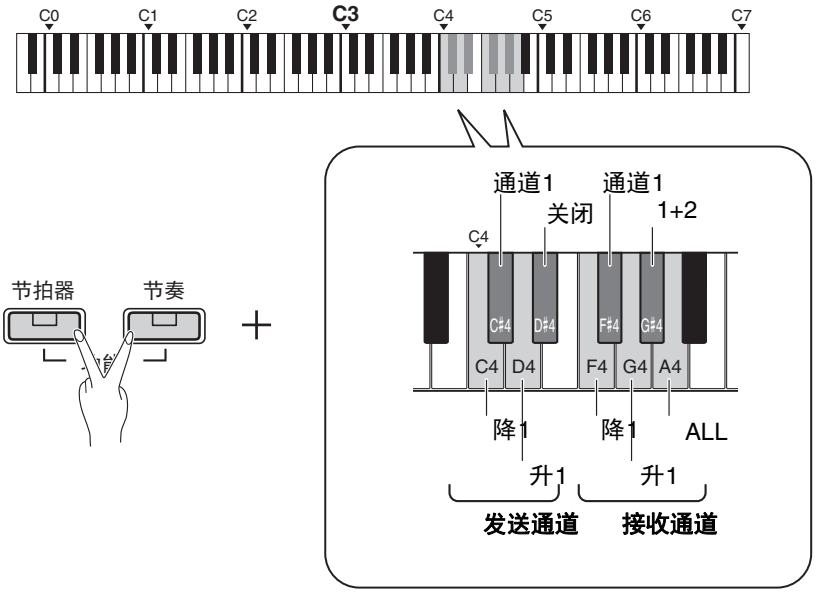
在按住[节拍器]按钮和[节奏]按钮的同时，按下C4–D♯4琴键之一。

默认设置：1

设置接收通道

在按住[节拍器]按钮和[节奏]按钮的同时，按下F4-A4琴键之一。

默认设置：ALL



双音色、分割音色或双人演奏中的MIDI传送通道

音色1的数据将通过指定的通道传送，而音色2的数据将通过比指定通道编号大的下一个通道来传送。此时，若将传送通道设置为“OFF”，则不会传送任何数据。

ALL：

“多声部”接收。使用此模式可通过所有16个MIDI通道同时接收不同的声部，使得乐器可播放来自计算机的多通道乐曲数据。

1+2:

“1+2”接收。使用此模式可仅通过通道1和2进行同时接收，使得乐器可播放来自计算机的1和2通道的乐曲数据。

程序转换和其它接收的类似通道信息将不会影响乐器的面板设置或键盘上弹奏的音符。

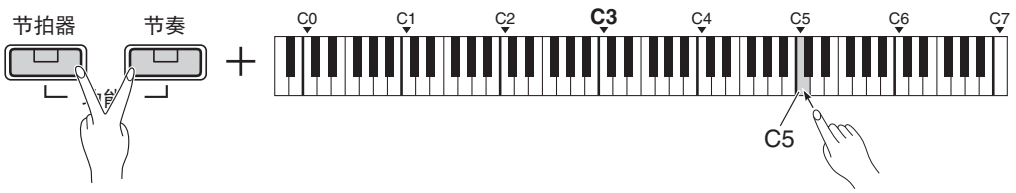
示范乐曲和预设乐曲数据无法通过MIDI进行传送。

本地控制ON/OFF

“本地控制”通常指本乐器的键盘控制其内置音源，使内部音色直接通过键盘播放。此状态即为“本地控制开”，因为内置音源由键盘直接控制。也可关闭本地控制，使得本乐器的键盘不播放内部音色，但在键盘上弹奏音符时，相应的MIDI信息仍会通过[USB TO HOST]端口传送。同时，内置音源对[USB TO HOST]端口接收的MIDI信息进行响应。

在按住[节拍器]按钮和[节奏]按钮的同时，按下C5琴键。反复按下C5琴键可在本地控制开和关之间切换。

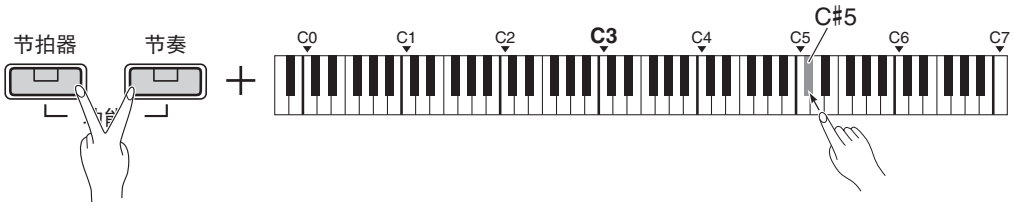
默认设置：ON



程序转换ON/OFF

本乐器通常对来自计算机的MIDI程序转换编号进行响应，使得在相应通道上选择相同编号的音色（键盘音色并不改变）。如果计算机设为接收和响应MIDI程序转换编号，则选择本乐器的任一种音色后，本乐器通常也将发送MIDI程序转换编号，使得计算机上选择相同编号的音色或程序。此功能可取消程序转换编号的接收和传送，即可在本乐器上选择音色又不影响计算机。

在按住[节拍器]按钮和[节奏]按钮的同时，按下C♯5琴键。反复按下C♯5琴键可在程序转换的开和关之间进行切换。



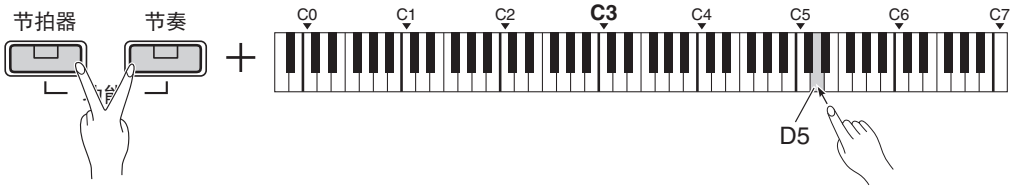
有关乐器各音色的程序转换编号的信息，请参见第4页。

默认设置：ON

控制转换ON/OFF

通常乐器响应来自计算机的MIDI控制转换数据，使相应通道上的音色受踏板和其它来自控制设备的“控制”影响（键盘音色不受影响）。当使用踏板或其它相关控制器时，本乐器也会发送MIDI控制转换信息。使用此功能可取消控制转换数据的接收和发送，例如，乐器的踏板和其它控制器的操作可不影响计算机。

在按住[节拍器]按钮和[节奏]按钮的同时，按下D5琴键。反复按下D5琴键可在控制转换的开和关之间进行切换。



有关可与乐器一起使用的控制转换信息，请参见第4页。

默认设置：ON

MIDI数据格式

MIDI数据格式中列出的许多MIDI信息都用十进制数、二进制数和十六进制数表示。十六进制数可以用字母“H”作为后缀。此外，“n”可以自由地定义为任何整数。要输入数据/值，请参见下表。

十进制	十六进制	二进制	十进制	十六进制	二进制	十进制	十六进制	二进制	十进制	十六进制	二进制
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

- 除上表外，例如144-159（十进制）/9nH/1001 0000-1001 1111（二进制）表示每个通道（1-16）的音符开信息。176-191/BnH/1011 0000-1011 1111表示每个通道（1-16）的控制转换信息。192-207/CnH/1100 0000-1100 1111表示每个通道（1-16）的程序转换信息。240/FOH/1111 0000表示系统专用信息的开始。247/F7H/1111 0111表示系统专用信息的结束。
- aaH（十六进制）/0aaaaaaa（二进制）表示数据地址。地址由高、中、低组成。
- bbH/0bbbbbbb表示字节数。
- ccH/0ccccccc表示校验和。
- ddH/0ddddddd表示数据/值。

预置音色列表

程序转换编号通常指定为编号“0－127”。因为此列表使用的是“1-128”编号系统，因此需要从传送的程序转换编号减去1以选择正确的音色：例如，若要在下表中选择现场钢琴，则传送程序转换编号1。

音色按钮	音色名	程序转换		
		MSB Bn 00 XX	LSB Bn 20 XX	PrgNo. (1 origin) Cn XX
[PIANO] （钢琴）	三角钢琴	108	0	1
	现场钢琴	108	2	2
	民谣钢琴	108	3	1
	亮音钢琴	108	0	2
[ELECTRIC PIANO/ ORGAN] （电钢琴/风琴）	舞台电钢琴	108	0	5
	DX电钢琴	108	0	6
	爵士风琴	108	0	17
	管风琴	108	1	20
[OTHERS] （其他）	拨弦古钢琴	108	0	7
	电子击弦古钢琴	108	0	8
	颤音琴	108	0	12
	弦乐	108	0	49
[CHINA 1] （中国民族1）	二胡	108	113	111
	琵琶	108	123	106
	板胡	108	116	111
	古筝	108	115	108
[CHINA 2] （中国民族2）	笛子	108	118	74
	唢呐	108	122	112
	笙	108	116	110
	扬琴	108	118	16
[+BASS] （+贝司）	原音贝司	108	0	33
	电贝司	108	0	34
	原音贝司 &镲	108	1	33
	无品贝司	108	0	36

MIDI通道信息 （1）

应用范围	MIDI，内置音序器

MIDI Events	Status byte		1st Data byte			2nd Data byte			MIDI Formats	MIDI Reception		MIDI Transmission	
	Status		Data	(HEX)	Parameter	Data	(HEX)	Parameter		Song	Main Layer Left	Panel	Song
Key Off	8nH	(n:Channel Number)	kk		Key no. (0-127)	vv		Velocity(0-127)	[GM1] [GM2]	O	X	O	X
Key On	9nH	(n:Channel Number)	kk		Key no. (0-127)	vv		Key On :vv=1-127 Key Off :vv=0	[GM1] [GM2]	O	X	O	X
Control Change	BnH		0	(00H)	Bank Select MSB	0-127	(00H...7FH)	(00) Normal	[GM2]	O	X	O	X
			1	(01H)	Modulation	0-127	(00H...7FH)	Data	[GM1] [GM2]	O	X	X	X
			5	(05H)	Portamento Time	0-127	(00H...7FH)	Data	[GM2]	O	X	O	X
			6	(06H)	Data Entry MSB	0-127	(00H...7FH)	Data	[GM2]	O	X	X	X
			7	(07H)	Main Volume	0-127	(00H...7FH)	Data	[GM1] [GM2]	O	X	O	X
			10	(0AH)	Panpot	0-127	(00H...7FH)	L64…C…R63	[GM1] [GM2]	O	X	O	X
			11	(0BH)	Expression	0-127	(00H...7FH)	Data	[GM1] [GM2]	O	X	X	X
			32	(20H)	Bank Select LSB	0-127	(00H...7FH)	Data	[GM2]	O	X	O	X
			38	(26H)	Data Entry LSB	0-127	(00H...7FH)	Data	[GM2]	O	X	X	X
			64	(40H)	Sustain(Damper)	0-127	(00H...7FH)	Data	[GM1] [GM2]	O	X	O	X
			65	(41H)	Portamento	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	[GM2]	O	X	O	X
			66	(42H)	Sostenuto	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	[GM2]	O	X	O	X
			67	(43H)	Soft Pedal	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	[GM2]	O	X	O	X
			71	(47H)	Harmonic Content	0-127	(00H...7FH)	-64...0...+63	[GM2]	O	X	X	X
			72	(48H)	Release Time	0-127	(00H...7FH)	-64...0...+63	[GM2]	O	X	X	X
			73	(49H)	Attack Time	0-127	(00H...7FH)	-64...0...+63	[GM2]	O	X	X	X
			74	(4AH)	Brightness	0-127	(00H...7FH)	-64...0...+63	[GM2]	O	X	X	X
			75	(4BH)	Decay Time	0-127	(00H...7FH)	-64...0...+63	[GM2]	O	X	X	X
			76	(4CH)	Vibrate Rate	0-127	(00H...7FH)	-64...0...+63	[GM2]	O	X	X	X
			77	(4DH)	Vibrate Depth	0-127	(00H...7FH)	-64...0...+63	[GM2]	O	X	X	X
			78	(4EH)	Vibrate Delay	0-127	(00H...7FH)	-64...0...+63	[GM2]	O	X	X	X
			84	(54H)	Portamento Control	0-127	(00H...7FH)	Key no. (0-127)		O	X	X	X
			91	(5BH)	Effect1 Depth (Reverb Send Level)	0-127	(00H...7FH)	Data	[GM2]	O	X	O	X
			93	(5DH)	Effect3 Depth (Chorus Send Level)	0-127	(00H...7FH)	Data	[GM2]	O	X	O	X
			94	(5EH)	Effect4 Depth (Variation Send Level)	0-127	(00H...7FH)	Data		O	X	X	X
			96	(60H)	RPN Increment	-	-	The data byte is ignored.		O	X	X	X
			97	(61H)	RPN Decrement	-	-	The data byte is ignored.		O	X	X	X
			98	(62H)	NRPN LSB	0-127	(00H...7FH)	Data		O	X	X	X
			99	(63H)	NRPN MSB	0-127	(00H...7FH)	Data		O	X	X	X
			100	(64H)	RPN LSB	0-127	(00H...7FH)	Data	[GM2]	O	X	X	X
			101	(65H)	RPN MSB	0-127	(00H...7FH)	Data	[GM2]	O	X	X	X
Mode Message	BnH	(n:Channel Number)	120	(78H)	All Sound Off	0	(00H)	Data	[GM2]	O	X	X	X
			121	(79H)	Reset All Controllers	0	(00H)	Data	[GM1] [GM2]	O	X	X	X
			122	(7AH)	Local Control	0 127	(00H) (7FH)	OFF ON		O		X	X
			123	(7BH)	All Note Off	0	(00H)	Data	[GM1] [GM2]	O	X	X	X
			124	(7CH)	Omni Off	0	(00H)	Data	[GM2]	O	X	X	X
			125	(7DH)	Omni On	0	(00H)	Data	[GM2]	O	X	X	X
			126	(7EH)	Mono	0-16	(00H...10H)	Data	[GM2]	O	X	X	X
			127	(7FH)	Poly	0	(00H)	Data	[GM2]	O	X	X	X
Program Change	CnH	(n:Channel Number)	pp	(00H...7FH)	Voice number (0-127)	-	-	-	[GM1] [GM2]	O	X	O	X
Channel After Touch	DnH	(n:Channel Number)	vv	(00H...7FH)	Data	-	-	-	[GM1] [GM2]	O	X	X	X
Polyphonic After Touch	AnH	(n:Channel Number)	kk	(00H...7FH)	Key no. (0-127)	vv	(00H...7FH)	Data		O	X	X	X
Pitch Bend Change	EnH	(n:Channel Number)	cc	(00H...7FH)	LSB	dd	(00H...7FH)	MSB	[GM1] [GM2]	O	X	X	X
Realtime Message	F8H	MIDI Clock	-		-	-		-		X		O	
	FAH	Start	-		-	-		-		O		O	
	FBH	Continue	-		-	-		-		X		X	
	FCH	Stop	-		-	-		-		O		O	
	FEH	Active Sens	-		-	-		-	[GM2]	O		O	
	FFH	System Reset	-		-	-		-		X		X	

MIDI通道信息 （2）

应用范围	MIDI，内置音序器

NRPN （非注册参数编号）

NRPN		Data Entry		Parameter	Data Range	MIDI Formats	MIDI Reception		MIDI Transmission	
MSB	LSB	MSB	LSB				Song	Main Layer Left	Panel	Song
01H	08H	mmH	--	Vibrato Rate	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	09H	mmH	--	Vibrato Depth	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	0AH	mmH	--	Vibrato Delay	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	20H	mmH	--	Low Pass Filter Cutoff Frequency	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	21H	mmH	--	Low Pass Filter Resonance	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	30H	mmH	--	EQ BASS	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	31H	mmH	--	EQ TREBLE	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	34H	mmH	--	EQ BASS Frequency	mm : 04H-28H (32...2.0k[Hz])		O	X	X	X
01H	35H	mmH	--	EQ TREBLE Frequency	mm : 1CH-3AH (500...16.0k[Hz])		O	X	X	X
01H	63H	mmH	--	EG Attack Time	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	64H	mmH	--	EG Decay Time	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
01H	66H	mmH	--	EG Release	mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
14H	rrH	mmH	--	Drum Low Pass Filter Cutoff Frequency	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
15H	rrH	mmH	--	Drum Low Pass Filter Resonance	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
16H	rrH	mmH	--	Drum EG Attack Rate	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
17H	rrH	mmH	--	Drum EG Decay Rate	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
18H	rrH	mmH	--	Drum Pitch Coarse	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
19H	rrH	mmH	--	Drum Pitch Fine	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
1AH	rrH	mmH	--	Drum Level	rr : drum instrument note number mm : 00H-7FH (0...127)		O	X	X	X
1CH	rrH	mmH	--	Drum Pan	rr : drum instrument note number mm : 00H, 01H-40H-7FH (RND, L63...C...R63)		O	X	X	X
1DH	rrH	mmH	--	Drum Reverb Send Level	rr : drum instrument note number mm : 00H-7FH (0...127)		O	X	X	X
1EH	rrH	mmH	--	Drum Chorus Send Level	rr : drum instrument note number mm : 00H-7FH (0...127)		O	X	X	X
1FH	rrH	mmH	--	Drum Variation Send Level	rr : drum instrument note number mm : 00H-7FH (0...127)		O	X	X	X
24H	rrH	mmH	--	Drum HPF Cutoff Frequency	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)		O	X	X	X
30H	rrH	mmH	--	Drum EQ Bass Gain	rr : drum instrument note number mm : 00H-7FH (0...127)		X	X	X	X
31H	rrH	mmH	--	Drum EQ Treble Gain	rr : drum instrument note number mm : 00H-7FH (0...127)		X	X	X	X
34H	rrH	mmH	--	Drum EQ Bass Frequency	rr : drum instrument note number mm : 04H-28H (32...2.0k[Hz])		X	X	X	X
35H	rrH	mmH	--	Drum EQ Treble Frequency	rr : drum instrument note number mm : 1CH-3AH (500...16.0k[Hz])		X	X	X	X
40H	rrH	mmH	--	Drum VELOCITY PITCH SENS.	rr : drum instrument note number mm : 00H-0FH (0...15)		X	X	X	X
41H	rrH	mmH	--	Drum VELOCITY LPF CUTOFF SENS.	rr : drum instrument note number mm : 00H-0FH (0...15)		X	X	X	X

NRPN MSB：只要通道设有鼓组音色，就会接收14H-1FH （鼓组）信息。
Data Entry LSB：忽略。

RPN （已注册参数编号）

NRPN		Data Entry		Parameter	Data Range	MIDI Formats	MIDI Reception (respond/ignored)		MIDI Transmission (generated data)	
MSB	LSB	MSB	LSB				Song	Main Layer Left	Panel	Song
00H	00H	mmH	--	Pitch Bend Sensitivity	mm : 00H-18H (0...+24[semitones])	[GM1] [GM2]	O	X	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]	[GM1] [GM2]	O	X	X	X
00H	02H	mmH	--	Coarse Tune	mm : 28H-40H-58H (-24...0...+24[semitones])	[GM1] [GM2]	O	X	X	X
00H	05H	mmH	llH	Modulation Sensitivity	mm : Specified in semitone steps ll : Specified in 100/128 cent steps	[GM2]	O	X	X	X
7FH	7FH	--	--	Null	-	[GM2]	O	X	X	X

MIDI参数转换表

应用范围	MIDI，内置音序器

* 接收参数SysEx设为关闭时不接收。
* 传送参数SysEx设为关闭时不传送。

MIDI参数转换表 （XG SYSTEM）

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception		MIDI Transmission	
								Song	Main Layer Left	Panel	Song
00	00	00	4	00-0F 00-0F 00-0F 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	O		X	O
		04	1	00-7F	MASTER VOLUME	0...127	7F	O	X	X	O
		05	1	00-7F	MASTER ATTENUATOR	0...127	00	X	X	X	X
		06	1	28-58	TRANSPOSE	-24...0...+24[semitones]	40	O	X	X	O
		7D	1	N	DRUM SETUP RESET	N:Drum setup number	-	O	X	X	O
		7E	1	00	XG SYSTEM ON	00=XG system ON	-	O	X	X	O
		7F	1	00	ALL PARAMETER RESET	00=ON	-	O	X	X	X

TOTAL SIZE 07

MIDI参数转换表 （SYSTEM INFORMATION）

Address (H)			Size (H)	Data (H)	Parameter	Description	MIDI Reception		MIDI Transmission	
							Song	Main Layer Left	Panel	Song
01	00	00	E	20-7F	Model Name 1	32...127(ASCII CHARACTER)	-	-	X	X
		...		...	...	...				
		0D		20-7F	Model Name 14	32...127(ASCII CHARACTER)				
		0E	1		NOT USED					
		0F	1		NOT USED					

TOTAL SIZE 10

响应中传送至转储请求。不接收。

MIDI参数转换表 （EFFECT1）

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception		MIDI Transmission	
								Song	Main Layer Left	Panel	Song
02	01	00	2	00-7F	REVERB TYPE MSB	Refer to Effect Type List (第15页).	01(=HALL1)	O		O	O
				00-7F	REVERB TYPE LSB	Refer to Effect Type List (第15页).	00				O
		02	1	00-7F	REVERB PARAMETER 1	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		03	1	00-7F	REVERB PARAMETER 2	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		04	1	00-7F	REVERB PARAMETER 3	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		05	1	00-7F	REVERB PARAMETER 4	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		06	1	00-7F	REVERB PARAMETER 5	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		07	1	00-7F	REVERB PARAMETER 6	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		08	1	00-7F	REVERB PARAMETER 7	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		09	1	00-7F	REVERB PARAMETER 8	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		0A	1	00-7F	REVERB PARAMETER 9	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		0B	1	00-7F	REVERB PARAMETER 10	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		0C	1	00-7F	REVERB RETURN	-∞dB...0dB...+6dB(0...64...127)	40	O		X	O
		0D	1	01-7F	REVERB PAN	L63...C...R63	40	O		X	O

TOTAL SIZE 0E

02	01	10	1	00-7F	REVERB PARAMETER 11	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		11	1	00-7F	REVERB PARAMETER 12	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		12	1	00-7F	REVERB PARAMETER 13	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		13	1	00-7F	REVERB PARAMETER 14	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		14	1	00-7F	REVERB PARAMETER 15	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O
		15	1	00-7F	REVERB PARAMETER 16	Refer to Effect Type List (第15页).	Depends on Reverb Type.	O (Depends on Reverb Type.)		X	O

TOTAL SIZE 06

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception		MIDI Transmission	
								Song	Main Layer Left	Panel	Song
02	01	20	2	00-7F	CHORUS TYPE MSB		41(=CHORUS1)	O		O	O
				00-7F	CHORUS TYPE LSB		00				O
		22	1	00-7F	CHORUS PARAMETER 1		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		23	1	00-7F	CHORUS PARAMETER 2		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		24	1	00-7F	CHORUS PARAMETER 3		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		25	1	00-7F	CHORUS PARAMETER 4		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		26	1	00-7F	CHORUS PARAMETER 5		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		27	1	00-7F	CHORUS PARAMETER 6		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		28	1	00-7F	CHORUS PARAMETER 7		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		29	1	00-7F	CHORUS PARAMETER 8		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		2A	1	00-7F	CHORUS PARAMETER 9		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		2B	1	00-7F	CHORUS PARAMETER 10		Depends on Chorus Type.	O (Depends on Chorus Type.)		X	O
		2C	1	00-7F	CHORUS RETURN	-∞dB...0dB...+6dB(0...64...127)	40	O		X	O
		2D	1	01-7F	CHORUS PAN	L63...C...R63	40	O		X	O
		2E	1	00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB(0...64...127)	00	O		X	O

TOTAL SIZE 0F

02	01	30	1	00-7F	CHORUS PARAMETER 11		Depends on Chorus Type.	O (Depends on Chorus Type.)	X	O
		31	1	00-7F	CHORUS PARAMETER 12		Depends on Chorus Type.	O (Depends on Chorus Type.)	X	O
		32	1	00-7F	CHORUS PARAMETER 13		Depends on Chorus Type.	O (Depends on Chorus Type.)	X	O
		33	1	00-7F	CHORUS PARAMETER 14		Depends on Chorus Type.	O (Depends on Chorus Type.)	X	O
		34	1	00-7F	CHORUS PARAMETER 15		Depends on Chorus Type.	O (Depends on Chorus Type.)	X	O
		35	1	00-7F	CHORUS PARAMETER 16		Depends on Chorus Type.	O (Depends on Chorus Type.)	X	O

TOTAL SIZE 06

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception		MIDI Transmission	
								Song	Main Layer Left	Panel	Song
02	01	40	2	00-7F	VARIATION TYPE MSB		05(=DELAY L,C,R)	O		X	O
				00-7F	VARIATION TYPE LSB		00				O
		42	2	00-7F	VARIATION PARAMETER 1 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 1 LSB						O
		44	2	00-7F	VARIATION PARAMETER 2 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 2 LSB						O
		46	2	00-7F	VARIATION PARAMETER 3 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 3 LSB						O
		48	2	00-7F	VARIATION PARAMETER 4 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 4 LSB						O
		4A	2	00-7F	VARIATION PARAMETER 5 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 5 LSB						O
		4C	2	00-7F	VARIATION PARAMETER 6 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 6 LSB						O
		4E	2	00-7F	VARIATION PARAMETER 7 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 7 LSB						O
		50	2	00-7F	VARIATION PARAMETER 8 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 8 LSB						O
		52	2	00-7F	VARIATION PARAMETER 9 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 9 LSB						O
		54	2	00-7F	VARIATION PARAMETER 10 MSB		Depends on Variation Type.	O (Depends on Variation Type.)		X	O
				00-7F	VARIATION PARAMETER 10 LSB						O
		56	1	00-7F	VARIATION RETURN	-∞dB...0dB...+6dB(0...64...127)	40	O		X	O
		57	1	01-7F	VARIATION PAN	L63...C...R63	40	O		X	O
		58	1	00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB(0...64...127)	00	O		X	O
		59	1	00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB(0...64...127)	00	O		X	O
		5A	1	00-01	VARIATION CONNECTION	INSERTION, SYSTEM	00	O		X	O
		5B	1	00-7F	VARIATION PART NUMBER	Reception : Part1...16(0...15) Transmission : Part1...16(0...15) AD(64) OFF(127)	7F	O		X	O
		5C	1	00-7F	MW VARIATION CONTROL DEPTH	-64...0...+63	40	O		X	O
		5D	1	00-7F	BEND VARIATION CONTROL DEPTH	-64...0...+63	40	O		X	O
		5E	1	00-7F	CAT VARIATION CONTROL DEPTH	-64...0...+63	40	O		X	O
		5F	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64...0...+63	40	O		X	O
		60	1	00-7F	AC2 VARIATION CONTROL DEPTH	-64...0...+63	40	O		X	O

TOTAL SIZE 21

02	01	70	1	00-7F	VARIATION PARAMETER 11		Depends on Variation Type.	O (Depends on Variation Type.)	X	O
		71	1	00-7F	VARIATION PARAMETER 12		Depends on Variation Type.	O (Depends on Variation Type.)	X	O
		72	1	00-7F	VARIATION PARAMETER 13		Depends on Variation Type.	O (Depends on Variation Type.)	X	O
		73	1	00-7F	VARIATION PARAMETER 14		Depends on Variation Type.	O (Depends on Variation Type.)	X	O
		74	1	00-7F	VARIATION PARAMETER 15		Depends on Variation Type.	O (Depends on Variation Type.)	X	O
		75	1	00-7F	VARIATION PARAMETER 16		Depends on Variation Type.	O (Depends on Variation Type.)	X	O

TOTAL SIZE 06

MIDI参数转换表 （MULTI EQ）

Address (H)			Size (H)	Data (H)	Parameter	Description	* The MULTI EQ Parameter cannot be reset to its factory setting with XG SYSTEM ON.	MIDI Reception		MIDI Transmission	
								Song	Main Layer Left	Panel	Song
02	40	00	1	00-04	EQ TYPE	flat, jazz, pops, rock, classic		X		X	X
		01	1	34-4C	EQ GAIN1	-12...0...+12[dB]		X		X	X
		02	1	04-28	EQ FREQUENCY1	32...2.0k[Hz]		X		X	X
		03	1	01-78	EQ Q1	0.1...12.0		X		X	X
		04	1	00-01	EQ SHAPE1	shelving, peaking		X		X	X
		05	1	34-4C	EQ GAIN2	-12...0...+12[dB]		X		X	X
		06	1	0E-36	EQ FREQUENCY2	100...10.0k[Hz]		X		X	X
		07	1	01-78	EQ Q2	0.1...12.0		X		X	X
		08	1		NOT USED			-		-	-
		09	1	34-4C	EQ GAIN3	-12...0...+12[dB]		X		X	X
		0A	1	0E-36	EQ FREQUENCY3	100...10.0k[Hz]		X		X	X
		0B	1	01-78	EQ Q3	0.1...12.0		X		X	X
		0C	1		NOT USED			-		-	-
		0D	1	34-4C	EQ GAIN4	-12...0...+12[dB]		X		X	X
		0E	1	0E-36	EQ FREQUENCY4	100...10.0k[Hz]		X		X	X
		0F	1	01-78	EQ Q4	0.1...12.0		X		X	X
		10	1		NOT USED			-		-	-
		11	1	34-4C	EQ GAIN5	-12...0...+12[dB]		X		X	X
		12	1	1C-3A	EQ FREQUENCY5	0.5k...16.0k[Hz]		X		X	X
		13	1	01-78	EQ Q5	0.1...12.0		X		X	X
		14	1	00-01	EQ SHAPE5	shelving, peaking		X		X	X

TOTAL SIZE 15

MIDI参数转换表 （EFFECT2）

Address (H)	Size (H)	Data (H)	Parameter	Description	* The EFFECT 2 Parameter cannot be reset to its factory setting with XG SYSTEM ON.	MIDI Reception		MIDI Transmission	
						Song	Main Layer Left	Panel	Song
03 n 00	2	00-7F	INSERTION EFFECT TYPE MSB			O		O	O
		00-7F	INSERTION EFFECT TYPE LSB						O
02	1	00-7F	INSERTION EFFECT PARAMETER 1			O (Depends on Insertion Type.)		O	O
03	1	00-7F	INSERTION EFFECT PARAMETER 2			O (Depends on Insertion Type.)		O	O
04	1	00-7F	INSERTION EFFECT PARAMETER 3			O (Depends on Insertion Type.)		O	O
05	1	00-7F	INSERTION EFFECT PARAMETER 4			O (Depends on Insertion Type.)		O	O
06	1	00-7F	INSERTION EFFECT PARAMETER 5			O (Depends on Insertion Type.)		O	O
07	1	00-7F	INSERTION EFFECT PARAMETER 6			O (Depends on Insertion Type.)		O	O
08	1	00-7F	INSERTION EFFECT PARAMETER 7			O (Depends on Insertion Type.)		O	O
09	1	00-7F	INSERTION EFFECT PARAMETER 8			O (Depends on Insertion Type.)		O	O
0A	1	00-7F	INSERTION EFFECT PARAMETER 9			O (Depends on Insertion Type.)		O	O
0B	1	00-7F	INSERTION EFFECT PARAMETER 10			O (Depends on Insertion Type.)		O	O
0C	1	00-7F	INSERTION EFFECT PART NUMBER	Reception : Part1...16(0...15) Transmission : Part1...16(0...15) AD(64) OFF(127)		O		O	O
0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63		O		X	O
0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63		O		X	O
0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63		O		X	O
10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63		O		O	O
11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63		O		X	O
TOTAL SIZE	12								
20	1	00-7F	INSERTION EFFECT PARAMETER 11			O (Depends on Insertion Type.)		O	O
21	1	00-7F	INSERTION EFFECT PARAMETER 12			O (Depends on Insertion Type.)		O	O
22	1	00-7F	INSERTION EFFECT PARAMETER 13			O (Depends on Insertion Type.)		O	O
23	1	00-7F	INSERTION EFFECT PARAMETER 14			O (Depends on Insertion Type.)		O	O
24	1	00-7F	INSERTION EFFECT PARAMETER 15			O (Depends on Insertion Type.)		O	O
25	1	00-7F	INSERTION EFFECT PARAMETER 16			O (Depends on Insertion Type.)		O	O
TOTAL SIZE	06								
30	2	00-7F	INSERTION EFFECT PARAMETER 1 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 1 LSB						
32	2	00-7F	INSERTION EFFECT PARAMETER 2 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 2 LSB						
34	2	00-7F	INSERTION EFFECT PARAMETER 3 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 3 LSB						
36	2	00-7F	INSERTION EFFECT PARAMETER 4 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 4 LSB						
38	2	00-7F	INSERTION EFFECT PARAMETER 5 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 5 LSB						
3A	2	00-7F	INSERTION EFFECT PARAMETER 6 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 6 LSB						
3C	2	00-7F	INSERTION EFFECT PARAMETER 7 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 7 LSB						
3E	2	00-7F	INSERTION EFFECT PARAMETER 8 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 8 LSB						
40	2	00-7F	INSERTION EFFECT PARAMETER 9 MSB			O (Depends on Insertion Type.)		X	O
		00-7F	INSERTION EFFECT PARAMETER 9 LSB						
42	2	00-7F	INSERTION EFFECT PARAMETER 10 MSB			O (Depends on Insertion Type.)		O	O
		00-7F	INSERTION EFFECT PARAMETER 10 LSB						
TOTAL SIZE	14								

地址的第二个字节视为插入效果编号。
n：插入效果编号

插入效果编号范围为0至1。超出范围的值将视为未知并忽略。
对于不需要MSB的效果类型，将接收地址02-0B的参数，且不接收地址30-42的参数。
对于需要MSB的效果类型，将接收地址30-42的参数，且不接收地址02-0B的参数。
当传送包含效果类型数据的批量转储时，将始终传送地址02-0B的参数。
对于需要MSB的效果，当接收批量转储时，将不会接收地址02-0B的参数。

MIDI参数转换表 （MULTI PART）

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception		MIDI Transmission	
						Song	Main Layer Left	Panel	Song
08 nn 00	1	00-20	NOT USED			X	X	X	X
01	1	00-7F	BANK SELECT MSB	0...127	part10=7F, other parts=00	O	X	X	X
02	1	00-7F	BANK SELECT LSB	0...127	00	O	X	X	X
03	1	00-7F	PROGRAM NUMBER	1...128	00	O	X	X	X
04	1	00-0F, 7F	Rcv CHANNEL	1...16, OFF	Part No.	O	X	X	X
05	1	00-01	MONO/POLY MODE	MONO, POLY	01	O	X	X	X
06	1	00-02	SAME NOTE NUMBER KEY ON ASSIGN	SINGLE, MULTI, INST(for Drum)	01	O	X	X	X
07	1	00-03	PART MODE	NORMAL, DRUM, DRUMS1...2	part10=02, other parts=00	O	X	O	X
08	1	28-58	NOTE SHIFT	-24...0...+24[semitones]	40	O	X	X	X
09	2	00-0F 00-0F	DETUNE	-12.8...0...+12.7[Hz] 1st bit3-0→bit7-4	08 00	O	X	X	X
0B	1	00-7F	VOLUME	0...127	64	O	X	X	X
0C	1	00-7F	VELOCITY SENSE DEPTH	0...127	40	O	X	O	X
0D	1	00-7F	VELOCITY SENSE OFFSET	0...127	40	O	X	O	X
0E	1	00-7F	PAN	RND,L63...C...R63	40	O	X	X	X
0F	1	00-7F	NOTE LIMIT LOW	C-2...G8	00	O	X	X	X
10	1	00-7F	NOTE LIMIT HIGH	C-2...G8	7F	O	X	X	X
11	1	00-7F	DRY LEVEL	0...127	7F	O	X	X	X
12	1	00-7F	CHORUS SEND	0...127	00	O	X	X	X
13	1	00-7F	REVERB SEND	0...127	28	O	X	X	X
14	1	00-7F	VARIATION SEND	0...127	00	O	X	X	X
15	1	00-7F	VIBRATO RATE	-64...0...+63	40	O	X	X	X
16	1	00-7F	VIBRATO DEPTH	-64...0...+63	40	O	X	X	X
17	1	00-7F	VIBRATO DELAY	-64...0...+63	40	O	X	X	X
18	1	00-7F	FILTER CUTOFF FREQUENCY	-64...0...+63	40	O	X	X	X
19	1	00-7F	FILTER RESONANCE	-64...0...+63	40	O	X	X	X
1A	1	00-7F	EG ATTACK TIME	-64...0...+63	40	O	X	X	X
1B	1	00-7F	EG DECAY TIME	-64...0...+63	40	O	X	X	X
1C	1	00-7F	EG RELEASE TIME	-64...0...+63	40	O	X	X	X
1D	1	28-58	MW PITCH CONTROL	-24...0...+24[semitones]	40	O	X	X	X
1E	1	00-7F	MW LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	X	X
1F	1	00-7F	MW AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	X
20	1	00-7F	MW LFO PMOD DEPTH	0...127	0A	O	X	X	X
21	1	00-7F	MW LFO FMOD DEPTH	0...127	00	O	X	X	X
22	1	00-7F	MW LFO AMOD DEPTH	0...127	00	O	X	X	X
23	1	28-58	BEND PITCH CONTROL	-24...0...+24[semitones]	42	O	X	X	X
24	1	00-7F	BEND LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	X	X
25	1	00-7F	BEND AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	X
26	1	00-7F	BEND LFO PMOD DEPTH	0...127	00	O	X	X	X
27	1	00-7F	BEND LFO FMOD DEPTH	0...127	00	O	X	X	X
28	1	00-7F	BEND LFO AMOD DEPTH	0...127	00	O	X	X	X
TOTAL SIZE	29								
30	1	00-01	Rcv PITCH BEND	OFF, ON	01	O	X	X	X
31	1	00-01	Rcv CH AFTER TOUCH(CAT)	OFF, ON	01	O	X	X	X
32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	01	O	X	X	X
33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	01	O	X	X	X
34	1	00-01	Rcv POLY AFTER TOUCH(PAT)	OFF, ON	01	O	X	X	X
35	1	00-01	Rcv NOTE MESSAGE	OFF, ON	01	O	X	X	X
36	1	00-01	Rcv RPN	OFF, ON	01	O	X	X	X
37	1	00-01	Rcv NRPN	OFF, ON	XGmode=01, GMmode=00	O	X	X	X
38	1	00-01	Rcv MODULATION	OFF, ON	01	O	X	X	X
39	1	00-01	Rcv VOLUME	OFF, ON	01	O	X	X	X
3A	1	00-01	Rcv PAN	OFF, ON	01	O	X	X	X
3B	1	00-01	Rcv EXPRESSION	OFF, ON	01	O	X	X	X
3C	1	00-01	Rcv HOLD1	OFF, ON	01	O	X	X	X
3D	1	00-01	Rcv PORTAMENTO	OFF, ON	01	O	X	X	X
3E	1	00-01	Rcv SOSTENUTO	OFF, ON	01	O	X	X	X
3F	1	00-01	Rcv SOFT PEDAL	OFF, ON	01	O	X	X	X
40	1	00-01	Rcv BANK SELECT	OFF, ON	01	O	X	X	X
41	1	00-7F	SCALE TUNING C	-63...0...+63[cent]	40	O	X	X	X
42	1	00-7F	SCALE TUNING C♯	-63...0...+63[cent]	40	O	X	X	X
43	1	00-7F	SCALE TUNING D	-63...0...+63[cent]	40	O	X	X	X
44	1	00-7F	SCALE TUNING D♯	-63...0...+63[cent]	40	O	X	X	X
45	1	00-7F	SCALE TUNING E	-63...0...+63[cent]	40	O	X	X	X
46	1	00-7F	SCALE TUNING F	-63...0...+63[cent]	40	O	X	X	X
47	1	00-7F	SCALE TUNING F♯	-63...0...+63[cent]	40	O	X	X	X
48	1	00-7F	SCALE TUNING G	-63...0...+63[cent]	40	O	X	X	X
49	1	00-7F	SCALE TUNING G♯	-63...0...+63[cent]	40	O	X	X	X
4A	1	00-7F	SCALE TUNING A	-63...0...+63[cent]	40	O	X	X	X
4B	1	00-7F	SCALE TUNING A♯	-63...0...+63[cent]	40	O	X	X	X
4C	1	00-7F	SCALE TUNING B	-63...0...+63[cent]	40	O	X	X	X
4D	1	28-58	CAT PITCH CONTROL	-24...0...+24[semitones]	40	O	X	X	X
4E	1	00-7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	X	X
4F	1	00-7F	CAT AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	X
50	1	00-7F	CAT LFO PMOD DEPTH	0...127	00	O	X	X	X
51	1	00-7F	CAT LFO FMOD DEPTH	0...127	00	O	X	X	X
52	1	00-7F	CAT LFO AMOD DEPTH	0...127	00	O	X	X	X
53	1	28-58	PAT PITCH CONTROL	-24...0...+24[semitones]	40	O	X	X	X
54	1	00-7F	PAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	X	X

55	1	00-7F	PAT AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	X
56	1	00-7F	PAT LFO PMOD DEPTH	0...127	00	O	X	X	X
57	1	00-7F	PAT LFO FMOD DEPTH	0...127	00	O	X	X	X
58	1	00-7F	PAT LFO AMOD DEPTH	0...127	00	O	X	X	X
59	1	00-5F	AC1 CONTROLLER NUMBER	0...95	10	O	X	O	X
5A	1	28-58	AC1 PITCH CONTROL	-24...0...+24[semitones]	40	O	X	X	X
5B	1	00-7F	AC1 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	X	X
5C	1	00-7F	AC1 AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	X
5D	1	00-7F	AC1 LFO PMOD DEPTH	0...127	00	O	X	X	X
5E	1	00-7F	AC1 LFO FMOD DEPTH	0...127	00	O	X	X	X
5F	1	00-7F	AC1 LFO AMOD DEPTH	0...127	00	O	X	X	X
60	1	00-5F	AC2 CONTROLLER NUMBER	0...95	11	O	X	X	X
61	1	28-58	AC2 PITCH CONTROL	-24...0...+24[semitones]	40	O	X	X	X
62	1	00-7F	AC2 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	X	X
63	1	00-7F	AC2 AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	X
64	1	00-7F	AC2 LFO PMOD DEPTH	0...127	00	O	X	X	X
65	1	00-7F	AC2 LFO FMOD DEPTH	0...127	00	O	X	X	X
66	1	00-7F	AC2 LFO AMOD DEPTH	0...127	00	O	X	X	X
67	1	00-01	PORTAMENTO SWITCH	OFF, ON	00	O	X	O	X
68	1	00-7F	PORTAMENTO TIME	0...127	00	O	X	O	X
69	1	00-7F	PITCH EG INITIAL LEVEL	-64...0...+63	40	O	X	X	X
6A	1	00-7F	PITCH EG ATTACK TIME	-64...0...+63	40	O	X	X	X
6B	1	00-7F	PITCH EG RELEASE LEVEL	-64...0...+63	40	O	X	X	X
6C	1	00-7F	PITCH EG RELEASE TIME	-64...0...+63	40	O	X	X	X
6D	1	01-7F	VELOCITY LIMIT LOW	1...127	01	O	X	X	X
6E	1	01-7F	VELOCITY LIMIT HIGH	1...127	7F	O	X	X	X

TOTAL SIZE 3F

70	1		NOT USED		-	-	-	-	-
71	1		NOT USED		-	-	-	-	-
72	1	00-7F	EQ BASS GAIN	-12dB...+12dB	40	O	X	X	X
73	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	40	O	X	X	X

TOTAL SIZE 04

74	1		NOT USED		-	-	-	-	-
75	1		NOT USED		-	-	-	-	-
76	1	04-28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C	O	X	X	X
77	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	O	X	X	X
78	1		NOT USED		-	-	-	-	-
79	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 - 100[%]	40	O	X	X	X
41	1	00-7F	BEND OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	X	X	X
42	1	00-7F	CAT OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	X	X	X
43	1	00-7F	PAT OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	X	X	X
44	1	00-7F	AC1 OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	X	X	X
45	1	00-7F	AC2 OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	X	X	X

TOTAL SIZE 06

nn = PART NUMBER

如果鼓组音色分配到声部，则以下参数无效。
- BANK SELECT LSB
- PORTAMENTO
- MONO/POLY
- SCALE TUNING
- POLY AFTER TOUCH
- PITCH EG

MIDI参数转换表 （DRUM SETUP）

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception		MIDI Transmission	
								Song	Main Layer Left	Panel	Song
3n	rr	00	1	00-7F	PITCH COARSE	-64...0...+63	40	O	X	X	O
		01	1	00-7F	PITCH FINE	-64...0...+63[cent]	40	O	X	X	O
		02	1	00-7F	LEVEL	0...127	Depends on the note.	O	X	X	O
		03	1	00-7F	ALTERNATE GROUP	OFF, 1...127	Depends on the note.	O	X	X	O
		04	1	00-7F	PAN	RND, L63...C...R63	Depends on the note.	O	X	X	O
		05	1	00-7F	REVERB SEND	0...127	Depends on the note.	O	X	X	O
		06	1	00-7F	CHORUS SEND	0...127	Depends on the note.	O	X	X	O
		07	1	00-7F	VARIATION SEND	0...127	7F	O	X	X	O
		08	1	00-01	KEY ASSIGN	SINGLE, MULTI	00	O	X	X	O
		09	1	00-01	Rcv NOTE OFF	OFF, ON	Depends on the note.	O	X	X	O
		0A	1	00-01	Rcv NOTE ON	OFF, ON	01	O	X	X	O
		0B	1	00-7F	LOW PASS FILTER CUTOFF FREQUENCY	-64...0...+63	40	O	X	X	O
		0C	1	00-7F	LOW PASS FILTER RESONANCE	-64...0...+63	40	O	X	X	O
		0D	1	00-7F	EG ATTACK RATE	-64...0...+63	40	O	X	X	O
		0E	1	00-7F	EG DECAY1 RATE	-64...0...+63	40	O	X	X	O
		0F	1	00-7F	EG DECAY2 RATE	-64...0...+63	40	O	X	X	O
TOTAL SIZE			10								

		20	1	00-7F	EQ BASS GAIN	-12...+12[dB]	40	X	X	X	X
		21	1	00-7F	EQ TREBLE GAIN	-12...+12[dB]	40	X	X	X	X
		22	1		NOT USED		-	-	-	-	-
		23	1		NOT USED		-	-	-	-	-
		24	1	04-28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C	X	X	X	X
		25	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	X	X	X	X
		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)

在下列情况下，乐器将初始化所有鼓组设置。
• 接收XG SYSTEM ON
• 接收GM SYSTEM ON
• 接收GM LEVEL2 SYSTEM ON
• 接收GS RESET
• 接收DRUM SETUP RESET （仅限XG模式）

须知
当分配了鼓组设置的声部接收程序转换时，将初始化已分配的鼓组设置。
如果将相同的鼓组设置分配给2个或以上的声部，则鼓组设置参数 （包括程序转换）中的转换将应用于已分配的所有声部。

系统专用信息 （1）

应用范围	MIDI，内置音序器

* 接收参数SysEx设为关闭时不接收。
* 传送参数SysEx设为关闭时不传送。

系统专用信息 （通用非实时信息）

MIDI Event	Data Format	MIDI Formats	MIDI Reception		MIDI Transmission	
			Song	Main Layer Left	Panel	Song
GM1 System On	F0 7E XN 09 01 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn 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	[GM1] [GM2]	O	X	X	X*1
General MIDI System Off	F0 7E XN 09 02 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn 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	[GM1] [GM2]	O	X	X	X*1

*1 转换为XG，然后输出。

系统专用信息 （2）

应用范围	MIDI，内置音序器

* 接收参数SysEx设为关闭时不接收。
* 传送参数SysEx设为关闭时不传送。

系统专用信息 （XG）

MIDI Event	Data Format	MIDI Reception		MIDI Transmission	
		Song	Main Layer Left	Panel	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 0lllllll ll = Address Low 0ddddddd dd = Data ... 11110111 F7 = End of Exclusive	O *Refer to Parameter Change Table.	X	O *Refer to Parameter Change Table.	X
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 0lllllll ll = Address Low 0ddddddd dd = Data ... 0ddddddd dd = Data 0ccccccc cc = Checksum 11110111 F7 = End of Exclusive	O *Refer to Parameter Change Table.	X	O *Refer to Parameter Change Table.	X
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 0lllllll ll = Address Low 11110111 F7 = End of Exclusive	O *Refer to Parameter Change Table. (However, the request for address “0A nn 4v” will be ignored.)	X	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 0lllllll ll = Address Low 11110111 F7 = End of Exclusive	O *Refer to Parameter Change Table. (However, the request for address “0A nn 40” will be ignored.)	X	X	

系统专用信息 （其他）

MIDI Event	Data Format	MIDI Reception (effective or not for each part)		MIDI Transmission (generated data)	
		Song	Main Layer Left	Panel	Song
MIDI Master Tuning	F0 43 1n 27 30 00 00 mm ll cc F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0001nnnn 1n n= 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 0000llll 0l = Master Tune LSB 0ccccccc cc = don't care 11110111 F7 = End of Exclusive	O		X	X

系统专用信息 （预设音色）

MIDI Event	Data Format	MIDI Reception (effective or not for each part)		MIDI Transmission (generated data)	
		Song	Main Layer Left	Panel	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 0000nnnn 0n = Channel (00-0F) 00000010 02 = SubID(String Resonance Depth) 0ddddddd dd = Depth(00-48) 11110111 F7 = End of Exclusive	X	X	X	X
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 0000nnnn 0n = Channel (00-0F) 00000011 03 = SubID(Sustain Sample Depth) 0ddddddd dd = Depth(00-48) 11110111 F7 = End of Exclusive	X	X	O	X
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 0000nnnn 0n = Channel (00-0F) 00000100 04 = SubID(Key Off Sampling Depth) 0ddddddd dd = Depth(00-50) 11110111 F7 = End of Exclusive	O	X	X	X
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 0000nnnn 0n = Channel (00-0F) 00000101 05 = SubID(Soft Pedal Depth) 0ddddddd dd = Depth(00-7F) 11110111 F7 = End of Exclusive	O	X	X	X

* 对于每个深度值，复位值为40 H=音色参数

效果类型列表 （面板）

混响类型列表

Effect Name	Decimal		Hex	
	MSB	LSB	MSB	LSB
Off	0	0	0H	0H
Recital Hall	1	24	1H	18H
Concert Hall	1	4	1H	4H
Chamber	2	24	2H	18H
Club	3	24	3H	18H

DSP类型列表

Effect Name	Decimal		Hex	
	MSB	LSB	MSB	LSB
Damper Resonance	123	8	7BH	8H

MIDI执行列表

YAMAHA [电子钢琴] Date:27-APL-2018
Model P-128 MIDI Implementation Chart Version:1.0

Function...	Transmitted	Recognized	Remarks
Basic Default	1	1 - 16	
Channel Changed	o	o	
Default	3	3	
Mode Messages	x	x	
Altered	**********	x	
Note	0 - 127	0 - 127	
Number : True voice	**********	0 - 127	
Velocity Note ON	o 9nH,v=1-127	o 9nH,v=1-127	
Note OFF	o 8nH,v=64	o 9nH,v=0 or 8nH	
After Key's	x	o	
Touch Ch's	x	o	
Pitch Bend	x	o 0 - 24 semi	*1
0,32	o	o	Bank Select
1	x	o	
5	o	o	Portament Time
7,10	o	o	
11	x	o	Expression
6,38	x	o	Data Entry
Control 64,66,67	o	o	Pedal
65	o	o	Portamento
Change 71-74	x	o	Sound Controller
84	x	o	Portamento Control
91,93	o	o	Effect Depth
96-97	x	o	RPN Inc,Dec
98-99	x	o	NRPN LSB,MSB
100-101	x	o	RPN LSB,MSB
Prog	o 0 - 127	o 0 - 127	
Change : True #	**********		
System Exclusive	o	o	
: Song Pos.	x	x	
Common : Song Sel.	x	x	
: Tune	x	x	
System :Clock	o	x	
Real Time:Commands	o	o	
:All Sound OFF	x	o(120,126,127)	
Aux :Reset All Cntrls	x	o(121)	
:Local ON/OFF	x	o(122)	
Mes- :All Notes OFF	x	o(123-125)	
sages:Active Sense	o	o	
:Reset	x	x	
Notes: * 对于某些音色 （例如钢琴或拨弦古钢琴音色），音高可能不会根据弯音设置范围而改变。			

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

Manual Development Group

Published 03/2019 CS-A0