

MIDI Implementation

Model : MX-1  
Date : Jun. 3, 2015  
Version : 1.00

1. Receive data

■ Channel Voice Messages

• Control Change

o Control Change Number (MIXER Mode / EXTERNAL MIXING Mode)

Status	2nd Byte	3rd Byte
-----	-----	-----
BnH	ccH	vvH

n = MIDI Channel Number : 0H - FH (ch.1 - ch.16)  
cc = Control Change Number : (please see "3. Control Change Number")  
vv = Value : 00H - 7FH (0 - 127)

You can use these control change messages to control the MX-1.

• Program Change

Status	2nd Byte
-----	-----
CnH	ppH

n = MIDI Channel Number : 0H - FH (ch.1 - ch.16)  
pp = Program Number : 00H - 3FH (0 - 63) 0 = SCENE MEMORY 1, 63 = SCENE MEMORY 64

The MX-1 can receive Program Change messages numbered 1 through 64 (00H - 3FH), corresponding to the SCENE MEMORY number.

\* Program Change messages 65 - 128 (40H - 7FH) cannot be received.

■ System Real Time Messages

• Timing Clock

Status
-----
F8H

• Start

Status
-----
FAH

• Continue

Status
-----
FBH

\* The same processing will be carried out as when Start is received.

• Stop

Status
-----
FCH

• Active Sensing

Status
-----
FEH

\* When Active Sensing is received, the unit will begin monitoring the intervals of all further messages. While monitoring, if the interval between messages exceeds 420 ms, the same processing will be carried out as when All Sounds Off, All Notes Off and Reset All Controllers are received, and message interval monitoring will be halted.

■ System Exclusive Message

- Universal Non-Realtime System Exclusive Messages

- Identity Request Message

Status	Data Byte	Status
-----	-----	-----
F0H,	7EH, ddH, 06H, 01H,	F7H

Byte	Explanation
-----	-----
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
ddH	Device ID (dev: 10H, 7FH) * 7FH = BroadCast
06H	Sub ID # 1 (General Information)
01H	Sub ID # 2 (Identity Request)
F7H	EOX (End of Exclusive)

When this message is received, Identity Reply message will be transmitted.  
(please see "2. Transmitted data)

## 2. Data Transmission

### ■ Channel Voice Messages

- Control Change

- Control Change Number (MIXER Mode / EXTERNAL MIXING Mode)

Status	2nd Byte	3rd Byte
-----	-----	-----
BnH	ccH	vvH

n = MIDI Channel Number : 0H - FH (ch.1 - ch.16)  
 cc = Control Change Number : (please see "3. Control Change Number")  
 vv = Value : 00H - 7FH (0 - 127)

This message is transmitted when the MX-1 is operated.

- Control Change Number (SURFACE Mode)

Status	2nd Byte	3rd Byte
-----	-----	-----
BnH	ccH	vvH

n = MIDI Channel Number : (please see "3. Control Change Number")  
 cc = Control Change Number : (please see "3. Control Change Number")  
 vv = Value : 00H - 7FH (0 - 127)

This message is transmitted when the MX-1 is operated.  
 The MIDI channel number is fixed.

### ■ System Real Time Messages

- Timing Clock

Status  
 -----  
 F8H

- Start

Status  
 -----  
 FAH

- Stop

Status  
 -----  
 FCH

- Active Sensing

Status  
 -----  
 FEH

\* This message is transmitted at intervals of approximately 250 msec.

■ System Exclusive Message

• Universal Non-Realtime System Exclusive Messages

○ Identity Reply Message

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Status  Data Byte                                     Status
-----
F0H,    7EH, ddH, 06H, 02H, 41H, 11H, 03H, 00H, 00H, 02H, 00H, 00H, F7H

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Byte           Explanation
-----
F0H            Exclusive status
7EH           ID number (Universal Non-realtime Message)
ddH           Device ID (10H)
06H           Sub ID # 1 (General Information)
02H           Sub ID # 2 (Identity Reply)
41H           Manufacturer ID (Roland)
11H 03H       Device family code (MX-1)
00H 00H       Device family number code
00H 02H 00H 00H Software revision level
F7H           EOX (End of Exclusive)

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Receiving Identity Request Message , the MX-1 send this message.

3. Control Change Number

\* MIXER Mode / EXTERNAL MIXING Mode

CC#	assign	CC#	assign
3	[TONE/FILTER] knob 1	57	[MFX] button 1
9	[TONE/FILTER] knob 2	58	[MFX] button 2
14	[TONE/FILTER] knob 3	59	[MFX] button 3
15	[TONE/FILTER] knob 4	60	[MFX] button 4
16	[TONE/FILTER] knob 5/6	61	[MFX] button 5/6
17	[TONE/FILTER] knob DIGITAL	62	[MFX] button DIGITAL
18	[TONE/FILTER] knob USB 1	63	[MFX] button USB 1
19	[TONE/FILTER] knob USB 2	68	[MFX] button USB 2
20	[TONE/FILTER] knob USB 3	69	[MFX] button USB 3
21	[TONE/FILTER] knob USB 4	79	[MFX] button USB 4
22	[TONE/FILTER] knob PC	80	[MFX] button PC
23	[LEVEL] fader 1	81	[BFX] button 1
24	[LEVEL] fader 2	82	[BFX] button 2
25	[LEVEL] fader 3	83	[BFX] button 3
26	[LEVEL] fader 4	84	[BFX] button 4
27	[LEVEL] fader 5/6	85	[BFX] button 5/6
28	[LEVEL] fader DIGITAL	86	[BFX] button DIGITAL
29	[LEVEL] fader USB 1	87	[BFX] button USB 1
30	[LEVEL] fader USB 2	89	[BFX] button USB 2
31	[LEVEL] fader USB 3	90	[BFX] button USB 3
35	[LEVEL] fader USB 4	96	[BFX] button USB 4
41	[LEVEL] fader PC	97	[BFX] button PC
46	[MUTE] button 1		
47	[MUTE] button 2		
48	[MUTE] button 3		
49	[MUTE] button 4		
50	[MUTE] button 5/6		
51	[MUTE] button DIGITAL		
52	[MUTE] button USB 1		
53	[MUTE] button USB 2		
54	[MUTE] button USB 3		
55	[MUTE] button USB 4		
56	[MUTE] button PC		

\* SURFACE Mode

CC#	Ch.	assign	CC#	Ch.	assign
20	1ch (0H)	[MUTE] button 1	24	1ch (0H)	[LEVEL] fader 1
20	2ch (1H)	[MUTE] button 2	24	2ch (1H)	[LEVEL] fader 2
20	3ch (2H)	[MUTE] button 3	24	3ch (2H)	[LEVEL] fader 3
20	4ch (3H)	[MUTE] button 4	24	4ch (3H)	[LEVEL] fader 4
20	5ch (4H)	[MUTE] button 5/6	24	5ch (4H)	[LEVEL] fader 5/6
20	6ch (5H)	[MUTE] button DIGITAL	24	6ch (5H)	[LEVEL] fader DIGITAL
20	7ch (6H)	[MUTE] button USB 1	24	7ch (6H)	[LEVEL] fader USB 1
20	8ch (7H)	[MUTE] button USB 2	24	8ch (7H)	[LEVEL] fader USB 2
20	9ch (8H)	[MUTE] button USB 3	24	9ch (8H)	[LEVEL] fader USB 3
20	10ch (9H)	[MUTE] button USB 4	24	10ch (9H)	[LEVEL] fader USB 4
20	11ch (AH)	[MUTE] button PC	24	11ch (AH)	[LEVEL] fader PC
21	1ch (0H)	[BFX] button 1	48	12ch (BH)	Pad [1]
21	2ch (1H)	[BFX] button 2	49	12ch (BH)	Pad [2]
21	3ch (2H)	[BFX] button 3	50	12ch (BH)	Pad [3]
21	4ch (3H)	[BFX] button 4	51	12ch (BH)	Pad [4]
21	5ch (4H)	[BFX] button 5/6	52	12ch (BH)	Pad [5]
21	6ch (5H)	[BFX] button DIGITAL	53	12ch (BH)	Pad [6]
21	7ch (6H)	[BFX] button USB 1	54	12ch (BH)	Pad [7]
21	8ch (7H)	[BFX] button USB 2	55	12ch (BH)	Pad [8]
21	9ch (8H)	[BFX] button USB 3	56	12ch (BH)	Pad [9]
21	10ch (9H)	[BFX] button USB 4	57	12ch (BH)	Pad [10]
21	11ch (AH)	[BFX] button PC	58	12ch (BH)	Pad [11]
22	1ch (0H)	[MFX] button 1	59	12ch (BH)	Pad [12]
22	2ch (1H)	[MFX] button 2	60	12ch (BH)	Pad [13]
22	3ch (2H)	[MFX] button 3	61	12ch (BH)	Pad [14]
22	4ch (3H)	[MFX] button 4	62	12ch (BH)	Pad [15]
22	5ch (4H)	[MFX] button 5/6	63	12ch (BH)	Pad [16]
22	6ch (5H)	[MFX] button DIGITAL	80	12ch (BH)	[SEND] knob
22	7ch (6H)	[MFX] button USB 1	81	12ch (BH)	[RETURN] knob
22	8ch (7H)	[MFX] button USB 2	82	12ch (BH)	[MASTER FX] knob
22	9ch (8H)	[MFX] button USB 3	102	12ch (BH)	BEAT FX [FILTER] button
22	10ch (9H)	[MFX] button USB 4	103	12ch (BH)	BEAT FX [SIDE CHAIN] button
22	11ch (AH)	[MFX] button PC	104	12ch (BH)	BEAT FX [SLICER] button
23	1ch (0H)	[TONE/FILTER] knob 1	105	12ch (BH)	MASTER FX [TIME] button
23	2ch (1H)	[TONE/FILTER] knob 2	106	12ch (BH)	MASTER FX [COMBI] button
23	3ch (2H)	[TONE/FILTER] knob 3	107	12ch (BH)	MASTER FX [DELAY] button
23	4ch (3H)	[TONE/FILTER] knob 4	108	12ch (BH)	MASTER FX [FILTER] button
23	5ch (4H)	[TONE/FILTER] knob 5/6	109	12ch (BH)	MASTER FX [SCATTER] button
23	6ch (5H)	[TONE/FILTER] knob DIGITAL	110	12ch (BH)	MASTER FX [FLANGER] button
23	7ch (6H)	[TONE/FILTER] knob USB 1	111	12ch (BH)	MASTER FX [BIT CRUSH] button
23	8ch (7H)	[TONE/FILTER] knob USB 2	112	12ch (BH)	MASTER FX [ROLL] button
23	9ch (8H)	[TONE/FILTER] knob USB 3			
23	10ch (9H)	[TONE/FILTER] knob USB 4			
23	11ch (AH)	[TONE/FILTER] knob PC			

4. MIDI Implementation Chart

MIX PERFORMER

Model: MX-1

Date: Jun. 3, 2015

Version 1.00

Function		Transmitted	Recognized	Remarks
<b>Basic Channel</b>	Default	15	15	Memorized
	Changed	1-16, OFF	1-16, OFF	
<b>Mode</b>	Default	Mode 4	Mode 4	
	Messages	x	x	
	Altered	*****	*****	
<b>Note Number</b>		x	x	
	: True Voice	*****		
<b>Velocity</b>	Note On	x	x	
	Note Off	x	x	
<b>After Touch</b>	Key's	x	x	
	Channel's	x	x	
<b>Pitch Bend</b>		x	x	
<b>Control Change (MIXER Mode, EXTERNAL MIXING Mode)</b>	3, 9, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 35, 41, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 68, 69, 79, 80, 81, 82, 83, 84, 85, 86, 87, 89, 90, 96, 97	o	o	
	(SURFACE Mode) 20, 21, 22, 23, 24, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 80, 81, 82, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112	o	x	
<b>Program Change</b>		x	o	SCENE MEMORY
	: True Number	*****	1-64	
<b>System Exclusive</b>		o	o	
<b>System Common</b>	: Song Position	x	x	
	: Song Select	x	x	
	: Tune Request	x	x	
<b>System Real Time</b>	: Clock	o	o	
	: Start	o	o	
	: Continue	x	o	The same processing will be carried out as when Start is received.
	: Stop	o	o	
<b>Aux Message</b>	: All Sound Off	o	x	Transmitted: MIDI OFFLINE
	: Reset All Controllers	o	x	Transmitted: MIDI OFFLINE
	: Local On/Off	x	x	
	: All Notes Off	o	x	Transmitted: MIDI OFFLINE
	: Omni Mode Off	x	x	
	: Omni Mode On	x	x	
	: Mono Mode On	x	x	
	: Poly Mode On	x	x	
: Active Sensing	o	o		
: System Reset	x	x		
<b>Notes</b>				

Mode 1: Omni On, Poly Mode 2: Omni On, Mono  
 Mode 3: Omni Off, Poly Mode 4: Omni Off, Mono  
 o: Yes  
 x: No