YAMAHA

DIGITAL KEYBOARD

PSR-E243
YPT-240

MIDI Reference

MIDI Implementation Chart

Function...	Transmitted	Recognized	Remarks
Basic Default Channel Changed	1 - 16 x	1 - 16 x	
Default Mode Messages Altered	3 x **************	3 x x	
Note Number : True voice	0 - 127 **************	0 - 127 0 - 127	
Velocity Note ON Note OFF	o 9nH,v=1-127 *2 x	o 9nH,v=1-127 x	
After Key's Touch Ch's	x x	x x	
Pitch Bend	x	o	
Control Change	0,32 o 1 o *1 6 o *1 38 o *1 7,10 o 11 o *1 64 o 71,73,74 o *1 72 o 84 x 91,93 o 96-97 x 100-101 x	o o o x o o o o o x o o o	Bank Select Modulation Data Entry(MSB) Data Entry(LSB) Main Volume,Pan Expression Sustain Sound Controller Release Time Portamento Control Effect1,3 Depth RPN Inc,Dec 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
     :All Notes OFF
Mes- :Active Sense
sages:Reset
	x
	x
	x
	x
	o
	x
		o(120,126,127)
		o(121)
		o(122)
		o(123-125)
		o
		x	

*1 Refer to #2 on page 3.
*2 Refer to #6 on page 3.
Mode 1 : OMNI ON , POLY   Mode 2 : OMNI ON ,MONO   o : Yes
Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF,MONO   x : No

MIDI Data Format

NOTE:

1 By default (factory settings) the instrument ordinarily functions as a 16-channel multi-timbral tone generator, and incoming data does not affect the panel voices or panel settings. However, the MIDI messages listed below do affect the panel voices, auto accompaniment, and songs.
  - MIDI Master Tuning
  - System exclusive messages for changing the Reverb Type and Chorus Type.

2 Messages for these control change numbers cannot be transmitted from the instrument itself. However, they may be transmitted when playing the accompaniment, song or using the Harmony effect.

3 Exclusive
  <GM System ON>
  F0H, 7EH, 7FH, 09H, 01H, F7H
  - This message automatically restores all default settings for the instrument, with the exception of MIDI Master Tuning.

  <MIDI Master Volume>
  F0H, 7FH, 7FH, 04H, 01H, ll, mm, F7H
  - This message allows the volume of all channels to be changed simultaneously (Universal System Exclusive).
  - The values of "mm" is used for MIDI Master Volume. (Values for "ll" are ignored.)

  <MIDI Master Tuning>
  F0H, 43H, 1nH, 27H, 30H, 00H, 00H, mm, ll, cc, F7H
  - This message simultaneously changes the tuning value of all channels.
  - The values of "mm" and "ll" are used for MIDI Master Tuning.
  - The default value of "mm" and "ll" are 08H and 00H, respectively. Any values can be used for "n" and "cc".

<Reverb Type>
F0H, 43H, 1nH, 4CH, 02H, 01H, 00H, mmH, llH, F7H
- mm : Reverb Type MSB
- ll : Reverb Type LSB
Refer to the Effect Map (page 3) for details.

<Chorus Type>
F0H, 43H, 1nH, 4CH, 02H, 01H, 20H, mmH, llH, F7H
- mm : Chorus Type MSB
- ll : Chorus Type LSB
Refer to the Effect Map (page 3) for details.

4 When the accompaniment is started, an FAH message is transmitted. When accompaniment is stopped, an FCH message is transmitted. When the clock is set to External, both FAH (accompaniment start) and FCH (accompaniment stop) are recognized.

5 Local ON/OFF
  <Local ON> Bn, 7A, 7F
  <Local OFF> Bn, 7A, 00
  Value for "n" is ignored.

6 Since this keyboard does not have touch response, the level of the sound does not change in response to your playing strength. As a result, when you play the keyboard, the velocity value transmitted via MIDI is fixed. However, the velocity of the accompaniment and Song playback does change in response to performance data received via MIDI.

Effect map

* When a Type LSB value is received that corresponds to no effect type, a value corresponding to the effect type (coming the closest to the specified value) is automatically set.
* The numbers in parentheses in front of the Effect Type names correspond to the number indicated in the display.

REVERB

TYPE MSB	TYPE LSB								
	00	01	02	08	16	17	18	19	20
000	No Effect								
001	(01)Hall1				(02)Hall2	(03)Hall3			
002	Room					(04)Room1		(05)Room2	
003	Stage				(06)Stage1	(07)Stage2			
004	Plate				(08)Plate1	(09)Plate2			
005...127	No Effect								

CHORUS

TYPE MSB	TYPE LSB								
	00	01	02	08	16	17	18	19	20
000...063	No Effect								
064	No Effect								
065	Chorus		(02)Chorus2						
066	Celeste					(01)Chorus1			
067	Flanger			(03)Flanger1		(04)Flanger2			
068...127	No Effect								