

# piaggero

NP-35 NP-15

## MIDI Reference

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# MIDI Functions

Convenient MIDI communication functions can be used by simply connecting the instrument's [USB TO HOST] terminal to the computer's USB terminal with a USB cable. The explanations here cover the settings necessary for performing MIDI communication between both devices.

For instructions on how to connect the instrument to a computer, refer to the "Computer-related Operations" document, downloadable from the Yamaha Downloads website.

## MIDI Transmit/Receive Channel Selection

In order to perform MIDI communication between this instrument and a computer, it is necessary to match the corresponding MIDI transmit and receive channels. This parameter enables you to specify the channel on which the instrument transmits or receives MIDI data.

### Setting the Transmit Channel

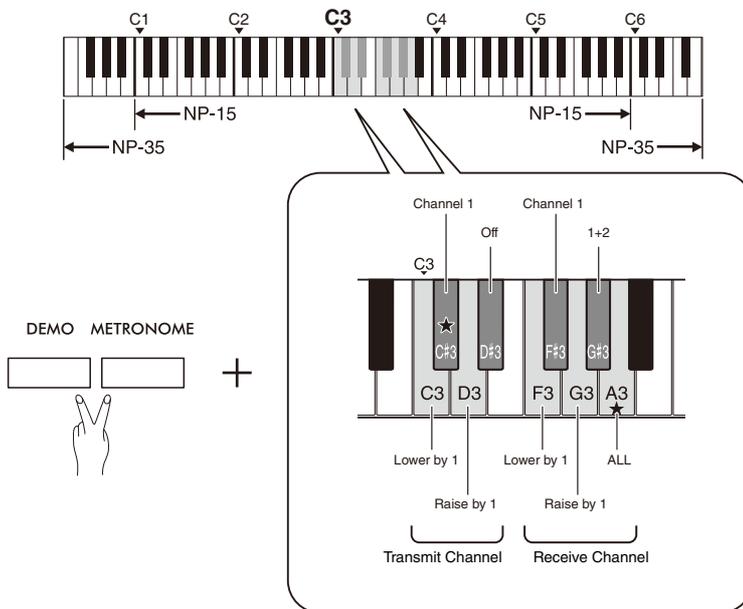
While holding down the [DEMO] button, press and hold the [METRONOME] button, then press one of the C3–D#3 keys.

Default setting: 1 (★ mark)

### Setting the Receive Channel

While holding down the [DEMO] button, press and hold the [METRONOME] button, then press one of the F3–A3 keys.

Default setting: ALL (★ mark)



**NOTE**

**MIDI transmission channels in Dual**  
Voice 1 data is transmitted on the channel set up here. Voice 2 data is transmitted on the next higher numbered channel relative to the specified channel.

**NOTE**

**When MIDI Receive Channel is set to ALL:**

"Multi-timbre" Receive. This allows simultaneous reception of different parts on all 16 MIDI channels, enabling the instrument to play multi-channel song data received from a computer.

**When MIDI Receive Channel is set to 1+2:**

"1&2" Receive. This allows simultaneous reception on channels 1 and 2 only, enabling the instrument to play 1 and 2 channel song data received from a computer.

**NOTE**

Program change and other like channel messages received will not affect the panel settings of the instrument or the notes you play on the keyboard.

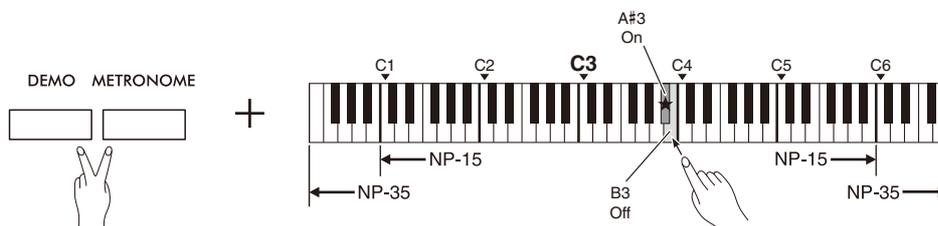
**NOTE**

Data for the demo song, piano preset songs and user-recorded song cannot be transmitted via MIDI.

## Local Control ON/OFF

"Local Control" refers to the fact that, normally, the keyboard of the instrument controls its internal tone generator, allowing the internal voices to be played directly from the keyboard. This situation is "Local Control On," since the internal tone generator is controlled locally by its own keyboard. Local control can be turned OFF, however, so that the the keyboard of the instrument does not play the internal voices, but the appropriate MIDI information is still transmitted via the [USB TO HOST] terminal when notes are played on the keyboard. At the same time, the internal tone generator responds to MIDI information received via the [USB TO HOST] terminal.

While holding down the [DEMO] button, press and hold the [METRONOME] button, then press the A#3 key to set to "Local Control On," or press the B3 key to set to "Local Control Off."



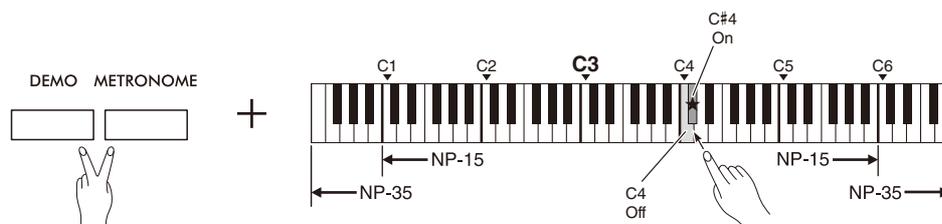
**NOTE**

**Default setting: ON** (★ mark)

## Program Change ON/OFF

Normally the instrument will respond to MIDI program change numbers received from a computer, causing the same numbered voice to be selected on the corresponding channel (the keyboard voice does not change). The instrument will normally also send a MIDI program change number whenever one of its voices is selected, causing the same numbered voice or program to be selected on the computer if the computer is set up to receive and respond to MIDI program change numbers. This function makes it possible to cancel program change number reception and transmission so that voices can be selected on the instrument without affecting the computer.

While holding down the [DEMO] button, press and hold the [METRONOME] button, then press the C#4 key to set to “Program Change On,” or press the C4 key to set to “Program Change Off.”



**NOTE**

For information on program change numbers for each of the Voices of the instrument, refer to page 5.

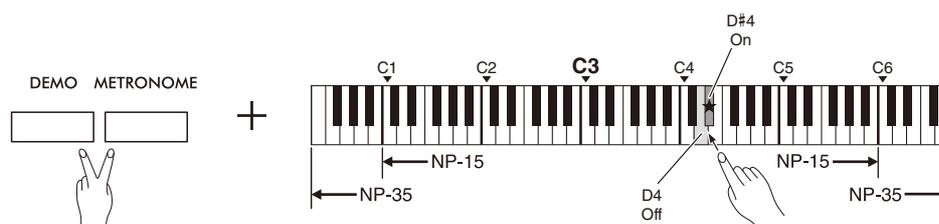
**NOTE**

**Default setting:** ON (★ mark)

## Control Change ON/OFF

Normally the instrument will respond to MIDI control change data received from a computer, causing the voice on the corresponding channel to be affected by pedal and other “control” settings received from the controlling device (the keyboard voice is not affected). The instrument also transmits MIDI control change information when the pedal or other appropriate controls are operated. This function makes it possible to cancel control change data reception and transmission so that, for example, the pedal of the instrument and other controls can be operated without affecting the computer.

While holding down the [DEMO] button, press and hold the [METRONOME] button, then press the D#4 key to set to “Control Change On,” or press the D4 key to set to “Control Change Off.”



**NOTE**

For information on control changes that can be used with the instrument, refer to page 4.

**NOTE**

**Default setting:** ON (★ mark)

# MIDI Data Format

If you're already very familiar with MIDI, or are using a computer to control your music hardware with computer-generated MIDI messages, the data provided in this section can help you to control the NP-35 NP-15.

## 1. NOTE ON/OFF

Data format: [9nH] -> [kkH] -> [vvH]

9nH = Note ON/OFF event (n = channel number)  
kkH = Note number (Transmit/Receive: 00H-7FH = C-2-G8)  
vvH = Velocity (Key ON = 01H-7FH, Key OFF = 00H)

Data format: [8nH] -> [kkH] -> [vvH] (reception only)

8nH = Note OFF event (n = channel number)  
kkH = Note number: (00H-7FH = C-2-G8)  
vvH = Velocity

## 2. CONTROL CHANGE

Data format: [BnH] -> [ccH] -> [vvH]

BnH = Control change (n = channel number)  
ccH = Control number  
vvH = Data Range

### (1) Bank Select

ccH	Parameter	Data Range (vvH)
00H	Bank Select MSB	00H:Normal
20H	Bank Select LSB	00H...7FH

Bank selection processing does not occur until receipt of next Program Change message.

### (2) Modulation (reception only)

ccH	Parameter	Data Range (vvH)
01H	Modulation	00H...7FH

### (3) Main Volume (reception only)

ccH	Parameter	Data Range (vvH)
07H	Volume	00H...7FH

### (4) Panpot (reception only)

ccH	Parameter	Data Range (vvH)
0AH	Panpot	00H...7FH

### (5) Expression

ccH	Parameter	Data Range (vvH)
0BH	Expression	00H...7FH

### (6) Sustain

ccH	Parameter	Data Range (vvH)
40H	Sustain	00H...7FH

### (7) Sostenuato (reception only)

ccH	Parameter	Data Range (vvH)
42H	Sostenuato	00H...3FH:off, 40H...7FH:on

### (8) Soft Pedal (reception only)

ccH	Parameter	Data Range (vvH)
43H	Soft Pedal	00H...3FH:off, 40H...7FH:on

### (9) Harmonic Content (reception only)

ccH	Parameter	Data Range (vvH)
47H	Harmonic Content	00H...7FH

### (10) Release Time (reception only)

ccH	Parameter	Data Range (vvH)
48H	Release Time	00H...7FH

### (11) Attack Time (reception only)

ccH	Parameter	Data Range (vvH)
49H	Attack Time	00H...7FH

### (12) Brightness (reception only)

ccH	Parameter	Data Range (vvH)
4AH	Brightness	00H...7FH

### (13) Effect1 Depth (Reverb Send Level)

ccH	Parameter	Data Range (vvH)
5BH	Effect1 Depth	00H...7FH

Adjusts the reverb send level.

### (14) Effect3 Depth (Chorus Send Level)

ccH	Parameter	Data Range (vvH)
5DH	Effect3 Depth	00H...7FH

## (15) RPN (reception only)

65H	RPN	MSB
64H	RPN	LSB
06H	Data Entry	MSB
26H	Data Entry	LSB
60H	Data	Increment
61H	Data	Decrement

\* Parameters that are controllable with RPN:

- Coarse Tune
- Fine Tune
- Pitch Bend Range

## 3. MODE MESSAGES

Data format: [BnH] -> [ccH] -> [vvH]

BnH = Control event (n = channel number)  
ccH = Mode Message number  
vvH = Data Range

### (1) All Sound Off

ccH	Parameter	Data Range (vvH)
78H	All Sound Off	00H

### (2) Reset All Controllers

ccH	Parameter	Data Range (vvH)
79H	Reset All Controllers	00H

Resets controllers as follows.

Controller	Value
Expression	127 (max)
Sustain Pedal	0 (off)
Sostenuto	0 (off)
Soft Pedal	0 (off)

### (3) Local Control (reception only)

ccH	Parameter	Data Range (vvH)
7AH	Local Control	00H (off), 7FH (on)

### (4) All Notes Off

ccH	Parameter	Data Range (vvH)
7BH	All Notes Off	00H

Switches OFF all the notes that are currently ON on the specified channel. Any notes being held by the sustain or sostenuto pedal will continue to sound until the pedal is released.

### (5) Omni Off (reception only)

ccH	Parameter	Data Range (vvH)
7CH	Omni Off	00H

Same processing as for All Notes Off.

### (6) Omni On (reception only)

ccH	Parameter	Data Range (vvH)
7DH	Omni On	00H

Same processing as for All Notes Off.

### (7) Mono (reception only)

ccH	Parameter	Data Range (vvH)
7EH	Mono	00H

Same processing as for All Sound Off.

### (8) Poly (reception only)

ccH	Parameter	Data Range (vvH)
7FH	Poly	00H

Same processing as for All Sound Off.

- When Control Change is turned OFF, Control Change messages will not be transmitted or received.
- Local on/off, Omni on/off are not transmitted. (The appropriate note off number is supplied with "All Note Off" transmission).
- When a voice bank MSB/LSB is received, the number is stored in the internal buffer regardless of the received order, then the stored value is used to select the appropriate voice when a program change message is received.
- Poly mode is always active. This mode will not change when the instrument receives a Mono/Poly mode message.

## 4. PROGRAM CHANGE

Data format: [CnH] -> [ppH]

CnH = Program event (n = channel number)

ppH = Program change number

(Transmit/Receive: 00H–7FH)

P.C.#=Program Change number

Voice Name	MSB	LSB	P.C.#
Concert Grand	0	122	1
Mellow Grand	0	112	1
Bright Grand	0	122	2
DX E. Piano	0	122	6
Stage E. Piano	0	122	5
Vintage E. Piano	0	116	5
Organ Principal	0	123	20
Organ Tutti	0	122	20
Jazz Organ	0	112	17
Harpsichord 8'	0	122	7
Harpsichord 8'+4'	0	123	7
Vibraphone	0	122	12
Strings	0	122	49
Strings Pad	0	117	50
Synth Pad	0	120	90

- When program change reception is turned OFF, no program change data is transmitted or received.
- When you specify a program change as a number in the range of 0–127, specify a number that is one less than the program change number listed above. For example, to specify program change number 1, you would specify a value of 0.

## 5. Pitch Bend Change (reception only)

[EnH] -> [ccH] -> [ddH]

ccH = LSB

ddH = MSB

## 6. SYSTEM REAL-TIME MESSAGES

[rrH]

F8H: Timing Clock

FAH: Start

FCH: Stop

FEH: Active Sensing

Data	Transmission	Reception
F8H	Transmitted every 96 clocks	Received as 96-clock tempo timing when MIDI clock is set to External.
FAH	Song start	Song start Not received when the MIDI clock is set to Internal.
FCH	Song stop	Song stop Not received when the MIDI clock is set to Internal.
FEH	Transmitted every 200 milliseconds	If a signal is not received via MIDI for more than 400 milliseconds, the same processing will take place for All Sound Off, All Notes Off and Reset All Controllers as when those signals are received.

- If an error occurs during MIDI reception, the Sustain, Sostenuto, and Soft effects for all channels are turned off and an All Note Off occurs.

## 7. SYSTEM EXCLUSIVE MESSAGES (Universal System Exclusive)

### (1) Universal Real-Time Message

#### MIDI Master Volume (reception only)

Data format: [F0H] -> [7FH] -> [XnH] -> [04H] -> [01H] -> [rrH] -> [mmH] -> [F7H]

- Simultaneously changes the volume of all channels.
- When a MIDI master volume message is received, the volume only has affect on the MIDI receive channel, not the panel master volume.

F0H = Exclusive Status

7FH = Universal Real-Time

XnH = ID of target device

Xn = 7F, Received as all device designation

Xn = other than 7F, X is irrelevant, n receives 0 to F

04H = Sub-ID #1 (Device Control Message)

01H = Sub-ID #2 (Master Volume)

rrH = Volume LSB

rr = irrelevant

mmH = Volume MSB

mm = effective

F7H = End of Exclusive

### (2) Universal Non-Real-Time Message (GM On)

#### General MIDI Mode On (reception only)

Data format: [F0H] -> [7EH] -> [XnH] -> [09H] -> [01H] -> [F7H]

F0H = Exclusive Status

7EH = Universal Non-Real-Time

XnH = ID of target device

Xn = 7F, Received as all device designation

Xn = other than 7F, X is irrelevant, n receives 0 to F

09H = Sub-ID #1 (General MIDI Message)

01H = Sub-ID #2 (General MIDI On)

F7H = End of Exclusive

When the General MIDI mode ON message is received, the MIDI system will be reset to its default settings.

This message requires approximately 50 msec to execute, so sufficient time should be allowed before the next message is sent.

## 8. SYSTEM EXCLUSIVE MESSAGES (XG Standard)

### (1) XG Native Parameter Change

Data format: [F0H] -> [43H] -> [1nH] -> [4CH] -> [hhH] -> [mmH] -> [rrH] -> [ddH] -> [F7H]

F0H = Exclusive Status

43H = Yamaha ID

1nH = When received, n=0–F.

When transmitted, n=0.

4CH = Model ID of XG

hhH = Address High

mmH = Address Mid

rrH = Address Low

ddH = Data

|

F7H = End of Exclusive

- Data size must match parameter size (2 or 4 bytes).
- When the XG System On message is received, the MIDI system will be reset to its default settings.  
The message requires approximately 50 msec to execute, so sufficient time should be allowed before the next message is sent.
- XG Native Parameter Change message may contain two or four bytes of parameter data (depending on the parameter size).

### (2) XG Native Bulk Data (reception only)

Data format: [F0H] -> [43H] -> [0nH] -> [4CH] -> [aaH] -> [bbH] -> [hhH] -> [mmH] -> [rrH] -> [ddH] -> ... -> [ccH] -> [F7H]

F0H = Exclusive Status

43H = Yamaha ID

0nH = When received, n=0–F.

When transmitted, n=0.

4CH = Model ID of XG

aaH = Byte Count

bbH = Byte Count

hhH = Address High

mmH = Address Mid

rrH = Address Low

ddH = Data

|

|

ccH = Check sum

F7H = End of Exclusive

- Receipt of the XG SYSTEM ON message causes reinitialization of relevant parameters and Control Change values. Allow sufficient time for processing to execute (about 50 msec) before sending the NP-35 NP-15 another message.
- For information about the Address and Byte Count values, refer to Table 1 below. Note that the table's Total Size value gives the size of a bulk block. Only the top address of the block (00H, 00H, 00H) is valid as a bulk data address.

**9. SYSTEM EXCLUSIVE MESSAGES****(Digital Piano MIDI Format)**

Data format: [F0H] -&gt; [43H] -&gt; [73H] -&gt; [01H] -&gt; [nnH] -&gt; [F7H]

F0H = Exclusive Status  
 43H = Yamaha ID  
 73H = Digital Piano ID  
 01H = Product ID (digital piano common)  
 nnH = Sub-Status  
   02H Internal MIDI clock  
   03H External MIDI clock  
 F7H = End of Exclusive

**10. SYSTEM EXCLUSIVE MESSAGES (Others)**

Data format: [F0H] -&gt; [43H] -&gt; [1nH] -&gt; [27H] -&gt; [30H] -&gt; [00H] -&gt; [00H] -&gt; [mmH] -&gt; [rrH] -&gt; [ccH] -&gt; [F7H]

- Master Tuning (XG and last message priority) simultaneously changes the pitch of all channels.

F0H = Exclusive Status  
 43H = Yamaha ID  
 1nH = When received, n=0-F.  
       When transmitted, n=0.  
 27H = Model ID of TG100  
 30H = Sub ID  
 00H =  
 00H =  
 mmH = Master Tuning MSB  
 rrH = Master Tuning LSB  
 ccH = irrelevant (under 7FH)  
 F7H = End of Exclusive

&lt;Table 1&gt;

**MIDI Parameter Change table (SYSTEM)**

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
00 00 00	4	0000-07FF	MASTER TUNE	-102.4--+102.3[cent] 1st: bit 3-0 -> bit 15-12 2nd: bit 3-0 -> bit 11-8 3rd: bit 3-0 -> bit 7-4 4th: bit 3-0 -> bit 3-0	00 04 00 00 (=0400H)
01					
02					
03					
04	1	00-7F	MASTER VOLUME	0-127	7F
7E		00	XG SYSTEM ON	00=XG system ON	
7F		00	RESET ALL PARAMETERS	00=ON (receive only)	
TOTAL SIZE 07					

&lt;Table 2&gt;

**MIDI Parameter Change table (EFFECT 1)**

Refer to the "Effect MIDI Map" for a complete list of Reverb and Chorus type numbers.

Address (H)	Size (H)	Data (H)	Parameter	Description	Default value (H)
02 01 00	2	00-7F 00-7F	REVERB TYPE MSB REVERB TYPE LSB	Refer to Effect MIDI Map 00 : basic type	01 (=HALL1) 00
02 01 20	2	00-7F 00-7F	CHORUS TYPE MSB CHORUS TYPE LSB	Refer to Effect MIDI Map 00 : basic type	00 (=Effect off) 00

**• Effect MIDI Map****Reverb type**

	MSB	LSB
Hall 1	01H	10H
Hall 2	01H	11H
Hall 3	01H	01H
Cathedral	01H	17H
Room	02H	07H
Stage	03H	10H
Off	00H	00H

**Chorus type**

	MSB	LSB
Chorus 2	41H	02H
Chorus 4	41H	08H
Tremolo	77H	00H
Off	00H	00H

# MIDI Implementation Chart

YAMAHA [ Piaggero ]  
Model NP-35, NP-15 MIDI Implementation Chart

Date : 26-Jan-2022  
Version : 1.0

Function	Transmitted	Recognized	Remarks	
Basic Channel	Default Changed	1 1 - 16	1 - 16 1 - 16	
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 9nH, v=1-127 x 9nH, v=0	o 9nH, v=1-127 x	
After Touch	Key's Ch's	x x	x x	
Pitch Bend		x	o	
Control Change	0,32 1 7 10 11 6,38 64 66,67 71,72,73,74 84 91,93 96,97 100,101	o x x x o x o x x x o x x	o o o o o o o o x o o o o	Bank Select Modulation Main Volume Pan Expression Data Entry Sustain Sostenuto, Soft Pedal Sound Controller Portamento Control Effect1,3 Depth RPN Inc,Dec RPN LSB,MSB
Prog Change : True #		o 0 - 127 *****	o 0 - 127	
System Exclusive		o	o	
Common	: Song Pos. : Song Sel. : Tune	x x x	x x x	
System Real Time	: Clock : Commands	o o	o x	
Aux Messages	: All Sound Off : Reset All Cntrls : Local ON/OFF : All Notes OFF : All Notes OFF : All Sound OFF : Active Sense : Reset	o o x o x x o x	o (120) o (121) o (122) o (123) o (124-125) o (126,127) o x	

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

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

o : Yes  
x : No