MIDI Settings

MIDI Overview

The term MIDI is an acronym for Musical Instrument Digital Interface, an international standard for connecting musical instruments, computers, and other devices to allow the exchange of performance data.

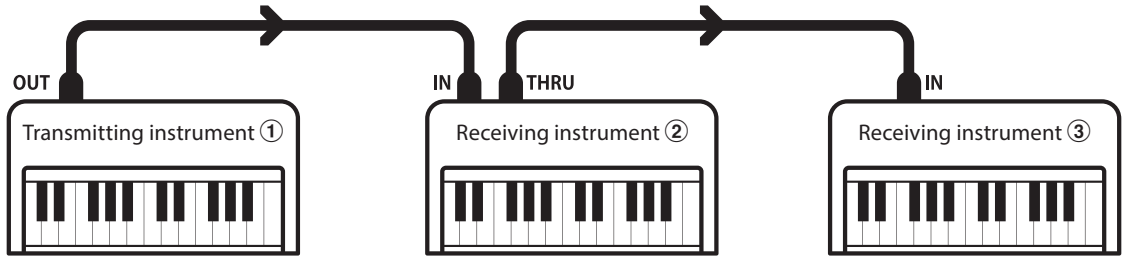
■MIDI Terminals

MIDI terminal	Function
MIDI IN	Receiving note, program change, and other data.
MIDI OUT	Sending note, program change, and other data.

■MIDI channels

MIDI uses channels to exchange data back and forth between MIDI devices. There are receive (MIDI IN) and transmit (MIDI OUT) channels. Most musical instruments or devices with MIDI functions are equipped with both MIDI IN and OUT jacks and are capable of transmitting and receiving data via MIDI. The receive channels are used to receive data **from** another MIDI device, and the transmit channels are used to transmit data **to** another MIDI device.

The illustration below shows three musical instruments, connected together using MIDI.

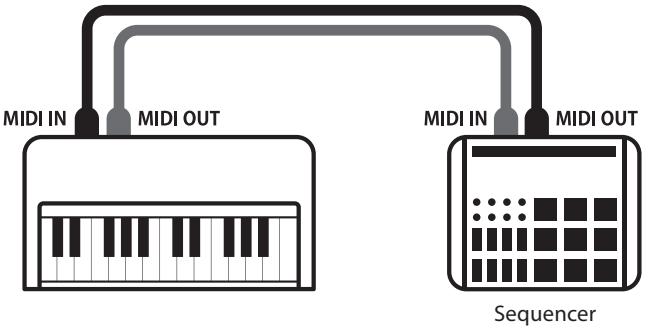


Transmitting instrument ① sends transmit channel and keyboard information to receiving instruments ②/③.
The information arrives at the receiving instruments ②/③.
Receiving instruments ②/③ will respond to MIDI data that is sent if their receive channel is the same as the transmit channel of the transmitting instrument ①. If the channels do not match, the receiving instruments ②/③ will not respond to any data that is sent.

For both receiving and transmitting, channels 1-16 can be used.

■Recording/playing with a sequencer

When connected to a sequencer (or a computer running MIDI sequencing software), the CN37 digital piano can be used to record and playback multi-track songs, with separate sounds playing simultaneously on each channel.



MIDI Settings

MIDI Functions

The CN37 digital piano supports the following MIDI functions:

Transmit/receive note information

Transmit/receive note information to/from a MIDI-connected musical instrument or device.

Transmit/receive program change information

Transmit/receive program change data to/from a MIDI-connected musical instrument or device.

Transmit/receive channel settings

Specify transmit/receive channels within the range of 1 to 16.

Transmit/receive pedal data

Transmit/receive sustain, sostenuto, and soft pedal data to/from a MIDI-connected musical instrument or device.

Transmit/receive exclusive data

Transmit/receive front panel or menu function settings as exclusive data.

Receive volume data

Receive MIDI volume data sent from a MIDI-connected musical instrument or device.

Multi-timbral mode setting

Receive multiple channel MIDI data from a MIDI-connected musical instrument or device.

* Please refer to the 'MIDI Implementation Chart' on page 10 for further information regarding the MIDI capabilities of the CN37 digital piano.

MIDI Settings

No.	Setting	Description	Default setting
1	MIDI Channel	Specify the channel that is used to transmit/receive MIDI information.	1
2	Send PGM Change #	Send a MIDI program change number from 1 to 128.	1
3	Local Control	Specify whether internal sounds will be heard when the keyboard is pressed.	On
4	Trans. PGM Change	Specify whether program change data is sent when sounds are changed.	On
5	Multi-timbral Mode	Specify whether the instrument can receive Multi-timbral MIDI information.	Off
6	Channel Mute	Specify which channels (1-16) are activated to receive MIDI information.	Play All

* Default settings will be shown in the first LCD display illustration (i.e. Step 1) for each setting explanation below.

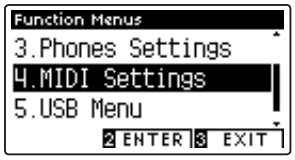
Entering the MIDI Settings menu

While the normal playing mode screen is shown in the LCD display:

Press the 2 FUNCTION button (MENU).

The Function menus will be shown in the LCD display.

Press the ▼ or ▲ buttons to select the MIDI Settings menu.



Press the 2 FUNCTION button (ENTER) again to enter the MIDI Settings menu.

Selecting and adjusting the desired setting

After entering the MIDI Settings menu:

Press the ▼ or ▲ buttons to move the selection cursor over the desired setting.

Press the ◄ or ► buttons to adjust the selected setting.

* To reset the current setting to the default value, press the ◄ and ► buttons simultaneously.

MIDI Settings

1 MIDI Channel

The MIDI Channel setting allows the transmit/receive channel to be specified. The selected channel will function as both the transmit and receive channel (separate transmit/receive channels cannot be specified).

1. Selecting the MIDI Channel setting

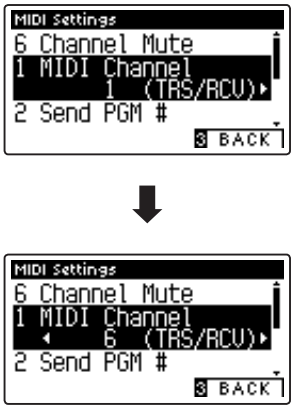
After entering the MIDI Settings menu (page 2):

Press the ▼ or ▲ buttons to select the MIDI Channel setting.

2. Changing the MIDI Channel value

Press the ◄ or ► buttons to increase or decrease the value of the MIDI Channel setting.

* The MIDI Channel value can be adjusted within the range of 1~16.
* To reset the MIDI Channel setting to the default value, press the ◄ and ► buttons simultaneously.
* Any changes made to the MIDI Channel setting will remain until the power is turned off.
* Preferred MIDI Channel settings can be stored to a Registration Memory for convenient recall, or to the Startup Setting memory for automatic selection when the instrument is turned on. Please refer to CN37 Owner's Manual pages 33 and 80 for more information.



3. Exiting the MIDI Channel setting

Press the 3 FUNCTION button (BACK) to exit the MIDI Channel setting and return to the Function Menus screen.

■ Omni mode

When the CN37 digital piano is turned on, the instrument is automatically set to 'omni mode on', allowing MIDI information to be received on all MIDI channels (1~16). When the MIDI Channel setting is used to specify a transmit/receive channel, the instrument will be set to 'omni mode off'.

■ Multi-timbral mode and Split/Dual modes

Using Split mode with Multi-timbral mode enabled	Using Dual mode with Multi-timbral mode enabled
Notes played in the lower section of the keyboard will be transmitted on the channel that is 1 channel higher than the specified channel. For example, if the MIDI channel is set to 3, notes played in the lower section of the keyboard will be transmitted on channel 4.	Notes played will be transmitted on two channels: the specified channel and the channel that is 1 channel higher. For example, if the MIDI channel is set to 3, notes played on the keyboard will be transmitted on channels 3 and 4.

* If the specified MIDI channel is 16, the lower section / layered part will be transmitted on channel 1.

MIDI Settings

2 Send Program Change Number

The Send Program Change Number function is used to send a Program Change Number (1-128) to the connected MIDI device.

1. Selecting the Send Program Change Number function

After entering the MIDI Settings menu (page 2):

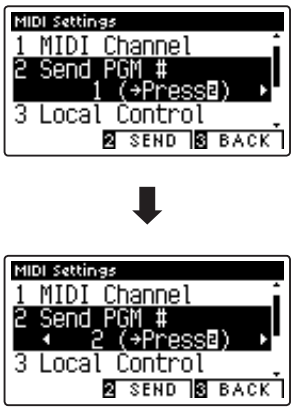
Press the ▼ or ▲ buttons to select the Send Program Change Number function.

2. Specifying and transmitting a Program Change Number

Press the ◄ or ► buttons to decrease or increase the Program Change Number.

* The program change number can be set within the range of 1~128.

Press the 2 FUNCTION button (SEND) to send the specified Program Change Number.



3. Exiting the Send Program Change Number function

Press the 3 FUNCTION button (BACK) to exit the Send Program Change Number function and return to the Function Menus screen.

MIDI Settings

3 Local Control

The Local Control setting determines whether the instrument will play an internal sound when the keys are pressed. This setting may be useful when using the CN37 digital piano to control an external MIDI device that is connected to the instrument's amplifier/speakers.

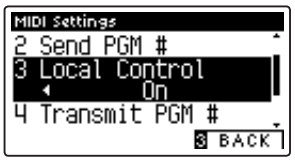
■Local Control setting

Local Control	Description
Off	The instrument will transmit information to an external MIDI device only.
On (default)	The instrument will play an internal sound and transmit information to an external MIDI device.

1. Selecting the Local Control setting

After entering the MIDI Settings menu (page 2):

Press the ▼ or ▲ buttons to select the Local Control setting.



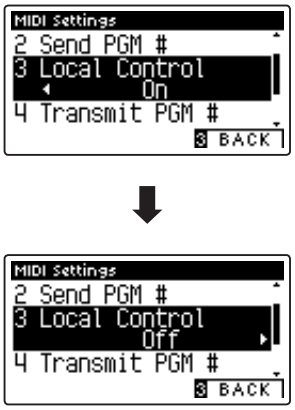
2. Changing the Local Control setting

Press the ◄ or ► buttons to turn the Local Control setting on or off.

* To reset the Local Control setting to the default setting, press the ◄ and ► buttons simultaneously.

* Any changes made to the Local Control setting will remain until the power is turned off.

* Preferred Local Control settings can be stored to a Registration Memory for convenient recall, or to the Startup Setting memory for automatic selection when the instrument is turned on. Please refer to CN37 Owner's Manual page 33 and 80 for more information.



3. Exiting the Local Control setting

Press the 3 FUNCTION button (BACK) to exit the Local Control setting and return to the Function Menus screen.

MIDI Settings

4 Transmit Program Change Numbers

The Transmit Program Change Numbers setting determines whether the CN37 digital piano will transmit program change information via MIDI when the instrument's panel buttons are pressed.

■Transmit Program Change Numbers setting

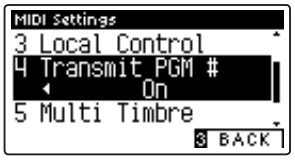
Transmit PGM#	Multi-timbral setting	Effect of pressing panel buttons
On (default)	Off, On1	SOUND buttons will send PGM# shown in the left column*.
On	On2	SOUND buttons will send PGM# shown in the right column*.
Off	Off	Program Change information will not be transmitted via MIDI.

* Please refer to the 'Program Change Number List' on page 134 of "CN37 Owner's Manual".

1. Selecting the Transmit Program Change Numbers setting

After entering the MIDI Settings menu (page 2):

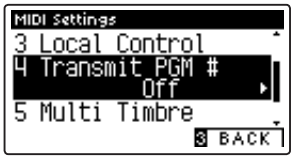
Press the ▼ or ▲ buttons to select the Transmit Program Change Numbers setting.



2. Changing the Transmit Program Change Numbers setting

Press the ◄ or ► buttons to turn the Transmit Program Change Numbers setting on or off.

* To reset the Transmit Program Change Numbers setting to the default setting, press the ◄ and ► buttons simultaneously.
* Any changes made to the Transmit Program Change Numbers setting will remain until the power is turned off.
* Preferred Transmit Program Change Numbers settings can be stored to a Registration Memory for convenient recall, or to the Startup Setting memory for automatic selection when the instrument is turned on. Please refer to CN37 Owner's Manual pages 33 and 80 for more information.



3. Exiting the Transmit Program Change Numbers setting

Press the 3 FUNCTION button (BACK) to exit the Transmit Program Change Numbers setting and return to the Function Menus screen.

■Omni mode

- When using Dual or Split mode, On/Off information and sound type settings for are transmitted as exclusive data, however program change numbers will not be transmitted.
- Program change numbers will also be transmitted when Multi-timbral mode is set to On1 or On2.

MIDI Settings

5 Multi-timbral Mode

The Multi-timbral Mode setting determines whether or not the CN37 digital piano is able to receive MIDI information on more than one MIDI channel simultaneously. This allows the instrument to play back multi-track, multi-timbral performance data sent from an external MIDI device.

■Multi-timbral Mode setting

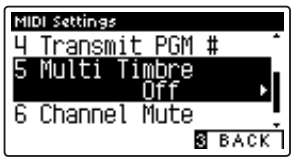
Multi-timbral Mode	Selected sound
Off (default)	The sound shown in the left column is selected*.
On1	The sound shown in the left column is selected*.
On2	The sound shown in the right column is selected*.

* Please refer to the 'Program Change Number List' on page 136 of the CN37 Owner's Manual.

1. Selecting the Multi-timbral Mode setting

After entering the MIDI Settings menu (page 2):

Press the ▼ or ▲ buttons to select the Multi-timbral Mode setting.



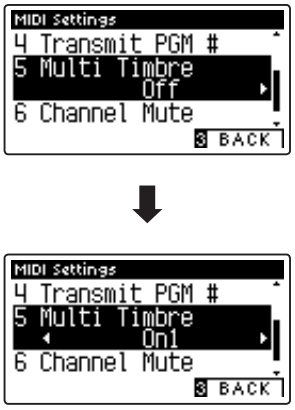
2. Changing the Multi-timbral Mode setting

Press the ◄ or ► buttons to change turn the Multi-timbral Mode setting.

* To reset the Multi-timbral Mode setting to the default setting, press the ◄ and ► buttons simultaneously.

* Any changes made to the Multi-timbral Mode setting will remain until the power is turned off.

* Preferred Multi-timbral Mode settings can be stored to a Registration Memory for convenient recall, or to the Startup Setting memory for automatic selection when the instrument is turned on. Please refer to CN37 Owner's Manual pages 33 and 80 for more information.



3. Exiting the Multi-timbral Mode setting

Press the 3 FUNCTION button (BACK) to exit the Multi-timbral Mode setting and return to the Function Menus screen.

MIDI Settings

6 Channel Mute

The Channel Mute setting determines which MIDI channels (1-16) are activated to receive MIDI information when Multi-timbral mode is enabled.

* This setting is only available when the Multi-timbral Mode setting is set to 'On1' or 'On2'.

1. Selecting the Channel Mute setting

After entering the MIDI Settings menu (page 2):

Press the ▼ or ▲ buttons to select the Channel Mute setting.

Press the 2 FUNCTION button (EDIT).

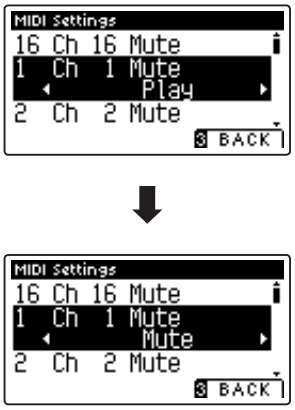
The Channel Mute selection screen will be shown in the LCD display.

2. Selecting and playing/muting channels

Press the ▼ or ▲ buttons to select the desired MIDI channel.

Press the ◄ or ► buttons to alternate between 'Play' and 'Mute' states.

* To reset the Channel Mute setting to the default value, press the ◄ and ► buttons simultaneously.
* Any changes made to the Channel Mute setting will remain until the power is turned off.
* Preferred Channel Mute settings can be stored to a Registration Memory for convenient recall, or to the Startup Setting memory for automatic selection when the instrument is turned on. Please refer to CN37 Owner's Manual pages 33 and 80 for more information.



3. Exiting the Channel Mute function

Press the 3 FUNCTION button (BACK) to exit the Channel Mute adjustment screen and return to the MIDI Settings menu.

MIDI Exclusive Data Format

1st byte	2nd byte	3rd byte	4th byte	5th byte	6th byte	7th byte	8th byte	9th byte	10th byte
1	2	3	4	5	6	7	8	9	10

Byte	ID	Description
1	F0	Start code
2	40	Kawai ID number
3	00 - 0F	MIDI channel
4	10, 30	Function code (30 when setting Multi-timbre On/Off)
5	04	Indicates that the instrument is an electric piano
6	13	Indicates that the piano is a CN37 model
7	data 1	See table below
8	data 2	
9	data 3	
10	F7	End code

data 1	data 2	data 3	Function
00	00	-	Multi-timbre Off
01	00	-	Multi-timbre On 1
02	00	-	Multi-timbre On 2
0F	00 - 7F	-	Split Point
14	00 - 7F	-	Dual/Split balance
16	1F - 60	-	Tune, 40: 440 Hz
17	00, 7F	-	00: Program Change Off, 7F: Program Chage On
18	00 - 07	-	00: Light, 01: Normal, 02: Heavy, 03: Off, 04: Light +, 05: Heavy +, 06: User1, 07: User2
19	00 - 03	-	Lower Octave Shift
20	00 - 3B	00 - 3B	Dual, data 2: Main sound, 3: Layer sound
21	00 - 3B	00 - 3B	Split, data 2: Upper sound, data 3: Lower sound
22	00 - 3B	00 - 3B	Four Hands, data 2: Right sound, data 3: Left sound
25	00 - 08	00 - 0B	data 2: Temperament, data 3: Key
26	00, 7F	00 - 0F	Multi-timbre channel mute, data 2: 00 (mute On), 7F (mute Off), data 3: Channel

[DIGITAL PIANO]
Kawai CN37

MIDI Implementation Chart

Date: August 2016
Version: 1.0

Function		Transmitted	Section	Remarks
Basic Channel	Default	1 - 16	1 - 16	
	Changed	1 - 16	1 - 16	
Mode	Default	Mode 3	Mode 1	* The default for the OMNI mode is ON. Specifying MIDI channels automatically turns it OFF.
	Messages	X	Mode 1, 3	
	Altered	*****		
Note Number		21 - 108**	0 - 127	** The value depends on the Transpose setting.
	True Voice	*****	0 - 127	
Velocity	Note ON	O	O	
	Note OFF	O	O	
After Touch	Key	X	X	
	Channel	X	X	
Pitch Bend		X	X	
Control Change	0, 32	O	O	Bank Select
	7	X	O	Volume
	10	X	O	Pan Pot
	11	X	O	Expression Pedal
	64	O (Right pedal)	O	Sustain Pedal
	66	O (Middle pedal)	O	Sostenuto Pedal
	67	O (Left pedal)	O	Soft Pedal
Program Change		O 0 - 127	O 0 - 127 ***	*** Refer to the Program Change Number List on page 136 of "CN37 Owner's Manual".
	True #	*****	0 - 127	
System Exclusive		O	O	On/Off Selectable
Common	Song Position	X	X	
	Song Select	X	X	
	Tune	X	X	
System Real Time	Clock	X	X	
	Commands	O	X	
Others	Local ON/OFF	X	O	
	All Note OFF	X	O (123-127)	
	Active Sense	X	O	
	Reset	X	X	
Notes				

Mode 1 : OMNI ON , POLY
Mode 2 : OMNI ON , MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

O : Yes
X : No

KPSZ-0863 R100