

## Section 1. Receive data

### ■ Channel Voice Messages

#### ● Note off

Status	2nd byte	3rd byte
8nH	kkH	vvH
9nH	kkH	00H

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 kk = note number : 00H-7FH (0-127)  
 vv = note off velocity : 00H-7FH (0-127)

- \* For Drum Parts, these messages are received when Rx.NOTE OFF = ON for each Instrument.
- \* The velocity values of Note Off messages are ignored.

#### ● Note on

Status	2nd bytes	3rd byte
9nH	kkH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 kk = note number : 00H-7FH (0-127)  
 vv = note on velocity : 01H-7FH (1-127)

- \* Not received when Rx.NOTE MESSAGE = OFF. (Initial value is ON)
- \* For Drum Parts, not received when Rx.NOTE ON = OFF for each Instrument.

#### ● Polyphonic Key Pressure

Status	2nd bytes	3rd byte
AnH	kkH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 kk = note number : 00H-7FH (0-127)  
 vv = key pressure : 00H-7FH (0-127)

- \* Not received when Rx.POLY PRESSURE (PAI) = OFF. (Initial value is ON)
- \* The resulting effect is determined by System Exclusive messages. With the initial settings, there will be no effect.

#### ● Control Change

- \* When Rx.CONTROL CHANGE = OFF, all control change messages except for Channel Mode messages will be ignored.
- \* The value specified by a Control Change message will not be reset even by a Program Change, etc.

#### ○ Bank Select (Controller number 0, 32)

Status	2nd bytes	3rd byte
BnH	00H	mmH
BnH	20H	llH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 mm, ll = Bank number : 00H, 00H-7FH, 7FH (bank.1-bank.16384), Initial Value = 00 00H (bank.1)

- \* Not received when Rx.BANK SELECT = OFF. "Rx.BANK SELECT" is set to OFF by "Turn General MIDI System On," and set to ON by "GS RESET." (Power-on default value is ON.)
- \* Bank Select processing will be suspended until a Program Change message is received.
- \* The GS format "Variation number" is the value of the Bank Select MSB (Controller number 0) expressed in decimal.

#### ○ Modulation (Controller number 1)

Status	2nd bytes	3rd byte
BnH	01H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Modulation depth : 00H-7FH (0-127)

- \* Not received when Rx.MODULATION = OFF. (Initial value is ON)
- \* The resulting effect is determined by System Exclusive messages. With the initial settings, this is Pitch Modulation Depth.

#### ○ Portamento Time (Controller number 5)

Status	2nd bytes	3rd byte
BnH	05H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Portamento Time : 00H-7FH (0-127), Initial value = 00H (0)

- \* This adjusts the rate of pitch change when Portamento is ON or when using the Portamento Control. A value of 0 results in the fastest change.

#### ○ Data Entry (Controller number 6, 38)

Status	2nd bytes	3rd byte
BnH	06H	mmH
BnH	26H	llH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 mm, ll = the value of the parameter specified by RPN/NRPN

#### ○ Volume (Controller number 7)

Status	2nd bytes	3rd byte
BnH	07H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Volume : 00H-7FH (0-127), Initial Value = 64H (100)

- \* Volume messages are used to adjust the volume balance of each Part.
- \* Not received when Rx.VOLUME = OFF. (Initial value is ON)

#### ○ Pan (Controller number 10)

Status	2nd bytes	3rd byte
BnH	0AH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = pan : 00H-40H-7FH (Left-Center-Right), Initial Value = 40H (Center)

- \* For Rhythm Parts, this is a relative adjustment of each Instrument's pan setting.
- \* Not received when Rx.PANPOT = OFF. (Initial value is ON)

#### ○ Expression (Controller number 11)

Status	2nd bytes	3rd byte
BnH	0BH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Expression : 00H-7FH (0-127), Initial Value = 7FH (127)

- \* It can be used independently from Volume messages. Expression messages are used for musical expression within a performance; e.g., expression pedal movements, crescendo and decrescendo.
- \* Not received when Rx.EXPRESSION = OFF. (Initial value is ON)

#### ○ Hold 1 (Controller number 64)

Status	2nd bytes	3rd byte
BnH	40H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127)

- \* Not received when Rx.HOLD1 = OFF. (Initial value is ON)

#### ○ Portamento (Controller number 65)

Status	2nd bytes	3rd byte
BnH	41H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127) 0-63 = OFF, 64-127 = ON

- \* Not received when Rx.PORTAMENTO = OFF. (Initial value is ON)

#### ○ Sostenuto (Controller number 66)

Status	2nd bytes	3rd byte
BnH	42H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127) 0-63 = OFF, 64-127 = ON

- \* Not received when Rx.SOSTENUTO = OFF. (Initial value is ON)

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## ○ Soft (Controller number 67)

Status	2nd bytes	3rd byte
BnH	43H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127) 0-63 = OFF, 64-127 = ON

\* Not received when Rx.SOFT = OFF. (Initial value is ON)

## ○ Portamento control (Controller number 84)

Status	2nd bytes	3rd byte
BnH	54H	kkH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 kk = source note number : 00H-7FH (0-127)

- \* A Note-on received immediately after a Portamento Control message will change continuously in pitch, starting from the pitch of the Source Note Number.
- \* If a voice is already sounding for a note number identical to the Source Note Number, this voice will continue sounding (i.e., legato) and will, when the next Note-on is received, smoothly change to the pitch of that Note-on.
- \* The rate of the pitch change caused by Portamento Control is determined by the Portamento Time value.

### Example 1.

On MIDI (Description)	Result
90 3C 40 (Note on C4)	C4 on
B0 54 3C (Portamento Control from C4)	no change (C4 voice still sounding)
90 40 40 (Note on E4)	glide from C4 to E4
80 3C 40 (Note off C4)	no change
80 40 40 (Note off E4)	E4 off

### Example 2.

On MIDI (Description)	Result
B0 54 3C (Portamento Control from C4)	no change
90 40 40 (Note on E4)	E4 is played with glide from C4 to E4
80 40 40 (Note off E4)	E4 off

## ○ Effect 1 (Reverb Send Level) (Controller number 91)

Status	2nd bytes	3rd byte
BnH	5BH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127), Initial Value = 28H (40)

\* This message adjusts the Reverb Send Level of each Part.

## ○ Effect 3 (Chorus Send Level) (Controller number 93)

Status	2nd bytes	3rd byte
BnH	5DH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127), Initial Value = 00H (0)

\* This message adjusts the Chorus Send Level of each Part.

## ○ NRPN MSB/LSB (Controller number 98, 99)

Status	2nd bytes	3rd byte
BnH	63H	mmH
BnH	62H	llH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 mm = upper byte of the parameter number specified by NRPN  
 ll = lower byte of the parameter number specified by NRPN

- \* NRPN can be received when Rx.NRPN = ON. "Rx.NRPN" is set to OFF by power-on reset or by receiving "Turn General MIDI System On," and it is set to ON by "GS RESET."
- \* The value set by NRPN will not be reset even if Program Change or Reset All Controllers is received.

## \*\*NRPN\*\*

The NRPN (Non Registered Parameter Number) message allows an extended range of control changes to be used.

To use these messages, you must first use NRPN MSB and NRPN LSB messages to specify the parameter to be controlled, and then use Data Entry messages to specify the value of the specified parameter. Once an NRPN parameter has been specified, all Data Entry messages received on that channel will modify the value of that parameter. To prevent accidents, it is recommended that you set RPN Null (RPN Number = 7FH/7FH) when you have finished setting the value of the desired parameter. Refer to Section 4. Supplementary material "Examples of actual MIDI messages" <Example 4> (page 11). On the GS devices, Data entry LSB (llH) of NRPN is ignored, so it is no problem to send Data entry MSB (mmH) only (without Data entry LSB).

On the HP555G, NRPN can be used to modify the following parameters.

NRPN	Data entry
<u>MSB LSB</u> 01H 08H	<u>MSB</u> mmH Description Vibrato rate (relative change on specified channel) mm: F0EH-40H-72H (-50 - 0 - +50)
01H 09H	mmH Vibrato depth (relative change on specified channel) mm: F0EH-40H-72H (-50 - 0 - +50)
01H 0AH	mmH Vibrato delay (relative change on specified channel) mm: F0EH-40H-72H (-50 - 0 - +50)
01H 20H	mmH TVF cutoff frequency (relative change on specified channel) mm: F0EH-40H-72H (-50 - 0 - +50)
01H 21H	mmH TVF resonance (relative change on specified channel) mm: F0EH-40H-72H (-50 - 0 - +50)
01H 63H	mmH TVF&TVA Env.Attack time (relative change on specified channel) mm: F0EH-40H-72H (-50 - 0 - +50)
01H 64H	mmH TVF&TVA Env.Decay time (relative change on specified channel) mm: F0EH-40H-72H (-50 - 0 - +50)
01H 66H	mmH TVF&TVA Env.Release time (relative change on specified channel) mm: F0EH-40H-72H (-50 - 0 - +50)
18H rrH	mmH Pitch coarse of drum instrument (relative change on specified drum instrument) rr : key number of drum instrument mm: F00H-40H-7FH (-63 - 0 - +63 semitone)
1AH rrH	mmH TVA level of drum instrument (absolute change on specified drum instrument) rr : key number of drum instrument mm: F00H-7FH (zero-maximum)
1CH rrH	mmH Panpot of drum instrument (absolute change on specified drum instrument) rr : key number of drum instrument mm: F00H, 01H-40H-7FH (Random, Left-Center-Right)
1DH rrH	mmH Reverb send level of drum instrument (absolute change on specified drum instrument) rr : key number of drum instrument mm: F 01H-7FH (zero-maximum)
1EH rrH	mmH Chorus send level of drum instrument (absolute change on specified drum instrument) rr : key number of drum instrument mm: F 01H-7FH (zero-maximum)

\* Parameters marked "relative change" will change relative to the preset value.

\* Parameters marked "absolute change" will be set to the absolute value of the parameter, regardless of the preset value.

## ○ RPN MSB/LSB (Controller number 100, 101)

Status	2nd bytes	3rd byte
BnH	65H	mmH
BnH	64H	llH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 mm = upper byte of parameter number specified by RPN  
 ll = lower byte of parameter number specified by RPN

- \* Not received when Rx.RPN = OFF. (Initial value is ON)
- \* The value specified by RPN will not be reset even by messages such as Program Change or Reset All Controller.

**\*\*RPN\*\***

The RPN (Registered Parameter Number) messages are expanded control changes, and each function of an RPN is described by the MIDI Standard.

To use these messages, you must first use RPN MSB and RPN LSB messages to specify the parameter to be controlled, and then use Data Entry messages to specify the value of the specified parameter. Once an RPN parameter has been specified, all Data Entry messages received on that channel will modify the value of that parameter. To prevent accidents, it is recommended that you set RPN Null (RPN Number = 7FH/7FH) when you have finished setting the value of the desired parameter. Refer to Section 4. "Examples of actual MIDI messages" <Example 4> (page 11).

On the HP555G, RPN can be used to modify the following parameters.

RPN      Data entry

MSB LSB	MSB LSB	Explanation
00H 00H	mmH	<b>Pitch Bend Sensitivity</b> mm: F00H-18H (0-24 semitones), Initial Value = 02H (2 semitones) ll: ignored (processed as 00h) specify up to 2 octaves in semitone steps
00H 01H	mmH llH	<b>Master Fine Tuning</b> mm, ll: 00 00H - 40 00H - 7F 7FH (-100 - 0 - +99.99 cents), Initial Value = 40 00H (0 cent) ll: ignored (processed as 00h) specify up to 2 octaves in semitone steps Refer to 4. Supplementary material, "About tuning" (P.13)
00H 02H	mmH	<b>Master Coarse Tuning</b> mm: 28H - 40H - 58H (-24 - 0 - +24 semitones), Initial Value = 40H (0 cent) ll: ignored (processed as 00h)
7FH 7FH	---	<b>RPN null</b> Set condition where RPN and NRPN are unspecified. The data entry messages after set RPN null will be ignored. (No Data entry messages are required after RPN null). Settings already made will not change. mm, ll: ignored

**● Program Change**

Status	2nd bytes
CnH	ppH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 pp = Program number : 00H-7FH (prog.1-prog.128)

- \* Not received when Rx.PROGRAM CHANGE = OFF. (Initial value is ON)
- \* After a Program Change message is received, the sound will change beginning with the next Note-on. Voices already sounding when the Program Change message was received will not be affected.
- \* For Drum Parts, Program Change messages will not be received on bank numbers 129-16384 (the value of Control Number 0 is other than 0 (00H)).

**● Channel Pressure**

Status	2nd bytes
DnH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Channel Pressure : 00H-7FH (0-127)

- \* Not received when Rx.CH PRESSURE (CA) = OFF. (Initial value is ON)
- \* The resulting effect is determined by System Exclusive messages. With the initial settings there will be no effect.

**● Pitch Bend Change**

Status	2nd byte	3rd bytes
EnH	llH	mmH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 mm, ll = Pitch Bend value : 00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

- \* Not received when Rx.PITCH BEND = OFF. (Initial value is ON)
- \* The resulting effect is determined by System Exclusive messages. With the initial settings the effect is Pitch Bend.

**■ Channel Mode Messages**

**● All Sounds Off (Controller number 120)**

Status	2nd byte	3rd bytes
BnH	78H	00H

n = MIDI channel number : 0H-FH (ch.1-ch.16)

- \* When this message is received, all currently-sounding notes on the corresponding channel will be turned off immediately.

**● Reset All Controllers (Controller number 121)**

Status	2nd byte	3rd bytes
BnH	79H	00H

n = MIDI channel number : 0H-FH (ch.1-ch.16)

- \* When this message is received, the following controllers will be set to their reset values.

Controller	Reset value
Pitch Bend Change	+0 (Center)
Polyphonic Key Pressure	0 (off)
Channel Pressure	0 (off)
Modulation	0 (off)
Expression	127 (max)
Hold 1	0 (off)
Portamento	0 (off)
Sostenuto	0 (off)
Soft	0 (off)
RPN	unset; previously set data will not change
NRPN	unset; previously set data will not change

**● All Notes Off (Controller number 123)**

Status	2nd byte	3rd bytes
BnH	7BH	00H

n = MIDI channel number : 0H-FH (ch.1-ch.16)

- \* When All Notes Off is received, all notes on the corresponding channel will be turned off. However if Hold 1 or Sostenuto is ON, the sound will be continued until these are turned off.

**● OMNI OFF (Controller number 124)**

Status	2nd byte	3rd bytes
BnH	7CH	00H

n = MIDI channel number : 0H-FH (ch.1-ch.16)

- \* The same processing will be carried out as when All Notes Off is received.

**● OMNI ON (Controller number 125)**

Status	2nd byte	3rd bytes
BnH	7DH	00H

n = MIDI channel number : 0H-FH (ch.1-ch.16)

- \* OMNI ON is only recognized as "All notes off"; the Mode doesn't change (OMNI OFF remains).

**● MONO (Controller number 126)**

Status	2nd byte	3rd bytes
BnH	7EH	mmH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 mm = mono number : 00H-10H (0-16)

- \* The same processing will be carried out as when All Sounds Off and All Notes Off is received, and the corresponding channel will be set to Mode 4 (M = 1) regardless of the value of "mono number."

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## ● POLY (Controller number 127)

Status	2nd byte	3rd bytes
BnH	7FH	00H

n = MIDI channel number : 0H-FH (ch.1-ch.16)

\* The same processing will be carried out as when All Sounds Off and All Notes Off is received, and the corresponding channel will be set to Mode 3.

## ■ System Realtime Message

### ● 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

Status	Data byte	Status
F0H	iiH, ddH, ....., eeH	F7H

F0H	:System Exclusive Message status
ii = ID number	:an ID number (manufacturer ID) to indicate the manufacturer whose Exclusive message this is. Roland's manufacturer ID is 41H. ID numbers 7EH and 7FH are extensions of the MIDI standard; Universal Non-realtime Messages (7EH) and Universal Realtime Messages (7FH).
dd,....,ee = data	: 00H-7FH (0-127)
F7H	: EOX (End Of Exclusive)

The System Exclusive Messages received by the HP555G are; messages related to mode settings, Universal Realtime System Exclusive messages and Data Set (DT1).

### ● System exclusive messages related to mode settings

These messages are used to initialize a device to GS or General MIDI mode, or change the operating mode. When creating performance data, a "Turn General MIDI System On" message should be inserted at the beginning of a General MIDI score, and a "GS Reset" message at the beginning of a GS music data. Each song should contain only one mode message as appropriate for the type of data. (Do not insert two or more mode setting messages in a single song.)

"Turn General MIDI System On and "Turn General MIDI System Off" use Universal Non-realtime Message format. "GS Reset" use Roland system exclusive format "Data Set 1 (DT1)."

#### ○ Turn General MIDI System On

This is a command message that resets the internal settings of the unit to the General MIDI initial state (General MIDI System-Level 1). After receiving this message HP555G, will automatically be set to the proper condition for correctly playing a General MIDI score.

Status	Data byte	Status
F0H	7EH, 7FH, 09H, 01H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (General MIDI Message)
01H	Sub ID#2 (General MIDI On)
F7H	EOX (End Of Exclusive)

\* When this message is received, Rx.BANK SELECT will be OFF and Rx.NRPN will be OFF.

\* There must be an interval of at least 50 ms between this message and the next message.

#### ○ General MIDI System Off

Status	Data byte	Status
F0H	7EH, 7FH, 09H, 02H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
09H	sub-ID#1 (General MIDI message)
02H	sub-ID#2 (General MIDI Off)
40H	EOX (End of exclusive)

\* There must be an interval of at least 50 ms between this message and the next.

#### ○ GS reset

GS Reset is a command message that resets the internal settings of a device to the GS initial state. This message will appear at the beginning of GS music data, and a GS device that receives this message will automatically be set to the proper state to correctly playback GS music data.

Status	Data byte	Status
F0H	41H, 10H, 42H, 12H, 40H, 00H, 7FH, 00H, 41H	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
10H	Device ID (dev: 00H-1FH (1-32), Initial value is 10H (17))
42H	Model ID (GS)
12H	Command ID (DT1)
40H	Address MSB
00H	Address
7FH	Address LSB
00H	Data (GS reset)
41H	Checksum
F7H	EOX (End Of Exclusive)

\* When this message is received, Rx.NRPN will be ON.

\* There must be an interval of at least 50 ms between this message and the next.

#### ○ Exit GS mode

Status	Data byte	Status
F0H	41H, 10H, 42H, 12H, 40H, 00H, 7FH, 7FH, 42H	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
10H	Device ID
42H	Model ID (GS)
12H	Command ID (DT1)
40H	Address MSB
00H	:
7FH	Address LSB
7FH	Data (Exit GS mode)
42H	Checksum
F7H	EOX (End of exclusive)

\* There must be an interval of at least 50 ms between this message and the next.

## ● Universal Realtime System Exclusive Messages

#### ○ Master volume

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 01H, llH, mmH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control messages)
01H	Sub ID#2 (Master Volume)
llH	Master volume lower byte
mmH	Master volume upper byte
F7H	EOX (End Of Exclusive)

\* The lower byte (llH) of Master Volume will be handled as 00H.

○ Identity Request Message

Status	Data byte	Status
F0H	7FH, 10H, 06H, 01H	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
10H	Device ID
06H	Sub ID#1 (General Information)
01H	Sub ID#2 (Identity Request)
F7H	EOX (End Of Exclusive)

\* The "dev" is own device number or 7FH (Broadcast)

● Data transmission

HP555G can receive the various parameters using System Exclusive messages. The exclusive message of GS format data has a model ID of 42H and a device ID of 10H (17), and it is common to all the GS devices.

○ Data set 1 DT1

This is the message that actually performs data transmission, and is used when you wish to transmit the data.

Status	Data byte	Status
F0H	41H, 10H, 42H, 12H, aaH, bbH, ccH, ddH, ... eeH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
10H	Device ID
42H	Model ID (GS)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the transmitted data
bbH	Address: middle byte of the starting address of the transmitted data
ccH	Address LSB: lower byte of the starting address of the transmitted data
ddH	Data: the actual data to be transmitted. Multiple bytes of data are transmitted starting from the address.
: F	
: F	
eeH	Data
sum	Checksum
F7H	EOX (End Of Exclusive)

- \* The amount of data that can be transmitted at one time depends on the type of data, and data can be received only from the specified starting address and size. Refer to the Address and Size given in Section 3 (page 6).
- \* Data larger than 128 bytes must be divided into packets of 128 bytes or less. If "Data Set 1" is transmitted successively, there must be an interval of at least 40 ms between packets.
- \* Regarding the checksum please refer to section 4 (page 11).

Section 2. Transmit data

Arranger and composer data can not be transmitted.

■ Channel Voice Messages

● Note off

Status	2nd byte	3rd byte
8nH	kkH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 kk = note number : 00H-7FH (0-127)  
 vv = note off velocity : 00H-7FH (0-127)

\* Note off message is sent out with the velocity of 40H.

● Note on

Status	2nd bytes	3rd byte
9nH	kkH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 kk = note number : 00H-7FH (0-127)  
 vv = note on velocity : 01H-7FH (1-127)

● Control Change

○ Bank Select (Controller number 0, 32)

Status	2nd bytes	3rd byte
BnH	00H	mmH
BnH	20H	llH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 mm, ll = Bank number : 00H-7FH (bank.1-bank.16384)

○ Volume (Controller number 7)

Status	2nd bytes	3rd byte
BnH	07H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Volume : 00H-7FH (0-127)

○ Hold 1 (Controller number 64)

Status	2nd bytes	3rd byte
BnH	40H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127)

○ Sostenuto (Controller number 66)

Status	2nd bytes	3rd byte
BnH	42H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127) 0-63 = OFF, 64-127 = ON

○ Soft (Controller number 67)

Status	2nd bytes	3rd byte
BnH	43H	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127)

○ Effect 1 (Reverb Send Level) (Controller number 91)

Status	2nd bytes	3rd byte
BnH	5BH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127)

○ Effect 3 (Chorus Send Level) (Controller number 93)

Status	2nd bytes	3rd byte
BnH	5DH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 vv = Control value : 00H-7FH (0-127)

● Program Change

Status	2nd bytes
CnH	ppH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 pp = Program number : 00H-7FH (prog.1-prog.128)

● Pitch Bend Change

Status	2nd byte	3rd bytes
EnH	llH	mmH

n = MIDI channel number : 0H-FH (ch.1-ch.16)  
 mm, ll = Pitch Bend value : 00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

■ System Realtime Message

● Realtime Clock

Status
F8H

● Active sensing

Status
FEH

\* This will be transmitted constantly at intervals of approximately 250 ms.

# HP 555G MIDI Implementation

## ■ System exclusive messages

### ○ Identity Reply

Status	Data byte	Status
F0H	7EH, 10H, 06H, 02H, 41H, 42H, 00H, 01H, 03H, 00H, 01H, 00H, 00H, F7H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (universal non-realtime message)
10H	Device ID (use the same as the device ID of Roland)
06H	Sub ID#1 (General Information)
02H	Sub ID#2 (Identity Reply)
41H	ID number (Roland)
42H	Device family code (LSB)
00H	Device family code (MSB)
02H	Device family number code (LSB)
03H	Device family number code (MSB)
02H	Software revision level
01H	Software revision level
00H	Software revision level
00H	Software revision level
F7H	EOX (End of Exclusive)

## Section 3. Parameter Address Map (Model ID = 42H)

This map indicates address, size, Data (range), Parameter, Description, and Default Value of parameters which can be transferred using and "Data set 1 (DT1)."

All the numbers of address, size, Data, and Default Value are indicated in 7-bit Hexadecimal-form.

### ■ Address Block map

An outlined address map of the Exclusive Communication is as follows;

Address (H) Block

40 00 00	+	SYSTEM PARAMETERS	+	Individual
40 01 3F	+		+	
40 1x 00	+	PART PARAMETERS (x = 0-F)	+	Individual
40 2x 5A	+		+	
41 m0 00	+	SRUM SETUP PARAMETERS (m = 0-1)	+	Individual
41 m8 7F	+		+	
48 00 00	+	SYSTEM PARAMETERS	+	Bulk
48 01 10	+	PART PARAMETERS	+	Bulk
48 1D 0F	+		+	
49 m0 00	+	DRUM SETUP PARAMETER (m = 0-1)	+	Bulk
49 mE 17	+		+	

■ Individual Parameters

Individual Parameter Transmission transmits data (or requests data) for one parameter as one exclusive message (one packet of "F0 ..... F7"). In Individual Parameter Transmission, you must use the Address and Size listed in the following "Parameter Address Map." Addresses marked at "#" cannot be used as starting addresses.

● System Parameters

Parameters related to the system of the device are called System Parameters.

Address (H)	Size (H)	Data (H)	Parameter	Description	Default Value (H)	Description
40 00 00	00 00 04	0018-07E8	MASTER TUNE	-100.0 - +100.0 [cent]	00 04 00 00	0 [cent]
40 00 01#			Use nibblized data.			
40 00 02#						
40 00 03#						
* Refer to section 4. Supplementary material, "About tuning" (page 12).						
40 00 04	00 00 01	00-7F	MASTER VOLUME (= F0 7F 7F 04 01 00 vv F7)	0-127	7F	127
40 00 05	00 00 01	28-58	MASTER KEY-SHIFT	-24 - +24 [semitones]	40	0 [semitones]
40 00 06	00 00 01	01-7F	MASTER PAN	-63 (LEFT) - +63 (RIGHT)	40	0 (CENTER)
40 00 7F	00 00 01	00	MODE SET (Rx. only)	00 = GS Reset 127 = Exit GS	***	
* Refer to "System exclusive messages related to Mode settings" (page 4).						
40 01 10	00 00 10	00-40	VOICE RESERVE	Part 10 (Drum Part)	02	2
40 01 11#				Part 1	06	6
40 01 12#				Part 2	02	2
40 01 13#				Part 3	02	2
40 01 14#				Part 4	02	2
40 01 15#				Part 5	02	2
40 01 16#				Part 6	02	2
40 01 17#				Part 7	02	2
40 01 18#				Part 8	02	2
40 01 19#				Part 9	02	2
40 01 1A#				Part 11	00	0
40 01 :#				:		
40 01 1F#				Part 16	00	0
* The sum total of voices in the voice reserve function must be equal to or less than the number of the maximum polyphony. The maximum polyphony of the HP555G is 64. For compatibility with other GS models, it is recommended that the maximum polyphony be equal or less than 24.						
40 01 30	00 00 01	00-07	REVERB MACRO	00: Room 1 01: Room 2 02: Room 3 03: Hall 1 04: Hall 2 05: Plate 06: Delay 07: Panning Delay	04	Hall 2
40 01 31	00 00 01	00-07	REVERB CHARACTER	0-7	04	4
40 01 32	00 00 01	00-07	REVERB PRE-LPF	0-7	00	0
40 01 33	00 00 01	00-7F	REVERB LEVEL	0-127	40	64
40 01 34	00 00 01	00-7F	REVERB TIME	0-127	40	64
40 01 35	00 00 01	00-7F	REVERB DELAY FEEDBACK	0-127	00	0
* REVERB MACRO is a macro parameter that allows global setting of reverb parameters. When you select the reverb type with REVERB MACRO, each reverb parameter will be set to the most suitable value.						
* REVERB CHARACTER is a parameter that changes the reverb algorithm. The value of REVERB CHARACTER corresponds to the REVERB MACRO of the same number.						
40 01 38	00 00 01	00-07	CHORUS MACRO	00: Chorus 1 01: Chorus 2 02: Chorus 3 03: Chorus 4 04: Feedback Chorus 05: Flanger 06: Short Delay 07: Short Delay (FB)	02	Chorus 3
40 01 39	00 00 01	00-07	CHORUS PRE-LPF	0-7	00	0
40 01 3A	00 00 01	00-7F	CHORUS LEVEL	0-127	40	64
40 01 3B	00 00 01	00-7F	CHORUS FEEDBACK	0-127	08	8
40 01 3C	00 00 01	00-7F	CHORUS DELAY	0-127	50	80
40 01 3D	00 00 01	00-7F	CHORUS RATE	0-127	03	3
40 01 3E	00 00 01	00-7F	CHORUS DEPTH	0-127	13	19
40 01 3F	00 00 01	00-7F	CHORUS SEND LEVEL TO REVERB		0-127	000
* CHORUS MACRO is a macro parameter that allows global setting of chorus parameters. When you use CHORUS MACRO to select the chorus type, each chorus parameter will be set to the most suitable value.						

# HP 555G MIDI Implementation

## ● Part Parameters

HP555G has 16 parts. Parameters that can be set individually for each Part are called Part parameters.

If you use exclusive messages to set Part parameters, specify the address by Block number rather than Part Number (normally the same number as the MIDI channel). The Block number can be specified as one of 16 blocks, from 0 (H) to F (H).

The relation between Part number and Block number is as follows.

```
x...BLOCK NUMBER (0-F),Part 1 (MIDI ch = 1) x = 1
    Part 2 (MIDI ch = 2) x = 2
    :
    :
    Part 9 (MIDI ch = 9) x = 9
    Part10 (MIDI ch = 10) x = 0
    Part11 (MIDI ch = 11) x = A
    Part12 (MIDI ch = 12) x = B
    :
    :
    Part16 (MIDI ch = 16) x = F
```

Address (H)	Size (H)	Data (H)	Parameter	Description	Default Value (H)	Description
40 1x 00	00 00 02	00-7F	TONE NUMBER	CC#00 VALUE 0-127	00	0
40 1x 01#		00-7F		P.C. VALUE 1-128	00	1
40 1x 02	00 00 01	00-10	Rx. CHANNEL	1-16, OFF	Same as the Part Number	
40 1x 03	00 00 01	00-01	Rx. PITCH BEND	OFF/ON	01	ON
40 1x 04	00 00 01	00-01	Rx. CH PRESSURE (CA#)	OFF/ON	01	ON
40 1x 05	00 00 01	00-01	Rx. PROGRAM CHANGE	OFF/ON	01	ON
40 1x 06	00 00 01	00-01	Rx. CONTROL CHANGE	OFF/ON	01	ON
40 1x 07	00 00 01	00-01	Rx. POLY PRESSURE (PA#)	OFF/ON	01	ON
40 1x 08	00 00 01	00-01	Rx. NOTE MESSAGE	OFF/ON	01	ON
40 1x 09	00 00 01	00-01	Rx. RPN	OFF/ON	01	ON
40 1x 0A	00 00 01	00-01	Rx. NRPN	OFF/ON	00 (01*)	OFF (ON*)
* Rx. NRPN is set to OFF by power-on or by receiving "Turn General MIDI System On," and it will be set ON when "GS RESET" is received.						
40 1x 0B	00 00 01	00-01	Rx. MODULATION	OFF/ON	01	ON
40 1x 0C	00 00 01	00-01	Rx. VOLUME	OFF/ON	01	ON
40 1x 0D	00 00 01	00-01	Rx. PANPOT	OFF/ON	01	ON
40 1x 0E	00 00 01	00-01	Rx. EXPRESSION	OFF/ON	01	ON
40 1x 0F	00 00 01	00-01	Rx. HOLD1	OFF/ON	01	ON
40 1x 10	00 00 01	00-01	Rx. PORTAMENTO	OFF/ON	01	ON
40 1x 11	00 00 01	00-01	Rx. SOSTENUTO	OFF/ON	01	ON
40 1x 12	00 00 01	00-01	Rx. SOFT	OFF/ON	01	ON
40 1x 13	00 00 01	00-01	MONO/POLY MODE	Mono/Poly	01	Poly
(= CC# 126 01 / CC# 127 00)						
40 1x 14	00 00 01	00-02	ASSIGN MODE	0 = SINGLE 1 = LIMITED-MULTI 2 = FULL-MULTI	00 at x = 0 01 at x ≠ 0	SINGLE at x = 0 LIMITED-MULTI at x ≠ 0
* ASSIGN MODE is the parameter that determines how voice assignment will be handled when sounds overlap on identical note numbers in the same channel (i.e., repeatedly struck notes). This is initialized to a mode suitable for each Part, so for general purposes there is no need to change this.						
40 1x 15	00 00 01	00-02	USE FOR RHYTHM PART	0 = OFF 1 = MAP1 2 = MAP2	00 at x ≠ 0 01 at x = 0	OFF at x ≠ 0 MAP1 at x ≠ 0
* This parameter sets the Drum Map of the Part used as the Drum Part. HP555G can simultaneously (in different Parts) use up to two Drum Maps (MAP1, MAP2). With the initial settings, Part10 (MIDI CH = 10, x = 0) is set to MAP1 (1), and other Parts are set to normal instrumental Parts (OFF (0)).						
40 1x 16	00 00 01	28-58	PITCH KEY SHIFT	-24 - +24 [semitones]	40	0 [semitones]
40 1x 17	00 00 02	08-F8	PITCH OFFSET FINE	-12.0 - +12.0 [Hz]	08 00	0 [Hz]
40 1x 18#			Use nibblized data.			
* PITCH OFFSET FINE allows you to alter, by a specified frequency amount, the pitch at which notes will sound. This parameter differs from the conventional Fine Tuning (RPN #1) parameter in that the amount of frequency alteration (in Hertz) will be identical no matter which note is played. When a multiple number of Parts, each of which has been given a different setting for PITCH OFFSET FINE, are sounded by means of an identical note number, you can obtain a Celeste effect.						
40 1x 19	00 00 01	00-7F	PART LEVEL	0-127	64	100
(= CC# 7)						
40 1x 1A	00 00 01	00-7F	VELOCITY SENSE DEPTH	0-127	40	64
40 1x 1B	00 00 01	00-7F	VELOCITY SENSE OFFSET	0-127	40	64
40 1x 1C	00 00 01	00-7F	PART PANPOT	-64 (RANDOM), -63 (LEFT) - +63 (RIGHT)	40	0 (CENTER)
(= CC# 10, except RANDOM)						
40 1x 1D	00 00 01	00-7F	KEY RANGE LOW	(C-1)-(G9)	00	C-1
40 1x 1E	00 00 01	00-7F	KEY RANGE HIGH	(C-1)-(G9)	7F	G 9
40 1x 1F	00 00 01	00-5F	CC1 CONTROLLER NUMBER	0-95	10	16
40 1x 20	00 00 01	00-5F	CC2 CONTROLLER NUMBER	0-95	11	17
40 1x 21	00 00 01	00-7F	CHORUS SEND LEVEL	0-127	00	0
(= CC# 93)						
40 1x 22	00 00 01	00-7F	REVERB SEND LEVEL	0-127	28	40
(= CC# 91)						
40 1x 23	00 00 01	00-01	Rx. BANK SELECT	OFF/ON	01 (00*)	ON (OFF*)
* Rx. BANK SELECT is set to ON by power-on or by receiving "GS RESET," and will be set OFF when "Turn General MIDI System On" is received.						



Address (H)	Size (H)	Data (H)	Parameter	Description	Default Value (H)	Description
40 1x 24	00 00 01	00-01	Rx.BANK SELECT LSB	OFF/ON	00	OFF
* HP555G can recognise Bank Select LSB (40H-43H) even if this message is OFF.						
40 1x 25	00 00 01	00-01	TONE REMAIN	OFF/ON	01	ON
40 1x 28	00 00 03	00-7F	Bank Select LSB Range	LSB (from)	40	40H
40 1x 29#				LSB (to)	43	43H
40 1x 30	00 00 01	0E-72	TONE MODIFY 1	-50 - +50	40	0
Vibrato rate (= NRPN# 8)						
40 1x 31	00 00 01	0E-72	TONE MODIFY 2	-50 - +50	40	0
Vibrato depth (= NRPN# 9)						
40 1x 32	00 00 01	0E-72	TONE MODIFY 3	-50 - +50	40	0
TVF cutoff frequency (= NRPN# 32)						
40 1x 33	00 00 01	0E-72	TONE MODIFY 4	-50 - +50	40	0
TVF resonance (= NRPN# 33)						
40 1x 34	00 00 01	0E-72	TONE MODIFY 5	-50 - +50	40	0
TVF&TVA Env.attack (= NRPN# 99)						
40 1x 35	00 00 01	0E-72	TONE MODIFY 6	-50 - +50	40	0
TVF&TVA Env.decay (= NRPN# 100)						
40 1x 36	00 00 01	0E-72	TONE MODIFY 7	-50 - +50	40	0
TVF&TVA Env.release (= NRPN# 102)						
40 1x 37	00 00 01	0E-72	TONE MODIFY 8	-50 - +50	40	0
Vibrato delay (= NRPN# 10)						
40 1x 40	00 00 0C	00-7F	SCALE TUNING C	-64 - +63 [cent]	40	0 [cent]
40 1x 41#		00-7F	SCALE TUNING C#	-64 - +63 [cent]	40	0 [cent]
40 1x 42#		00-7F	SCALE TUNING D	-64 - +63 [cent]	40	0 [cent]
40 1x 43#		00-7F	SCALE TUNING D#	-64 - +63 [cent]	40	0 [cent]
40 1x 44#		00-7F	SCALE TUNING E	-64 - +63 [cent]	40	0 [cent]
40 1x 45#		00-7F	SCALE TUNING F	-64 - +63 [cent]	40	0 [cent]
40 1x 46#		00-7F	SCALE TUNING F#	-64 - +63 [cent]	40	0 [cent]
40 1x 47#		00-7F	SCALE TUNING G	-64 - +63 [cent]	40	0 [cent]
40 1x 48#		00-7F	SCALE TUNING G#	-64 - +63 [cent]	40	0 [cent]
40 1x 49#		00-7F	SCALE TUNING A	-64 - +63 [cent]	40	0 [cent]
40 1x 4A#		00-7F	SCALE TUNING A#	-64 - +63 [cent]	40	0 [cent]
40 1x 4B#		00-7F	SCALE TUNING B	-64 - +63 [cent]	40	0 [cent]
* SCALE TUNING is a function that allows fine adjustment to the pitch of each note in the octave. The pitch of each identically-named note in all octaves will change simultaneously. A setting of ±60 cent (40H) is equal temperament. Refer to section 4. Supplementary material, "The Scale Tune Feature" (p-13).						
40 2x 00	00 00 01	28-58	MOD PITCH CONTROL	-24 - +24 [semitone]	40	0 [semitones]
40 2x 01	00 00 01	00-7F	MOD TVF CUTOFF CONTROL	-9600 - +9600 [cent]	40	0 [cent]
40 2x 02	00 00 01	00-7F	MOD AMPLITUDE CONTROL	-100.0 - +100.0 [%]	40	0 [%]
40 2x 03	00 00 01	00-7F	MOD LFO1 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 04	00 00 01	00-7F	MOD LFO1 PITCH DEPTH	0-600 [cent]	0A	47 [cent]
40 2x 05	00 00 01	00-7F	MOD LFO1 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 06	00 00 01	00-7F	MOD LFO1 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 07	00 00 01	00-7F	MOD LFO2 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 08	00 00 01	00-7F	MOD LFO2 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 09	00 00 01	00-7F	MOD LFO2 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 0A	00 00 01	00-7F	MOD LFO2 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 10	00 00 01	40-58	BEND PITCH CONTROL	0-24 [semitone]	42	2 [semitones]
40 2x 11	00 00 01	00-7F	BEND TVF CUTOFF CONTROL	-9600 - +9600 [cent]	40	0 [cent]
40 2x 12	00 00 01	00-7F	BEND AMPLITUDE CONTROL	-100.0 - +100.0 [%]	40	0 [%]
40 2x 13	00 00 01	00-7F	BEND LFO1 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 14	00 00 01	00-7F	BEND LFO1 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 15	00 00 01	00-7F	BEND LFO1 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 16	00 00 01	00-7F	BEND LFO1 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 17	00 00 01	00-7F	BEND LFO2 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 18	00 00 01	00-7F	BEND LFO2 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 19	00 00 01	00-7F	BEND LFO2 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 1A	00 00 01	00-7F	BEND LFO2 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 20	00 00 01	28-58	CAf PITCH CONTROL	-24 - +24 [semitone]	40	0 [semitones]
40 2x 21	00 00 01	00-7F	CAf TVF CUTOFF CONTROL	-9600 - +9600 [cent]	40	0 [cent]
40 2x 22	00 00 01	00-7F	CAf AMPLITUDE CONTROL	-100.0 - +100.0 [%]	40	0 [%]
40 2x 23	00 00 01	00-7F	CAf LFO1 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 24	00 00 01	00-7F	CAf LFO1 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 25	00 00 01	00-7F	CAf LFO1 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 26	00 00 01	00-7F	CAf LFO1 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 27	00 00 01	00-7F	CAf LFO2 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 28	00 00 01	00-7F	CAf LFO2 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 29	00 00 01	00-7F	CAf LFO2 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 2A	00 00 01	00-7F	CAf LFO2 TVA DEPTH	0-100.0 [%]	00	0 [%]

## HP 555G MIDI Implementation

Address (H)	Size (H)	Data (H)	Parameter	Description	Default Value (H)	Description
40 2x 30	00 00 01	28-58	PAf PITCH CONTROL	-24 - +24 [semitone]	40	0 [semitones]
40 2x 31	00 00 01	00-7F	PAf TVF CUTOFF CONTROL	-9600 - +9600 [cent]	40	0 [cent]
40 2x 32	00 00 01	00-7F	PAf AMPLITUDE CONTROL	-100.0 - +100.0 [%]	40	0 [%]
40 2x 33	00 00 01	00-7F	PAf LFO1 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 34	00 00 01	00-7F	PAf LFO1 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 35	00 00 01	00-7F	PAf LFO1 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 36	00 00 01	00-7F	PAf LFO1 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 37	00 00 01	00-7F	PAf LFO2 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 38	00 00 01	00-7F	PAf LFO2 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 39	00 00 01	00-7F	PAf LFO2 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 3A	00 00 01	00-7F	PAf LFO2 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 40	00 00 01	28-58	CC1 PITCH CONTROL	-24 - +24 [semitone]	40	0 [semitones]
40 2x 41	00 00 01	00-7F	CC1 TVF CUTOFF CONTROL	-9600 - +9600 [cent]	40	0 [cent]
40 2x 42	00 00 01	00-7F	CC1 AMPLITUDE CONTROL	-100.0 - +100.0 [%]	40	0 [%]
40 2x 43	00 00 01	00-7F	CC1 LFO1 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 44	00 00 01	00-7F	CC1 LFO1 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 45	00 00 01	00-7F	CC1 LFO1 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 46	00 00 01	00-7F	CC1 LFO1 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 47	00 00 01	00-7F	CC1 LFO2 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 48	00 00 01	00-7F	CC1 LFO2 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 49	00 00 01	00-7F	CC1 LFO2 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 4A	00 00 01	00-7F	CC1 LFO2 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 50	00 00 01	28-58	CC2 PITCH CONTROL	-24 - +24 [semitone]	40	0 [semitones]
40 2x 51	00 00 01	00-7F	CC2 TVF CUTOFF CONTROL	-9600 - +9600 [cent]	40	0 [cent]
40 2x 52	00 00 01	00-7F	CC2 AMPLITUDE CONTROL	-100.0 - +100.0 [%]	40	0 [%]
40 2x 53	00 00 01	00-7F	CC2 LFO1 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 54	00 00 01	00-7F	CC2 LFO1 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 55	00 00 01	00-7F	CC2 LFO1 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 56	00 00 01	00-7F	CC2 LFO1 TVA DEPTH	0-100.0 [%]	00	0 [%]
40 2x 57	00 00 01	00-7F	CC2 LFO2 RATE CONTROL	-10.0 - +10.0 [Hz]	40	0 [Hz]
40 2x 58	00 00 01	00-7F	CC2 LFO2 PITCH DEPTH	0-600 [cent]	00	0 [cent]
40 2x 59	00 00 01	00-7F	CC2 LFO2 TVF DEPTH	0-2400 [cent]	00	0 [cent]
40 2x 5A	00 00 01	00-7F	CC2 LFO2 TVA DEPTH	0-100.0 [%]	00	0 [%]

### ● Drum Setup Parameters

\* m: Map number (0 = MAP1, 1 = MAP2)

\* rr: drum part note number (00H-7FH)

Address (H)	Size (H)	Data (H)	Parameter	Description
41 m1 rr	00 00 01	00-7F	PLAY NOTE NUMBER	Pitch coarse
41 m2 rr	00 00 01	00-7F	LEVEL	TVA level
			(= NRP# 26)	
41 m3 rr	00 00 01	00-7F	ASSIGN GROUP NUMBER	Non, 1-127
41 m4 rr	00 00 01	00-7F	PANPOT	-64 (RANDOM), -63 (LEFT) - +63 (RIGHT)
			(= NRP# 28, except RANDOM)	
41 m5 rr	00 00 01	00-7F	REVERB SEND LEVEL	0.0-1.0
			(= NRP# 29)	Multiplicand of the part reverb depth
41 m6 rr	00 00 01	00-7F	CHORUS SEND LEVEL	0.0-1.0
			(= NRP# 30)	Multiplicand of the part chorus depth
41 m7 rr	00 00 01	00-01	Rx. NOTE OFF	OFF/ON
41 m8 rr	00 00 01	00-01	Rx. NOTE ON	OFF/ON

\* When the Drum Set is changed, DRUM SETUP PARAMETER values will all be initialized.

## Section 4. Supplementary material

### ● Decimal and Hexadecimal table

In MIDI documentation, data values and addresses/sizes of exclusive messages etc. are expressed as hexadecimal values for each 7 bits.

The following table shows how these correspond to decimal numbers.

Dec.	Hex.	Dec.	Hex.	Dec.	Hex.	Dec.	Hex.
0	00H	32	20H	64	40H	96	60H
1	01H	33	21H	65	41H	97	61H
2	02H	34	22H	66	42H	98	62H
3	03H	35	23H	67	43H	99	63H
4	04H	36	24H	68	44H	100	64H
5	05H	37	25H	69	45H	101	65H
6	06H	38	26H	70	46H	102	66H
7	07H	39	27H	71	47H	103	67H
8	08H	40	28H	72	48H	104	68H
9	09H	41	29H	73	49H	105	69H
10	0AH	42	2AH	74	4AH	106	6AH
11	0BH	43	2BH	75	4BH	107	6BH
12	0CH	44	2CH	76	4CH	108	6CH
13	0DH	45	2DH	77	4DH	109	6DH
14	0EH	46	2EH	78	4EH	110	6EH
15	0FH	47	2FH	79	4FH	111	6FH
16	10H	48	30H	80	50H	112	70H
17	11H	49	31H	81	51H	113	71H
18	12H	50	32H	82	52H	114	72H
19	13H	51	33H	83	53H	115	73H
20	14H	52	34H	84	54H	116	74H
21	15H	53	35H	85	55H	117	75H
22	16H	54	36H	86	56H	118	76H
23	17H	55	37H	87	57H	119	77H
24	18H	56	38H	88	58H	120	78H
25	19H	57	39H	89	59H	121	79H
26	1AH	58	3AH	90	5AH	122	7AH
27	1BH	59	3BH	91	5BH	123	7BH
28	1CH	60	3CH	92	5CH	124	7CH
29	1DH	61	3DH	93	5DH	125	7DH
30	1EH	62	3EH	94	5EH	126	7EH
31	1FH	63	3FH	95	5FH	127	7FH

- \* Decimal values such as MIDI channel, bank select, and program change are listed as one (1) greater than the values given in the above table.
- \* A 7-bit byte can express data in the range of 128 steps. For data where greater precision is required, we must use two or more bytes. For example, two hexadecimal numbers aa bbH expressing two 7-bit bytes would indicate a value of  $aa \times 128 + bb$ .
- \* In the case of values which have a  $\pm$  sign, 00H = -64, 40H =  $\pm 0$ , and 7FH = +63, so that the decimal expression would be 64 less than the value given in the above chart. In the case of two types, 00 00H = -8192, 40 00H =  $\pm 0$ , and 7F 7FH = +8191. For example if aa bbH were expressed as decimal, this would be  $aa \text{ bbH} - 40 \text{ 00H} = aa \times 128 + bb - 64 \times 128$ .
- \* Data marked "nibbled" is expressed in hexadecimal in 4-bit units. A value expressed as a 2-byte nibble 0a 0bH has the value of  $a \times 16 + b$ .

#### <Example 1> What is the decimal expression of 5AH ?

From the preceding table, 5AH = 90

#### <Example 2> What is the decimal expression of the value 12 34H given as hexadecimal for each 7 bits?

From the preceding table, since 12H = 18 and 34H = 52  
 $18 \times 128 + 52 = 2356$

#### <Example 3> What is the decimal expression of the nibbled value 0A 03 09 0D ?

From the preceding table, since 0AH = 10, 03H = 3, 09H = 9, 0DH = 13  
 $((10 \times 16 + 3) \times 16 + 9) \times 16 + 13 = 41885$

#### <Example 4> What is the nibbled expression of the decimal value 1258?

```
16) 1258
   16) 78    ... 10
   16) 4     ... 14
      0     ... 4
```

Since from the preceding table, 0 = 00H, 4 = 04H, 14 = 0EH, 10 = 0AH, the answer is 00 04 0E 0AH.

### ● Examples of actual MIDI messages

#### <Example 1> 92 3E 5F

9n is the Note-on status, and n is the MIDI channel number. Since 2H = 2, 3EH = 62, and 5FH = 95, this is a Note-on message with MIDI CH = 3, note number 62 (note name is D4), and velocity 95.

#### <Example 2> CE 49

CnH is the Program Change status, and n is the MIDI channel number. Since EH = 14 and 49H = 73, this is a Program Change message with MIDI CH = 15, program number 74 (Flute in GS).

#### <Example 3> EA 00 28

EnH is the Pitch Bend Change status, and n is the MIDI channel number. The 2nd byte (00H = 0) is the LSB and the 3rd byte (28H = 40) is the MSB, but Pitch Bend Value is a signed number in which  $40 \text{ 00H} (= 64 \times 128 + 0 = 8192)$  is 0, so this Pitch Bend Value is  $28 \text{ 00H} - 40 \text{ 00H} = 40 \times 128 + 0 - (64 \times 128 + 0) = 5120 - 8192 = -3072$

If the Pitch Bend Sensitivity is set to 2 semitones, -8192 (00 00H) will cause the pitch to change -200 cents, so in this case  $-200 \times (-3072) / (-8192) = -75$  cents of Pitch Bend is being applied to MIDI channel 11.

#### <Example 4> B3 64 00 65 00 06 0C 26 00 64 7F 65 7F

BnH is the Control Change status, and n is the MIDI channel number. For Control Changes, the 2nd byte is the control number, and the 3rd byte is the value. In a case in which two or more messages consecutive messages have the same status, MIDI has a provision called "running status" which allows the status byte of the second and following messages to be omitted. Thus, the above messages have the following meaning.

```
B3      64 00      MIDI ch.4, lower byte of RPN parameter number: 00H
(B3)    65 00      (MIDI ch.4) upper byte of RPN parameter number: 00H
(B3)    06 0C      (MIDI ch.4) upper byte of parameter value: 0CH
(B3)    26 00      (MIDI ch.4) lower byte of parameter value: 00H
(B3)    64 7F      (MIDI ch.4) lower byte of RPN parameter number: 7FH
(B3)    65 7F      (MIDI ch.4) upper byte of RPN parameter number: 7FH
```

In other words, the above messages specify a value of 0C 00H for RPN parameter number 00 00H on MIDI channel 4, and then set the RPN parameter number to 7F 7FH.

RPN parameter number 00 00H is Pitch Bend Sensitivity, and the MSB of the value indicates semitone units, so a value of 0CH = 12 sets the maximum pitch bend range to  $\pm 12$  semitones (1 octave). (On GS sound sources the LSB of Pitch Bend Sensitivity is ignored, but the LSB should be transmitted anyway (with a value of 0) so that operation will be correct on any device.)

Once the parameter number has been specified for RPN or NRPN, all Data Entry messages transmitted on that same channel will be valid, so after the desired value has been transmitted, it is a good idea to set the parameter number to 7F 7FH to prevent accidents. This is the reason for the (B3) 64 7F (B3) 65 7F at the end.

It is not desirable for performance data (such as Standard MIDI File data) to contain many events with running status as given in <Example 4>. This is because if playback is halted during the song and then rewound or fast-forwarded, the sequencer may not be able to transmit the correct status, and the sound source will then misinterpret the data. Take care to give each event its own status.

It is also necessary that the RPN or NRPN parameter number setting and the value setting be done in the proper order. On some sequencers, events occurring in the same (or consecutive) clock may be transmitted in an order different than the order in which they were received. For this reason it is a good idea to slightly skew the time of each event (about 1 tick for TPQN = 96, and about 5 ticks for TPQN = 480).

\* TPQN: Ticks Per Quarter Note

### ● Example of an Exclusive message and calculating a Checksum

Roland Exclusive messages (RQ1, DT1) are transmitted with a checksum at the end (before F7) to make sure that the message was correctly received. The value of the checksum is determined by the address and data (or size) of the transmitted exclusive message.

uHow to calculate the checksum (hexadecimal numbers are indicated by 'H')  
 The checksum is a value derived by adding the address, size and checksum itself and inverting the lower 7 bits.

Here's an example of how the checksum is calculated. We will assume that in the exclusive message we are transmitting, the address is aa bb cCH and the data or size is dd ee fFH.

```
aa + bb + cc + dd + ee + ff = sum
sum / 128 = quotient ... remainder
128 - remainder = checksum
```

# HP 555G MIDI Implementation

## <Example 1> Setting REVERB MACRO to ROOM 3

According to the "Parameter Address Map," the REVERB MACRO Address is 40 01 30H, and ROOM 3 is a value of 02H. Thus,

```
F0 41 10 42 12 40 01 30 02 ?? F7
(1) (2) (3) (4) (5) Address data Checksum (6)
```

(1) Exclusive Status, (2) ID (Roland), (3) Device ID (17),  
(4) Model ID (GS), (5) Command ID (DT1), (6) End of Exclusive

Next we calculate the checksum.

$40H + 01H + 30H + 02H = 64 + 1 + 48 + 2 = 115$  (sum)  
 $115$  (sum) /  $128 = 0$  (quotient) ...  $115$  (remainder)  
checksum =  $128 - 115$  (remainder) =  $13 = 0DH$

\* Checksum is 0 if the remainder is 0.

This means that F0 41 10 42 12 40 01 30 02 0D F7 is the message we transmit.

## <Example 2> Requesting transmission of the LEVEL for DRUM MAP 1 NOTE NUMBER 75 (D#5; Claves)

NOTE NUMBER 75 (D#5) is 4BH in hexadecimal.

According to the "Parameter Address Map," LEVEL of NOTE NUMBER 75 (D#5; Claves) in DRUM MAP 1 has an Address of 41 02 4BH and a Size of 00 00 01H. Thus,

```
F0 41 10 42 11 41 02 4B 00 00 01 ?? F7
(1) (2) (3) (4) (5) Address size checksum (6)
```

(1) Exclusive Status, (2) ID (Roland), (3) Device ID (17),  
(4) Model ID (GS), (5) Command ID (RQ1), (6) End of Exclusive

Next we calculate the checksum.

$41H + 02H + 4BH + 00H + 00H + 01H = 65 + 2 + 75 + 0 + 0 + 1 = 143$  (sum)  
 $143$  (sum) /  $128 = 1$  (quotient) ...  $15$  (remainder)  
checksum =  $128 - 15$  (remainder) =  $113 = 71H$

This means that F0 41 10 42 11 41 02 4B 00 00 01 71 F7 is the message we transmit.

## ● About tuning

In MIDI, individual Parts are tuned by sending RPN #1 (Master Fine Tuning) to the appropriate MIDI channel.

In MIDI, an entire device is tuned by either sending RPN #1 to all MIDI channels being used, or by sending a System Exclusive MASTER TUNE (address 40 00 00H).

RPN #1 allows tuning to be specified in steps of approximately 0.012 cents (to be precise, 100/8192 cent), and System Exclusive MASTER TUNE allows tuning in steps of 0.1 cent. One cent is 1/100th of a semitone.

The values of RPN #1 (Master Fine Tuning) and System Exclusive MASTER TUNE are added together to determine the actual pitch sounded by each Part.

Frequently used tuning values are given in the following table for your reference. Values are in hexadecimal (decimal in parentheses).

Hz in A4	cent	RPN #1	Sys.Ex. 40 00 00
445.0	+19.56	4C 43 (+1603)	00 04 0C 04 (+196)
444.0	+15.67	4A 03 (+1283)	00 04 09 0D (+157)
443.0	+11.76	47 44 (+ 964)	00 04 07 06 (+118)
442.0	+ 7.85	45 03 (+ 643)	00 04 04 0F (+ 79)
441.0	+ 3.93	42 42 (+ 322)	00 04 02 07 (+ 39)
440.0	0.00	40 00 ( 0)	00 04 00 00 ( 0)
439.0	- 3.94	3D 3D (- 323)	00 03 0D 09 (- 39)
438.0	- 7.89	3A 7A (- 646)	00 03 0B 01 (- 79)

## <Example> Set the tuning of MIDI channel 3 to A4 = 442.0 Hz

Send RPN#1 to MIDI channel 3. From the above table, the value is 45 03H.

```
B2 64 00 MIDI ch.3, lower byte of RPN parameter number: 00H
(B2) 65 01 (MIDI ch.3) upper byte of RPN parameter number: 01H
(B2) 06 45 (MIDI ch.3) upper byte of parameter value: 45H
(B2) 26 03 (MIDI ch.3) lower byte of parameter value: 03H
(B2) 64 7F (MIDI ch.3) lower byte of RPN parameter number: 7FH
(B2) 65 7F (MIDI ch.3) upper byte of RPN parameter number: 7FH
```

## ● The Scale Tune Feature (address: 40 1x 40)

The scale Tune feature allows you to finely adjust the individual pitch of the notes from C through B. Though the settings are made while working with one octave, the fine adjustments will affect all octaves. By making the appropriate Scale Tune settings, you can obtain a complete variety of tuning methods other than equal temperament. As examples, three possible types of scale setting are explained below.

### ○ Equal Temperament

This method of tuning divides the octave into 12 equal parts. It is currently the most widely used form of tuning, especially in occidental music. On HP555G, the default settings for the Scale Tune feature produce equal temperament.

### ○ Just Temperament (Keytone C)

The three main chords resound much more beautifully than with equal temperament, but this benefit can only be obtained in one key. If transposed, the chords tend to become ambiguous. The example given involves settings for a key in which C is the keytone.

### ○ Arabian Scale

By altering the setting for Scale Tune, you can obtain a variety of other tunings suited for ethnic music. For example, the settings introduced below will set the unit to use the Arabian Scale.

### Example Settings

Note name	Equal Temperament	Just Temperament (Keytone C)	Arabian Scale
C	0	0	-6
C#	0	-8	+45
D	0	+4	-2
D#	0	+16	-12
E	0	-14	-51
F	0	-2	-8
F#	0	-10	+43
G	0	+2	-4
G#	0	+14	+47
A	0	-16	0
A#	0	+14	-10
B	0	-12	-49

The values in the table are given in cents. Refer to the explanation of Scale Tuning on page 9 to convert these values to hexadecimal, and transmit them as exclusive data.

For example, to set the tune (C-B) of the Part1 Arabian Scale, send the data as follows:

```
F0 41 10 42 12 40 11 40 3A 6D 3E 34 0D 38 6B 3C 6F 40 36 0F 50 F7
```

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● Tone List

HP555G TONE MAPPING

PC# / CC0 / CC32	Tone Name	Voices	Notes
00h / 00h / 00h	Piano 1	1	8-6
00h / 08h / 00h	Piano 1w	2	8-7
00h / 10h / 00h	Piano 1d	1	8-8
01h / 00h / 00h	Piano 2	1	8-9
01h / 08h / 00h	Piano 2w	2	8-10
02h / 00h / 00h	Piano 3	1	8-11
02h / 08h / 00h	Piano 3w	2	8-12
03h / 00h / 00h	Honky-tonk	2	8-13
03h / 08h / 00h	Honky-tonk 2	2	1-6 8-14
04h / 00h / 00h	E.Piano 1	1	8-15
04h / 08h / 00h	Detuned EP 1	2	8-16
04h / 10h / 00h	E.Piano 1v	2	8-17
04h / 18h / 00h	60's E.Piano	1	2-5 8-18
05h / 00h / 00h	GS E.Piano2	1	8-19
05h / 08h / 00h	Detuned EP 2	2	8-20
05h / 10h / 00h	E.Piano 2v	2	8-21
06h / 00h / 00h	Harpsichord	1	8-22
06h / 08h / 00h	Coupled Hps.	2	8-23
06h / 10h / 00h	Harpsi.w	2	8-24
06h / 18h / 00h	Harpsi.o	2	8-25
07h / 00h / 00h	Clav.	1	3-3 8-26
08h / 00h / 00h	Celesta	1	4-2 8-27
09h / 00h / 00h	Glockenspiel	1	4-5 8-28
0Ah / 00h / 00h	Music Box	1	4-6 8-29
0Bh / 00h / 00h	GS Vibe	1	8-30
0Bh / 08h / 00h	Vibe.w	2	8-31
0Ch / 00h / 00h	GS Marimba	1	8-32
0Ch / 08h / 00h	Marimba	1	4-3 8-33
0Dh / 00h / 00h	Xylophone	1	4-4 8-34
0Eh / 00h / 00h	Tubular-bell	1	4-7 8-35
0Eh / 08h / 00h	Church Bell	1	8-36
0Eh / 09h / 00h	Carillon	1	8-37
0Fh / 00h / 00h	GS Santur	1	8-38
10h / 00h / 00h	Organ 1	1	8-39
10h / 01h / 00h	Full Organ 1	1	
10h / 08h / 00h	Detuned Or.1	2	8-40
10h / 09h / 00h	Full Organ 2	1	
10h / 10h / 00h	Pop Organ 1	1	8-41
10h / 11h / 00h	Pop Organ 2	1	
10h / 12h / 00h	Pop Organ	1	5-4
10h / 20h / 00h	Full Organ 4	1	8-42
10h / 21h / 00h	Full Organ 3	1	
11h / 00h / 00h	Organ 2	1	8-43
11h / 01h / 00h	Jazz Organ 3	2	
11h / 08h / 00h	Detuned Or.2	2	8-44
11h / 20h / 00h	Jazz Organ 1	2	8-45
12h / 00h / 00h	Rock Organ 2	2	8-46
13h / 00h / 00h	Church Org.1	1	8-47
13h / 08h / 00h	Church Org.2	2	8-48
13h / 10h / 00h	Church Org.3	2	8-49
14h / 00h / 00h	Reed Organ	1	8-50
15h / 00h / 00h	Accordion Fr	2	8-51
15h / 08h / 00h	Accordion It	2	8-52
16h / 00h / 00h	Harmonica	1	8-53
16h / 01h / 00h	Harmonica	1	5-6
17h / 00h / 00h	Bandoneon	2	8-54

PC# / CC0 / CC32	Tone Name	Voices	Notes
18h / 00h / 00h	GS Nylon Gt.	1	8-55
18h / 08h / 00h	Ukulele	1	8-56
18h / 10h / 00h	Nylon Gt.o	2	8-57
18h / 20h / 00h	Nylon Guitar	1	8-58
19h / 00h / 00h	Steel-str.Gt	1	3-5 8-59
19h / 08h / 00h	12-str.Gt	2	8-60
19h / 09h / 00h	Nylon+Steel	2	
19h / 10h / 00h	Mandolin	1	8-61
19h / 20h / 00h	Steel Gt.2	1	
1Ah / 00h / 00h	Jazz Guitar	1	3-7 8-62
1Ah / 08h / 00h	Hawaiian Gt.	1	8-63
1Bh / 00h / 00h	Clean Gt.	1	8-64
1Bh / 08h / 00h	Chorus Gt.	2	8-65
1Ch / 00h / 00h	Muted Gt.	1	8-66
1Ch / 08h / 00h	Funk Gt.	1	8-67
1Ch / 10h / 00h	Funk Gt.2	2	8-68
1Dh / 00h / 00h	Overdrive Gt	1	3-8 8-69
1Eh / 00h / 00h	DistortionGt	1	3-9 8-70
1Eh / 08h / 00h	Feedback Gt.	2	8-71
1Fh / 00h / 00h	Gt.Harmonics	1	8-72
1Fh / 08h / 00h	Gt. Feedback	1	8-73
1Fh / 10h / 00h	Gt.Harmonics	1	
20h / 00h / 00h	Acoustic Bs.	1	8-74
21h / 00h / 00h	Fingered Bs.	1	8-75
22h / 00h / 00h	Picked Bs.	1	8-76
23h / 00h / 00h	Fretless Bs.	1	8-77
24h / 00h / 00h	Slap Bass 1	1	8-78
25h / 00h / 00h	Slap Bass 2	1	8-79
26h / 00h / 00h	Synth Bass 1	1	8-80
26h / 01h / 00h	SynthBass101	1	8-81
26h / 08h / 00h	Synth Bass 3	1	8-82
27h / 00h / 00h	Synth Bass 2	2	8-83
27h / 08h / 00h	Synth Bass 4	2	8-84
27h / 10h / 00h	Rubber Bass	2	8-85
28h / 00h / 00h	Violin	1	6-3 8-86
28h / 08h / 00h	Slow Violin	1	8-87
29h / 00h / 00h	Viola	1	8-88
2Ah / 00h / 00h	Cello	1	6-4 8-89
2Bh / 00h / 00h	Contrabass	1	8-90
2Ch / 00h / 00h	Tremolo Str	1	8-91
2Dh / 00h / 00h	PizzicatoStr	1	8-92
2Eh / 00h / 00h	GS Harp	1	8-93
2Fh / 00h / 00h	Timpani	1	8-94
30h / 00h / 00h	GS Strings	1	8-95
30h / 08h / 00h	Orchestra	2	6-6 8-96
31h / 00h / 00h	GS Sl.Str	1	8-97
32h / 00h / 00h	Syn.Strings1	1	6-7 8-98
32h / 08h / 00h	Syn.Strings3	2	8-99
33h / 00h / 00h	Syn.Strings2	2	8-100
34h / 00h / 00h	Choir Aahs	1	8-101
34h / 20h / 00h	Choir	1	7-1 8-102
35h / 00h / 00h	Pop Voice	1	7-2 8-103
36h / 00h / 00h	SynVox	1	7-3 8-104
37h / 00h / 00h	OrchestraHit	2	8-105

\*The tones which marked in Notes can be selected from panel.

## HP 555G MIDI Implementation

PC# / CC0 / CC32	Tone Name	Voices	Notes
38h / 00h / 00h	Trumpet	1	7-4 8-106
38h / 01h / 00h	Trumpet	1	
39h / 00h / 00h	GS Trombone	1	8-107
39h / 01h / 00h	Trombone 2	2	8-108
3Ah / 00h / 00h	Tuba	1	8-109
3Bh / 00h / 00h	Muted Trumpet	1	7-6 8-110
3Ch / 00h / 00h	French Horn	2	7-7 8-111
3Ch / 01h / 00h	Fr.Horn 2	2	8-112
3Dh / 00h / 00h	Brass 1	1	7-8 8-113
3Dh / 08h / 00h	Brass 2	2	8-114
3Eh / 00h / 00h	Synth Brass1	2	7-9 8-115
3Eh / 08h / 00h	Synth Brass3	2	8-116
3Eh / 10h / 00h	AnalogBrass1	2	8-117
3Fh / 00h / 00h	Synth Brass2	2	7-10 8-118
3Fh / 08h / 00h	Synth Brass4	1	8-119
3Fh / 10h / 00h	AnalogBrass2	2	8-120
40h / 00h / 00h	Soprano Sax	1	7-12 8-121
41h / 00h / 00h	Alto Sax	1	7-13 8-122
41h / 08h / 00h	Blow Sax	1	
42h / 00h / 00h	Tenor Sax	1	7-11 8-123
42h / 08h / 00h	Blow Sax	1	
43h / 00h / 00h	Baritone Sax	1	8-124
44h / 00h / 00h	Oboe	1	7-14 8-125
45h / 00h / 00h	English Horn	1	8-126
46h / 00h / 00h	Bassoon	1	7-15 8-127
47h / 00h / 00h	Clarinet	1	7-16 8-128
48h / 00h / 00h	Piccolo	1	8-129
49h / 00h / 00h	Flute	1	7-17 8-130
4Ah / 00h / 00h	Recorder	1	8-131
4Bh / 00h / 00h	Pan Flute	1	7-18 8-132
4Ch / 00h / 00h	Bottle Blow	2	8-133
4Dh / 00h / 00h	Shakuhachi	2	8-134
4Eh / 00h / 00h	Whistle	1	8-135
4Fh / 00h / 00h	Ocarina	1	8-136
50h / 00h / 00h	Square Wave	2	8-137
50h / 01h / 00h	Square	1	8-138
50h / 08h / 00h	Sine Wave	1	8-139
51h / 00h / 00h	Saw Wave	2	8-140
51h / 01h / 00h	Saw	1	8-141
51h / 08h / 00h	Doctor Solo	2	8-142
52h / 00h / 00h	Syn.Calliope	2	8-143
53h / 00h / 00h	Chiffer Lead	2	8-144
54h / 00h / 00h	Charang	2	8-145
55h / 00h / 00h	Solo Vox	2	8-146
56h / 00h / 00h	5th Saw Wave	2	8-147
57h / 00h / 00h	Bass & Lead	2	8-148
58h / 00h / 00h	Fantasia	2	8-1
59h / 00h / 00h	Warm Pad	1	6-8 8-149
5Ah / 00h / 00h	Polysynth	2	8-150
5Bh / 00h / 00h	Space Voice	1	8-151
5Ch / 00h / 00h	Bowed Glass	2	8-152
5Dh / 00h / 00h	Metal Pad	2	8-153
5Eh / 00h / 00h	Halo Pad	2	8-154
5Fh / 00h / 00h	Sweep Pad	1	8-155

\*The tones which marked in Notes can be selected from panel.

PC# / CC0 / CC32	Tone Name	Voices	Notes
60h / 00h / 00h	Ice Rain	2	8-156
61h / 00h / 00h	Soundtrack	2	8-157
62h / 00h / 00h	Crystal	2	8-3
62h / 01h / 00h	Syn Mallet	1	8-158
63h / 00h / 00h	Atmosphere	2	8-159
64h / 00h / 00h	Brightness	2	8-2
65h / 00h / 00h	Goblin	2	8-160
66h / 00h / 00h	Echo Drops	1	8-161
66h / 01h / 00h	Echo Bell	2	8-162
66h / 02h / 00h	Echo Pan	2	8-163
67h / 00h / 00h	Star Theme	2	8-164
68h / 00h / 00h	Sitar	1	8-165
68h / 01h / 00h	Sitar 2	2	8-166
69h / 00h / 00h	Banjo	1	3-6 8-167
6Ah / 00h / 00h	Shamisen	1	3-10 8-168
6Bh / 00h / 00h	Koto	1	3-11 8-169
6Bh / 08h / 00h	Taisho Koto	2	8-170
6Ch / 00h / 00h	Kalimba	1	4-10 8-171
6Dh / 00h / 00h	Bagpipe	1	8-172
6Eh / 00h / 00h	Fiddle	1	8-173
6Fh / 00h / 00h	Shanai	1	8-174
70h / 00h / 00h	Tinkle Bell	1	8-175
71h / 00h / 00h	Agogo	1	8-176
72h / 00h / 00h	Steel Drums	1	4-9 8-177
73h / 00h / 00h	Woodblock	1	8-178
73h / 08h / 00h	Castanets	1	8-179
74h / 00h / 00h	Taiko	1	8-180
74h / 08h / 00h	Concert BD	1	8-181
75h / 00h / 00h	Melo. Tom 1	1	8-182
75h / 08h / 00h	Melo. Tom 2	1	8-183
76h / 00h / 00h	Synth Drum	1	8-184
76h / 08h / 00h	808 Tom	1	8-185
76h / 09h / 00h	Elec Perc.	1	8-186
77h / 00h / 00h	Reverse Cym.	1	8-187
78h / 00h / 00h	Gt.FretNoise	1	8-188
78h / 01h / 00h	Gt.Cut Noise	1	8-189
78h / 02h / 00h	String Slap	1	8-190
79h / 00h / 00h	Breath Noise	1	8-191
79h / 01h / 00h	Fl.Key Click	1	8-192
7Ah / 00h / 00h	Seashore	1	8-193
7Ah / 01h / 00h	Rain	1	8-194
7Ah / 02h / 00h	Thunder	1	8-195
7Ah / 03h / 00h	Wind	1	8-196
7Ah / 04h / 00h	Stream	2	8-197
7Ah / 05h / 00h	Bubble	2	8-198
7Bh / 00h / 00h	Bird	2	8-199
7Bh / 01h / 00h	Dog	1	8-200
7Bh / 02h / 00h	Horse-Gallop	1	8-201
7Bh / 03h / 00h	Bird 2	1	8-202
7Ch / 00h / 00h	Telephone 1	1	8-203
7Ch / 01h / 00h	Telephone 2	1	8-204
7Ch / 02h / 00h	DoorCreaking	1	8-205
7Ch / 03h / 00h	Door	1	8-206
7Ch / 04h / 00h	Scratch	1	8-207
7Ch / 05h / 00h	Windchime	2	8-208
7Dh / 00h / 00h	Helicopter	1	8-209
7Dh / 01h / 00h	Car-Engine	1	8-210
7Dh / 02h / 00h	Car-Stop	1	8-211
7Dh / 03h / 00h	Car-Pass	1	8-212
7Dh / 04h / 00h	Car-Crash	2	8-213
7Dh / 05h / 00h	Siren	1	8-214
7Dh / 06h / 00h	Train	1	8-215

PC# / CC0 / CC32	Tone Name	Voices	Notes
7Dh / 07h / 00h	Jetplane	2	8-216
7Dh / 08h / 00h	Starship	2	8-217
7Dh / 09h / 00h	Burst Noise	2	8-218
7Eh / 00h / 00h	Applause	2	8-219
7Eh / 01h / 00h	Laughing	1	8-220
7Eh / 02h / 00h	Screaming	1	8-221
7Eh / 03h / 00h	Punch	1	8-222
7Eh / 04h / 00h	Heart Beat	1	8-223
7Eh / 05h / 00h	Footsteps	1	8-224
7Fh / 00h / 00h	Gun Shot	1	8-225
7Fh / 01h / 00h	Machine Gun	1	8-226
7Fh / 02h / 00h	Lasergun	1	8-227
7Fh / 03h / 00h	Explosion	2	8-228
00h / 08h / 40h	Grand Piano1	2-4	1-1
00h / 10h / 40h	UprightPiano	2-4	1-3
01h / 08h / 40h	Grand Piano2	2-4	1-2
02h / 08h / 40h	Rock Piano	2-4	1-4
03h / 00h / 40h	Honky-tonk	2-4	
03h / 08h / 40h	Honky-tonk 1	2-4	1-5
04h / 08h / 40h	Soft E.Piano	2	2-2
04h / 10h / 40h	E.Piano 1	2	2-1
04h / 18h / 40h	Sine Rhodes	1	
05h / 00h / 40h	Hard E.Piano	2	2-4
05h / 08h / 40h	St.FM EP	2	
05h / 10h / 40h	E.Piano 2	1	2-3
06h / 00h / 40h	Harpsichord1	1	3-1
06h / 08h / 40h	Harpsichord2	2	3-2
07h / 00h / 40h	Analog Clav.	2	
0Ah / 00h / 40h	Orgel	1	
0Bh / 00h / 40h	Vibraphone	1	4-1
0Ch / 08h / 40h	Barafon	1	
0Fh / 00h / 40h	Santur	2	4-8
10h / 20h / 40h	VS Organ	2	
11h / 00h / 40h	Jazz Organ 1	2	5-2
11h / 08h / 40h	Jazz Organ 3	2	
11h / 20h / 40h	Jazz Organ 2	2	
12h / 00h / 40h	Rock Organ 1	2	
13h / 00h / 40h	Organ Flute	1	
13h / 08h / 40h	Trem.Flute	2	
13h / 10h / 40h	Theater Org.	2	
14h / 00h / 40h	Digi Church	2	
15h / 00h / 40h	Accordion	1	5-5
16h / 00h / 40h	Harmonica	1	
18h / 00h / 40h	Nylon Guitar	2	3-4
18h / 10h / 40h	Nylon Gt.o	2	
18h / 20h / 40h	Nylon Gt.2	1	
19h / 00h / 40h	Steel Guitar	1	
19h / 08h / 40h	12str Guitar	2	
1Ah / 08h / 40h	Hawaiian Gt.	1	
1Bh / 00h / 40h	JC E.Guitar	2	
1Ch / 00h / 40h	Muted Dis.Gt	1	
1Eh / 00h / 40h	DistortionGt	1	
1Eh / 08h / 40h	Power Gt.2	2	
20h / 00h / 40h	Acoustic Bs.	2	
21h / 00h / 40h	Fingered Bs.	1	
22h / 00h / 40h	Picked Bass	1	
27h / 10h / 40h	SH101 Bass	1	
2Eh / 00h / 40h	Harp	1	6-5

\*The tones which marked in Notes can be selected from panel.

PC# / CC0 / CC32	Tone Name	Voices	Notes
30h / 00h / 40h	Strings	2	6-1
31h / 00h / 40h	Slow Strings	2	6-2
36h / 00h / 40h	Choir Oohs	2	
38h / 00h / 40h	Trumpet	1	
39h / 00h / 40h	Trombone	1	7-5
3Ch / 00h / 40h	Fr.Horn Solo	1	
40h / 00h / 40h	Soprano Sax	1	
42h / 00h / 40h	Blow Sax	1	
44h / 00h / 40h	Oboe	1	
49h / 00h / 40h	Flute	1	
4Bh / 00h / 40h	Blow Pipe	1	
50h / 00h / 40h	Syn.Square	2	
50h / 01h / 40h	FM Lead 1	2	
50h / 08h / 40h	JP8 Square	1	
51h / 00h / 40h	Mg Lead	1	
51h / 01h / 40h	P5 Saw Lead	1	
51h / 08h / 40h	Rhythmic Saw	2	
52h / 00h / 40h	JP8 Pulse	2	
53h / 00h / 40h	Cheese Saw	1	
54h / 00h / 40h	Reso Saw	1	
55h / 00h / 40h	RAVE Vox	2	
56h / 00h / 40h	5th Lead	2	
57h / 00h / 40h	FM Lead 2	1	
58h / 00h / 40h	Fantasia 2	2	
59h / 00h / 40h	Soft Pad	2	
5Ah / 00h / 40h	P5 Poly	2	
5Bh / 00h / 40h	Heaven II	2	
5Dh / 00h / 40h	Tine Pad	2	
5Eh / 00h / 40h	JP8 Sqr Pad	2	
5Fh / 00h / 40h	Sweep Pad 2	2	
60h / 00h / 40h	LFO RAVE	2	
61h / 00h / 40h	Ancestral	2	
62h / 00h / 40h	Vibra Bells	2	
63h / 00h / 40h	Harpvox	2	6-9
65h / 00h / 40h	Calculating	2	
66h / 00h / 40h	Big Panner	2	
66h / 01h / 40h	Ai-yai-a	2	
66h / 02h / 40h	Echo Pan 2	2	
6Ah / 00h / 40h	Shamisen	2	
78h / 01h / 40h	Wah Brush Gt	1	
78h / 06h / 40h	Pick Scrape	1	
7Ah / 02h / 40h	Thunder Bell	2	
7Bh / 04h / 40h	Cat	1	
7Ch / 05h / 40h	Bar Chimes	1	
7Dh / 07h / 40h	Falling Down	2	
7Eh / 07h / 40h	Finger Snap	1	
00h / 00h / 41h	MIDI Piano1	2	1-7
01h / 00h / 41h	MIDI Piano2	2	1-8
02h / 00h / 41h	EG+Rhodes 1	2	
04h / 00h / 41h	Hard Rhodes	2	
05h / 00h / 41h	E.Piano 3	1	
05h / 08h / 41h	FM+SA EP	2	
07h / 00h / 41h	5th Ana.Clav	2	
10h / 00h / 41h	Full Organ 1	2	5-3
11h / 00h / 41h	Jazz Organ 4	2	
11h / 08h / 41h	Organ Bass	2	
11h / 20h / 41h	Pipe Org. Bs	2	
12h / 00h / 41h	Rotary Org.S	1	
13h / 08h / 41h	Church Organ	2	5-1
1Eh / 00h / 41h	Dazed Guitar	2	
1Eh / 08h / 41h	Power Guitar	2	
20h / 00h / 41h	A.Bass+Cymb1	2	

## HP 555G MIDI Implementation

PC# / CC0 / CC32	Tone Name	Voices	Notes
22h / 00h / 41h	Mute PickBs.	1	
50h / 00h / 41h	CC Solo	2	6-10
5Dh / 00h / 41h	Panner Pad	2	
5Fh / 00h / 41h	Polar Pad	1	
61h / 00h / 41h	Prologue	2	
62h / 00h / 41h	Clear Bells	2	
63h / 00h / 41h	Nylon Harp	2	
65h / 00h / 41h	Goblinson	2	
66h / 02h / 41h	Water Piano	2	
02h / 00h / 42h	EG+Rhodes 2	2	
05h / 08h / 42h	Hard FM EP	2	
10h / 00h / 42h	Lower Organ1	1	
10h / 08h / 42h	Lower Organ2	1	
10h / 10h / 42h	Lower Organ3	1	
10h / 20h / 42h	Metalic Org.	2	
11h / 00h / 42h	Jazz Organ 5	2	
11h / 08h / 42h	Jazz Organ 6	2	
11h / 20h / 42h	Jazz Organ 7	2	
12h / 00h / 42h	Rotary Org.F	1	
1Eh / 00h / 42h	Rock Rhythm2	2	
1Eh / 08h / 42h	Rock Rhythm	2	
5Fh / 00h / 42h	Converge	1	
62h / 00h / 42h	ChristmasBel	2	
63h / 00h / 42h	Nylon+Rhodes	2	
65h / 00h / 42h	50's Sci-Fi	2	
10h / 00h / 43h	Full Organ 5	2	
10h / 08h / 43h	Full Organ 6	2	
10h / 10h / 43h	Full Organ 7	2	
10h / 20h / 43h	Full Organ 8	2	
00h / 00h / 48h	Piano 1*	1	8-229
01h / 00h / 48h	Piano 2*	1	8-230
02h / 00h / 48h	Piano 3*	1	8-231
03h / 00h / 48h	Honky-tonk*	2	8-232
04h / 00h / 48h	E.Piano 1*	1	8-233
05h / 00h / 48h	E.Piano 2*	1	8-234
06h / 00h / 48h	Harpsichord*	1	8-235
07h / 00h / 48h	Clav.*	1	8-236
08h / 00h / 48h	Celesta*	1	8-237
09h / 00h / 48h	Glocken*	1	8-238
0Ah / 00h / 48h	Music Box*	1	8-239
0Bh / 00h / 48h	Vibraphone*	1	8-240
0Ch / 00h / 48h	Marimba*	1	8-241
0Dh / 00h / 48h	Xylophone*	1	8-242
0Eh / 00h / 48h	Tubularbell*	1	8-243
0Fh / 00h / 48h	Santur*	1	8-244
10h / 00h / 48h	Organ 1*	1	8-245
10h / 10h / 48h	Pop Organ 1*	1	8-246
11h / 00h / 48h	Organ 2*	1	8-247
12h / 00h / 48h	Rock Organ2*	2	8-248
13h / 00h / 48h	ChurchOrg.1*	1	8-249
14h / 00h / 48h	Reed Organ*	1	8-250
15h / 00h / 48h	AccordionFr*	2	8-251
16h / 00h / 48h	Harmonica*	1	8-252
17h / 00h / 48h	Bandoneon*	2	8-253

PC# / CC0 / CC32	Tone Name	Voices	Notes
18h / 00h / 48h	Nylon-strGt*	1	8-254
19h / 00h / 48h	Steel-strGt*	1	8-255
1Ah / 00h / 48h	Jazz Guitar*	1	8-256
1Bh / 00h / 48h	Clean Gt.*	1	8-257
1Ch / 00h / 48h	Muted Gt.*	1	8-258
1Ch / 08h / 48h	Funk Gt.*	1	8-259
1Dh / 00h / 48h	OverdriveGt*	1	8-260
1Eh / 00h / 48h	Dist.Guitar*	1	8-261
32.	1Fh / 00h / 48hGt.Harmo*	1	8-262
20h / 00h / 48h	Acoustic Bs*	1	8-263
21h / 00h / 48h	Fingered Bs*	1	8-264
22h / 00h / 48h	Picked Bs.*	1	8-265
23h / 00h / 48h	Fretless Bs*	1	8-266
24h / 00h / 48h	Slap Bass 1*	1	8-267
25h / 00h / 48h	Slap Bass 2*	1	8-268
26h / 00h / 48h	Synth Bass1*	1	8-269
27h / 00h / 48h	Synth Bass2*	2	8-270
27h / 10h / 48h	Rubber Bass*	2	8-271
28h / 00h / 48h	Violin*	1	8-272
29h / 00h / 48h	Viola*	1	8-273
2Ah / 00h / 48h	Cello*	1	8-274
2Bh / 00h / 48h	Contrabass*	1	8-275
2Ch / 00h / 48h	Tremolo Str*	1	8-276
2Dh / 00h / 48h	Pizzicato*	1	8-277
2Eh / 00h / 48h	Harp*	1	8-278
2Fh / 00h / 48h	Timpani*	1	8-279
30h / 00h / 48h	Strings*	1	8-280
31h / 00h / 48h	SlowStrings*	1	8-281
32h / 00h / 48h	Syn.Str 1*	1	8-282
33h / 00h / 48h	Syn.Str 2*	2	8-283
34h / 00h / 48h	Choir Aahs*	1	8-284
35h / 00h / 48h	Pop Voice*	1	8-285
36h / 00h / 48h	SynVox*	1	8-286
37h / 00h / 48h	Orche.Hit*	2	8-287
38h / 00h / 48h	Trumpet*	1	8-288
39h / 00h / 48h	Trombone*	1	8-289
3Ah / 00h / 48h	Tuba*	1	8-290
3Bh / 00h / 48h	M.Trumpet*	1	8-291
3Ch / 00h / 48h	FrenchHorns*	2	8-292
3Dh / 00h / 48h	Brass 1*	1	8-293
3Eh / 00h / 48h	SynthBrass1*	2	8-294
3Eh / 10h / 48h	A.Brass 1*	2	8-295
3Fh / 00h / 48h	SynthBrass2*	2	8-296
40h / 00h / 48h	Soprano Sax*	1	8-297
41h / 00h / 48h	Alto Sax*	1	8-298
42h / 00h / 48h	Tenor Sax*	1	8-299
43h / 00h / 48h	BaritoneSax*	1	8-300
44h / 00h / 48h	Oboe*	1	8-301
45h / 00h / 48h	EnglishHorn*	1	8-302
46h / 00h / 48h	Bassoon*	1	8-303
47h / 00h / 48h	Clarinet*	1	8-304
48h / 00h / 48h	Piccolo*	1	8-305
49h / 00h / 48h	Flute*	1	8-306
4Ah / 00h / 48h	Recorder*	1	8-307
4Bh / 00h / 48h	Pan Flute*	1	8-308
4Ch / 00h / 48h	Bottle Blow*	2	8-309
4Dh / 00h / 48h	Shakuhachi*	2	8-310
4Eh / 00h / 48h	Whistle*	1	8-311
4Fh / 00h / 48h	Ocarina*	1	8-312

\*The tones which marked in Notes can be selected from panel.

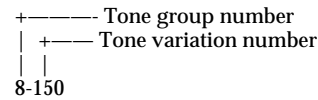


PC# / CC0 / CC32	Tone Name	Voices	Notes
50h / 00h / 48h	Square Wave*	2	8-313
51h / 00h / 48h	Saw Wave*	2	8-314
51h / 08h / 48h	Doctor Solo*	2	8-315
52h / 00h / 48h	SynCalliope*	2	8-316
53h / 00h / 48h	ChifferLead*	2	8-317
54h / 00h / 48h	Charang*	2	8-318
55h / 00h / 48h	Solo Vox*	2	8-319
56h / 00h / 48h	5th SawWave*	2	8-320
57h / 00h / 48h	Bass & Lead*	2	8-321
58h / 00h / 48h	Fantasia*	2	8-322
59h / 00h / 48h	Warm Pad*	1	8-323
5Ah / 00h / 48h	Polysynth*	2	8-324
5Bh / 00h / 48h	Space Voice*	1	8-325
5Ch / 00h / 48h	Bowed Glass*	2	8-326
5Dh / 00h / 48h	Metal Pad*	2	8-327
5Eh / 00h / 48h	Halo Pad*	2	8-328
5Fh / 00h / 48h	Sweep Pad*	1	8-329
60h / 00h / 48h	Ice Rain*	2	8-330
61h / 00h / 48h	Soundtrack*	2	8-331
62h / 00h / 48h	Crystal*	2	8-332
62h / 01h / 48h	Syn Mallet*	1	8-333
63h / 00h / 48h	Atmosphere*	2	8-334
64h / 00h / 48h	Brightness*	2	8-335
65h / 00h / 48h	Goblin*	2	8-336
66h / 00h / 48h	Echo Drops*	1	8-337
67h / 00h / 48h	Star Theme*	2	8-338
68h / 00h / 48h	Sitar*	1	8-339
69h / 00h / 48h	Banjo*	1	8-340
6Ah / 00h / 48h	Shamisen*	1	8-341
6Bh / 00h / 48h	Koto*	1	8-342
6Bh / 08h / 48h	Taisho Koto*	2	
6Ch / 00h / 48h	Kalimba*	1	8-343
6Dh / 00h / 48h	Bagpipe*	1	8-344
6Eh / 00h / 48h	Fiddle*	1	8-345
6Fh / 00h / 48h	Shanai*	1	8-346
70h / 00h / 48h	Tinkle Bell*	1	8-347
71h / 00h / 48h	Agogo*	1	8-348
72h / 00h / 48h	Steel Drums*	1	8-349
73h / 00h / 48h	Woodblock*	1	8-350
74h / 00h / 48h	Taiko*	1	8-351
74h / 08h / 48h	Concert BD*	1	
75h / 00h / 48h	Melo.Tom 1*	1	8-352
76h / 00h / 48h	Synth Drum*	1	8-353
77h / 00h / 48h	ReverseCym.*	1	8-354
78h / 00h / 48h	Fret Noise*	1	8-355
79h / 00h / 48h	BreathNoise*	1	8-356
7Ah / 00h / 48h	Seashore*	1	8-357
7Bh / 00h / 48h	Bird*	2	8-358
7Ch / 00h / 48h	Telephone 1*	1	8-359
7Dh / 00h / 48h	Helicopter*	1	8-360
7Eh / 00h / 48h	Applause*	2	8-361
7Fh / 00h / 48h	Gun Shot*	1	8-362

HP555G Rhythm MAPPING

PC# / CC0 / CC32	Rhythm set Name	Voices	Notes
00h / 00h / 00h	STANDARD	8-4	
38h / 00h / 00h	SOUND EFFECT	8-5	
08h / 00h / 00h	ROOM	8-363	
10h / 00h / 00h	POWER	8-364	
18h / 00h / 00h	ELECTRONIC	8-365	
19h / 00h / 00h	TR-808	8-366	
20h / 00h / 00h	JAZZ	8-367	
28h / 00h / 00h	BRUSH	8-368	
30h / 00h / 00h	ORCHESTRA	8-369	
00h / 00h / 40h	STANDARD*		
08h / 00h / 40h	ROOM*		
28h / 00h / 40h	BRUSH*		

\*The tones which marked in Notes can be selected from panel.



Tone groups number as follows,

- 1: Piano
- 2: E.Piano
- 3: Harpsi
- 4: Vibes
- 5: Organ
- 6: Strings
- 7: Choir
- 8: GS Tones