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)

* The velocity values of Note Off messages are ignored.

●Note on

Status	2nd byte	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)

* Note numbers outside the range of 15-113 are transposed to the nearest octave within this range.
* Transpose function does not affect the recognized note numbers.

●Control Change

* The value specified by a Control Change message will not be reset even by a Program Change, etc.

❍Data Entry (Controller number 6, 38)

Status	2nd byte	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

❍Volume (Controller number 7)

Status	2nd byte	3rd byte
BnH	07H	vvH

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

* Received volume messages affect received note event levels, and cannot affect internal keyboard notes.

❍Expression (Controller number 11)

Status	2nd byte	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)

* These message can affect only MIDI notes.

❍Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH

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

* These message can affect only MIDI notes.

❍Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
BnH	42H	vvH

* These message can affect only MIDI notes.

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

* These message can affect only MIDI notes.

❍Soft (Controller number 67)

Status	2nd byte	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

* These message can affect only MIDI notes.

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

Status	2nd byte	3rd byte
BnH	5BH	vvH

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

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

Status	2nd byte	3rd byte
BnH	5DH	vvH

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

❍RPN MSB/LSB (Controller number 100, 101)

Status	2nd byte	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

* 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.

On the HP-237, RPN can be used to modify the following parameters.

RPN	Data entry	
MSB LSB	MSB LSB	Explanation
00H 01H	mmH llH	Master Fine Tuning mm, ll: 00 00H - 40 00H - 7F 7FH (-100 - 0 - +99.99 cents), Initial Value = 40 00H (±0 cent)
7FH 7FH	--- ---	RPN null 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 byte
CnH	ppH

n = MIDI channel number: 0H-FH (ch.1-ch.16)
pp = Program number: 00H..2CH (prog.1..prog.45)

Received program change message are assigned as follows.

prog.	tone
1	Piano 1
2	Piano 2
3	---
4	Harpsichord
5	Vibraphone
6	Electric Piano 1
7	Electric Piano 2
8	Pipe Organ
9	Strings
10	Piano1 + Piano2
11	Piano1 + Harpsichord
12	Piano1 + Vibraphone
13	Piano1 + Electric Piano1
14	Piano1 + Electric Piano2
15	Piano1 + Pipe Organ
16	Piano1 + Strings
17	Piano2 + Harpsichord
18	Piano2 + Vibraphone
19	Piano2 + Electric Piano1
20	Piano2 + Electric Piano2
21	Piano2 + Pipe Organ
22	Piano2 + Strings
23	Harpsichord + Vibraphone
24	Harpsichord + Electric Piano1
25	Harpsichord + Electric Piano2
26	Harpsichord + Pipe Organ
27	Harpsichord + Strings
28	Vibraphone + Electric Piano1
29	Vibraphone + Electric Piano2
30	Vibraphone + Pipe Organ
31	Vibraphone + Strings
32	Electric Piano1 + Electric Piano2
33	Electric Piano1 + Pipe Organ
34	Electric Piano1 + Strings
35	Electric Piano2 + Pipe Organ
36	Electric Piano2 + Strings
37	Pipe Organ + Strings
38	Piano1 + Acoustic Bass
39	Piano2 + Acoustic Bass
40	Harpsichord + Strings
41	Vibraphone + Acoustic Bass
42	Electric Piano1 + Acoustic Bass
43	Electric Piano2 + Acoustic Bass
44	Harpsichord + Pipe Organ
45	Piano1 + Strings

* 10-37 are in Dual Play mode.
* 38-45 are in Split Play mode.
* Any Program Number other than those listed above that are received by the HP-237 are ignored.
* 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.

■Channel Mode Messages

●Reset All Controllers (Controller number 121)

Status	2nd byte	3rd byte
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
Expression	127 (max)
Hold 1	0 (off)
Sostenuto	0(off)
Soft	0(off)

●Local Control

Status	2nd byte	3rd byte
BnH	7BH	00H
BnH	7AH	vvH

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

●All Notes Off (Controller number 123)

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

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

* The instrument will behave in the same way as it does when an "All Notes Off" message is received. The mode will be OMNI OFF, POLY(Mode 3).

●OMNI ON (Controller number 125)

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

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

* The instrument will behave in the same way as it does when an "All Notes Off" message is received. The mode will be OMNI ON, POLY(Mode 1).

●MONO (Controller number 126)

Status	2nd byte	3rd byte
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 Notes Off is received.

●POLY (Controller number 127)

Status	2nd byte	3rd byte
BnH	7FH	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.

■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 360 msec, the same processing will be carried out as when 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 HP-237 are; Universal Non-realtime System Exclusive messages, and Data Set (DT1).

●Universal Non-realtime System Exclusive Messages

❍Identity Request Message

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

Byte	Explanation
FOH	Exclusive status
7FH	ID number (universal non-realtime message)
dev	Device ID (dev: UNIT#-1)
06H	Sub ID#1 (General Information)
01H	Sub ID#2 (Identity Request)
F7H	EOX (End Of Exclusive)

* When Identity Request is received, Identity Reply message will be transmitted.
* Even if the Device ID is 7FH(Broadcast), Identity Reply message will be transmitted.
* The "dev" is own device number (UNIT#-1) or 7FH (Broadcast).
* UNIT# is always the same as the current MIDI Tx / Rx channel.

●Data transmission

HP-237 can transmit and receive the various parameters using System Exclusive messages. The exclusive message of HP-237 data has a model ID of 1AH, and device ID is defined by MIDI UNIT NUMBER.
UNIT NUMBER is always the same as the current MIDI Tx / Rx channel.

❍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, dev, 1AH, 12H, aaH, bbH, ddH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: UNIT#-1)
1AH	Model ID (HP-237)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the transmitted data
bbH	Address LSB: lower byte of the starting address of the transmitted data
ddH	Data: the actual data to be transmitted.
sum	Checksum
F7H	EOX (End Of Exclusive)

* If "Data Set 1" is transmitted successively, there must be an interval of at least 40 msec between packets.
* Regarding the address please refer to section 3 (Parameter Address Map).
* Regarding the checksum please refer to section 4 (Supplementary material).

2. Transmit Data

■Channel Voice Messages

●Note off

Status	2nd byte	3rd byte
8nH	kkH	40H

n = MIDI channel number : 0H-FH (ch.1-ch.16)
kk = note number: 0FH-71H (15-113)

●Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH

n = MIDI channel number : 0H-FH (ch.1-ch.16)
kk = note number: 0FH-71H (15-113)
vv = note on velocity : 01H-7FH (1-127)

* Note number's range can be changed with Key Transpose and Octave Shift.

●Control Change

* The value specified by a Control Change message will not be reset even by a Program Change, etc.

❍Data Entry (Controller number 6, 38)

Status	2nd byte	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

* Data Entry is sent through the basic channel.

❍Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH

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

❍Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
BnH	42H	vvH

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

❍Soft (Controller number 67)

Status	2nd byte	3rd byte
BnH	43H	vvH

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

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

Status	2nd byte	3rd byte
BnH	5BH	vvH

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

❍RPN MSB/LSB (Controller number 100, 101)

Status	2nd byte	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

* RPN is sent through the basic channel.

RPN
HP-237 can transmit Master fine tuning (RPN #1) and RPN null. After sending the master fine tune, immediately the RPN Null shall be sent.

RPN	Data entry	
MSB LSB	MSB LSB	Explanation
00H 01H	mmH llH	Master Fine Tuning mm, ll: 00 00H - 40 00H - 7F 7FH (-100 - 0 - +99.9 cents)
7FH 7FH	--- ---	RPN null

●Program Change

Status	2nd byte
CnH	ppH

n = MIDI channel number : 0H-FH (ch.1-ch.16)
pp = Program number: 00H..2CH (prog.1..prog.45)

* For the correspondence between Program Change numbers and Tones, please refer to "Program Change" in "1.Receive Data."

■System Realtime Message

●Active sensing

Status
FEH

* This will be transmitted constantly at intervals of approximately 210 msec.

■System exclusive messages

"Identity Reply" and "Data Set 1 (DT1)" are the only System Exclusive messages transmitted by HP-237.
The exclusive message of HP-237 data has a model ID of 1AH, and device ID is defined by MIDI UNIT NUMBER.
UNIT NUMBER is always the same as the current MIDI Tx / Rx channel.

●Universal Non-realtime System Exclusive Messages

❍Identity Reply

Status	Data byte	Status
F0H	7EH, dev, 06H, 02H, 41H, 1AH, 00H, 03H, 02H, 00H, 01H, 00H, 00H, F7H	

Byte	Explanation
FOH	Exclusive status
7EH	ID number (universal non-realtime message)
dev	Device ID (dev: UNIT#-1)
06H	Sub ID#1 (General Information)
02H	Sub ID#2 (Identity Reply)
41H	ID number (Roland)
1AH	Device family code (LSB)
00H	Device family code (MSB)
03H	Device family number code (LSB)
02H	Device family number code (MSB)
00H 01H 00H 00H	Software revision level
F7H	EOX (End of Exclusive)

* When Identity Request is received, Identity Reply message will be transmitted.

●Data transmission

❍Data set 1 DT1

Status	Data byte	Status
F0H	41H, dev, 1AH, 12H, aaH, bbH, ddH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: UNIT#-1)
1AH	Model ID (HP-237)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the data to be sent
bbH	Address LSB: lower byte of the starting address of the data to be sent.
ddH	Data: the actual data to be sent.
sum	Checksum
F7H	EOX (End Of Exclusive)

* Regarding the address please refer to section 3 (Parameter Address Map).
* Regarding the checksum please refer to section 4 (Supplementary material).

3. Parameter Address Map (Model ID = 1AH)

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

address(H)	data(H)	Description
00 05	0ttt kkkk	Temperament Select(*1) ttt (0H - 7H), kkkk (0H - BH)
01 01	00-7F	Chorus Type 00H - 0FH : Type 1 10H - 1FH : Type 2 20H - 2FH : Type 3 30H - 3FH : Type 4 40H - 4FH : Type 5 50H - 5FH : Type 6 60H - 6FH : Type 7 70H - 7FH : Type 8
01 03	00-7F	Reverb Type 00H - 0FH : Type 1 10H - 1FH : Type 2 20H - 2FH : Type 3 30H - 3FH : Type 4 40H - 4FH : Type 5 50H - 5FH : Type 6 60H - 6FH : Type 7 70H - 7FH : Type 8
01 06	00-7F	Resonance Type 00H - 0FH : OFF 10H - 1FH : Type 1 20H - 2FH : Type 2 30H - 3FH : Type 3 40H - 4FH : Type 4 50H - 5FH : Type 5 60H - 6FH : Type 6 70H - 7FH : Type 7
01 0A	00,01	Stretch Tune 00H : OFF 01H : ON

(*1) Temperament Select

ttt 0H - 6H : temperament select
kkkk 0H - BH : key signature

Temperament change value are assigned as follows:

* When EQUAL temperament tuning is selected, the key signature change is ignored.

	key signature (kkkk)											
temperament select (ttt)	C (0)	C# (1)	D (2)	D# (3)	E (4)	F (5)	F# (6)	G (7)	G# (8)	A (9)	A# (A)	B (B)
EQUAL(0)	00	01	02	03	04	05	06	07	08	09	0A	0B
JUST (major)(1)	10	11	12	13	14	15	16	17	18	19	1A	1B
JUST (minor)(2)	20	21	22	23	24	25	26	27	28	29	2A	2B
MEAN TONE(3)	30	31	32	33	34	35	36	37	38	39	3A	3B
WERCKMEISTER(4)	40	41	42	43	44	45	46	47	48	49	4A	4B
KIRNBERGER(5)	50	51	52	53	54	55	56	57	58	59	5A	5B
PYTHAGOREAN(6)	60	61	62	63	64	65	66	67	68	69	6A	6B

(numbers are hexa_decimal)

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 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 x 128 + bb.

<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 x 128 + 52 = 2356

●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 08
CnH is the Program Change status, and n is the MIDI channel number. Since EH = 14 and 08H = 08, this is a Program Change message with MIDI CH = 15, program number 08 (Strings in HP-237).

<Example 3> B3 64 00 65 01 06 40 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 01 (MIDI ch.4) upper byte of RPN parameter number: 01H
(B3) 06 40 (MIDI ch.4) upper byte of parameter value: 40H
(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 40 00H for RPN parameter number 00 01H (Master Fine Tuning) on MIDI channel 4, and then set the RPN parameter number to 7F 7FH (RPN null).
Once the parameter number has been specified for RPN, 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.

●Example of an Exclusive message and calculating a Checksum

Roland Exclusive messages (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 of the transmitted exclusive message.

❍How 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 and the data or size is ccH.

aa + bb + cc = sum
sum / 128 = quotient ... remainder
128 - remainder = checksum

<Example> Set "Reverb Type" to "Type 4"
According to the Parameter Address Map, the Address of Reverb Type is 01 03H, and the Value corresponding to Type 4 is 30H.
So, the message should be :

F0	41	00	1A	12	01 03	30	??	F7
(1)	(2)	(3)	(4)	(5)	address	data	checksum	(6)

(1) Exclusive Status, (2) ID (Roland), (3) Device ID (UNIT#-1), (4) Model ID (HP-237), (5) Command ID (DT1), (6) End of Exclusive

* UNIT NUMBER is always the same as the current MIDI Tx / Rx channel.
In this example, the MIDI Tx / Rx channel is 1.

Next we calculate the checksum.

01H + 03H + 30H = 1 + 3 + 48 = 52 (sum)
52 (sum) ÷ 128 = 0 (quotient) ... 52 (remainder)
checksum = 128 - 52 (remainder) = 76 = 4CH

Therefore, the message to send is : F0 41 00 1A 12 01 03 30 4C F7

●About tuning

HP-237 is tuned by sending RPN #1 (Master Fine Tuning) to the appropriate MIDI Rx channel.
RPN #1 allows tuning to be specified in steps of approximately 0.012 cents (to be precise, 100 / 8192 cent). One cent is 1 / 100th of a semi-tone.
Frequently used tuning values are given in the following table for your reference.
Values are in hexadecimal (decimal in parentheses).

Hz at A4	cent	RPN #1
445.0	+19.56	4C 43 (+1603)
444.0	+15.67	4A 03 (+1283)
443.0	+11.76	47 44 (+ 964)
442.0	+ 7.85	45 03 (+ 643)
441.0	+ 3.93	42 42 (+ 322)
440.0	0	40 00 (0)
439.0	- 3.94	3D 3D (- 323)
438.0	- 7.89	3A 7A (- 646)

<Example> Set the tuning of HP-237 to A4 = 442.0 Hz
Send RPN#1 to basic channel. From the above table, the value is 45 03H.
If the MIDI Tx / Rx channel is set to ch.1, below is the message we transmit.

B0 64 00 MIDI ch.1, lower byte of RPN parameter number: 00H
(B0) 65 01 (MIDI ch.1) upper byte of RPN parameter number: 01H
(B0) 06 45 (MIDI ch.1) upper byte of parameter value: 45H
(B0) 26 03 (MIDI ch.1) lower byte of parameter value: 03H
(B0) 64 7F (MIDI ch.1) lower byte of RPN parameter number: 7FH
(B0) 65 7F (MIDI ch.1) upper byte of RPN parameter number: 7FH