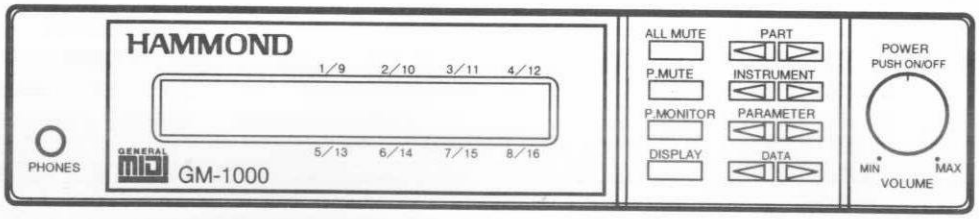
HAMMOND
GM SOUND MODULE
GM-1000
OPERATION MANUAL



HAMMOND SUZUKI, LTD.
Hamamatsu, Japan

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1. INTRODUCTION

We thank you for purchasing our GM-1000, the HAMMOND Sound Module.
This sound module was designed to produce very high quality voices, using the V. A. S. E.® sound generating system newly developed by Hammond Suzuki, Ltd. To fully understand all features this sound module offers you, please read this manual carefully before you start using it.

2. MAIN FEATURES

* The sound source of this module is the VASE (Versatile Advanced Sound Engine). Maximum polyphony is 32 notes. 16 part multi-timber.

* This module produces 266 very high quality voices (GM: 128 voices.Variation: 138 voices) and 9 Drum Sets (102 voices); Total 368 voices.

* This module conforms to the International Standard GM System. So you can play by the GM Score (= data with the GM marked score).

* You can produce various reverberation of rooms, halls and churches by 8 degrees of Reverb and 8 degrees of Chorus Effects.

* You can directly connect it to a computer to play, by the optional cable (RSC-1). Also this module can be used as a MIDI Interface.

* This sound module is equipped with a computer terminal (Serial I/F) for playing directly connecting with RS422 (or RS232C) port of an Apple Macintosh, NEC PC9800 series or IBM PC AT series computer.

GENERAL MIDI

The word "GM" stands for "General MIDI". The "GM SYSTEM" is an international standard for the MIDI functions/specifications of the sound modules of all manufacturers. The sound and style data marked GM can be played through any of the GM marked sound module.

3. BEFORE STARTING OPERATION

USE ONLY THE ATTACHED POWER ADAPTER. USING ANY OTHER ADAPTER COULD CAUSE MAL-FUNCTIONING OR TROUBLES OF THIS MODULE.

POWER

This module operates only through the attached AC adapter. Connect the adapter to an AC outlet of the designated voltage.

* When you connect this sound module to the other equipment, be sure the power of the equipment is switched off, to avoid malfunctioning or damage to the speakers, etc.
* Do not use such an AC outlet as connected to the other noise generating equipment like a motor or a machine of high power consumption.
* Do not step on the power cable nor trap it under any equipment.
* Switch off the power when not in use.
* The power cable should be unplugged from the outlet when left unused for a long period of time.
* To avoid possible damage or short cut of the cable, make sure to hold the plug when you unplug the cable from the outlet.

LOCATION

This sound module SHOULD NOT be placed near heat sources such as radiators or heat emitting appliances.

* Avoid too much sunight, dust and moisture.
* Do not place it on a vibrating stand or floor.
* Hum may be induced, when this sound module is used near such equipment with large transformers as power amplifiers.
* Also, since this sound module has many digital components, minimize any possible intereference on TV and radio appliances by distancing them away from this sound module. Any such interference could, of course, only occur if these items were being used at the same time as this sound module.

CLEANING

Use a soft cloth when you clean this sound module. When it is too dirty to easily wipe off, apply very thin neutral detergent and then wipe it off gently with a soft cloth,

* DO NOT apply benzene, thinner or any volatile matter.

CARE

* Do not give a strong shock to this sound module, nor handle it roughly.
* Do not press hard or strike the LCD display window.
* Be careful of the heat of the AC adapter, as it gets hot after using for many hours.

MEMORY BACK UP

This sound module does the back up of the data by the inside backup battery. However, you must be careful, as the functions of the Part
Mute and Part Monitor are not backed up.

* **The power of the backup battery is too weak**, if the LCD appears as follows when switched on:

```
!!!  ATTENTION  !!!
<< CHANGE BATTERY >>
```

Replace the battery.
The display appears only for a few seconds and changes to [SINGLE EDIT 1].

This sound module does the Memory Check when switched on.
If the Memory Backup is not normal, it automatically 'initialize' it.
If the Memory Backup is normal, it does not initialize and the LCD displayes [SINGLE EDIT 1].

* **The battery is out**, if the LCD displays as follows when switched on:

```
!!! BATTERY EMPTY !!!
<< ALL INITIALIZE >>
```

Replace the battery.
The display automatically initializes, after showing above for a few seconds.
It displays [SINGLE EDIT 1] after it is initialized.

* **The battery is not properly inserted,** if the LCD displays as follows:

```
!!!  WARNING  !!!
<< CHECK BATTERY >>
```

Take the module to the store where you purchased it from, and ask them to correctly set the battery.
The LCD automatically initializes, after displaying above for a few seconds. After initializing, it displays [SINGLE EDIT 1].

INITIALIZING

When you want to erase all the data you stored by yourself, initialize it as follows:

* Switch the power on, pressing the [ALL MUTE] Button. The LCD displays as follows:

```
GM-1000 ALL PARAMETERS
<<INITIALIZE>>
```

This appears for a few seconds. And when initializing is completed, it turns into [SINGLE EDIT 1].

* At this time, all your data is erased and it goes back to the factory setting (Default). So, we suggest you to keep your date in your memo.

* The factory parameter data are as follows:

PATCH RARAMETEI

● VOICE PARAMETEF.

NAME OF PARAMETER	FACTORY SETTING (DEFAULT VALUE)
Program Number	PART1～9、11～16=001:Gr. Piano PART10=001:Rhy. STANDARD
Variation Number	000
MIDI Channel	PART1=1、PART2=2、PART3=3.....PART16=16

● PART PARAMETER

NAME OF PARAMETER	FACTORY SETTING
VOLUME	PART1～16=100
REVERB LEVEL	PART1～16=40
CHORUS LEVEL	PART1～16=0
PANPOT	PART1～16=<C>
KEY SHIFT	PART1～16=0
BEND RANGE	PART1～16=2
MODULATION	PART1～16=0
EXPRESSION	PART1～16=127
FINE TUNE	PART1～16=0
Rx. NRPN	PART1～16=OFF
Rx. BANK SELECT	PART1～16=ON
PART TYPE	PART1～9、11～16=Nor、PART10=DM1

● SOUND PARAMETER

NAME OF PARAMETER	FACTORY SETTING
VIBRATO RATE	PART1～16＝0
VIBRATO DEPTH	PART1～16＝0
VIBRATO DELAY	PART1～16＝0
CUTOFF FREQUENCY	PART1～16＝0
RESONANCE	PART1～16＝0
ENVELOPE ATTACK TIME	PART1～16＝0
ENVELOPE DECAY TIME	PART1～16＝0
ENVELOPE RELEASE TIME	PART1～16＝0

GROBAL PARAMETER

NAME OF PARAMETER	FACTORY SETTING
MASTER TUNE	440Hz
MASTER VOLUME	127
MASTER KEY SHIFT	0
MASTER PANPOT	<C>
REVERB LEVEL	64
CHORUS LEVEL	64
REVERB TYPE	HALL2
CHORUS TYPE	CHORUS2
REVERB CHARACTER	4
REVERB PRE－LPF	3
REVERB TIME	42
CHORUS RATE	2

DRUM PARAMETER

NAME OF PARAMETER	FACTORY SETTING
LEVEL	Each Drum Set has different settings.
PITCH COARSE	Each Drum Set has different settings.
PANPOT	Each Drum Set has different settings.
REVERB LEVEL	Each Drum Set has different settings.
CHORUS LEVEL	Each Drum Set has different settings.

VERSION Display

To check the version of this sound module, switch the power on, pressingthe "DISPLAY" switch. The LCD displays as follows:

SYSTEM ROM VERSION
<< Ver. 2.00 >>

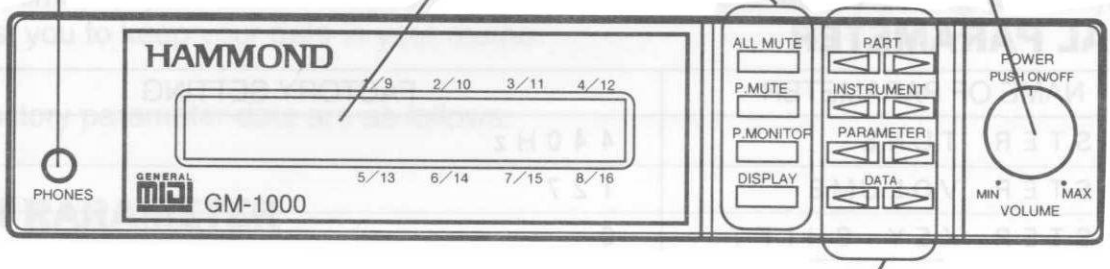
4. NAME AND FUNCTION OF EACH PART

ALL MUTE:	Cut out all sound. It does not receive the MIDI Note ON/OFF Information, while this button is pressed.
P. MUTE:	Part Mute. It cuts out the voice selected.
P. MONITOR:	Part Monitor. Only the voice selected comes out.
DISPLAY:	Use this button to change the display.

POWER PUSH ON/OFF and VOLUME CONTROL:
Press this knob once, to switch the power on. Another pressing switches it off.
This knob also functions as the Volume Control. (The volume of the headphone is also controlled by this.)

PHONES:
Headphone Terminal.
(Use only the Stereo type Mini-Plug)
The sound comes out from the audio output terminal, even when the headphone is connected.

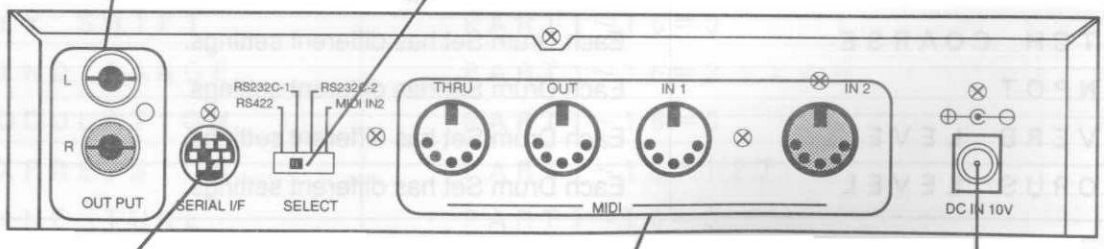
DISPLAY:
Displays the present status.



PART:	Press it to select the part.
INSTRUMENT:	Use this to change the voice setting.
PARAMETER:	Use this to change each setting.
DATA:	Use this to change each value.

OUTPUT L R:
Stereo Audio Output Terminal Left and Right.
Insert Pin Cables to connect to the speakers.

SELECT PC/MIDI:
For switching Computers.
* Switch it OFF, before you switch the computers.



SERIAL I/F:
Computer Connection Terminal.
(For inserting the optional computer cable.)

MIDI (THROUGU/OUT/IN1/IN2):
For connecting to other MIDI equipments.

DC IN 10V:
AC Adapter Terminal.
Insert the attached AC Power Adapter Cable here.

5. CONNECTION

① AC Adapter:

Connect the attached AC Adapter to the adapter terminal of this sound module and then connect it to an AC outlet of the designated voltage.

NOTE: Use ONLY the attached adapter. DO NOT use any other one.
Using other adapters may cause troubles or damages.

② MIDI Terminals:

IN 1: This is for receiving the data from the OUTput terminal of a MIDI keyboard or the MIDI Interface of a computer.

THRU: The information from IN 1 goes through.
The information from IN 2 does not go through.

OUT: This is for connecting to the INput terminal of the MIDI equipment (sequencer) at BULK DUMP.

IN 2: Same as IN 1. However, use this, after switching [SELECT to [MIDI IN 2].

③ Connecting with Computers:

Connect the RS-232C terminal of the computer to the Serial I/F terminal of the GM-1000, using the optional cable SRC-1 (exclusive for RSC-232C). For details, read [EXAMPLES OF CONNECTION WITH COMPUTERS] and [COMPUTER CABLE WIRING ILLUSTRATIONS].

④ Audio Output Terminals:

These are audio output terminals. Connect them to the speakers with the pin cables.

NOTE: Too loud a volume may cause speaker troubles. damaged when too loud a volume signal is put in.
They are not so sturdy as musical instrument speakers.

⑤ Headphone Terminal:

Use a headphone with a mini-plug, of 8 - 150 ohm impedance.
Sound is put out from the OUTPUT terminal, even when the headphone is used.

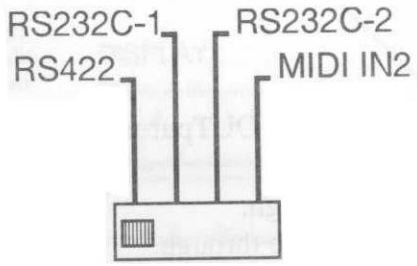
* Sound may be distorted at the maximum volume.

EXAMPLES OF CONNECTION WITH COMPUTERS

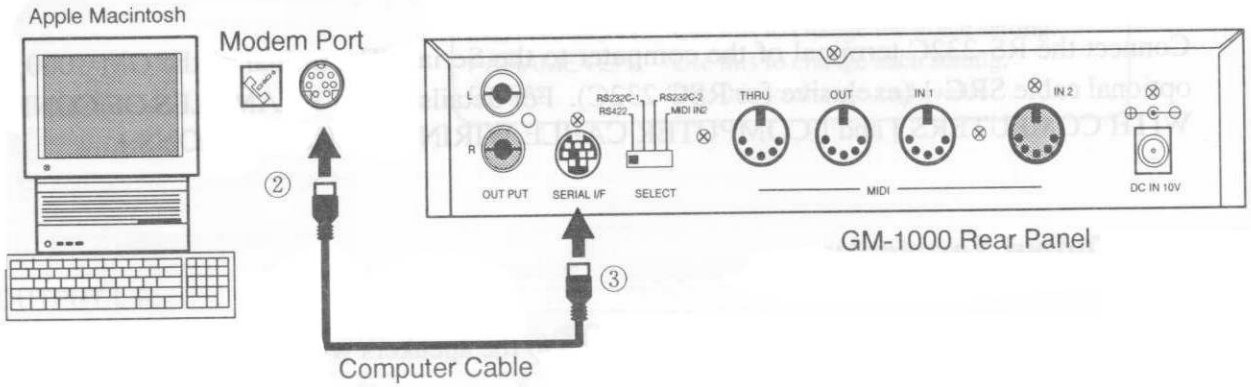
☞ CONNECTING TO APPLE MACINTOSH SERIES

Connect the GM-1000 and the Apple MacIntosh series computer with the computer cable.
Use a proper cable, referring to the [COMPUTER CABLE WIRING ILLUSTRATIONS].

① Switch OFF the GM-1000, and select [RS422] by the Select Switch on the back of it.



② Connect the computer cable to the Modem Port on the back of the MacIntosh.
③ Connect the other end of the computer cable to the Serial I/F
(= computer connection terminal) on the back of the GM-1000.



④ Switch ON the GM-1000.

* When you use a MIDI Applicatioon software:

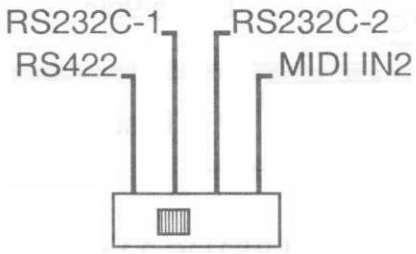
Use the MIDI Application as it is, if it is for the Serial Port of MacIntosh.
When you play on the GM-1000 connected by a computer cable, set the MIDI Interface as follows:

Designate the Modem Port (= the port GM-1000 is connected to) as the Serial Port.
Be sure to set the INterface Type (= MIDI Interface Clock) at [1 MHz].

☞ CONNECTING TO NEC PC-9800 SERIES:

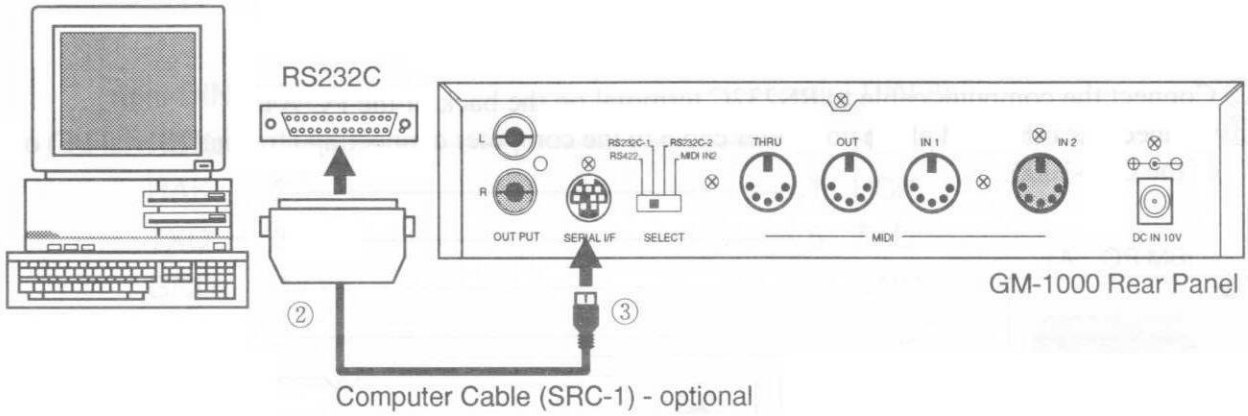
Connect the GM-1000 and the PC-9800 series by the computer cable SRC-1 (optional).

① Switch OFF the GM-1000, and select [RS232C-1] by the Select Switch on the back of it.



* The Baud Rate of RS232C-1 is 31.25K (bit/sec.).
When you use the MIDI Application (software) of the Baud Rate 38.4 K(bit/sec.), select [RS232C-2].

② Connect the computer cable (SRC-1) to the terminal RS-232C of PC-9800.
③ Connect the other end of the computer cable to the computer connecting terminal (Serial I/F) on the back of the GM-1000.



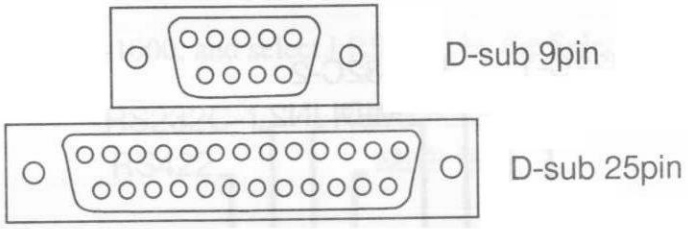
④ Switch ON the GM-1000.

* When you use a MIDI Application (software):

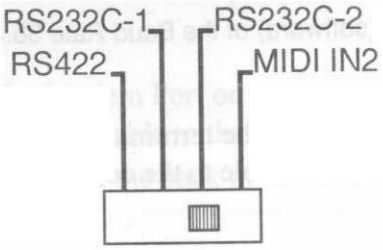
You can play by the MIDI Application, corresponding with the MIDI Interface using RS232C. When you pay the GM-1000, set it for using the serial port of the computer.

☞ CONNECTING THE IBM PC AT SERIES:

Connect the PC AT series Computer and the GM-1000 by the optional computer cable. There are two types of the serial ports on the PC AT series: D-sub 25 pin and D-sub 9 pin. Use a proper cable, referring to [COMPUTER CABLE WIRING ILLUSTRATIONS].

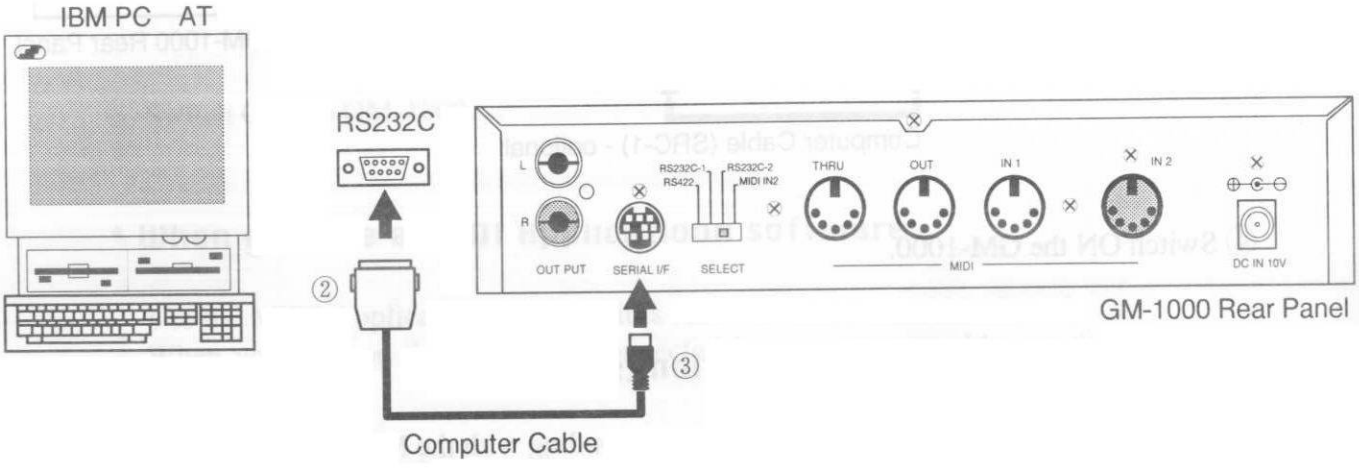


① Switch OFF the power of the GM-1000, and select [RS232C-2] on the back of it.



* The Baud Rate of RS232C-2 is 38.4K (bit/sec.).
If the Baud Rate of the MIDI Application is 31.25K (bit/sec.), select [RS232C-1].

② Connect the computer cable to RS232C terminal on the back of the PC AT.
③ Connect the other end of the computer cable to the computer connecting terminal (Serial I/F) on the back of the GM-1000.



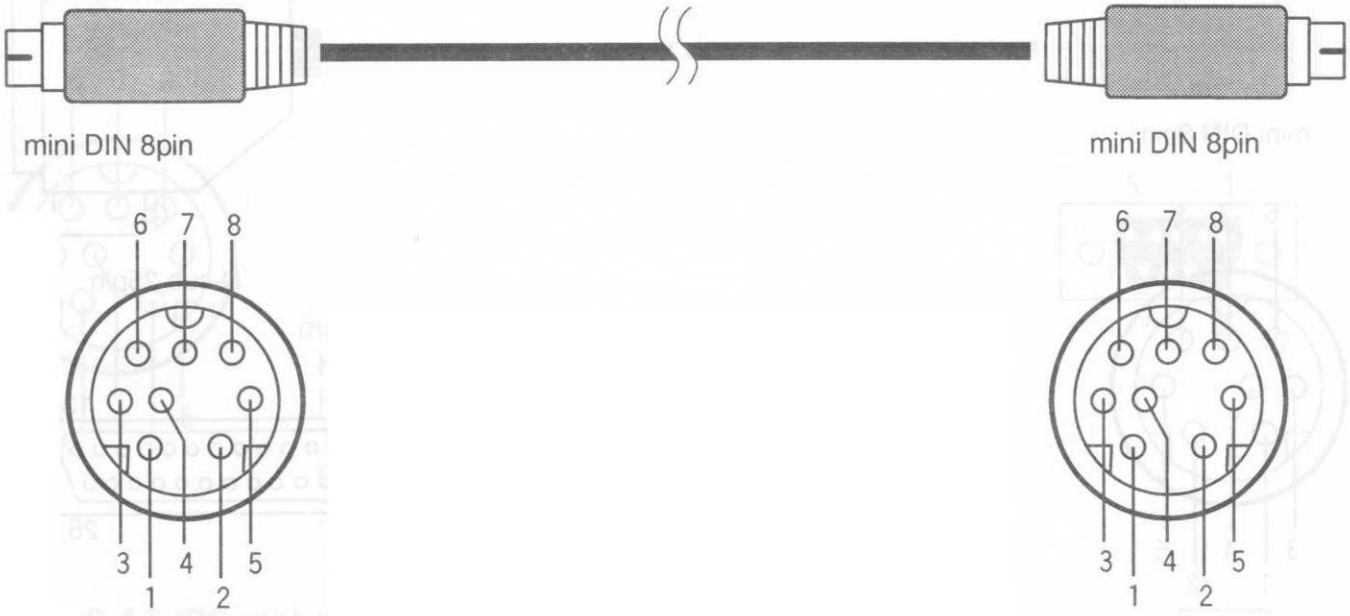
④ Switch ON the power of the GM-1000.

* When you use a MIDI Application (software):

You can play by the MIDI Application, corresponding with the MIDI Interface using RS232C. When you pay the GM-1000, set it for using the serial port of the computer.

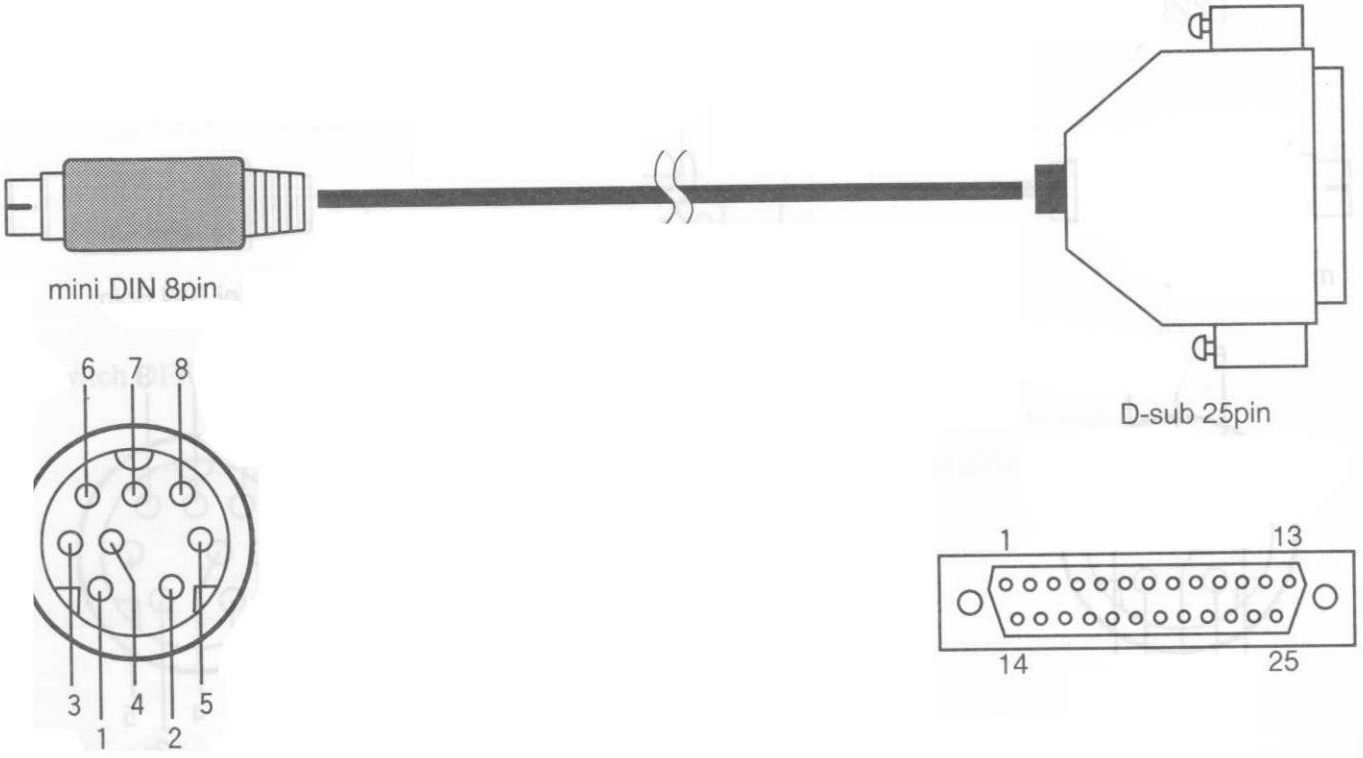
COMPUTER CABLE WIRING ILLUSTRATIONS

APPLE MacIntosh (RS422)



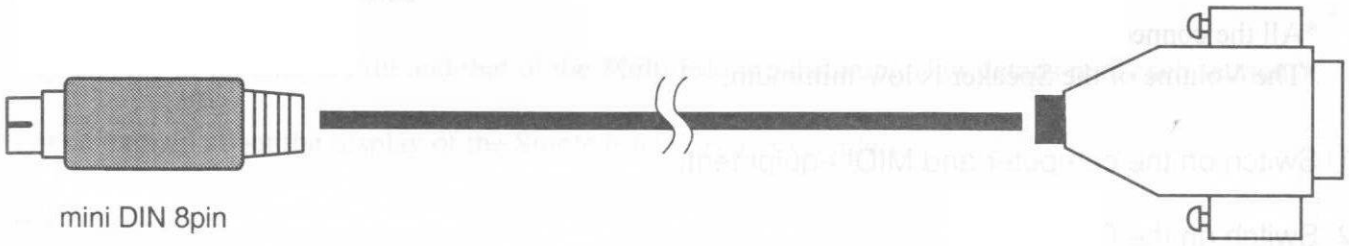
mini DIN 8pin			mini DIN 8pin
HSXo	1	2	HSKo
HAKi	2	1	HSKi
TXD −	3	5	TXD −
GND	4	4	GND
RXD −	5	3	RXD −
TXD +	6	8	TXD +
GPi	7	7	GPi
RXD +	8	6	RXD +

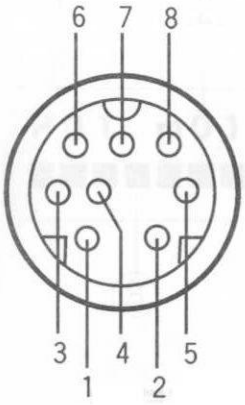
NEC PC98 (RS232C-1)
(SRC-1 Cable - optional)

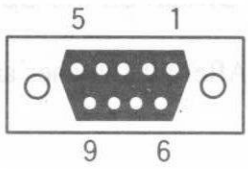


mini DIN 8pin		D-sub 25pin
HSXo	1 ----------	5 CTS
HAKi	2 ----------	4 RTS
TXD —	3 ----------	3 RXD
GND	4 ----------	7 GND
RXD —	5 ----------	2 TXD

IBM PC AT (9 pin) (RS232C-2)

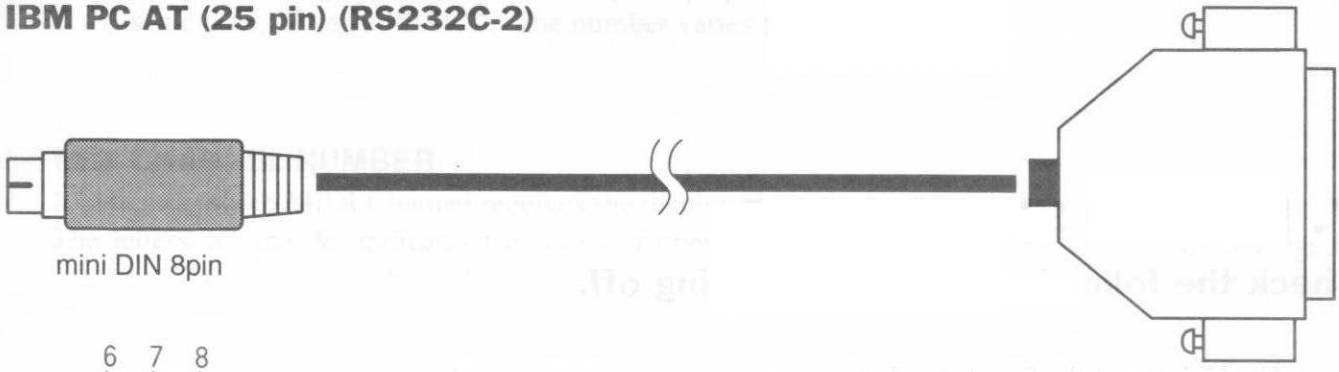


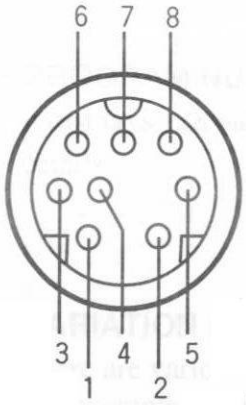


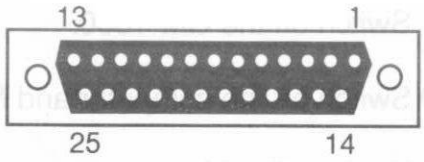


mini DIN 8pin			D-sub 9pin
HSXo	1	8	CTS
HAKi	2	7	RTS
TXD —	3	2	RXD
GND	4	5	GND
RXD —	5	3	TXD

IBM PC AT (25 pin) (RS232C-2)







mini DIN 8pin			D-sub 25pin
HSXo	1	5	CTS
HAKi	2	4	RTS
TXD —	3	3	RXD
GND	4	7	GND
RXD —	5	2	TXD

6. HOW TO SWITCH ON

Check the following, before swtching the power on:

*All the connection with the other equipments is correct.
*The Volume of the Speaker is low/minimum.

① Switch on the computer and MIDI equipment.

② Switch on the GM-1000.
(Press the power button on the right.)
Then, the display lights up.

③ Switch on the Speakers or sequencer, etc.

After all switches are on, adjust the volume of the speakers.

TOO MUCH VOLUME WOULD DAMAGE THE AUDIO SPEAKERS.

7. HOW TO SWITCH OFF

Check the following, before switching off.

The Volume of the Speaker is low/minimum.

① Switch off the speakers or sequencer equipments.

② Switch off the GM-1000.

③ Switch off the computer and MIDI equipments.

④ Unplug all cables.

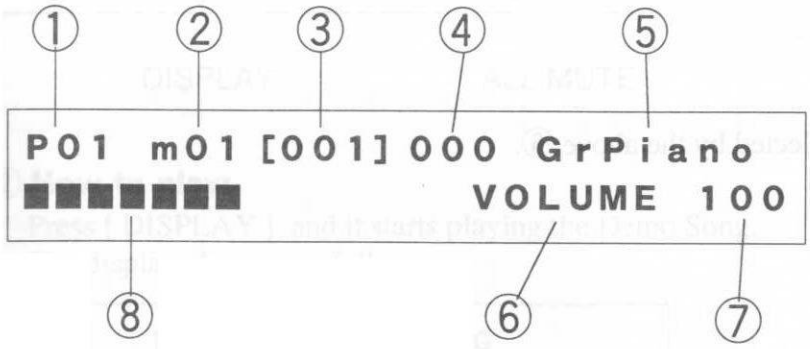
8. HOW TO READ THE DISPLAY

The display of the GM-1000 is expressed by 2 lines of 24 letters only.
So some words are abbreviated.

The display of the Single Edit and that of the Multi Edit are different. (For details read each section.)

Let us explain about the display of the Single Edit 1, as an example.

Ex.:



① PART NUMBER

The GM-1000 has 16 parts. Parts are so to speak 'players'. The 16 parts can produce 16 different voices at the same time. 'P' is for 'PART'. The number varies from 01 to 16.

② MIDI CHANNEL NUMBER

It indicates which MIDI Channel receives the displayed part.
The letters 'm' and 'M' indicates the status of operation. If the status is 'm', you can not change the channel. The number of channels is 16.

③ PROGRAM NUMBER (VOICE NUMBER)

It displays 128 basic voices. Many instruments have tone variations. See the INSTRUMETN LIST for details.

④ VARIATION NUMBER

There are various tones in the basic 128 basic voices.
For example, the variation number of the acoustic grand piano of the Instrument Number [001] is [000]. But it also has the 'Dark Piano' of number [016]. See the INSTRUMENT LIST for details.

⑤ INSTRUMENT (VOICE NAME)

It indicates the Voice designated by the above ③ and ④.
See the INSTRUMENT LIST for details.

⑥ PARAMETER

It indicates the status of the Voice. See [Single Edit] fordetails.

⑦ DATA

It indicates the data of the Parameter selected by the above ⑥.
See [Single Edit] for details.

⑧ LEVEL INDICATOR

It displays the information of the key of the MIDI keyboard or organ. Maximum 7 LCD's light up.
It does not light up when no key is pressed.

9. TESTING

The GM-1000 has built-in voices of many instruments and effects. To produce these voices, connect a MIDI keyboard and other equipments to it.

Switch on the GM-1000, after switching on the MIDI keyboard and other equipments.

When the GM-1000 is switched on, the display will be

```
HAMMOND SOUND MODULE
"  GM-1000  "
```

This is displayed for a few seconds and then it turns into the following:

```
P01  m01 [001] 000  GrPiano
                VOLUME  100
```

This is the first display of the GM-1000 [SINGLE EDIT 1].

The GM-1000 offers not only so many various voices but also adds so many various effects on them.

10. DEMONSTRATION MUSIC

① How to start:

In the mode of [SINGLE EDIT 1], press [DATA ▶], pressing [ALL MUTE].

The display will change as follows and it gets ready for playing the Demo Song:

```
      DEMO   PLAY
PLAY  [DIS. ]  EXIT [A. MUTE]
```

DISPLAY　　ALL MUTE

② How to play:

Press [DISPLAY], and it starts playing the Demo Song.
The display changes as follows:

```
      DEMO   PLAYING
PAUSE [DIS. ]  EXIT [A. MUTE]
```

* The Demo Song is our original one. It repeats continuously until you stop it.

③ How to temporarily stop it or [PAUSE]:

Press [DISPLAY] while playing. The display will change as follows and it returns to the previous status:

```
      DEMO   PLAY
PLAY  [DIS. ]  EXIT [A. MUTE]
```

* If you want to continue playing, press [DISPLAY] again.

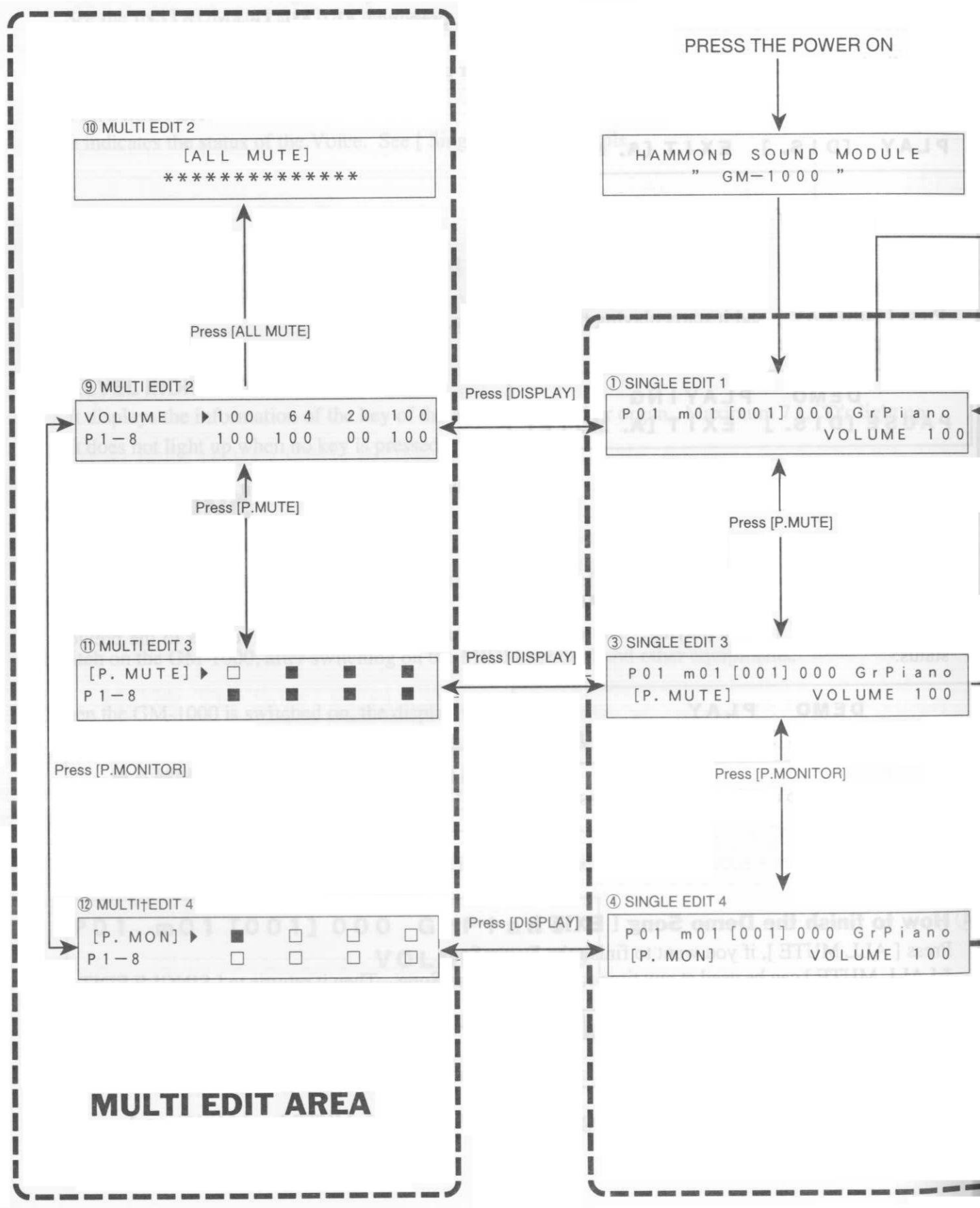
④ How to finish the Demo Song [EXIT]:

Press [ALL MUTE], if you want to finish the Demo Song.
* [ALL MUTE] can be used at any time to stop the Demo Song. Then it returns to [SINGLE EDIT 1].

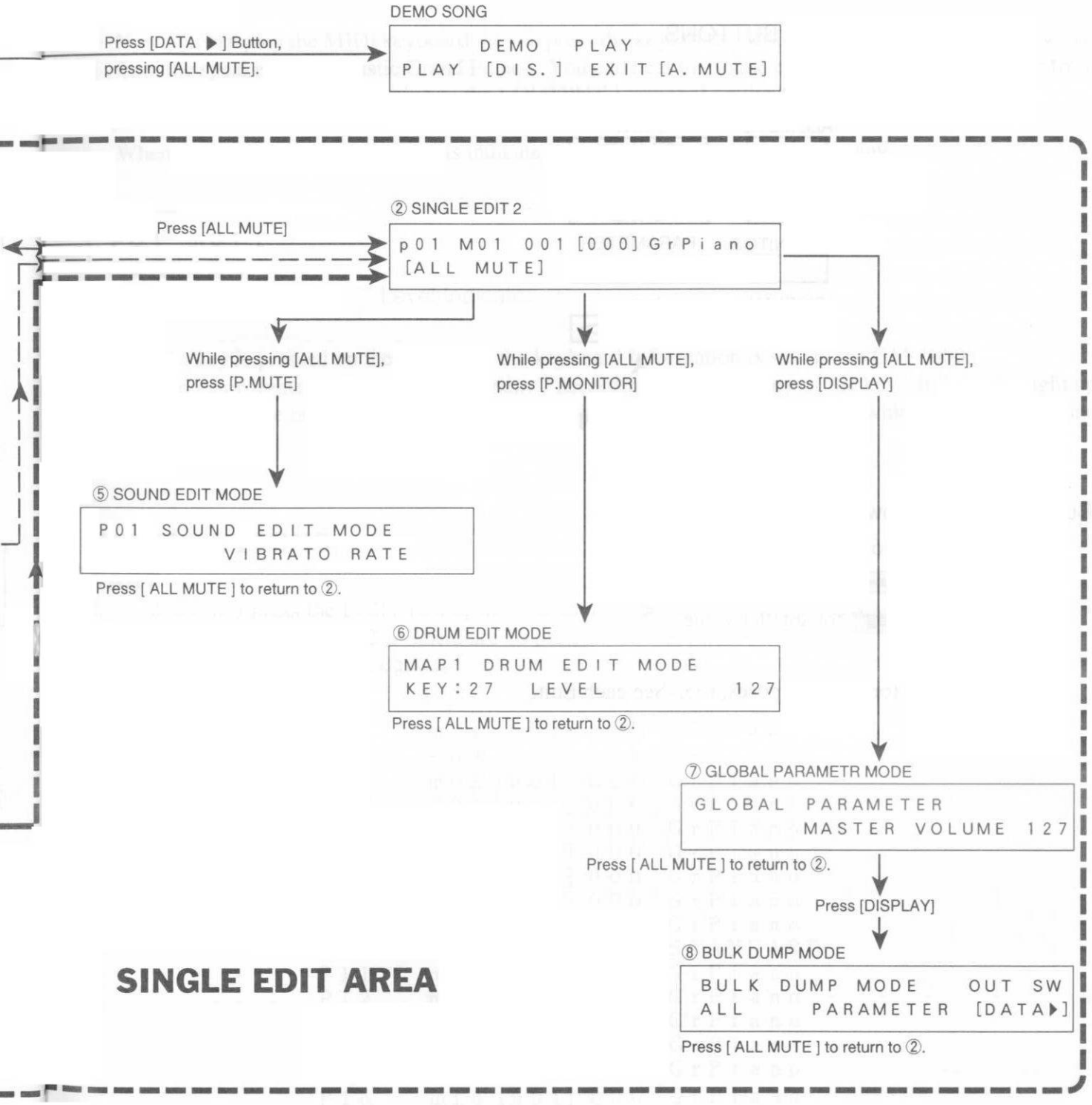
```
P01  m01 [001] 000  GrPiano
                VOLUME  100
```

* The buttons to use for the Demo Song are [DISPLAY], [ALL MUTE] and [DATA ▶].

11. LCD MAP


PRESS THE POWER ON
HAMMOND SOUND MODULE
" GM-1000 "
⑩ MULTI EDIT 2
[ALL MUTE]
****
Press [ALL MUTE]
⑨ MULTI EDIT 2
VOLUME ▶100 64 20 100
P1-8 100 100 00 100
Press [P.MUTE]
⑪ MULTI EDIT 3
[P. MUTE] ▶ □ ■ ■ ■
P1-8 ■ ■ ■ ■
Press [P.MONITOR]
⑫ MULTI†EDIT 4
[P. MON] ▶ ■ □ □ □
P1-8 □ □ □ □
Press [DISPLAY]
Press [DISPLAY]
Press [DISPLAY]
① SINGLE EDIT 1
P01 m01 [001] 000 GrPiano
VOLUME 100
Press [P.MUTE]
③ SINGLE EDIT 3
P01 m01 [001] 000 GrPiano
[P. MUTE] VOLUME 100
Press [P.MONITOR]
④ SINGLE EDIT 4
P01 m01 [001] 000 GrPiano
[P. MON] VOLUME 100
MULTI EDIT AREA

This GM-1000 LCD MAP is so to speak the guide map to quickly reach the goal - the best operation.

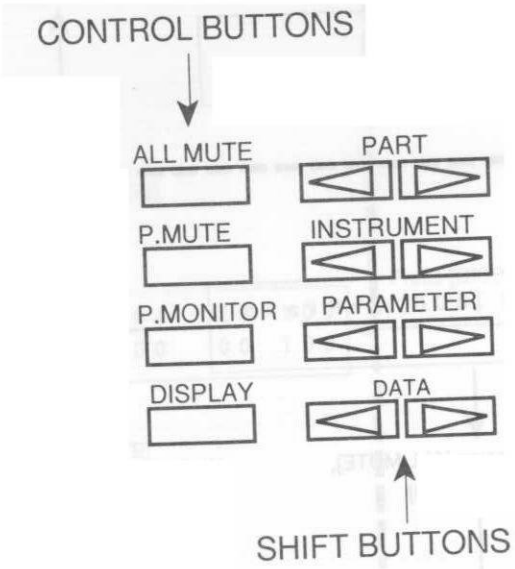


12. OPERATION

BASIC OPERATION

There are two steps of operation for the GM-1000 as follows:

Fundamental Operation: SINGLE EDIT
Advanced Operation: MULTI EDIT for using all features



Buttons without arrow:

Buttons with arrow:

Press  for larger value

Press  for smaller value

They are used for other purposes, too. See each Edit.

[A] SINGLE EDIT

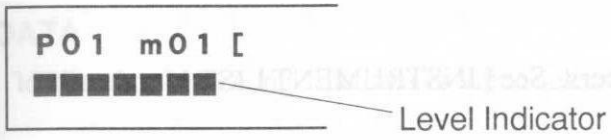
[1] SINGLE EDIT 1 [PART EDITING]

```
P01 m01 [001] 000 GrPiano
                VOLUME 100
```

The SINGLE EDIT is the basic display pattern of the GM-1000.

Now you can play the MIDI keyboard. If you press the keys of the MIDI keyboard at this time, the sound from the speakers is [Acoustic Grand Piano]. You can hear the sound either from the headphone or from the stereo speakers by connecting to the [OUTPUT] terminal on the back of the GM-1000.

When the key is pressed, the level is indicated on the left hand side of the display.



When a key is pressed on the keyboard, the keyboard information is sent to the GM-1000.
The indicator lights up from 1 to maximum 7 according to the velocity of the key. It does not light up when the Volume or Expression value is 0. (The key information is to indicate which key is pressed and how strongly.)

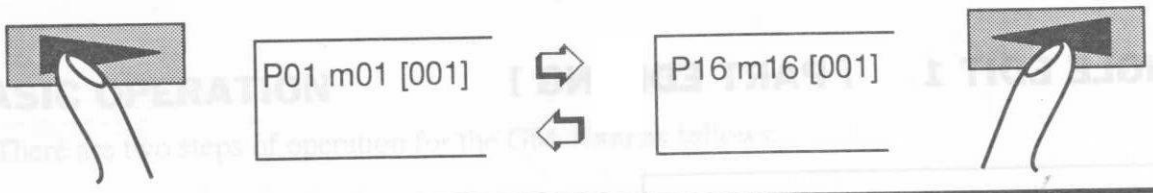
SHIFT BUTTONS

PART

When you press the PART button with the arrow (▶) once, the upper left [P01] indication in the display changes to [P02]. There are 16 parts.
The factory setting is as follows:

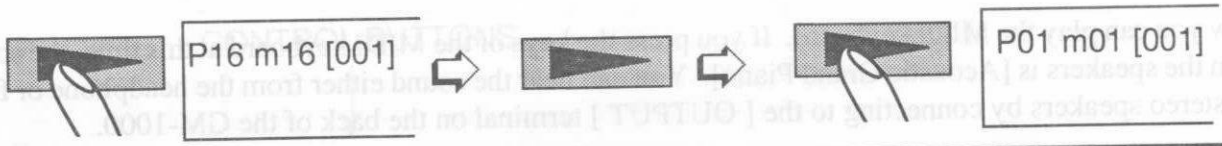
```
P01   m01 [001] 000 GrPiano
P02   m02 [001] 000 GrPiano
P03   m03 [001] 000 GrPiano
P04   m04 [001] 000 GrPiano
P05   m05 [001] 000 GrPiano
P06   m06 [001] 000 GrPiano
P07   m07 [001] 000 GrPiano
P08   m08 [001] 000 GrPiano
P09   m09 [001] 000 GrPiano
P10   m10 [001] Rhy. STANDARD
P11   m11 [001] 000 GrPiano
P12   m12 [001] 000 GrPiano
P13   m13 [001] 000 GrPiano
P14   m14 [001] 000 GrPiano
P15   m15 [001] 000 GrPiano
P16   m16 [001] 000 GrPiano
```

Press either button of the PART. The left button (◀) only shifts down from [P16] to [P01] and the right one (▶) only up from [P01] to [P16].



TECHNICAL ADVICE

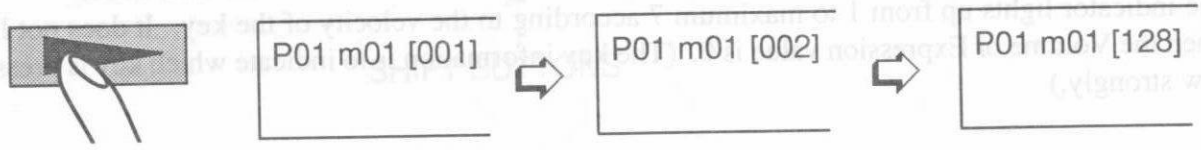
QUICK RETURN: Release the right arrow button at [P16] once and press it again. It goes back to [01]. You can do it vice versa on the left arrow button.



[P10] is [DRUM SET]. See [DRUM PART] for details.

INSTRUMENT

These INSTRUMENT buttons change the Program Numbers. See [INSTRUMENT LIST] for details of the Program Numbers (PC#) and Voices.
The right arrow button shifts from [001] upto [128]. And the left arrow button from [128] down to [001].

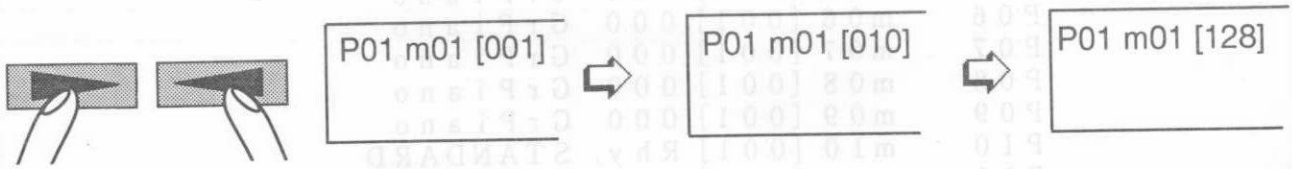


* The variation No. becomes [000], when the Program Number is changed.

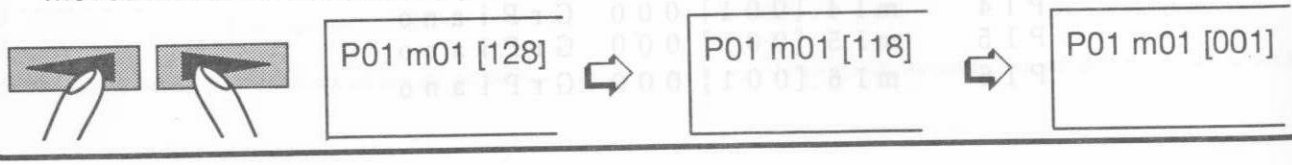
TECHNICAL ADVICES

QUICK RETURN: If you keep pressing the right arrow button, [Instrument] stops at [128]. At this time, if you once release it and press it again, it returns to [001]. Also, if you release the left arrow button at [001] and press it again, it goes back to [128].

SKIPPING: If you press the left arrow button while pressing the right arrow button, [Instrument] number moves about 10 times faster and stops at 128.



If you press the right arrow button while pressing the left arrow button, [Instrument] number moves about 10 times faster and stops at 128.



PARAMETER

Press these buttons for selecting the Effects for the selected voices.
The parameters are as follows:

PARAMETER NAME		DEFAULT VALUE	RANGE	PARAMETER BUTTONS
VOLUME		100	0～127	
REVERB		40	0～127	
CHORUS		0	0～127	
PANPOT		<C>	L63～<C>～R63	
KEY SHIFT		0	−24～0～+24	
BEND RANGE		2	0～24	
MODULATION		0	0～127	
EXPRESSION		127	0～127	
FINE TUNE		0	−12～0～+12	
RX. NRPN	(MIDI MESSAGE:NRPN RECEIVING SW)	OFF	ON／OFF	
RX. BANKSEL	(MIDI MESSAGE: BANK SELECT RECEIVING SW)	ON	ON／OFF	
PART TYPE		PART1-9,11-16=Nor PART10=DM1	Nor/DM1/DM2	

The right arrow button shifts from [VOLUME] to [PART TYPE] only.
The left arrow button shifts from [PART TYPE] to [VOLUME] only.

DATA

These buttons change the data or value selected by the parameter or switch On/Off.

2. PARAMETER AND DATA

When you want to change the Voice Effects, press the DATA button and change the data or value of the item selected by the PARAMETER.

VOLUME 0 - 127

The value of volume varies from 0---127. Normally it is [100].
If [0] is set as the volume value, no sound comes out, even if the volume knob or keyboard pedal volume (expression) is maximized.

REVERB 0 - 127

It adds Reverb effects. It is [40] normally.
Be careful not to give so much reverb effect that might change the voice itself.

CHORUS 0 - 127

It adds Chorus effects to the voice selected. It is [0] normally.
Some voices are already with chorus effects. So, you must be careful not to add too much chorus effects.

PANPOT L63 - < C > - R63

This assigns the placement of instruments from the speakers on both sides.
For example, use this button to place the string bass and drums in the center, the guitar on the right, and the keyboard on the left hand side. The center is < C >.
The larger the value on the left hand side is, the sound moves to the further left, and the larger the value on the right hand side is, the further right.

* If connected monaurally, the placement of the sound becomes out of balance.

KEY SHIFT [-24 - 0 - +24] (semitone steps ±2 octaves)

This function is to shift the pitch of a specific PART.
Press the DATA button and adjust the value of the shift.
Each pressing transposes a semitone. When the value goes up to [12], it means the pitch was transposed one octave.
If no transpose is needed, set it at [0].

BEND RANGE [0 - 24] (semitone steps)

Set the maximum range of the bending of the Pitch Bend Lever or Wheel (= Pitch Bend Message) of the MIDI keyboard, when it is necessary.

MODULATION [0 - 127]

Adjust the Depth of the Vibrato effect. The normal value is [0].
* Vibrato does not work on some voices. See [INSTRUMENT LIST].

EXPRESSION [0 - 127]

This function adjusts the volume of the pedal of the MIDI keyboard.

NOTE:The volume of the PART is controlled by both [VOLUME] and [EXPRESSION]. For example, if the volume data of [EXPRESSION] is set at [0], no sound comes out even if the volume data of [VOLUME] is raised.

FINE TUNE [-12 - 0 - +12] (1 Hz steps)

Do this when the pitch must be exactly the same as the other instruments.

RX. NRPN (MIDI MESSAGE: NRPN receiving switch) ON/OFF

This function is to switch On/Off the [DATA ENTRY MESSAGE] of the MIDI message.
Switch ON, when you want to change the value of the parameter of the [SOUND EDIT MODE] or [DRUM EDIT MODE] , for MIDI.
When it is [ON], the value changes when the data entry message is received.

RX. BANKSEL (MIDI MESSAGE: Bank Select receiving switch) ON/OFF

This function is to switch on/off the [BANK SELECT MESSAGE] of the MIDI message.
When it is [ON], the variation changes, if the Bank Select message is received.

PART TYPE [N o r / DM1 / DM2]

Select the Voice type of the PART. Normal setting is [N o r].
[DRUM MAP 1] is displayed as [DM 1]. [DRUM MAP 2] is displayed as [DM 2].
On the [DRUM MAP], each key is assigned for a rhythm instrument.
See [DRUM MAP LIST] for details.

3. DRUM PARTS

[P 10] of [SINGLE EDIT 1] is [DRUM SET].
The total number of the drum set styles is 9. The data are different from the instruments of the other PARTS. See the [DRUM SET LIST] for details.
The display of the 9 different DRUM PARTS is as follows:

P10 m10 [001] Rhy. STANDARD VOLUME 100	.....	basic drum set

(The display on the bottom is the same.)

P10 m10 [009] Rhy. ROOM	.....	Room Reverb Drum Set
P10 m10 [017] Rhy. POWER	.....	Powerful Drum Set
P10 m10 [025] Rhy. ELECTRO.	.....	Electronic Drum Set
P10 m10 [026] Rhy. ANALOG	.....	Analog Drum Set
P10 m10 [033] Rhy. JAZZ	.....	Jazz Drum Set
P10 m10 [041] Rhy. BRUSH	.....	Brush Set
P10 m10 [049] Rhy. ORCHEST.	.....	Orchestra Set
P10 m10 [057] Rhy. SFX	.....	SFX Set

DRUM MAP 1 and DRUM MAP 2

You can select two drum styles at the same time, for example,
[STANDARD SET] in [P 10] and [ANALOG SET] in [P 11].

P10 m10 [001] Rhy. STANDARD	PART TYPE to DM 1
P11 m11 [026] Rhy. ANALOG	PART TYPE to DM 2

If you want to add another drum part here, it will be either one of the two selected drum sets.

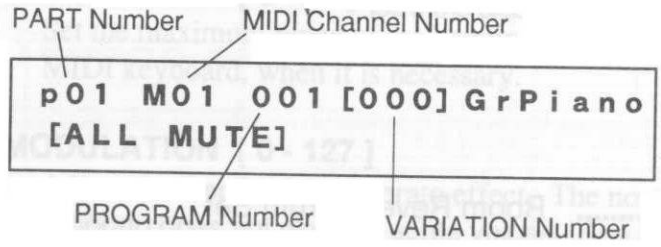
P10 m10 [001] Rhy. STANDARD	PART TYPE to DM 1
P11 m11 [026] Rhy. ANALOG	PART TYPE to DM 2
P12 m12 [001] Rhy. STANDARD	PART TYPE to DM 1

If selected as above, if you change the drum set (standard) of PART 10 to [ELECTRONIC SET], the PART 12 of the same drum map will be also changed to [ELECTRONIC SET].

P10 m10 [025] Rhy. ELECTRO.	— If this is changed,
P11 m11 [026] Rhy. ANALOG	
P12 m12 [025] Rhy. ELECTRO.	— this also changes.

[2] SINGLE EDIT 2

At [SINGLE EDIT 2], you can change the MIDI Channel Number and the Variation Number. Also, the sound is cut out, as long as [ALL MUTE] button is pressed.
Press [ALL MUTE] at [SINGLE EDIT 1], the mode changes into [SINGLE EDIT 2] and the display looks like this:



The difference of [SINGLE EDIT 2] from [SINGLE EDIT 1] is:

1) [P] of the PART Number changes to [p].
2) [m] of the MIDI Channel Number chnages to [M].
3) The parenthesis for the [PROGRAM NUMBER] moves to [VARIATION NO.].
4) [ALL MUTE] is displayed.

[OPERATION OF SHIFT BUTTONS]

PART

The MIDI Channel No. is changed by pressing the left and right arrow buttons. When you press the right one, the MIDI Channel No. moves from [M01] up to [M16]. When you press the left one, it moves from [M16] down to [M01].

INSTRUMENT

The Variation No. changes by this button.
See [INSTRUMENT LIST] for the Variation Numbers (VR#) and voices.
Pressing the right button shifts the Variation No. one by one.

* Exception: If the value of a Variation No. is [0], it does not shift by pressing the button.

PART, INSTRUMENT AND MIDI CHANNEL:

The GM-1000 has 16 PARTS.
One instrument is assigned to each PART.
The PART is a player of a musical instrument.
So, you can enjoy ensemble of 16 parts by the GM-1000.
When you use the MIDI, the MIDI Channels are assigned to these 16 parts.
One (each different) MIDI Receiving Channel is assigned to each PART.

When you drive the GM-1000 by playing a MIDI keyboard, the part of the channel corresponding to the MIDI transmitting channel of the MIDI keyboard. If you change the MIDI channel, the part changes.
If two parts are assigned to the same MIDI channel, two voices are layered.
To play all the 16 parts of the GM-1000 at the same time, use many MIDI equipments (sequencers).

[3] SINGLE EDIT 3 [PART MUTE]

Press the [P. MUTE] button while the mode is [SINGLE EDIT 1].

```
P01  m01 [001] 000  GrPiano
[P. MUTE]          VOLUME  100
```

The voice of the displayed part is cut out. The function of the other buttons remains the same as [SINGLE EDIT 1].

Press [P. MUTE] again to release MUTE and return to [SINGLE EDIT 1].

* The status of MUTE is not initialized by receiving the MIDI data of the Full Parameter Reset or GM Reset.

[4] SINGLE EDIT 4 [PART MONITOR]

Press the [P. MONITOR] button while the mode is [SINGLE EDIT 1].
The display changes to the following:

```
P01  m01 [001] 000  GrPiano
[P. MON]           VOLUME  100
```

Only the voice of the displayed PART comes out.
Press the PART button and change the Part Number, and the newly selected voice comes out.
The function of the other buttons remains the same as [SINGLE EDIT 1].
Press the [P. MONITOR] button to go back to [SINGLE EDIT 1].

[5] SOUND EDIT MODE

Press the [P. MUTE] button, while pressing the [ALL MUTE] button, in either of [SINGLE EDIT 1.....4]. The display changes to the following, and the voice of each part is edited.

```
P01 SOUND EDIT MODE
    VIBRATO RATE      0
```

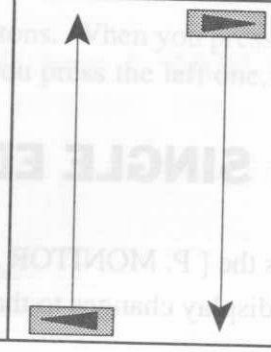
OPERATION

PART

Select the voice to be edited by pressing either PART button. There are 16 Parts.

PARAMETER

Switch the PARAMETER by pressing either Parameter button. There are 8 PARAMETERS of SOUND EDITING.

PARAMETER Name	Default Value	Range	PARAMETER Buttons
VIBRATO RATE	0	−63～0～+63	
VIBRATO DEPTH	0	−63～0～+63	
VIBRATO DELAY	0	−63～0～+63	
CUTOFF FREQ	0	−63～0～+63	
RESONANCE	0	−63～0～+63	
ATTACK TIME	0	−63～0～+63	
DECAY TIME	0	−63～0～+63	
RELEASE TIME	0	−63～0～+63	

DATA

Press either DATA button and change the data of each Parameter.
The range of the change is from [-63 ～ +63].

Press [ALL MUTE] to finish [SOUND EDIT]. The display turns into [SINGLE EDIT 2]. At this time, if you release [ALL MUTE], it goes back to [SINGLE EDIT 1].

CONTENTS OF EACH PARAMETER

VIBRATO RATE **[-63 ~ 0 ~ +63]**

Use this to control the speed of vibration of the pitch of the voice.

VIBRATO DEPTH **[-63 ~ 0 ~ +63]**

Use this to control the depth of the vibration of the pitch.

VIBRATO DELAY **[-63 ~ 0 ~ +63]**

Use this to control the time for vibrato effect to work.

CUTOFF FREQ **[-63 ~ 0 ~ +63]**

Use this to control the frequency to cut off the component of harmonics. The changes are much different voice from voice.
In general, the larger the value of the (-) figure is, the softer is the voice.

RESONANCE **[-63 ~ 0 ~ +63]**

Use this to control the degree of emphasis on the cut off frequency harmonics.
Generally, the larger the value of resonance is, the closer it comes to the specific synthesizer sound.

ATTACK TIME **[-63 ~ 0 ~ +63]**

Use this to control the time before the sound comes out after pressing the key.

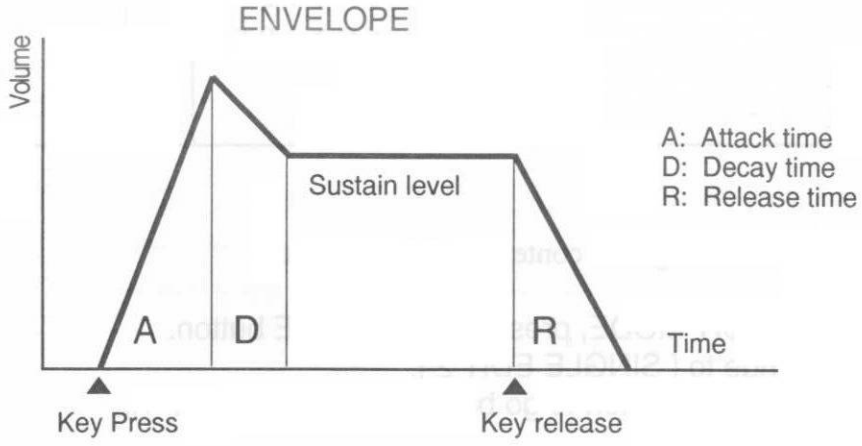
DECAY TIME **[-63 ~ 0 ~ +63]**

Use this to control the time before the sound gets stable on a certain level (sustain level) after it comes out.

RELEASE TIME **[-63 ~ 0 ~ +63]**

Use this to control the time of the sound to go out after the key is released.

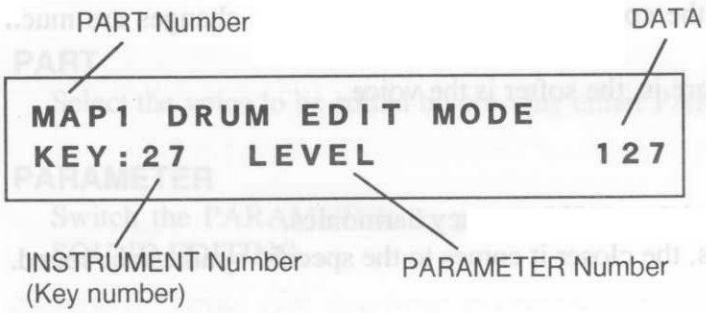
* The above controls work on each PART. So the instrument voices are not affected by them.
* Some voices do not change as much as desired.



[6] DRUM EDIT MODE

The GM-1000 Sound Module has 9 DRUM SETS of various percussion sounds.
Select one PART for DRUM SETS.
The factory setting is: [PART 10] (MIDI Channel 10) for DRUM SETS.

When you use [PART 10] as DRUM SETS, select the Channel 10 on the external MIDI equipment. If you want to drive the GM-1000 without changing the selection of the external MIDI equipment side, select [DM 1] or [DM 2] in the PART TYPE parameter of [SINGLE EDIT 1].
o enter the DRUM EDIT MODE, press the [P. MONITOR] button while pressing [ALL MUTE]. The display will be as follows:



OPERATION

PART

Press the PART button to change [MAP 1] to [MAP 2].
* MAP 1 corresponds to DM 1 of [PART TYPE], and MAP 2 to DM 2 of [PART TYPE].

INSTRUMENT

Press the INSTRUMENT button and select the KEY Number assigned to DRUM SETS.
See [DRUM SET LIST] for the KEY Numbers.

PARAMETER

Press the PARAMETER button and select the parameter.
There are 5 parameters.

PARAMETER NAME	RANGE	PARAMETER button
LEVEL	0～127	
PITCH	−12～0～+12	
PANPOT	L63～<C>～R63	
REVERB LEVEL	0～127	
CHORUS LEVEL	0～127	

DATA

Press the DATA button and change the contents of the parameter.

To close the DRUM EDIT MODE, press the ALL MUTE button.
The display will change to [SINGLE EDIT 2].
Release the [ALL MUTE] button to go back to [SINGLE EDIT 1].

EACH PARAMETER

LEVEL 0 ... 127
Use this to change the level of each drum voice.

PITCH -12 ... 0 ... +12
Use this to change the pitch of each drum voice.

PANPOT L63 ... < C > ... R63
Use this to change the position of each drum voice.

REVERB LEVEL 0 ... 127
Use this to change the level of reverb of each drum voice.

CHORUS LEVEL 0 ... 127
Use this to change the level of chorus of each drum voice.

NOTE
After each parameter has been set, if the Drum Set is changed, all setting goes back to the default value.

[7] GLOBAL PARAMETER MODE

The GLOBAL PARAMETER selects the overall Effect on the GM-1000.
The effect works on all voices. The data set for each PART do not change by this.

HOW TO GET THE GLOBAL PARAMETER MODE:

Press the [DISPLAY] button while pressing [ALL MUTE] button, when the mode is either of [SINGLE EDIT 1 ... 4].

The display will change to the following:

```
GLOBAL  PARAMETER
        MASTER  VOLUME  127
```

OPERATION

PARAMETER

Press the PARAMETER button and change the contents of the PARAMETER.
There are 12 Global Parameters.

DATA

Press the DATA button and change the parameter.

To close the [GLOBAL PARAMETER], press the [ALL MUTE] button.
[SINGLE EDIT 2] will be displayed. Then, release it to go back to [SINGLE EDIT 1].

EACH PARAMETER

Contents of each parameter are as follows:

PARAMETER NAME	INITIAL VALUE	RANGE	PARAMETER button
MASTER TUNE	440Hz	415～440～465Hz	
MASTER VOLUME	127	0～127	
MASTER KEY SHIFT	0	−24～0～+24	
MASTER PANPOT	<C>	L63～<C>～R63	
REVERB LEVEL	64	0～127	
CHORUS LEVEL	64	0～127	
REVERB TYPE	HALL 2	※1	
CHORUS TYPE	CHORUS2	※2	
REVERB CHARACTER	4	0～7	
REVERB PRE-LPF	3	0～7	
REVERB TIME	42	0～127	
CHORUS RATE	2	0～37	

Range 1
Reverb type (8)

```
ROOM1
ROOM2
ROOM3
HALL1
HALL2
PLATE
DELAY
CHURCH
```

Range 2
Chorus type data (8)

```
CHORUS1
CHORUS2
LESLIE S
LESLIE F
ECHO
FLANGER
DELAY1
DELAY2
```

FUNCTION OF EACH PARAMETER

MASTER TUNE 415 ... 440 ... 465 Hz
changes the pitch of all parts.

MASTER VOLUME 0 ... 127
changes the volume of all parts.

MASTER KEY SHIFT -24 ... 0 ... +24
transposes all parts.

MASTER PANPOT L63 ... < C > ... R63
changes the position of all parts.

REVERB LEVEL 0 ... 127
changes the reverb level.

CHORUS LEVEL 0 ... 127
changes the chorus level of all parts.

REVERB TYPE *1
Use this to change the type of reverb.

		CHA	LPF	TIME
ROOM 1	Small room atmosphere (Flat sound)	0	5	55
ROOM 2	Medium size room atmosphere	1	4	55
ROOM 3	Live house or rehearsal room atmosphere	2	3	55
HALL 1	Large concert hall atmosphere	3	5	67
HALL 2	Concert hall atmosphere	4	3	42
PLATE	Solo performance atmosphere	5	2	32
DELAY	Delay effect added	6	1	7
CHURCH	Large cathedral atmosphere	7	6	87

※ CHA: REVERB CHARACTER, LPF: REVERB PRE-LPF, TIME: REVERB TIME

CHORUS TYPE *2
Use this to change the typoe of chorus.

Setting Range *2
DATA OF CHORUS TYPE (8)

		RATE
CHORUS 1	Slow chorus effect	1
CHORUS 2	Faster than CHORUS 1	2
LESLIE S	Slow LESLIE effect	3
LESLIE F	Fast LESLIE effect	37
ECHO	Stereo Echo	
FLANGER	Flanger to be added onto guitar sound	
DELAY 1	Repeat delay is added	
DELAY 2	Faster repeat than DELAY 1	

※ RATE: CHORUS RATE

REVERB CHARACTER 0 ... 7
changes the basic pattern of reverb.

REVERB PRE - LPF 0 ... 7
changes the degree of effect of treble.
If the data is [0], the reverb works all over the range from bass to treble.
The larger the value is, the weaker the effects work on treble.

REVERB TIME 0 ... 127
changes the time of reverb decay.

CHORUS RATE 0 ... 37
changes the chorus frequency. The larger the value is, the faster it gets.
It does not work on [ECHO], [FLANGER], [DELAY 1] [DELAY 2]
The display will be [***].

NOTE:
If you change the [REVERB TYPE], after setting each parameter, [REVERB CHARACTER], [REVERB PRE-LPF] and [REVERB TIME] is changed back to the Default Value. Also, if you change the [CHORUS TYPE] data,the value of the [CHORUS RATE] will be initialized.

TECHNICAL ADVICE:

To fully get the LESLIE effect, set the [CHORUS LEVEL] of each partat [127] and the [CHORUS LEVEL] of GLOBAL at [127]. The resultyou get is just fantastic.
The change of [LESLIE SLOW] and [LESLIE FAST] is designed to be made gradually.

"LESLIE® Effects"
The GM-1000 has in-built 32 HAMMOND ORGAN variations.
Fully enjoy the Leslie effects with the HAMMOND ORGAN.

WHAT IS THE LESLIE EFFECTS?
It is the tremolo, generally called "Rotary Effect", which is obtained by rotating the speaker(s).
It produces superb (rather exquisite) effects, especially when combined with the HAMMOND ORGAN.

[8] BULK DUMP MODE

On the GM-1000, you can transmit all the selected contents of the voices as the MIDI Data (Exclusive Message). The group of this data is called Bulk Dump Data.
BULK DUMP means transmission of the data (parameter value) stored in the internal memory of the sound module.

Press [DISPLAY] Button in the status of [7] [GLOBAL PARAMETER MODE] to get this mode.



OPERATION

PARAMETER

Press the PARAMETER Button and select the Parameter type to transmit.
There are 4 Bulk Dump Parameters.

ALL PARAMETER
SYSTEM PARAMETER
PATCH PARAMETER
DRUM PARAMETER

DATA

Press the DATA Right Arrow Button to start transmission.
The display changes to the following:



To close the Bulk Dump Mode, press the [ALL MUTE] Button.
The display becomes [SINGLE EDIT 2]. Release [ALL MUTE] Button to return to [SINGLE EDIT 1].

EACH PARAMETER

ALL PARAMETER:

transmits all parameters.

SYSTEM PARAMETER:

transmits MASTER VOLUME, MASTER KEY SHIFT, MASTER PANPOT, MODE SET.

PATCH PARAMETER:

transmits MODE SET, VOICE, PART, SOUND and the REVERB and CHORUS parameter of [GLOBAL PARAMETER].

DRUM PARAMETER:

transmits only the parameter changed from the status of FULL PARAMETER RESET (at the time of initialization) out of the drum set parameters.

[B] MULTI EDIT

You can display 8 Parameters of 16 Parts at one time and edit them.
When playing in ensemble, you can set the whole balance of sound, without changing the setting of each part one by one.
Multi Edit has 4 stage types in total.

[9] MULTI EDIT 1 (GROUP EDITING)

You can edit the parameter of [SINGLE EDIT 1], dividing the parts into (1 - 8) and (9 - 16).
Press the [DISPLAY] button while the status is [SINGLE EDIT 1] to get the [MULTI EDIT 1].
The display becomes

```
VOLUME   ▶100   64   20  100
P1-8      100  100    0  100
```

OPERATION

PART:
Keep pressing the PART Right Arrow Button, the indicator stops at 16.

PARAMETER:
Press the Parameter arrow button to change the display of [VOLUME].

* The contents of each parameter is the same as [SINGLE EDIT 1].
  See [SINGLE EDIT 1] for details.

DATA:
Press either arrow button of DATA and change the part parameter where the indicator is at.

* The contents of each contents are the same as [SINGLE EDIT 1].
  See [SINGLE EDIT 1] for details.
* Press [DISPLAY] to close [MULTI EDIT 1].
  The display returns to [SINGLE EDIT 1].

[10] MULTI EDIT 2 (ALL MUTE)

ALL MUTE cuts all the sound of the 16 parts temporarily.
Press the [ALL MUTE] button when the status is [MULTI EDIT 1] or [MULTI EDIT 3 , 4] to change to [MULTI EDIT 2].
The display changes to

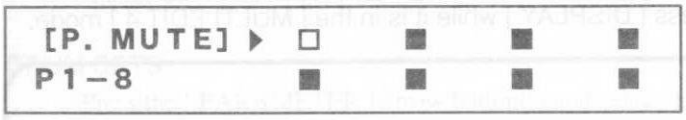


Release [ALL MUTE] to return to the status before this mode.

[11] MULTI EDIT 3 (PART MUTE)

This mode sets the MUTE ON/OFF of each part.
While [MULTI EDIT 2] cuts all sound of all parts, this mode sets ON/OFF for each part.

Press [P. MUTE] button when the status is [MULTI EDIT 1].
The display will be



OPERATION

PART:
Press the right arrow PART button to move the indicator to stop at PART 16.

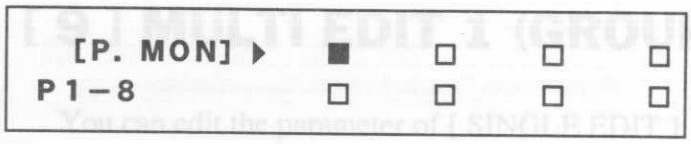
P. MUTE:
Press this button to switch ON/OFF the MUTE of the part where the indicator is at.
The indication on the display:
ON (No Sound) □ OFF (Sound) ■

* There are two ways to enter [MULTI EDIT 3].
  1. Press [P. MUTE] when it is [MULTI EDIT 1].
     When closed, it returns to [MULTI EDIT 1].
  2. Press [DISPLAY] button when it is [SINGLE EDIT 3] to enter [MULTI EDIT 3].
* To close [MULTI EDIT 3], press [P. MUTE]. It returns to [MULTI EDIT 1] when all parts are switched OFF.
* Press [DISPLAY] button to return to [SINGLE EDIT 3].
* It returns to [MULTI EDIT 1] when there is no more muted part.

[12] MULTI EDIT 4 (PART MONITOR)

You can monitor the voice of each part.

Press [P. MONITOR] button while the mode is [MULTI EDIT 1].
The display will be as follows:



OPERATION

PART:

Move the PART indicator pressing the arrow button(s).
The PART display where the indicator is at changes from □ to ■
Now you can monitor the voice.
(The indicator stops at 16 if the button is kept pressed.)

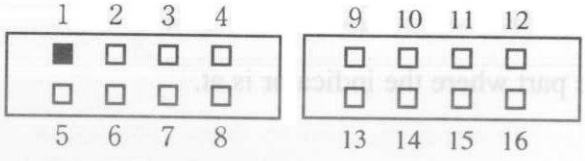
* You must be careful. When you press [P. MONITOR] while it is in the [MULTI EDIT 3] mode, the MUTE setting is released.
* Press [P. MONITOR] to return to [MULTI EDIT 1].
* There are 3 ways to enter [MULTI EDIT 4] as follows:
  1. Press [P. MONITOR] from [MULTI EDIT 1].
  2. Press [P. MONITOR] from [MULTI EDIT 3].
  3. Press [DISPLAY] from [SINGLE EDIT 4].
* You can return to [SINGLE EDIT 4], if you press [DISPLAY] while it is in the [MULTI EDIT 4] mode.

TECHNICAL ADVICE 1:

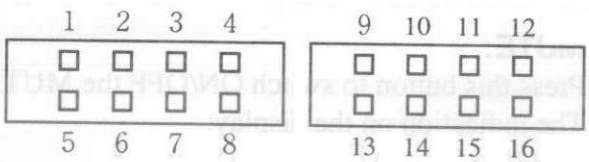
HOW TO MONITOR ONLY A FEW PLURAL PARTS:

Normally you press the [P. MUTE] button to set the part you do not want to monitor one by one.
However, there is such ways as follows:

① Press [P. MONITOR].
The display changes as follows:



② Press [P. MUTE].
The display changes as follows:



Now all parts are MUTED.
At this time, press the [P. MUTE] button and release the MUTE of the part you want to monitor.

TECHNICAL ADVICE 2:

HOW TO RELEASE THE MUTE OF ALL PARTS:

Nowmally you press [P. MUTE] and release the muted parts one by one.
However, you can release all parts by pressing [P. MONITOR] button TWICE.

[C] SUPER QUICK MANUAL

FOR ADVANCED USERS

HOW TO PLAY THE DEMO SONG

Press the [DATA ▶] button, while pressing [ALL MUTE], and then press [DISPLAY].

MIDI CONNECTION

Connect [MIDI IN 1] with the [MIDI OUT] of the MIDI Keyboard.

POWER ON/OFF AND VOLUME CONTROL

Use the Power Switch on the right hand side.

HOW TO INITIALIZE ALL SETTINGS

Switch ON, pressing [ALL MUTE].

HOW TO SET THE PART AND MIDI CHANNEL

Select the part by pressing the [PART] arrow button(s), and select the MIDI Channel by the [PART] arrow button(s), pressing [ALL MUTE].

HOW TO SELECT VOICES

Select the Program Number (PC# in the INSTRUMENT LIST) by pressing the [INSTRUMENT] arrow button.
When you want to change the Variation, select the Variation Number(VR# in the INSTRUMENT LIST) by pressing the [INSTRUMENT] arrow button, pressing [ALL MUTE].

CONTROLLING VOLUME OR REVERB ETC.

To control the volume of the part being selected or the degree of reverb, press [PARAMETER] to select the item and change the value by pressing [DATA].

DRUM SETS

Press the [PARAMETER] arrow button(s) and select the [PART TYPE].
Then select [DM 1] or [DM 2] by the [DATA] button(s).
To return to the original status, select [Nor(mal)].
To change the Drum Set, press [INSTRUMENT].

SELECTING VOICES BY MIDI

[PROGRAM NUMBER] is selected by [PRGRAM CHANGE], and [VARIATION NUMBER] by [CONTROL CHANGE 0].
The Variation Number is reserved until [PROGRAM CHANGE] is received.

WHEN IT CIPHERS ---

When the voices do not stop sounding, press [ALL MUTE] for the time being. Then try to press the keys on the instrument. If it still keeps coming, transmit [ALL NOTE OFF] and [RESET ALL CONTROLLER] from MIDI, or switch OFF the GM-1000 once, and switch it ON again. The data memory set remains, if switched off.

HOW TO GET OUT

A. WHEN YOU ARE LOST

Press [DISPLAY]. And still you are lost, press [ALL MUTE].

B. WHEN YOU WANT TO RETURN FROM [P. MUTE] OR [P. MONITOR].

Presss [DISPLAY] or [ALL MUTE] and get out.
Press [P. MONITOR] and display [P. MON].
Press [P. MONITOR] again and switch off the display [P. MON]

INSTRUMENT LIST 1/4

Program No.(PC#)	Variation No.(VR#)	Name of Instrument	Display	Effect
001	000	Acoustic Grand Piano	GrPiano	
	016	Dark Piano	Dark Pf	
002	000	Bright Piano	BrPiano	★
003	000	Electric Grand Piano	El.Grand	
004	000	Honky-Tonk Piano	HnkyTonk	★
005	000	Electric Piano 1	Elpiano1	
	001	Tremolo Electric Piano	TremE.Pf	★
	008	Detuned Electric Piano 1	DetE.Pf1	★
	016	Electric Piano 1 Velocity	EPiano1v	★
	024	60's Electric Piano	60'sE.Pf	
006	000	Electric Piano 2	ElPiano2	
	008	Detuned Electric Piano 2	DetE.Pf2	★
	016	Electric Piano 2 Velocity	EPiano2v	★
007	000	Harpsichord	Hrpschrd	
	008	Coupled Harpsichord	CopleHps	★
008	000	Clavi	Clavi	
009	000	Celesta	Celesta	
010	000	Glockenspiel	Glocken	
011	000	Music Box	MusicBox	
012	000	Vibraphone	Vibes	
013	000	Marimba	Marimba	
014	000	Xylophone	Xylophon	
015	000	Tubular-Bell	TublBell	
	008	Church Bell	ChrchBel	
	016	Carillon	Carillon	
016	000	Dulcimer	Dulcimer	
017	000	Drawbar Organ	DrawOrgn	
	001	Organ 1	Organ 1	
	002	Organ 2	Organ 2	
	003	Organ 3	Organ 3	
	004	Organ 4	Organ 4	
	005	Organ 5	Organ 5	
	006	Organ 6	Organ 6	
	007	Organ 7	Organ 7	
	008	Detuned Electric Organ 1	DetE.Or1	★
	009	Organ 8	Organ 8	
	010	Organ 9	Organ 9	
	011	Organ 10	Organ 10	
017	012	Organ 11	Organ 11	
	013	Organ 12	Organ 12	
	014	Organ 13	Organ 13	
	015	Organ 14	Organ 14	
	016	Organ 15	Organ 15	
	017	Organ 16	Organ 16	
	018	Organ 17	Organ 17	
	019	Organ 18	Organ 18	
	020	Organ 19	Organ 19	
	021	Organ 20	Organ 20	
	022	Organ 21	Organ 21	
	023	Organ 22	Organ 22	
	024	Organ 23	Organ 23	
	025	Organ 24	Organ 24	
	026	Organ 25	Organ 25	
018	000	Percussive Organ	PercOrgn	●
	001	Organ 1p	Organ 1p	★
	002	Organ 2p	Organ 2p	★
	008	Detuned Electric Organ 2	DetE.Or2	★
019	000	Rock Organ	RockOrgn	★●
020	000	Church Organ 1	ChchOrg1	
	001	Positive Organ 1	Positiv1	
	002	Positive Organ 2	Positiv2	
	008	Church Organ 2	ChchOrg2	★
	016	Church Organ 2	ChchOrg3	★
021	000	Reed Organ	ReedOrgn	
022	000	Accordion French	AcordiFr	★
	008	Accordion Italian	AcordiIt	★
023	000	Harmonica	Harmnica	
	001	Melodion	Melodion	
024	000	Tango Accordion	TangoAcd	★
025	000	Nylon-String Guitar	NylonGtr	
	008	Ukulele	Ukulele	
	032	Nylon-String Guitar 2	N.Gtr 2	
026	000	Steel-String Guitar	SteelGtr	
	008	12 Strings Guitar	12strGtr	★
	016	Mandolin	Mandolin	
027	000	Jazz Guitar	JazzGtr	

★ : 2 notes/v ◆ : 1/4 scale ● : not affected by Moduration el

INSTRUMENT LIST 2/4

Program No.(PC#)	Variation No.(VR#)	Name of Instrument	Display	Effect
027	008	Hawaiian Guitar	HawaiGtr	●
028	000	Clean Guitar	CleanGtr	
	008	Chorus Guitar	ChorsGtr	★
029	000	Muted Guitar	MuteGtr	
	008	Funk Guitar	FunkGtr	
030	000	Overdrive Guitar	Ovrdrive	
031	000	Distortion Guitar	Distortd	
	008	Feedback Guitar	FedbkGtr	★
032	000	Guitar Harmonics	Harmnics	
	008	Guitar Feedback	GtrFedbk	
033	000	Acoustic Bass	WoodBass	
034	000	Finger Bass	FngrBass	
035	000	Picked Bass	PickBass	
036	000	Fretless Bass	Fretless	
037	000	Slap Bass 1	SlapBas1	
038	000	Slap Bass 2	SlapBas2	
039	000	Synth Bass 1	SynBass1	
	001	Synth Bass 101	SBass101	
	008	Synth Bass 3	SynBass3	
040	000	Synth Bass 2	SynBass2	★
	008	Synth Bass 4	SynBass4	★
	016	Rubber Bass	RubrBass	★
041	000	Violin	Violin	
	001	Colnet Violin	ColnetVn	
	008	Slow Violin	Slow Vn	
042	000	Viola	Viola	
043	000	Cello	Cello	
044	000	Contrabass	Contra	
045	000	Tremolo Strings	TremStrg	
046	000	Pizzicato Strings	Pizzicto	
047	000	Orchestral Harp	Harp	
048	000	Timpani	Timpani	
049	000	Strings Ensamble 1	StrgEns1	
	001	Strings Ensamble 3	StrgEns3	
	002	Strings Ensamble 4	StrgEns4	★
	008	Orchestra	Orchestra	★
050	000	Strings Ensamble 2	StrgEns2	
051	000	Synth strings 1	SynStrg1	

Program No.(PC#)	Variation No.(VR#)	Name of Instrument	Display	Effect
051	008	Synth Strings 3	SynStrg3	★
052	000	Synth Strings 2	SynStrg2	★●
053	000	Aah Choir	AahChoir	
	001	Doremi C	DoremiC	
	002	Doremi C#	DoremiC#	
	003	Doremi D	DoremiD	
	004	Doremi D#	DoremiD#	
	005	Doremi E	DoremiE	
	006	Doremi F	DoremiF	
	007	Doremi F#	DoremiF#	
	008	Doremi G	DoremiG	
	009	Doremi G#	DoremiG#	
	010	Doremi A	DoremiA	
	011	Doremi A#	DoremiA#	
	012	Doremi B	DoremiB	
	032	Choir 2	Choir 2	
054	000	Ooh Choir	OohChoir	
055	000	Synth Choir	SynChoir	
056	000	Orchestra Hit	OrcheHit	
057	000	Trumpet	Trumpet	
058	000	Trombone	Trombone	
	008	Trombone 2	Trombon2	★
059	000	Tuba	Tuba	
060	000	Mute Trumpet	MuteTrmp	
061	000	French Horn	FrenchHr	★
	001	Flugel Horn	FlugelHr	
062	000	Brass Section 1	Brass 1	
	001	Brass Fall Down	BrasDown	
	008	Brass Section 2	Brass 2	★
063	000	Synth Brass 1	SynBras1	★
	008	Synth Brass 3	SynBras3	★
	016	Analog Brass 1	AnlgBrs1	★
064	000	Synth Brass 2	SynBras2	★
	008	Synth Brass 4	SynBras4	
	016	Analog Brass 2	AnlgBrs2	★
065	000	Soprano Sax	SprnoSax	
066	000	Alto Sax	Alto Sax	
067	000	Tenor Sax	TenorSax	

★ : 2 notes/voice ◆ : 1/4 scale ● : not affected by Moduration Wheel

INSTRUMENT LIST 3/4

Program No.(PC#)	Variation No.(VR#)	Name of Instrument	Display	Effect
067	001	Overblown Sax	OverbSax	
	002	Tenor Sax Velocity	Te.Sax v	★
068	000	Baritone Sax	Bari Sax	
069	000	Oboe	Oboe	
070	000	English Horn	EnglHorn	
071	000	Bassoon	Bassoon	
072	000	Clarinet	Clarinet	
073	000	Piccolo	Piccolo	
074	000	Flute	Flute	
	001	Flute 2	Flute 2	★
075	000	Recorder	Recorder	
	001	Recorder 2	Recorder2	★
076	000	Pan Flute	PanFlute	
077	000	Bottle Blow	Bottle	★
078	000	Shakuhachi	Shakhach	★
079	000	Whistle	Whistle	
080	000	Ocarina	Ocarina	
081	000	Square Lead	SquareLd	★
	001	Square	Square	
	002	Claviolin	Clavioln	
	008	Sine Wave	SinWave	
082	000	Saw Lead	Saw Ld	★
	001	Saw	Saw	
	008	Dr.Solo	Dr.Solo	★
083	000	Calliope Lead	CalliopLd	★
084	000	Chiffer Lead	Chiff Ld	★
085	000	Charang Lead	CharanLd	★
086	000	Voice Lead	Voice Ld	★
087	000	Fifth Lead	Fifth Ld	★
088	000	Bass & Lead	Bass &Ld	★
089	000	New Age Pad	NewAgePd	★
090	000	Warm Pad	Warm Pd	★
091	000	Polysynth Pad	PolySyPd	★
092	000	Choir Pad	Choir Pd	★
093	000	Bowed Pad	Bowed Pd	★
094	000	Metal Pad	Metal Pd	★●
095	000	Halo Pad	Halo Pd	★
096	000	Sweep Pad	Sweep Pd	★●

Program No.(PC#)	Variation No.(VR#)	Name of Instrument	Display	Effect
097	000	Ice Rain	Ice Rain	★
098	000	Sound Track	SoundTrk	★●
099	000	Crystal	Crystal	★
	001	Synth Mallet	S.Mallet	
100	000	Atmosphere	Atmosphr	★
101	000	Brightness	Bright	★
102	000	Goblin	Goblin	★
103	000	Echo Drops	Echoes	
	002	Echo Pan	Echo Pan	★
104	000	Sci-Fi	Sci-Fi	★
105	000	Sitar	Sitar	
	001	Sitar 2	Sitar 2	★
106	000	Banjo	Banjo	
107	000	Shamisen	Shamisen	
108	000	Koto	Koto	
	008	Taisho Goto	TaishoKt	★
109	000	Kalimba	Kalimba	
110	000	Bag Pipe	Bagpipe	
111	000	Fiddle	Fiddle	
112	000	Shanai	Shanai	
113	000	Tinkle Bell	TnkBell	★
114	000	Agogo	Agogo	
115	000	Steel Drum	Stl Drum	
116	000	Wood block	Woodblok	◆
	008	Castanet	Castanet	◆
117	000	Taiko Drum	Taiko Drm	◆
	001	Shime Daiko	SimTaiko	◆
	002	Tsuzumi	Tsuzumi	◆
	008	Concert Bass Drum	ConcrtBD	◆
118	000	Melodic Tom	MelodTom	◆
	008	Melodic Tom 2	MeloTom2	◆
119	000	Synth Tom	SynthTom	◆
	008	Analog Tom	AnalgTom	◆
120	000	Reverse Cymbal 1	RvCymbl1	★◆
	001	Reverse Cymbal 2	RvCymbl2	★◆
121	000	Guitar Fret Noise	FretNoiz	
	001	Guitar Cutting Noise	GtrCut	◆
	002	String Slap	StrngSlp	

★ : 2 note[illegible]e ◆ : 1/4 scale ● : not affected by Moduratio[illegible]heel

INSTRUMENT LIST 4/4

Program No.(PC#)	Variation No.(VR#)	Name of Instrument	Display	Effect
122	000	Breath Noise	BrthNoiz	
	001	Flute Key Click	FlKyClk	◆
123	000	Seashore	Seashore	★◆
	001	Rain	Rain	★◆
	002	Thunder	Thunder	◆
	003	Wind	Wind	◆●
	004	Stream	Stream	★◆●
	005	Bubble	Bubble	★◆
124	000	Bird Tweet	BrdTweet	★◆
	001	Dog	Dog	◆
	002	Horse Gallop	HorseGlp	◆
	003	Bird Tweet 2	Bird 2	◆●
125	000	Telephone Ring 1	TelRing1	◆
	001	Telephone Ring 2	TelRing2	◆
	002	Door Cleaking	DoorCrek	◆
	003	Door Slam	Door	◆
	004	Turntable Stop	Scratch	◆
	005	Wind Chime	WindChim	★◆
126	000	Helicopter	Helicptr	◆
	001	Car Engine	CarEngin	◆
	002	Car Stop	CarStop	◆
	003	Car Pass	CarPass	◆
	004	Car Crash	CarCrash	◆
	005	Siren	Siren	◆
	006	Train	Train	◆
	007	Jet Plane	JetPlane	★◆●
	008	Star Ship	Starship	★◆●
	009	Burst Noise	BurstNiz	★◆●
127	000	Applause	Applause	★◆
	001	Laughing	Laughing	◆
	002	Scream	Screamin	◆
	003	Punch	Punch	◆
	004	Heart Beat	HeartB't	◆
	005	Foot Step	Footstep	◆
128	000	Gun Shot	GunShot	◆
	001	Machine Gun	MachnGun	◆
	002	Laser Gun	LaserGun	◆
	003	Explosion	Explsion	★◆

★ : 2 notes/voice ◆ : 1/4 scale ● : not affected by Moduration Wheel

PC#	VR#	Name of Instrument	Description									
017	000	Drawbar Organ	Resist	16	5-1/3	8	4	2-2/3	2	1-3/5	1-1/3	1 p
	001	Organ 1	Organ	8	8	8	0	0	0	0	0	6
	002	Organ 2	Organ	8	8	8	8	0	0	0	0	0
	003	Organ 3	Organ	8	4	6	3	1	0	0	0	0
	004	Organ 4	Organ	8	8	0	0	8	0	0	0	0
	005	Organ 5	Organ	8	0	8	8	0	0	0	0	0
	006	Organ 6	Organ	8	0	5	3	0	0	0	0	0
	007	Organ 7	Organ	8	0	8	0	0	0	0	0	0
	008	Detuned Electric Organ 1	Detune of Drawbar Organ									
	009	Organ 8	Organ	8	0	5	0	0	0	0	0	0
	010	Organ 9	Organ	8	0	0	8	0	0	0	0	0
	011	Organ 10	Organ	8	0	0	0	8	0	0	0	0
	012	Organ 11	Organ	8	0	0	0	0	8	0	0	0
	013	Organ 12	Organ	8	0	0	0	0	0	0	0	8
	014	Organ 13	Organ	8	0	0	0	0	0	8	8	8
	015	Organ 14	Organ	8	0	8	0	0	0	8	8	8
	016	Organ 15	Organ	8	0	6	8	0	4	0	0	3
	017	Organ 16	Organ	8	0	8	0	8	0	8	0	6
	018	Organ 17	Organ	3	2	3	4	7	3	2	4	4
	019	Organ 18	Organ	3	2	4	8	3	6	0	5	6
	020	Organ 19	Organ	8	8	8	0	0	0	4	4	4
	021	Organ 20	Organ	8	8	8	8	8	4	4	4	4
	022	Organ 21	Organ	8	6	4	2	1	2	3	5	6
	023	Organ 22	Organ	8	6	7	8	5	6	5	6	6
	024	Organ 23	Organ	0	8	8	0	6	0	0	0	0
	025	Organ 24	Organ	0	8	8	8	0	0	0	0	0
	026	Organ 25	Organ	0	2	8	0	0	0	0	6	0
018	001	Organ 1p	Organ	8	8	8	0	0	0	0	0	6 T
	002	Organ 2p	Organ	8	8	8	8	0	0	0	0	0 T
023	001	Melodion	Melodion	Bass.....Soprano								
053	001	Doremi C	DoremiC			C						
	002	Doremi C#	DoremiC#			C#						
	003	Doremi D	DoremiD			D						
	004	Doremi D#	DoremiD#			D#						
	005	Doremi E	DoremiE			E						
	006	Doremi F	DoremiF			F						
	007	Doremi F#	DoremiF#			F#						
	008	Doremi G	DoremiG			G						
	009	Doremi G#	DoremiG#			G#						
	010	Doremi A	DoremiA			A						
	011	Doremi A#	DoremiA#			A#						
	012	Doremi B	DoremiB			B						
067	002	Tenor Sax Velocity	Tone changes by Velocity									
074	001	Flute 2	Flute with Breath Noise									
075	001	Recorder 2	Tonguing Play									
120	001	Reverse Cymbal 2	On during Note On									
121	000	Guitar Fret Noise	Below 3C									
	001	Guitar Cutting Noise	Up Stroke below 4C, Down Stroke on and above 4C									
126	006	Train	Railroad Crossing below 3C									

DRUM SET LIST 1/2

Note No.		PC# 001:STANDARD Set/ 033:JAZZ Set	PC# 009:ROOM Set	PC# 017:POWER Set	PC# 025:ELECTRONIC Set	PC# 026:Analog Set	PC# 041:BRUSH Set	PC# 049:ORCHESTRA Set	PC# 057:SFX Set
Key No.	Scale								
27	1D#	High Q						Closed Hi-Hat[EXC1]	*****
28	1E	Slap						Pedal Hi-Hat[EXC1]	*****
29	1F	Scratch Push[EXC7]						Open Hi-Hat[EXC1]	*****
30	1F#	Scratch Pull[EXC7]						Ride Cymbal	*****
31	1G	Sticks							*****
32	1G#	Square Click							*****
33	1A	Metronome Click							*****
34	1A#	Metronome Bell							*****
35	1B	Kick Drum 2						Concert BD 2	*****
36	2C	Kick Drum 1		MONDO Kick	Elec BD	Analog Bass Drum		Concert BD 1	*****
37	2C#	Side Stick				Analog Rim Shot			*****
38	2D	Snare Drum 1		Gated SD	Elec SD	Analog Snare Drum 1	Brush Tap	Concert SD	*****
39	2D#	Hand Clap					Brush Slap	Castanets	High Q
40	2E	Snare Drum 2			Gated SD	Analog Snare Drum 2	Brush Swirl	Concert SD	Slap
41	2F	Low Tom 2	Room Low Tom 2	Room Low Tom 2	Elec Low Tom 2	Analog Low Tom 2		Timpani F	Scratch Push[EXC7]
42	2F#	Closed Hi-Hat[EXC1]				Analog CHH[EXC1]		Timpani F#	Scratch Pull[EXC7]
43	2G	Low Tom 1	Room Low Tom 1	Room Low Tom 1	Elec Low Tom 1	Analog Low Tom 1		Timpani G	Sticks
44	2G#	Pedal Hi-Hat[EXC1]				Analog CHH[EXC1]		Timpani G#	Square Click
45	2A	Mid Tom 2	Room Mid Tom 2	Room Mid Tom 2	Elec Mid Tom 2	Analog Mid Tom 2		Timpani A	Metronome Click
46	2A#	Open Hi-Hat[EXC1]				Analog OHH[EXC1]		Timpani A#	Metronome Bell
47	2B	Mid Tom 1	Room Mid Tom 1	Room Mid Tom 1	Elec Mid Tom 1	Analog Mid Tom 1		Timpani B	Guitar Sliding Finger
48	3C	High Tom 2	Room Hi Tom 2	Room Hi Tom 2	Elec Hi Tom 2	Analog Hi Tom 2		Timpani c	Guitar Cutting Noise (down)
49	3C#	Crash Cymbal 1				Analog Cymbal		Timpani c#	Guitar Cutting Noise (up)
50	3D	High Tom 1	Room Hi Tom 1	Room Hi Tom 1	Elec Hi Tom 1	Analog Hi Tom 1		Timpani d	String Slap of Double Bass
51	3D#	Ride Cymbal 1						Timpani d#	Fl. Key Click
52	3E	Chinese Cymbal			Reverse Cymbal ★			Timpani e	Laughing
53	3F	Ride Bell						Timpani f	Screaming
54	3F#	Tambourine							Punch
55	3G	Splash Cymbal							Heart Beat
56	3G#	Cowbell				Analog Cowbell			Footsteps 1
57	3A	Crash Cymbal 2						Concert Cymbal 2	Footsteps 2
58	3A#	Vibra-slap							Applause★
59	3B	Ride Cymbal 2						Concert Cymbal 1	Door Creaking
60	4C	High Bongo							Door
61	4C#	Low Bongo							Scratch
62	4D	Mute High Conga				Analog Hi Conga			Windchime★
63	4D#	Open High Conga				Analog Mid Conga			Car-Engine
64	4E	Low Conga				Analog Low Conga			Car-Stop
65	4F	High Timbale							Car-Pass

: Same as the Standard Set Percussion PC#:Program change No. ★:2 notes/voice [EXC]:Percussion voice of the same number do not sound at the same time. *******:No sound

DRUM SET LIST 2/2

Note No.		PC# 001:STANDARD Set/ 033:JAZZ Set	PC# 009:ROOM Set	PC# 017:POWER Set	PC# 025:ELECTRONIC Set	PC# 026:Analog Set	PC# 041:BRUSH Set	PC# 049:ORCHESTRA Set	PC# 057:SFX Set
Key No.	Scale								
66	4F#	Low Timbale							Car-Crash
67	4G	High Agogo							Siren
68	4G#	Low Agogo							Train
69	4A	Cabasa							Jetplane★
70	4A#	Maracas				Analog Maracas			Helicopter
71	4B	Short Hi Whistle[EXC2]							Starship★
72	5C	Long Low Whistke[EXC2]							Gun Shot
73	5C#	Short Guiro[EXC3]							Machine Gun
74	5D	Long Guiro[EXC3]							Laser Gun
75	5D#	Claves				Analog Claves			Explosion★
76	5E	High Wood Block							Dog
77	5F	Low Wood Block							Horse-Gallop
78	5F#	Mute Cuica[EXC4]							Birds★
79	5G	Open Cuica[EXC4]							Rain★
80	5G#	Mute Triangle[EXC5]							Thunder
81	5A	Open Triangle[EXC5]							Wind
82	5A#	Shaker							Seashore★
83	5B	Jingle Bell							Stream★
84	6C	Bell Tree							Bubble★
85	6C#	Castanets							*****
86	6D	Mute Surdo[EXC6]							One
87	6D#	Open Surdo[EXC6]							*****
88	6E	******	******	******	******	******	******	Applause ★	Two
89	6F	******	******	******	******	******	******	******	Three
90	6F#	******	******	******	******	******	******	******	*****
91	6G	******	******	******	******	******	******	******	Hit It
92	6G#	Finger Snap							*****
93	6A	Snare Drum Roll							

: Same as the Standard Set Percussion PC#:Program change No. ★:2 notes/voice [EXC]:Percussion voice of the same number do not sound at the same time. *******:No sound

GM-1000 SPECIFICATIONS

SOUND ENGINE: ..... V.A.S.E. Maximum Polyphony 32 notes

WAVE MEMORY: ..... PCM 64 Mbit

EFFECTER: ..... Digital Reverb 8 degrees

Digital Chorus 8 degrees

VOICES: ..... 368 ..... GM 128

VARIATION 138

DRUM ..... 102 (9 DRUM SETS)

DISPLAY: ..... LCD 2 lines of 24 letters with Back Light

OUTPUT JACK: ..... Audio Left and Right

Headphone Terminal (Stereo Mini Jack)

MIDI TERMINAL: ..... IN 1, IN 2, OUT, THROUGH

COMPUTER INTERFACE: ..... SERIAL I/F ..... RS422(Apple Macintosh series)

..... RS232C-1 (NEC PC 9800 series)

..... RS232C-2 (IBM PC AT series)

..... MIDI IN2 (When you switch to [MIDI IN2], the Serial Interface is disconnected.)

POWER: ..... DC10V 1A (Adapter)

ELECTRICITY: ..... 700 mA

DIMENSION: ..... 218 (W) x 251 (D) x 44 (H) mm

WEIGHT: ..... 1.5 Kg

ACCESSORIES: ..... AC ADAPTER

MIDI Cable

Audio Cable

MIDI INFORMATION

1. RECEIVING DATA

[CHANNEL VOICE MESSAGE]

● 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 = Velocity: (Disregard)	00H - 7FH (0 - 127)

● 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 = Velocity:	00H - 7FH (0 - 127)

● CONTROL CHANGE

*The value set by the Control Change is not reset even when Program Change messages etc. are received.

○ BANK SELECT

STATUS	2ND BYTE	3RD BYTE
BnH	00H	mmH
BnH	20H	llH

n = MIDI Channel Number:	0H - FH (Ch.1 - Ch.16)
mm,ll = Bank Number:	00 00H - 7F 7FH (Bank 1 - Bank 16384) Default Value = 00 00H (Bank)

When "GM System ON" is received, it makes Rx. BANK SELECT = OFF and the Bank Select is not received.
When "Full Parameter Reset" is received, it makes Rx. BANK SELECT = ON.

* The processes the Lower Byte (llH) of the Bank Number as 00H.
  However, when you send the Bank Select, be sure to send both Upper Byte (mmH) and Lower Byte (llH).
* Until you send the Program Change, the Bank Select process is reserved.
* The [Variation No.] in the INSTRUMENT LIST are values of MSB (Control Number 0) of the Bank Select, using the decimal system.

○ MODULATION

STATUS	2ND BYTE	3RD BYTE
BnH	01H	vvH

n = MIDI Channel Number:	0H - FH (Ch.1 - Ch.16)
vv = Modulation Depth:	00H - 7FH (0 - 127)

* The Pitch Modulation does not work on certain voices.

○ DATA ENTRY

STATUS	2ND BYTE	3RD BYTE
BnH	06H	mmH (MSB)
BnH	26H	llH (LSB)

n = MIDI Channel Number: 0H - FH (Ch.1 - Ch.16)
mm,ll = Value for the Parameter designated by RPN/NRPN.

○ VOLUME

STATUS	2ND BYTE	3RD BYTE
BnH	07H	vvH

n = MIDI Channel Number:	0H - FH (Ch.1 - Ch.16)
vv = Volume:	00H - 7FH (0 - 127) Default Value = 64H (100)

* It controls the volume of the Part corresponding to the MIDI Channel of the received message.
  The volume message is used to set the volume balance of each Part.

○ PANPOT

STATUS	2ND BYTE	3RD BYTE
BnH	0AH	vvH

n = MIDI Channel Number:	0H - FH (Ch.1 - Ch.16)
vv = Panpot:	00H - 40H - 7FH (0 - 64 - 127) Default Value = 40H (64)

* 127 control steps. 0: left 64: middle 127: right
* The Rhythm Part changes the overall panpot setting of each Instrument relatively.

○ EXPRESSION

STATUS	2ND BYTE	3RD BYTE
BnH	0BH	vvH

n = MIDI Channel Number:	0H - FH (Ch.1 - Ch.16)
vv = Expression:	00H - 7FH (0 - 127) Default Value = 7FH (127)

* You can control the volume of the Part corresponding to the MIDI Channel of the received message, independently of the volume message.
  Expression message is used to express intonation of the expression pedal, crescendo or decrescendo.

○ HOLD 1

STATUS	2ND BYTE	3RD BYTE
BnH	40H	vvH

n = MIDI Channel Number:	OH - FH (Ch.1 - Ch.16)
vv = Control Value:	00H - 7FH (0 - 127) 1 - 127 = ON 0 = OFF

○ GENERAL EFFECT 1 (Reverb Level)

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) Default Value = 28H (40)

* You can control the Reverb Send Level of the Part corresponding to the MIDI Channel of the received message.

○ GENERAL EFFECT 3 (Chorus Send Level)

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) Default Value = 00H (0)

* You can control the Chorus Send Level of the Part corresponding to the MIDI Channnel of the received message.

○ NRPN MSB/LSB

STATUS	2ND BYTE	3RD BYTE	
BnH	63H	mmH	(MSB)
BnH	62H	llH	(LSB)

n = MIDI Channel Number: 0H - FH (Ch.1 - Ch.16)
mm = Upper Byte of the Parameter Number designated by NRPN [MSB]
ll = Lower Byte of same [LSB]

* When "GM System is On" is received, it makes Rx. NRPN = OFF, it does not receive NRPN.
* When Full Parameter Reset or Rx. NRPN = ON is received, it is possible to receive NRPN.
* The value set by NRPN is not reset even if "Program Change", "Reset All Controller", etc. are received.

===== NRPN =====

"NON REGISTERED PARAMETER NUMBER"

The expansive range named NRPN is provided in the Control Change, which function is specific on each equipment and not defined in the MIDI Standard.
When you use it, designate the parameter to control, by giving NRPN MSB and NRPN LSB, and then set the value of the designated parameter by the Data Entry.
Once the NRPN parameter is designated, all the data entry received into the same channel after that is regarded as the change of the value of the parameter. To avoid any mis-operation, we suggest you to set RPN Null (RPN = 7FH/7FH), after setting the necessary parameter value.
On this sound module you can change the voice parameter by using NRPN.

NRPN MSB	NRPN LSB	Data entry MSB	Function and Range
01H	08H	mmH	Vibrato Rate (Relative Change) mm:00H - 40H - 7FH (−63 - 0 - +63)
01H	09H	mmH	Vibrato Depth (Relative Change) mm:00H - 40H - 7FH (−63 - 0 - +63)
01H	0Ah	mmH	Vibrato Delay (Relative Change) mm:00H - 40H - 7FH (−63 - 0 - +63)
01H	20H	mmH	Cut Off Frequency (Relative Change) mm:00H - 40H - 7FH (−63 - 0 - +63)
01H	21H	mmH	Resonance (Relative Change) mm:00H - 40H - 7FH (−63 - 0 - +63)
01H	63H	mmH	Envelope Attack Time (Relative Change) mm:00H - 40H - 7FH (−63 - 0 - +63)
01H	64H	mmH	Envelope Decay Time (Relative Change) mm:00H - 40H - 7FH (−63 - 0 - +63)
01H	66H	mmH	Envelope Release Time (Relative Change) mm:00H - 40H - 7FH (−63 - 0 - +63)
18H	rrH	mmH	Drum Instrument Pitch Course (Relative Change) rr. Drum Instrument Note Number mm: 00H - 40H - 7FH
1AH	rrH	mmH	Drum Instrument Level (Absolute Change) rr: Drum Instrument Note Number mm: 00H - 7FH (0 ~ Maximum)
1CH	rrH	mmH	Drum Instrument Panpot (Absolute Change) rr: Drum Instrument Note Number mm: 00H - 40H - 7FH (L - C - R)
1DH	rrH	mmH	Drum Instrument Reverb Send Level (Absolute Change) rr: Drum Instrument Note Number mm: 00H - 7FH (0 ~ Maximum)
1EH	rrH	mmH	Drum Instrument Chorus Send Level (Absolute Change) rr: Drum Instrument Note Number mm: 00H - 7FH (0 ~ Maximum)

* Disregard LSB (llH) of Data Entry.
* The Parameter of Relative Change relatively changes based on the preset value (40H).
* The Parameter of Absolute Change sets the absolute parameter value by the value from MIDI, regardless of the preset data.

○ RPN MSB/LSB

STATUS	2ND BYTE	3RD BYTE	
BnH	65H	mmH	(MSB)
BnH	64H	llH	(LSB)

n = MIDI Channel Number: 0H - FH (Ch.1 - Ch.16)
mm = Upper Byte of the Parameter Number designated by RPN [MSB]
ll = Lower Byte of same [LSB]

* The Value set by RPN is not reset by receiving the Program Change or Reset All Controller etc.

===== RPN =====

"REGISTERED PARAMETER NUMBER"

The expansive range named RPN is provided in the Control Change, which function is specific on each equipment and not defined in the MIDI Standard.
When you use it, designate the parameter to control, by giving RPN MSB and RPN LSB, and then set the value of the designated parameter by the Data Entry.
Once the RPN parameter is designated, all the data entry received into the same channel after that is regarded as the change of the value of the parameter. To avoid any mis-operation, we suggest you to set RPN Null, after setting the necessary parameter value.
The RPN's this sound module receives are Pitch Bend Sensitivity (RPN#0), Master Course Tune (RPN#2), Master Fine Tune (RPN#1) and RPN NULL (RPN#16383).

RPN MSB	RPN LSB	Data entry MSB	Data entry LSB	Description
00H	00H	mmH	---	Pitch Bend Sensitivity mm: 00H - 18H (0 ~ 24 Notes) Initial Value = 02H (2 Semitones) ll: Disregard. (Treated as 00H) Possible to designate upto 2 octaves of semitone steps
00H	01H	mmH	llH	Master Fine Tuning mm, ll: 00 00H - 40 00H - 7F 7FH (−8192×100/8192 - 0 - +8191×100/8192) cent
00H	02H	mmH	---	Master Course Tuning mm: 28H - 40H - 58H (−24 - 0 - +24 Semitones) ll: Disregard. (Treated as 00H)
7FH	7FH	---	---	RPN Null Change to the status that neither RPN nor NRPN is designated. The value already set does not change. mm, ll: Disregard.

● PROGRAM CHANGE

STATUS	2ND BYTE
CnH	ppH

n = MIDI Channel Number: 0H - FH (Ch.1 - Ch.16)
pp = Program Number: 00H - 7FH (Prog. 1 - Prog. 128)

* The voice changes from the fresh Note ON after receiving the Program Change.
The already sounding voice before this change is not affected.

● PITCH BEND CHANGE

STATUS	2ND BYTE	3RD BYTE
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)

* The contents of the effect are Pitch Bend.

[CHANNEL MODE MESSAGE]

● ALL SOUND OFF

STATUS	2ND BYTE	3RD BYTE
BnH	78H	00H

n = MIDI Channel Number: 0H - FH (Ch.1 - Ch.16)

* When the receives this message, it cuts out all sounding voice. However, the status of the channel message does not change.

● RESET ALL CONTROLLER

STATUS	2ND BYTE	3RD BYTE
BnH	79H	00H

n = MIDI Channel Number: 0H - FH (Ch.1 - Ch.16)

* When it receives this message, the value of the following Controller changes:

Controller Set	Value
Pitch Bend Change	±0 (Middle Point)
Hold 1	0 (OFF)
Modulation	0 (OFF)
Expression	127 (Maximum)
RPN:	not set. The data already set does not change.
NRPN:	not set. The data already set does not change.

● ALL NOTES OFF

STATUS	2ND BYTE	3RD BYTE
BnH	7BH	00H

n = MIDI Channel Number: 0H - FH (Ch.1 - Ch.16)

* When the receives "ALL NOTES OFF", it switches OFF all notes (being switched on) of the corresponding channel. However, if HOLD 1 is ON, sounding does not finish until they are switched OFF.

[SYSTEM EXCLUSIVE MESSAGE]

STATUS	DATA BYTE	STATUS
F0H	iiH、ddH、...,eeH	F7H

F0H: Status of System Exclusive Message
ii = ID Number: ID Number to recognize whose (which manufacturer's) Exclusvie Message = Manufacturer's ID
The ID No. for HAMMOND SUZUKI is 55H.
The ID Numbers 7EH and 7FH are used as MIDI Standard Expansions. 7EH: Universal Non-Real Time Message, and 7FH: Universal Real Time Message.
dd...ee = Data: 00H - 7FH (0 - 127)
F7H: EOX (End Of Exclusive)

The System Exclusive Messages the receives include Mode Setting Message, Universal Real Time System Exclusive Message, and Data Set (DT 1).

● MODE SETTING SYSTEM EXCLUSIVE MESSAGE

This message is used to initialize the to the mode of Full Parameter or General MIDI (GM).
For [FULL PARAMETER RESET], HAMMOND SUZUKI's Exclusive Format [Data Set (DT 1)] is used, and, for [GM SYSTEM ON], Universal Non-Real Time Message Format is used.

○ FULL PARAMETER RESET

STATUS	DATA BYTE	STATUS
F0H	55H, 10H, 42H, 12H, 40H, 00H, 7FH, 00H, 41H	F7H

BYTE	DESCRIPTION
F0H:	Exclusive Status
55H:	ID Number (HAMMOND SUZUKI)
10H:	Device ID
42H:	Model ID
12H:	Command ID (DT 1)
40H:	Address MSB
00H:	Address
7FH:	Address LSB
00H:	Data (Full Parameter Reset)
41H:	Checksum
F7H:	EOX (End OF Exclusive)

* When the receives this message, it is reset to the initial status of Full Parameter, and gets ready for receiving the music data for the Full Parameter correctly.
* It takes about 50 ms to activate this message. Take an interval before the next message.

○ GM SYSTEM ON

STATUS	DATA BYTE	STATUS
F0H	7EH, 7FH, 09H, 01H	F7H

BYTE	DESCRIPTION	
FOH:	Exclusive Status	
7EH:	ID Number	(Universal Non-Real Time 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 the receives this message, it is reset to the initial status of GM (General MIDI Performance - Level 11) and gets ready for correctly receiving the GM score (Level 1). At this time, it makes Rx. NRPN = OFF, Rx. Bank sel = OFF.
* It takes about 50 ms to activate this message. Take enough interval before the next message.

● UNIVERSAL REAL TIME SYSTEM EXCLUSIVE MESSAGE

○ MASTER VOLUME

STATUS	DATA BYTE	STATUS
F0H	7FH, 7FH, 04H, 01H, llH, mmH	F7H

BYTE	DESCRIPTION
F0H:	Exclusive Status
7FH:	ID Number (Universal Real Time Message)
7FH:	Device ID (Broadcast)
04H:	Sub. ID #1 (Device Control Message)
01H:	Sub. ID #2 (Master Volume)
llH:	Lower Byte of the Master Volume
mmH:	Upper Byte of the Master Volume
F7H:	EOX (End Of Exclusive)

* The Lower Byte of the Master Volume (llH) is treated as 00H.

○ MASTER PAN

STATUS	DATA BYTE	STATUS
F0H	7FH, 7FH, 04H, 02H, mmH	F7H

BYTE	DESCRIPTION
FOH:	Status of System Exclusive Message
7FH:	ID Number (Universal Real Time Message)
7FH:	Device ID
04H:	Sub. ID #1
02H:	Sub. ID #2
00H:	Lower Byte of the Master Pan
mmH:	Upper Byte of the Master Pan
F7H:	EOX (End Of Exclusive)

● DATA TRANSMISSION

This sound module can do various internal setting and transmit inter-equipment data, by using the exclusive message.

○ DATA SET 1 DT 1 (12H)

This message transmits the actual data for setting the data for equipments.

BYTE	DESCRIPTION
F0H:	Exclusive Status
55H:	ID Number (HAMMOND SUZUKI)
dev:	Device ID (10H fix)
42H:	Model ID
12H:	Command ID (DT 1)
aaH:	Address MSB (Upper Byte of the Head Address of Transmitted Data)
bbH:	Address (Middle Byte of ")
ccH:	Address LSB (Lower Byte of ")
ddH:	Data (Main portion of the Transmitted Data. Data of plural Bytes are transmitted in the order of address.
: :	:
eeH:	Data
sum:	Checksum
F7H:	EOX (End Of Exclusive)

* The number of data to be transmitted at one time is fixed type by type of data. And the data are not received if not of the fixed head address and size.

(aa+bb+cc+dd+ee) ÷ 128 = Quotient ··· remainder
128 − remainder = check sum

* Send the data of the size of over 128 Bytes, divide them to smaller size packetst than 128 Bytes each.
* When to continuously send the [Data Set 1], take a longer interval than 40 ms between packets.

2. TRANSMISSION DATA

Only at the time of BULK DUMP.

● CONTENTS OF BULK DUMP

· SYSTEM PARAMETER ..... MASTER VOLUME
MASTER PAN
MODE SET (GM/Full Parameter)

· PATCH PARAMETER ..... MODE SET
VOICE PARAMETER
PART PARAMETER
SOUND PARAMETER

GLOBAL - REVERB,
CHORUS PARAMETER

· DRUM PARAMETER DRUM (Sends only the parameter changed from the status of Reset

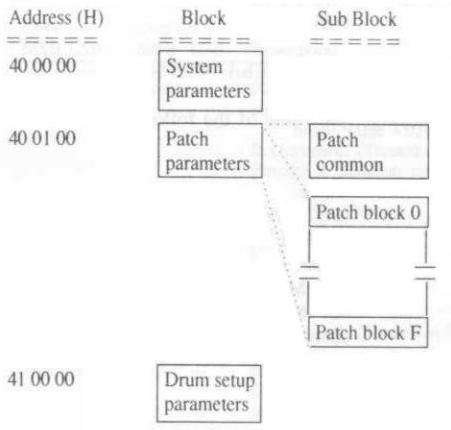
3. PARAMETER ADDRESS MAP

This MAP describes the Address, Size, Data range, Data parameter, Data Description and Default Value, at the time of sending the data by [Data Set 1] of the Exclusive Message.

The Address, Size, Data and Default Value are described by Hexadecimal (16-) system.

[ADDRESS BLOCK MAP]

The outline of the Address Map of the Exclusive Message is as follows:



[INDIVIDUAL PARAMETER]

sends the data of one parameter by one exclusive message (1 packet of [F0.....F7]).
Even if the address is continuous, it is not possible to transmit the data corresponding to plural parameters by one packet.
To transmit individual parameters, use the Address and Size described in the following [PARAMETER ADDRESS MAP]:

SYSTEM PARAMETER

The Parameter for the whole equipment is called [SYSTEM PARAMETER].

Address(H)	Size(H)	Data(H)	Parameter	Description	Default Value(H)	Description
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 [semitone]	40	0 [semitone]
40 00 06	00 00 01	01 - 7F	MASTER PAN (=F0 7F 7F 00 02 00 mm F7)	00 - 7F	40	center
40 00 7F	00 00 01	00 - 7F	MODE SET (Rx. only)	00 - 7F =Full Parameter Reset		

Ex.) Send the following message to increase the master volume to 100.
F0 55 10 42 12 40 00 04 64 58 F7

PATCH PARAMETER

The has 16 PARTS and does various settings for each PART.
The parameter for each PART is called PATCH PARAMETER. Designate the Address by the Block Number, and not by the Part Number (usually the same number as the MIDI Channel), to communicate the Patch Parameter Information by the Exclusive Message.

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

○ PATCH COMMON

Address(H)	Size(H)	Data(H)	Parameter	Description	Default Value(H)	Description
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: Church	04	Hall 2
40 01 31	00 00 01	00 - 07	REVERB CHARACTER	0 - 7	04	0
40 01 32	00 00 01	00 - 07	REVERB PRE-LPF	0 - 7	03	3
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	2A	42

* REVERB MACRO: the parameter to set the preset Reverb Type.
By changing this, the value of Character, Time, and PRE-LPF changes to the Preset value of each type.

40 01 38	00 00 01	00 - 07	CHORUS MACRO	00: Chorus 1 01: Chorus 2 02: Chorus3 (LESLIE S) 03: Chorus4 (LESLIE F) 04: Echo 05: Flanger 06: Delay 1 07: Delay 2	01	Chorus 2
40 01 3A	00 00 01	00 - 7F	CHORUS LEVEL	0 - 127	40	64
40 01 3D	00 00 01	00 - 25	CHORUS RATE	0 - 37	02	2

CHORUS MACRO: the parameter for setting the preset Chorus Type. By changing this, the value of the Rate changes to the Preset of each Type.

○ PATCH BLOCK

Address(H)	Size(H)	Data(H)	Parameter	Description	Default Value(H)	Description
40 1x 15	00 00 01	00 - 02	USE FOR RHYTHM PART	0=OFF 1=MAP 1 2=MAP 2	00 at x≠0 01 at x=0	OFF MAP 1

* This is the Parameter to set the DRUM MAP of the PART to use as the DRUM PART. You can use on this sound module Maximum 2 DRUM MAPS (MAP 1 and MAP 2) at the same time (in different Parts).
* The Default value: PART 10 (MIDI CH = 10, x = 0) --- MAP 1 (1) Other PART --- Normal Instrument Voice Part (OFF (0), Normal Part)

Address(H)	Size(H)	Data(H)	Parameter	Description	Default Value(H)	Description
40 1x 02	00 00 01	00 - 0F, 10	Rx-Mch	1 - 16, OFF	Same as Part #	
40 1x 0A	00 00 01	00 - 01	Rx-NRPN	OFF/ON	00	OFF
40 1x 16	00 00 01	28 - 58	PITCH KEY SHIFT	−24 - +24 [semitone]	40	0 [semitone]
40 1x 17	00 00 02	08 - F8	PITCH OFFSET FINE	−12.0 - +12.0[Hz]	08 00	0 [Hz]
40 1x 23	00 00 01	00 - 01	Rx-BANK SELECT	OFF/ON	01	ON
40 1x 30	00 00 01	00 - 7F	VIBRATO RATE	−63 - 0 - +63 (=Bn 63 01 62 08 06 vv)	40	0
40 1x 31	00 00 01	00 - 7F	VIBRATO DEPTH	−63 - 0 - +63 (=Bn 63 01 62 09 06 vv)	40	0
40 1x 32	00 00 01	00 - 7F	CUTOFF FREQ.	−63 - 0 - +63 (=Bn 63 01 62 20 06 vv)	40	0
40 1x 33	00 00 01	00 - 7F	RESONANCE	−63 - 0 - +63 (=Bn 63 01 62 21 06 vv)	40	0
40 1x 34	00 00 01	00 - 7F	ENV. ATTACK	−63 - 0 - +63 (=Bn 63 01 62 63 06 vv)	40	0
40 1x 35	00 00 01	00 - 7F	ENV. DECAY	−63 - 0 - +63 (=Bn 63 01 62 64 06 vv)	40	0
40 1x 36	00 00 01	00 - 7F	ENV. RELEASE	−63 - 0 - +63 (=Bn 63 01 62 66 06 vv)	40	0
40 1x 37	00 00 01	00 - 7F	VIBRATO DELAY	−63 - 0 - +63 (=Bn 63 01 62 0A 06 vv)	40	0

● DRUM SETUP PARAMETER

*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	PITCH COARSE (=Bn 63 18 62 rr 06 vv)	
41 m2 rr	00 00 01	00 - 7F	LEVEL (=Bn 63 1A 62 rr 06 vv)	
41 m4 rr	00 00 01	00 - 7F	PANPOT (=Bn 63 1C 62 rr 06 vv)	−63(LEFT) −0(C) - +63(RIGHT)
41 m5 rr	00 00 01	00 - 7F	REVERB SEND LEVEL Multiplicand of the part reverb level (=Bn 63 1D 62 rr 06 vv)	0.0 - 1.0
41 m6 rr	00 00 01	00 - 7F	CHORUS SEND LEVEL Multiplicand of the part chorus level (=Bn 63 1E 62 rr 06 vv)	0.0 - 1.0

* When the DRUM SET is changed, all the DRUM SETUP PARAMETER value is initialized (goes back to the Default value).

[HAMMOND GM SOUND MODULE GM-1000] Date : July 1, 1994

Model : GM - 1000

MIDI Implementation Chart

Version : 2.0

Function.....		Transmitted	Recognized		Remarks
Basic Channel	Default	1-16	1-16		
	Changed	**********	**********		
Mode	Default	MODE 3	MODE 3		
	Message	×	×		
	Altered	**********	**********		
Note Number:	True voice	×	0-127		
		**********	0-127		
Velocity	Note ON	×	○		
	Note OFF	×	×		
After Touch	Key's	×	×		
	Ch's	×	×		
Pitch Bend		×	○		
Control Change	0, 32	○	○		BANK SELECT
	1	○	○		MODULATION
	6,38	○	○		DATA ENTRY
	7	○	○		VOLUME
	10	○	○		PANPOT
	11	○	○		EXPRESSION
	64	×	○		HOLD 1
	91	○	○		REVERB
	93	○	○		CHORUS
	98, 99	○	○		NRPN LSB, MSB
	100, 101	○	○	*1	RPN LSB, MSB
	120	×	○		ALL SOUND OFF
	121	×	○		RESET ALL CONTROLLER
Prog Change : True #		○	0-127		
		**********			
System Exclusive		○	○		
Common	: Song	×	×		
	: Song Sel	×	×		
	: Tune	×	×		
System Real Time	: Clock	×	×		
	: Commands	×	×		
Aux Mes-sages	: Local ON/OFF	×	×		
	: All Notes OFF	×	○		(123)
	: Active Sense	×	×		
	: Reset	×	×		
Notes		*1 : PITCH BEND SENSITIVITY COARSE TUNE FINE TUNE			

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

○ : Yes
× : No

SERVICE

When you have any question or problem about this HAMMOND Sound Module GM-1000, ask your dealer whom you purchased it from.

The warranty period for this GM-1000 is one year from your purchase.
If this GM-1000 has a trouble due to inferior material or factory's negligence, it is repaired or replaced by your dealer or our service center at our (the manufacturer's) cost.

If have a problem after the warranty period is over, ask you dealer if repairable or not. If yes, it will

GM-1000 SERIAL NUMBER:

YOUR DEALER

YOUR PURCHASE DATE

HAMMOND SUZUKI'S MAIN DISTRIBUTORS:

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