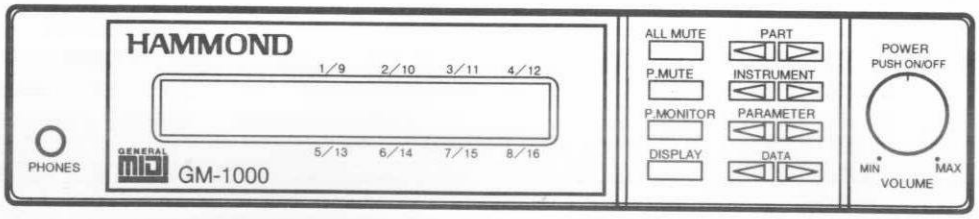
# HAMMOND
# GM SOUND MODULE
# GM-1000
## OPERATION MANUAL




HAMMOND SUZUKI, LTD.
Hamamatsu, Japan

# CONTENTS

# 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<br>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 >>**

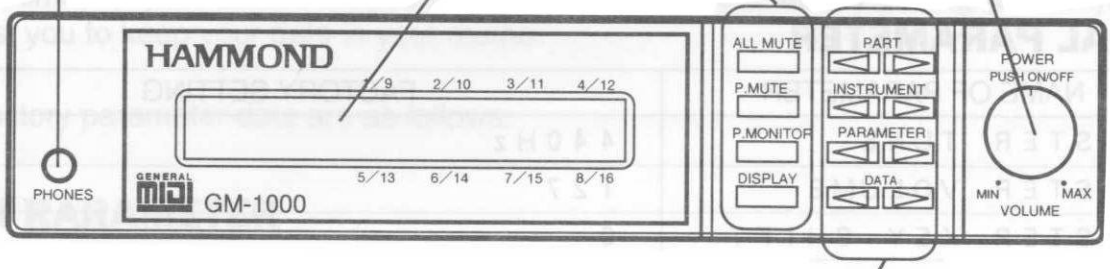
# 4. NAME AND FUNCTION OF EACH PART

| | |
|---|---|
| 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.

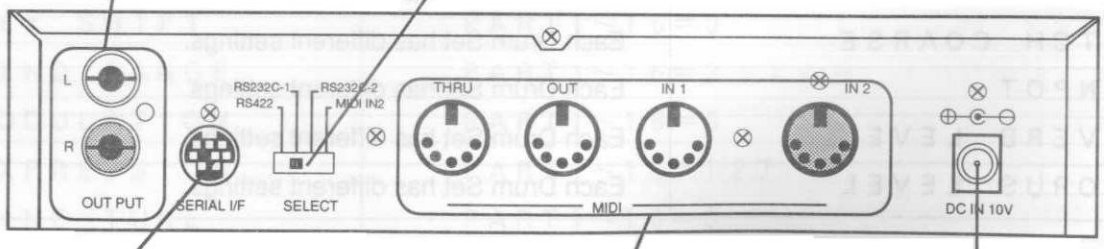
**DISPLAY:**
Displays the present status.




| | |
|---|---|
| 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.

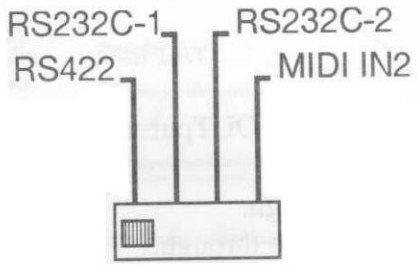
* Sound may be distorted at the maximum volume.

# EXAMPLES OF CONNECTION WITH COMPUTERS

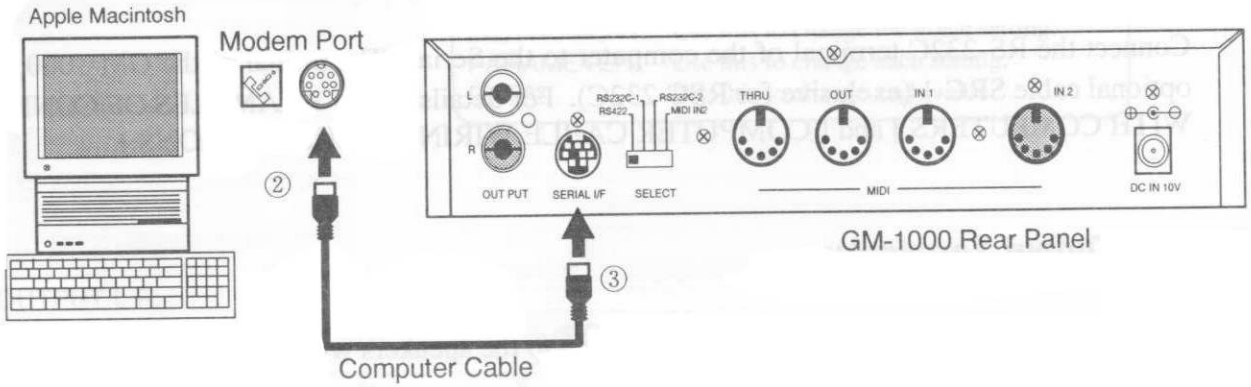
## ☞ CONNECTING TO APPLE MACINTOSH SERIES

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:

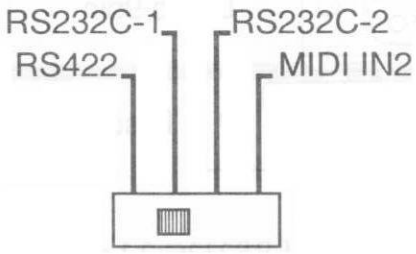
Use the MIDI Application as it is, if it is for the Serial Port of MacIntosh.
When you play on the GM-1000 connected by a computer cable, set the MIDI Interface as follows:

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:

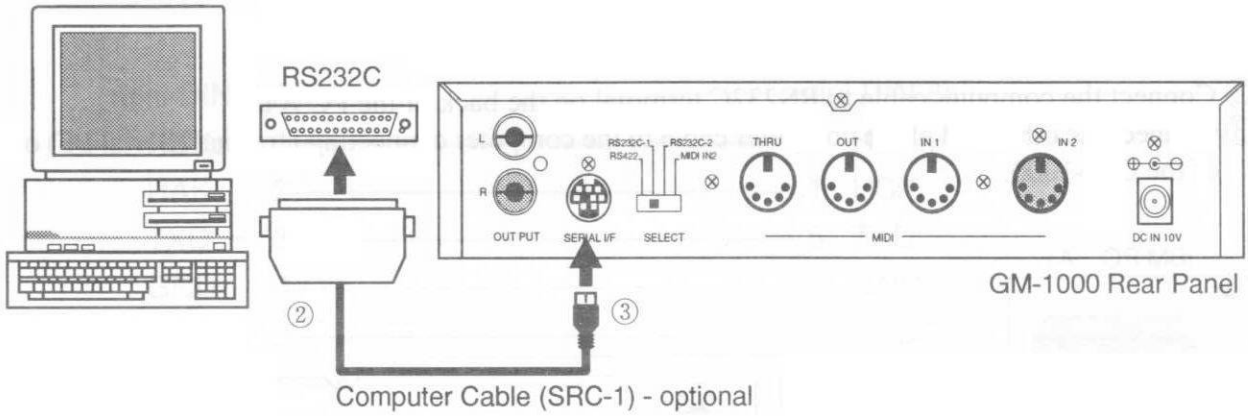
Connect the GM-1000 and the PC-9800 series by the computer cable SRC-1 (optional).

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.



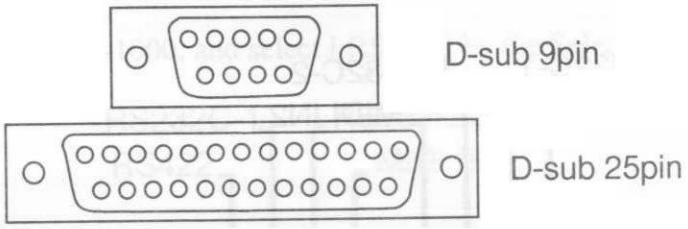

④ Switch ON the GM-1000.

### * When you use a MIDI Application (software):

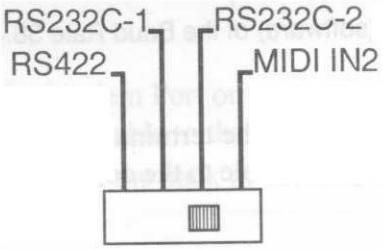
You can play by the MIDI Application, corresponding with the MIDI Interface using RS232C. When you pay the GM-1000, set it for using the serial port of the computer.

## ☞ 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 ].

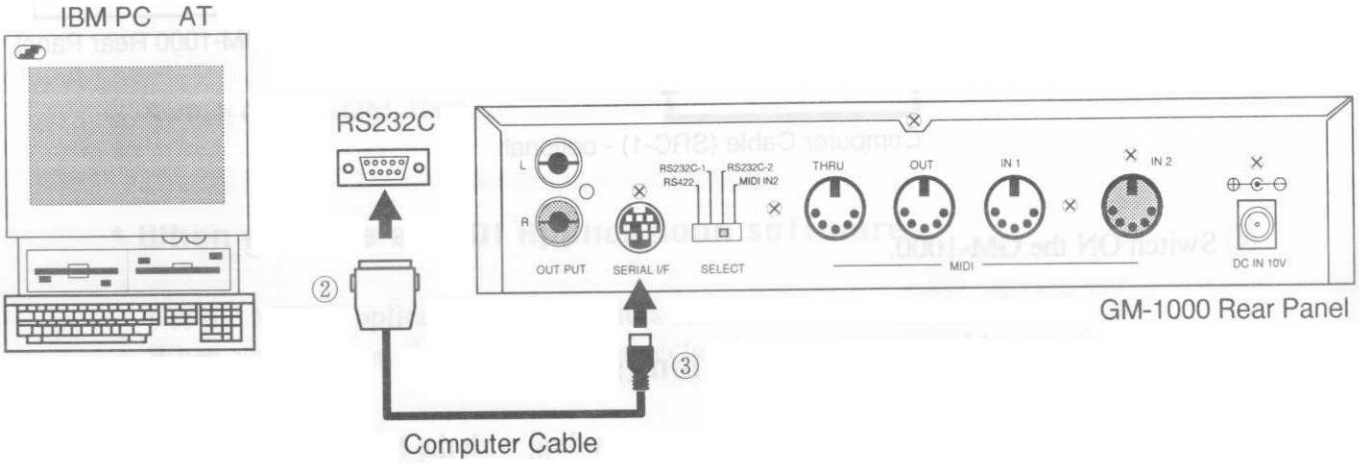



① Switch OFF the power of the GM-1000, and select [ RS232C-2 ] on the back of it.




* 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.



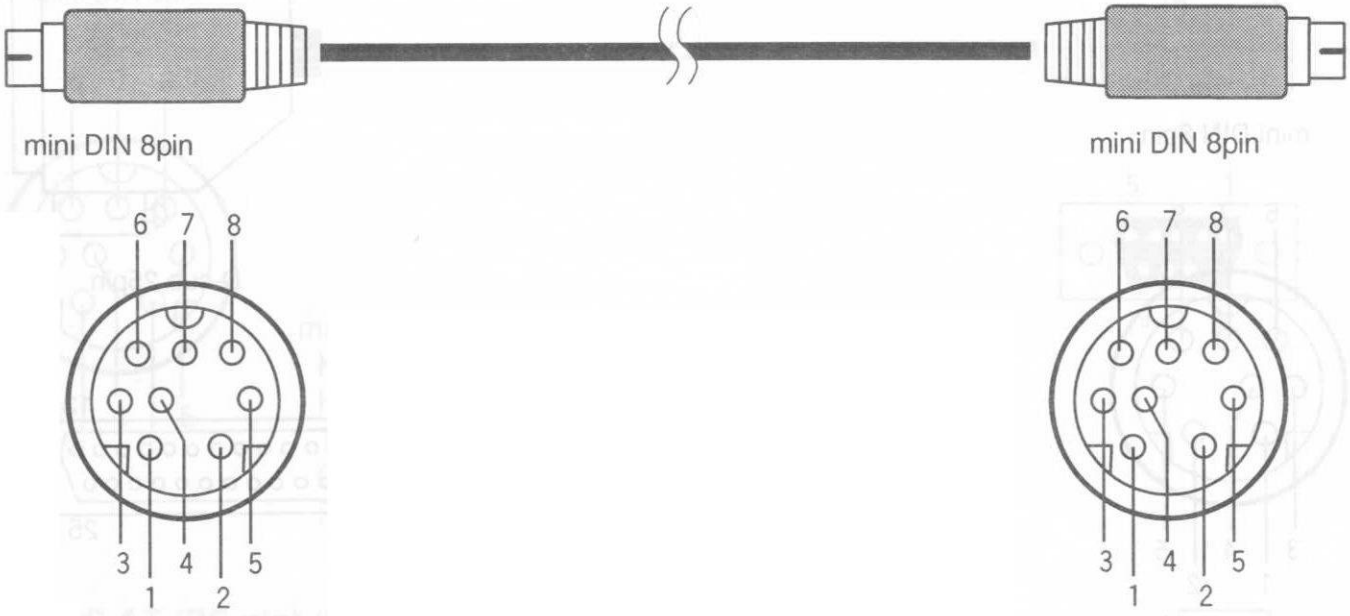

④ Switch ON the power of the GM-1000.

### * 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.

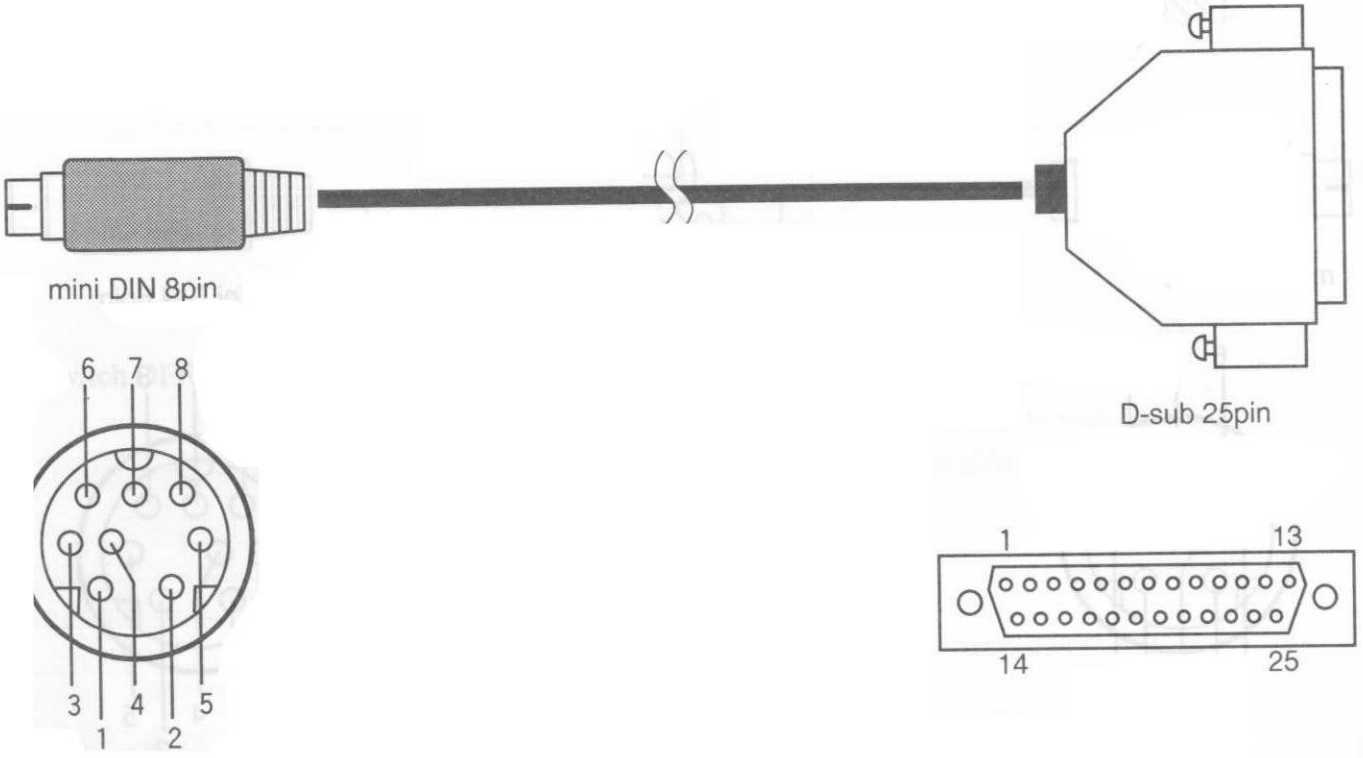
# COMPUTER CABLE WIRING ILLUSTRATIONS

## APPLE MacIntosh (RS422)



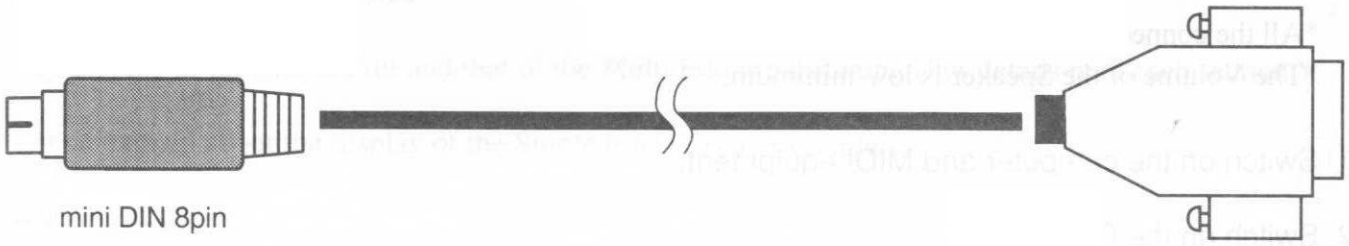

| mini DIN 8pin | | | mini DIN 8pin |
|---|---|---|---|
| HSXo | 1 | 2 | HSKo |
| HAKi | 2 | 1 | HSKi |
| TXD − | 3 | 5 | TXD − |
| GND | 4 | 4 | GND |
| RXD − | 5 | 3 | RXD − |
| TXD + | 6 | 8 | TXD + |
| GPi | 7 | 7 | GPi |
| RXD + | 8 | 6 | RXD + |

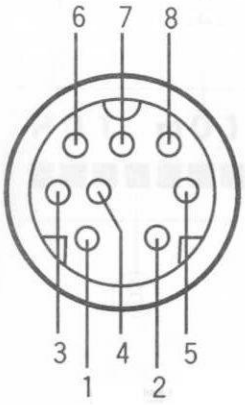
## NEC PC98 (RS232C-1)
## (SRC-1 Cable - optional)

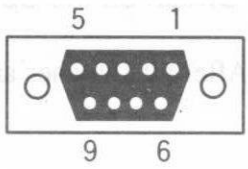



| mini DIN 8pin | | D-sub 25pin |
|---|---|---|
| HSXo | 1 ---------- | 5 CTS |
| HAKi | 2 ---------- | 4 RTS |
| TXD — | 3 ---------- | 3 RXD |
| GND | 4 ---------- | 7 GND |
| RXD — | 5 ---------- | 2 TXD |

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

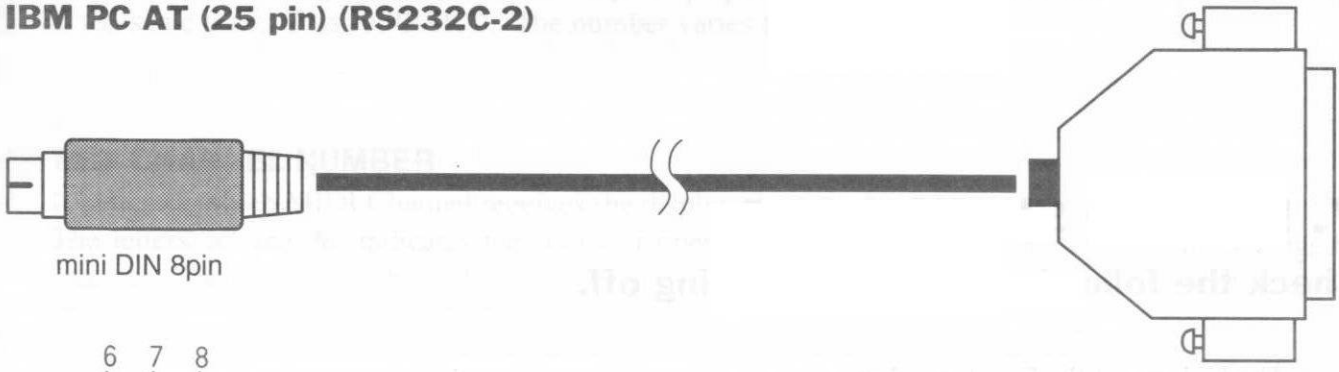


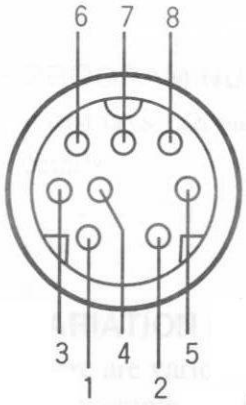



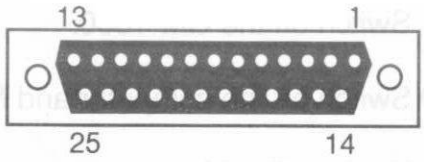




| mini DIN 8pin | | | D-sub 9pin |
|---|---|---|---|
| HSXo | 1 | 8 | CTS |
| HAKi | 2 | 7 | RTS |
| TXD — | 3 | 2 | RXD |
| GND | 4 | 5 | GND |
| RXD — | 5 | 3 | TXD |

## 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.

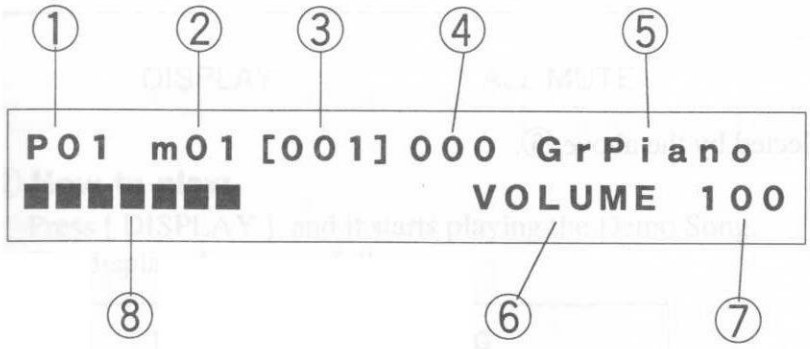
# 8. HOW TO READ THE DISPLAY

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.

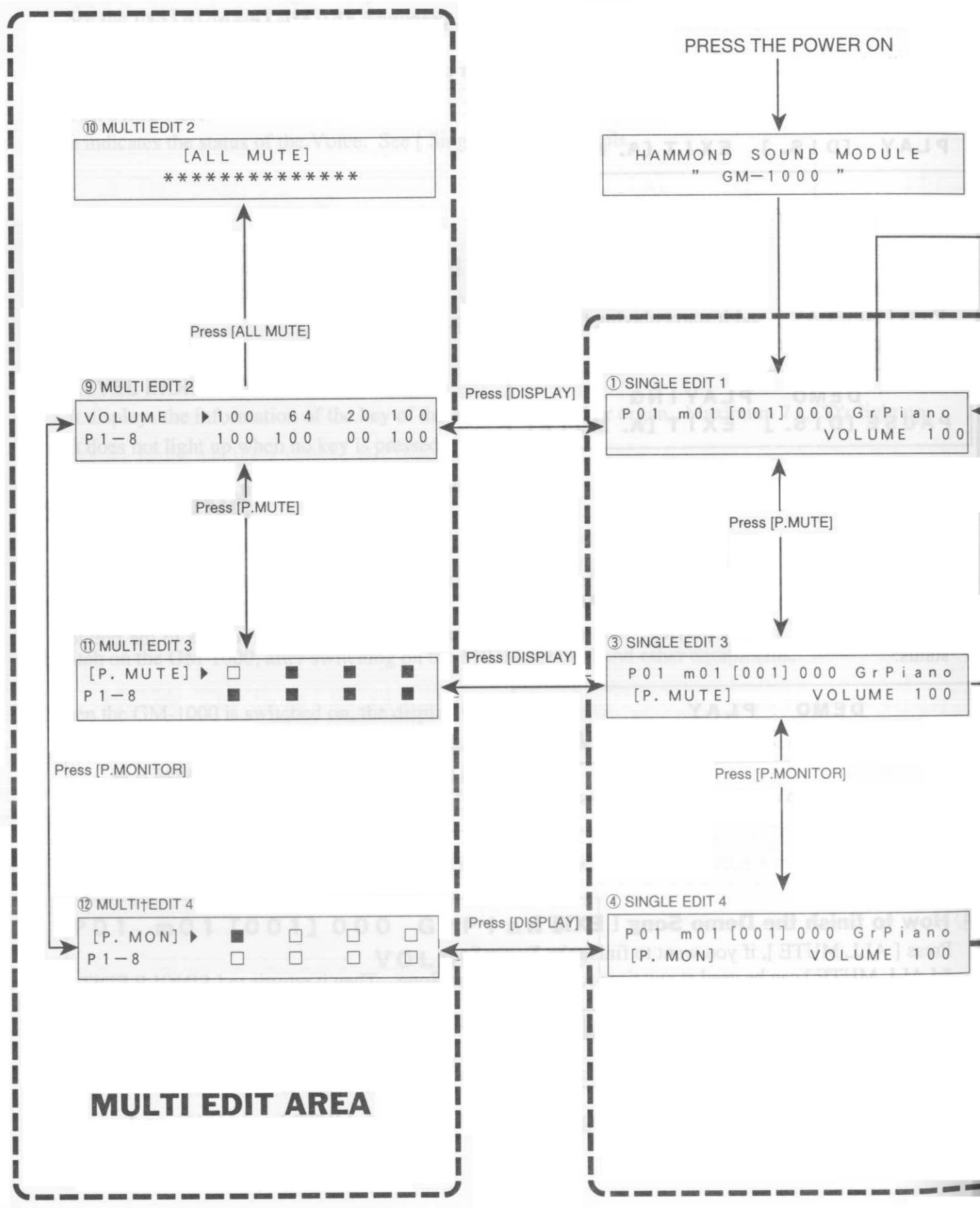
### ④ How to finish the Demo Song [ EXIT ]:

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].

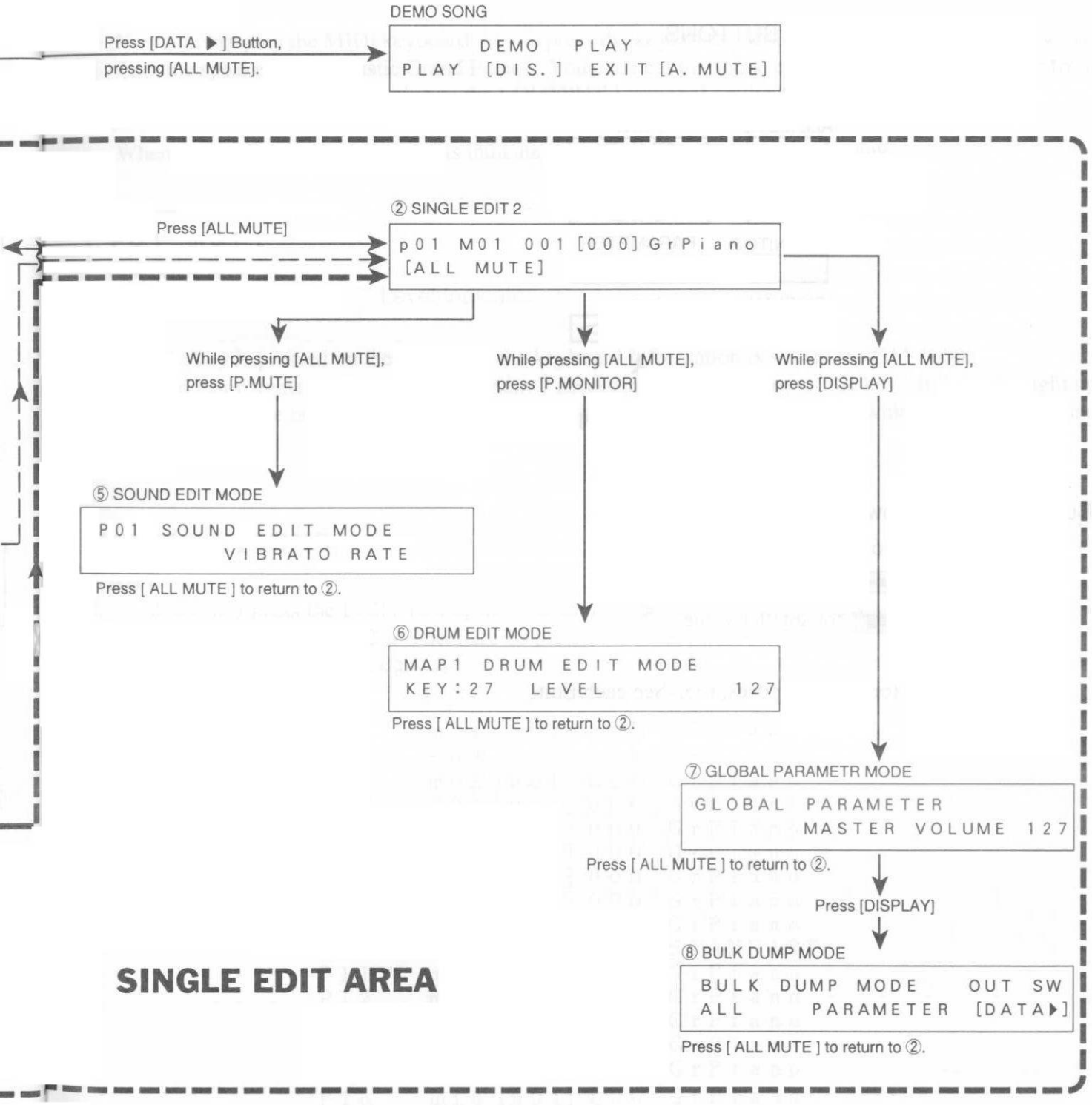
```
P01  m01 [001] 000  GrPiano
                VOLUME  100
```

* 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.

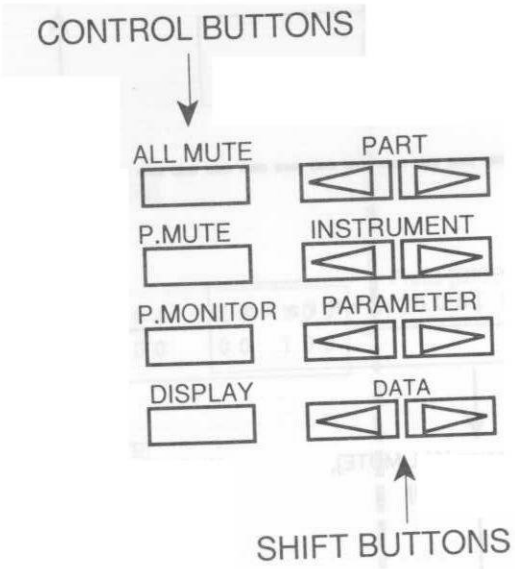


# 12. OPERATION

## 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

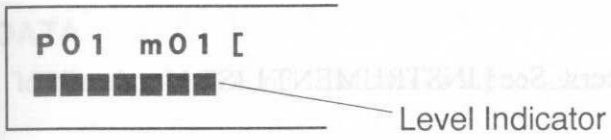
## [ 1 ] SINGLE EDIT 1 [ PART EDITING ]

```
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.)

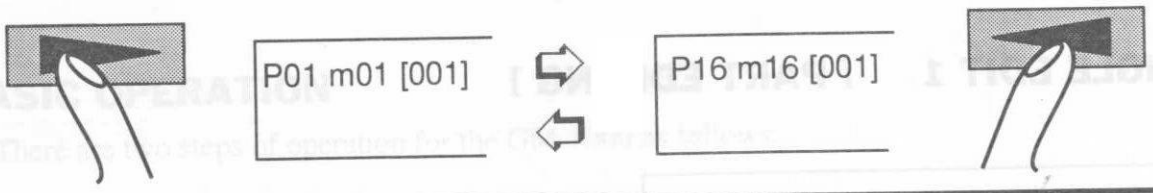
## SHIFT BUTTONS

### 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:

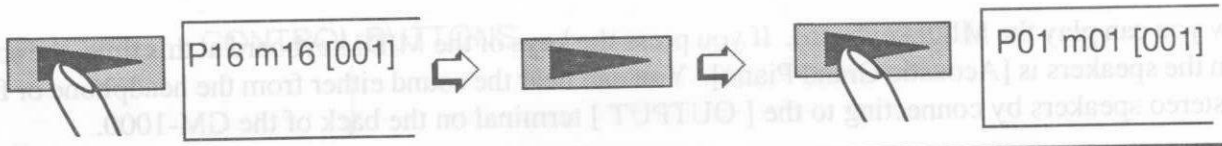
```
P01   m01 [001] 000 GrPiano
P02   m02 [001] 000 GrPiano
P03   m03 [001] 000 GrPiano
P04   m04 [001] 000 GrPiano
P05   m05 [001] 000 GrPiano
P06   m06 [001] 000 GrPiano
P07   m07 [001] 000 GrPiano
P08   m08 [001] 000 GrPiano
P09   m09 [001] 000 GrPiano
P10   m10 [001] Rhy. STANDARD
P11   m11 [001] 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

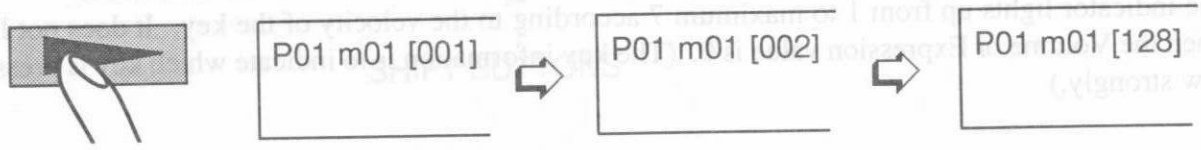
**QUICK RETURN:** Release the right arrow button at [ P16 ] once and press it again. It goes back to [ 01 ]. You can do it vice versa on the left arrow button.




[ 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 ].

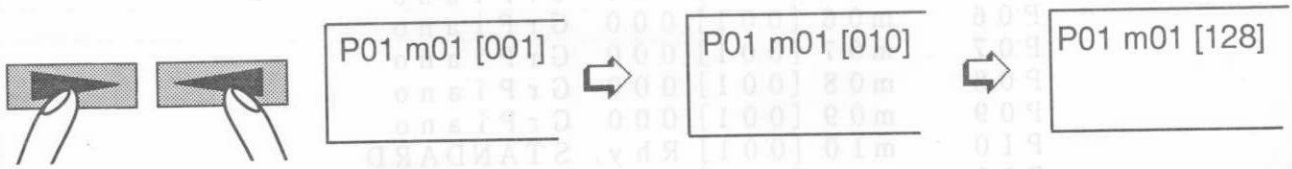



* The variation No. becomes [ 000 ], when the Program Number is changed.

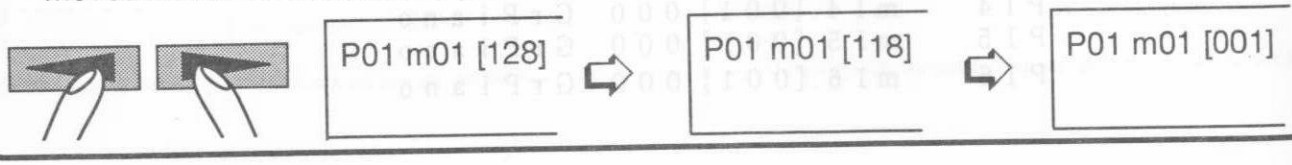
## TECHNICAL ADVICES

**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<br>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<br>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.

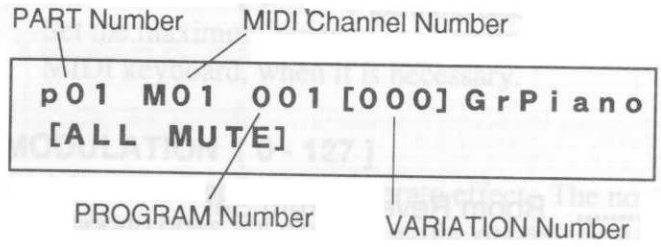
| | |
|---|---|
| P10 m10 [001] Rhy. STANDARD | PART TYPE to DM 1 |
| P11 m11 [026] Rhy. ANALOG | PART TYPE to DM 2 |
| P12 m12 [001] Rhy. STANDARD | PART TYPE to DM 1 |

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
```

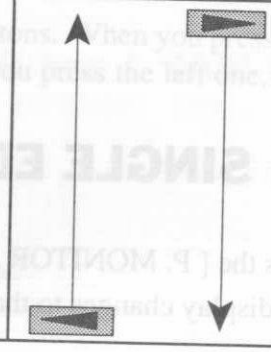
## OPERATION

### 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.

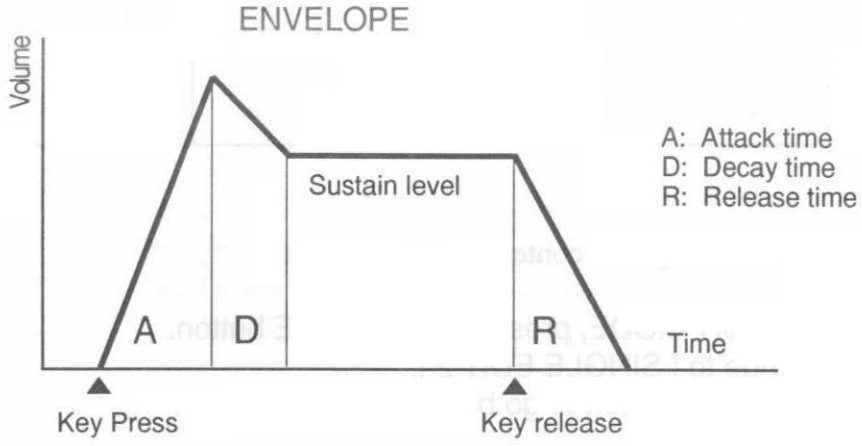
**DECAY TIME** **[ -63 ~ 0 ~ +63 ]**

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.

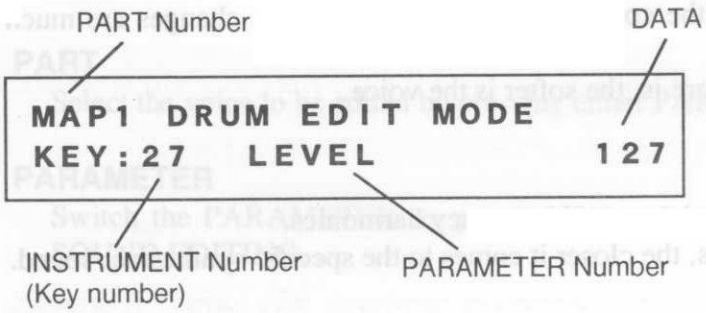
* The above controls work on each PART. So the instrument voices are not affected by them.
* Some voices do not change as much as desired.



# [ 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)

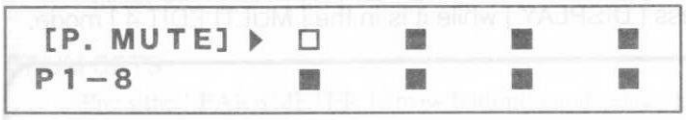
ALL MUTE cuts all the sound of the 16 parts temporarily.
Press the [ ALL MUTE ] button when the status is [ MULTI EDIT 1 ] or [ MULTI EDIT 3 , 4 ] to change to [ MULTI EDIT 2 ].
The display changes to


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.

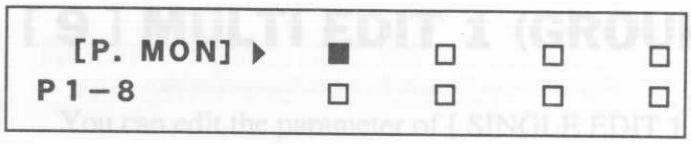
**P. MUTE:**
Press this button to switch ON/OFF the MUTE of the part where the indicator is at.
The indication on the display:
ON (No Sound) □ OFF (Sound) ■

* 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.)

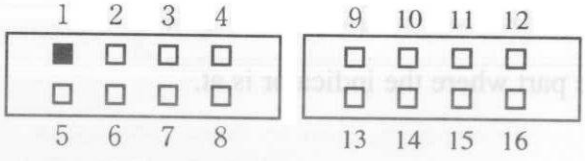
* You must be careful. When you press [ P. MONITOR ] while it is in the [ MULTI EDIT 3 ] mode, the MUTE setting is released.
* Press [ P. MONITOR ] to return to [ MULTI EDIT 1 ].
* There are 3 ways to enter [ MULTI EDIT 4 ] as follows:
  1. Press [ P. MONITOR ] from [ MULTI EDIT 1 ].
  2. Press [ P.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

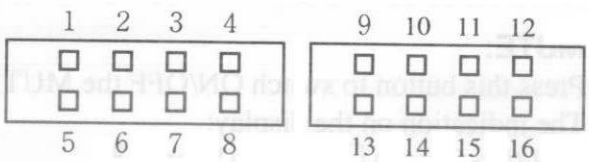
**HOW TO MONITOR ONLY A FEW PLURAL PARTS:**

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<br>(Bank 1 - Bank 16384)<br>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)<br>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)<br>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)<br>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)<br>1 - 127 = ON<br>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)<br>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)<br>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)<br>mm:00H - 40H - 7FH (−63 - 0 - +63) |
| 01H | 09H | mmH | Vibrato Depth (Relative Change)<br>mm:00H - 40H - 7FH (−63 - 0 - +63) |
| 01H | 0Ah | mmH | Vibrato Delay (Relative Change)<br>mm:00H - 40H - 7FH (−63 - 0 - +63) |
| 01H | 20H | mmH | Cut Off Frequency (Relative Change)<br>mm:00H - 40H - 7FH (−63 - 0 - +63) |
| 01H | 21H | mmH | Resonance (Relative Change)<br>mm:00H - 40H - 7FH (−63 - 0 - +63) |
| 01H | 63H | mmH | Envelope Attack Time (Relative Change)<br>mm:00H - 40H - 7FH (−63 - 0 - +63) |
| 01H | 64H | mmH | Envelope Decay Time (Relative Change)<br>mm:00H - 40H - 7FH (−63 - 0 - +63) |
| 01H | 66H | mmH | Envelope Release Time (Relative Change)<br>mm:00H - 40H - 7FH (−63 - 0 - +63) |
| 18H | rrH | mmH | Drum Instrument Pitch Course (Relative Change)<br>rr. Drum Instrument Note Number<br>mm: 00H - 40H - 7FH |
| 1AH | rrH | mmH | Drum Instrument Level (Absolute Change)<br>rr: Drum Instrument Note Number<br>mm: 00H - 7FH (0 ~ Maximum) |
| 1CH | rrH | mmH | Drum Instrument Panpot (Absolute Change)<br>rr: Drum Instrument Note Number<br>mm: 00H - 40H - 7FH (L - C - R) |
| 1DH | rrH | mmH | Drum Instrument Reverb Send Level (Absolute Change)<br>rr: Drum Instrument Note Number<br>mm: 00H - 7FH (0 ~ Maximum) |
| 1EH | rrH | mmH | Drum Instrument Chorus Send Level (Absolute Change)<br>rr: Drum Instrument Note Number<br>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<br>mm: 00H - 18H (0 ~ 24 Notes)<br>Initial Value = 02H (2 Semitones)<br>ll: Disregard. (Treated as 00H)<br>Possible to designate upto 2 octaves of semitone steps |
| 00H | 01H | mmH | llH | Master Fine Tuning<br>mm, ll: 00 00H - 40 00H - 7F 7FH<br>(−8192×100/8192 - 0 - +8191×100/8192) cent |
| 00H | 02H | mmH | --- | Master Course Tuning<br>mm: 28H - 40H - 58H (−24 - 0 - +24 Semitones)<br>ll: Disregard. (Treated as 00H) |
| 7FH | 7FH | --- | --- | RPN Null<br>Change to the status that neither RPN nor NRPN is designated. The value already set does not change.<br>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

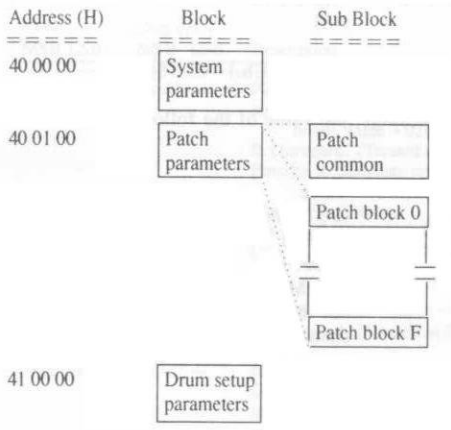
## 3. PARAMETER ADDRESS MAP

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<br>(= 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<br>(=F0 7F 7F 00 02 00 mm F7) | 00 - 7F | 40 | center |
| 40 00 7F | 00 00 01 | 00 - 7F | MODE SET<br>(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<br>01: Room 2<br>02: Room 3<br>03: Hall 1<br>04: Hall 2<br>05: Plate<br>06: Delay<br>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<br>01: Chorus 2<br>02: Chorus3 (LESLIE S)<br>03: Chorus4 (LESLIE F)<br>04: Echo<br>05: Flanger<br>06: Delay 1<br>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<br>1=MAP 1<br>2=MAP 2 | 00 at x≠0<br>01 at x=0 | OFF<br>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<br>(=Bn 63 01 62 08 06 vv) | 40 | 0 |
| 40 1x 31 | 00 00 01 | 00 - 7F | VIBRATO DEPTH | −63 - 0 - +63<br>(=Bn 63 01 62 09 06 vv) | 40 | 0 |
| 40 1x 32 | 00 00 01 | 00 - 7F | CUTOFF FREQ. | −63 - 0 - +63<br>(=Bn 63 01 62 20 06 vv) | 40 | 0 |
| 40 1x 33 | 00 00 01 | 00 - 7F | RESONANCE | −63 - 0 - +63<br>(=Bn 63 01 62 21 06 vv) | 40 | 0 |
| 40 1x 34 | 00 00 01 | 00 - 7F | ENV. ATTACK | −63 - 0 - +63<br>(=Bn 63 01 62 63 06 vv) | 40 | 0 |
| 40 1x 35 | 00 00 01 | 00 - 7F | ENV. DECAY | −63 - 0 - +63<br>(=Bn 63 01 62 64 06 vv) | 40 | 0 |
| 40 1x 36 | 00 00 01 | 00 - 7F | ENV. RELEASE | −63 - 0 - +63<br>(=Bn 63 01 62 66 06 vv) | 40 | 0 |
| 40 1x 37 | 00 00 01 | 00 - 7F | VIBRATO DELAY | −63 - 0 - +63<br>(=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<br>(=Bn 63 18 62 rr 06 vv) | |
| 41 m2 rr | 00 00 01 | 00 - 7F | LEVEL<br>(=Bn 63 1A 62 rr 06 vv) | |
| 41 m4 rr | 00 00 01 | 00 - 7F | PANPOT<br>(=Bn 63 1C 62 rr 06 vv) | −63(LEFT) −0(C) - +63(RIGHT) |
| 41 m5 rr | 00 00 01 | 00 - 7F | REVERB SEND LEVEL<br>Multiplicand of the part reverb level<br>(=Bn 63 1D 62 rr 06 vv) | 0.0 - 1.0 |
| 41 m6 rr | 00 00 01 | 00 - 7F | CHORUS SEND LEVEL<br>Multiplicand of the part chorus level<br>(=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<br>COARSE TUNE<br>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:

HAMMOND SUZUKI, LTD., Hamamatsu, Japan
HAMMOND SUZUKI U. S. A., INC., Addison, Il., U. S. A.
HAMMOND SUZUKI EUROPE B. V., Vianen, The Netherlands
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