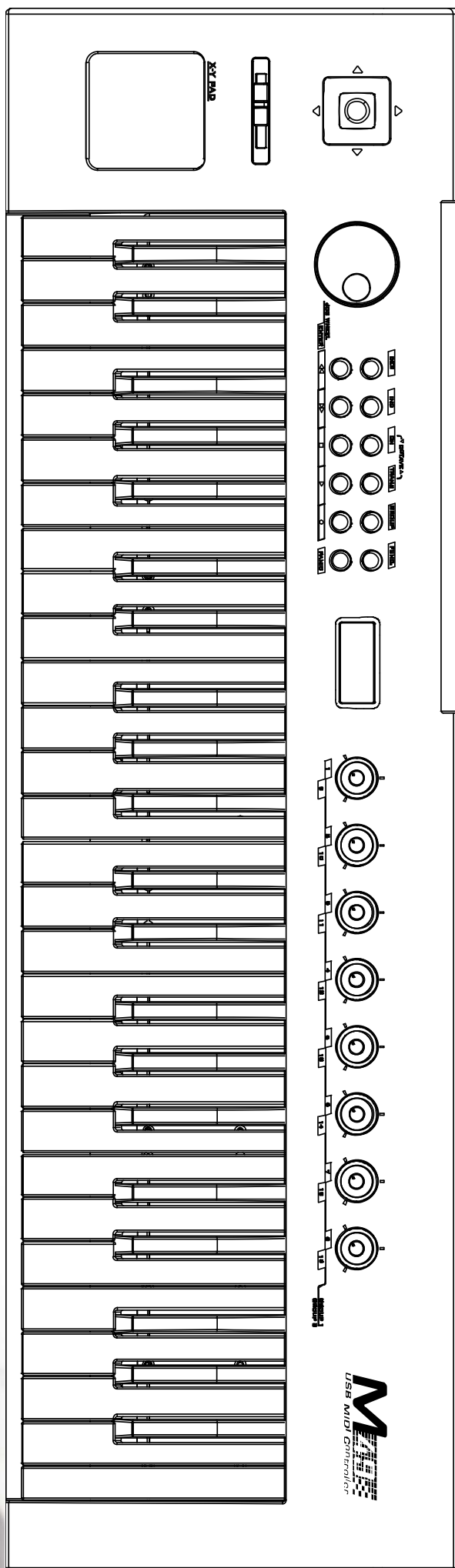




# M49

## Operation Manual

English



The M49 operation Manual by Seung K. Oak, S.H Lim, H.I Park and Samuel S. Han.  
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# Precautions

## IMPORTANT

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, damages, fire or other hazards. These precautions include, but are not limited to the following:

1. Read and understand all the instructions.
2. Always follow the instructions within the manual.
3. Before cleaning the instrument, always remove the electric plug from the outlet and the USB cable. When cleaning, use a soft and dry cloth. Do not use gasoline, alcohol, acetone, or any other organic solutions; do not use liquid cleaner, spray cleaner or wet cloth.
4. Do not use the instrument near water nor moisture, such as bathtub, kitchen or similar areas.
5. Do not place the instrument in an unstable position where it might accidentally fall over.
6. Do not jam sink or holes of the instrument; holes are used for air circulation to prevent the instrument from overheating. Do not place the instrument near heat sink or any places with poor air circulation.
7. Do not place anything on the power cord. Make sure the power cord is set on a safe place, so nobody will step on it and nobody will trip over it.
8. Do not overload the outlet or the AC cable to avoid fire or electrical shock.
9. Do not insert anything in the instrument, which may cause fire or electrical shock.
10. Do not disassemble the instrument in case of accidental electrical shock.
11. Always take the instrument to a qualified service center in need of repair. You will put yourself in danger if you open or remove the cover; any improper assembly may cause electrical shock in the future.
12. Unplug all the connectors and take the instrument to a qualified service center if any of the following happens.
  - A. The power cord or connector is damaged or worn out.
  - B. Any liquids are in the instrument.
  - C. The instrument is exposed rain or any accidental water exposure.
  - D. The instrument does not work properly after following all the instructions in regards to trouble shooting.
  - E. The instrument is dropped or broken.
  - F. The instrument functions poorly.
13. Do not use the instrument during a thunderstorm; otherwise the storm may cause an electrical shock.
14. Do not use the instrument when there is a gas leak nearby.
15. **In order to avoid future hardware issues, we urge the user to use the M49 on flat surfaces only.**

**Keep this manual in safe place**

After reading this manual, please keep it for later reference.

# 1, INTRODUCTION

Thank you for purchasing the Infrasonic M49 USB MIDI Controller. For enjoyment of this controller without any trouble, please read this quick start guide carefully and use the product only as directed. Keep this manual in a safe place where you can easily refer to it in the future.

## 1.1 M49 features

- ❑ 49 key velocity sensitive USB MIDI controller
- ❑ 8 assignable MIDI controller knobs
- ❑ 3 digit 7 segment LED display
- ❑ Fully assignable X-Y pad supports pitch bend and modulation wheels
- ❑ Fully assignable joy stick supports pitch bend and modulation wheels
- ❑ 1 assignable MIDI controlling slider
- ❑ Transport control buttons and assignable jog wheel
- ❑ Sustain pedal jack
- ❑ USB 2.0 bus powered
- ❑ Additional 9V DC power socket

## 1.2 Minimum system requirement

| <PC>   | <Mac>  |
|--|--|
| Windows® XP(SP2) / Vista / Win7<br>Intel® Pentium® 4 / AMD Athlon 1.4 GHz, 1GB RAM<br>One available USB port | Mac® OSX 10.4, G5 1.8 GHz or<br>Intel® Core™ Duo 1.66 GHz, 1GB RAM<br>One available USB port |

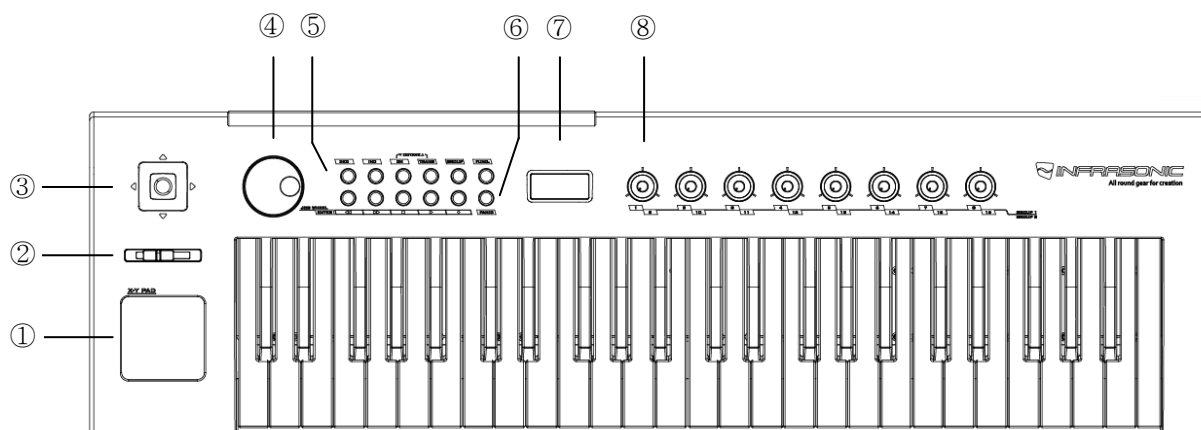
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## 1.3 What's in the box

- ❑ INFRASONIC M49 hardware
- ❑ CD-ROM containing M49 Editing Software and Driver
- ❑ Standard USB cable
- ❑ Quick Start Guide

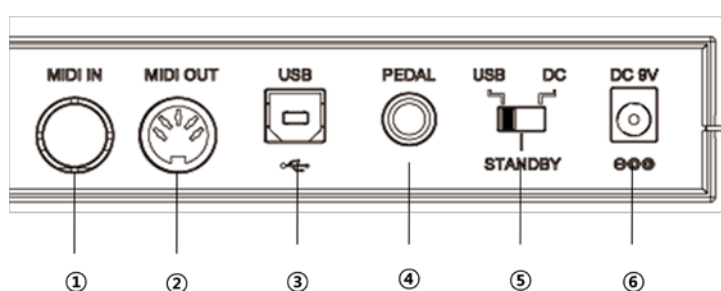
## 2, GENERAL VIEW

### 2.1 Top Panel



- ① X-Y Pad
- ② SLIDER
- ③ JOY STICK
- ④ JOG WHEEL
- ⑤ RUBBER BUTTONS
- ⑥ TRANSPORT BUTTONS
- ⑦ 3 SEGMENT LED Display
- ⑧ 8 MIDI Controller Knobs

### 2.1 Rear Panel

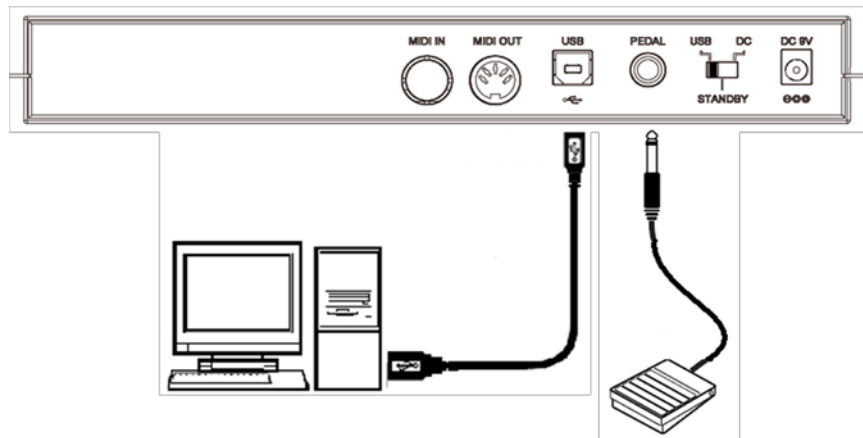


- ① MIDI OUT connector
- ② USB connector
- ③ PEDAL jack
- ④ Power switch
- ⑤ Power supply connector

## 3, INSTALLATION GUIDE

### 3.1 Connection

#### 1) Connect via USB

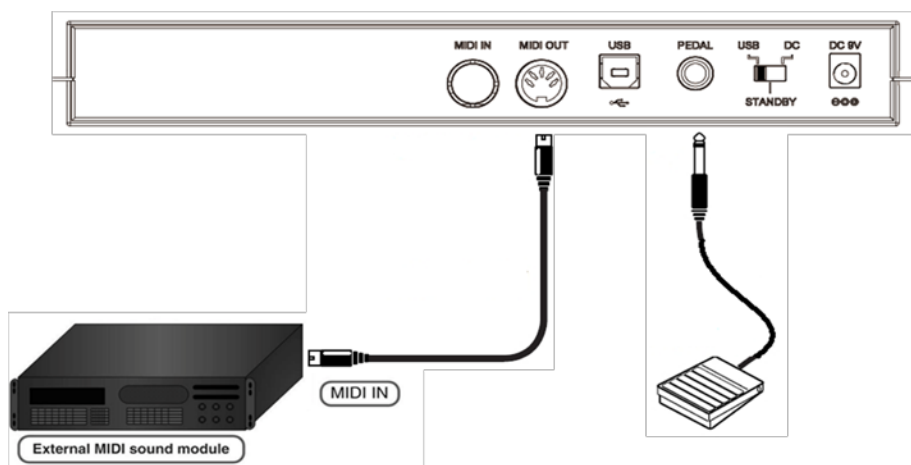


- ① Connect the M49 to USB port on Computer through included USB cable.
- ② If you want to use an optional pedal, connect it to the pedal jack.
- ③ To turn on the power, set the M49's power switch to the USB position from stand by position.



When USB is connected, MIDI OUT port does not send out MIDI messages from the M49.

#### 2) Connect via MIDI



- ① Plug in the optional AC adapter to the M49' power connector, and plug the adapter into an AC outlet.
- ② Connect the M49 to MIDI IN port on external sound module through MIDI cable.
- ③ If you want to use an optional pedal, connect it to the pedal jack.
- ④ To turn on the power, set the M49's power switch to the **DC** position from stand by position.

## 3.2 Driver software Installation

### 1) Multi-Client MIDI Driver

Infrasonic M49 does not require an installation driver due to the USB device, but it would be a problem when transmitting your configuration with the M49 editing software through the USB port that conflicts with the current operating MIDI application; since it's occupied by the M49 already.

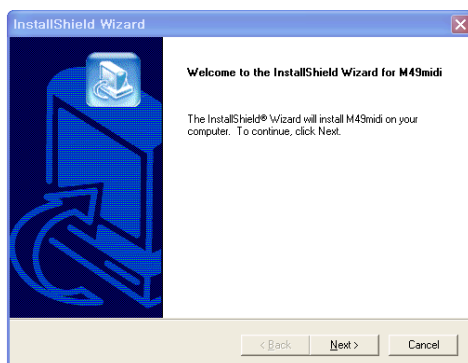
The multi-client MIDI Driver offers a virtual MIDI device in your system, which makes possible to use an unlimited number of MIDI devices. When you transmit your configuration to M49, it is being sent through another MIDI device for smooth transmission.

There are no conflicts when playing the M49 with your DAW software without a Multi-client MIDI driver installation, but we strongly recommend installing this for a convenient and easy task with the M49 Editing Software. The file for the driver is under: *M49 Editor\Windows\Multi Client Device Driver\M49\_V1.00.02-XP\_VISTA\_WIN7.exe*. With this driver, you are able to use multiple clients at once with the same device.

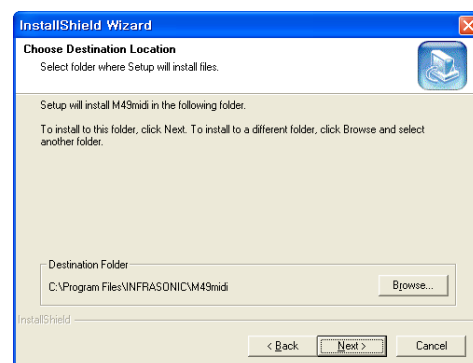
### 2) Installation

Before the installation, M49 should be recognized as USB device through the Windows interface. Please connect M49 to your computer. Your computer should alert you that it has "Detected new hardware". You do not need to specify the location of the driver file. Everything should run automatically.

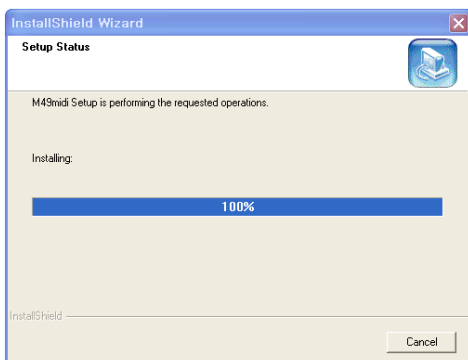
Please run "*M49\_V1.00.02-XP\_VISTA\_WIN7.exe*" to install the M49 multi-client MIDI driver.



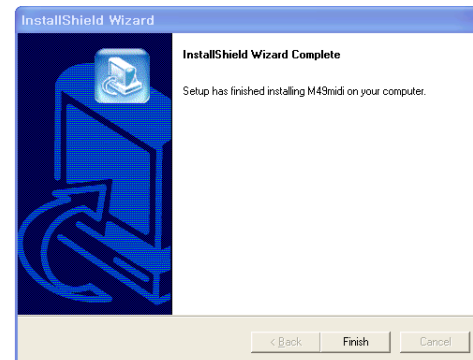
① Click "Next" to begin the installation



② Choose the destination folder



③ Processing the installation



④ Click "Finish"



## 4, Basic operation

### 4.1 Slider



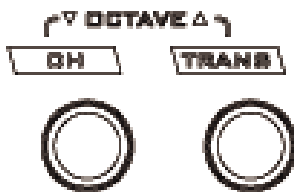
The Slider can be assigned to any MIDI control change number (CC#), allowing you to control other MIDI devices or music software programs; this is especially handy for such functions like volume and expression.

- ① Default operation / MIDI volume control.
- ② User set / can be assigned a control change number according to users setting in function mode and the M49 Editing S/W.

### 4.2 Rubber buttons

Using the rubber buttons, you can adjust the M49's setting and change the MIDI channel, octave...etc

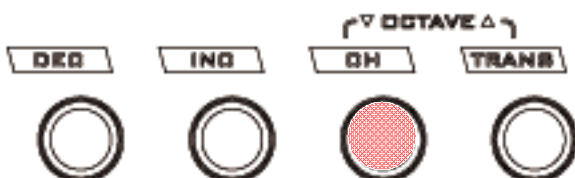
#### 1) OCTAV CHANGE



- ① Pressing the [▼Octave▲] button, you can change the octave shift for up to 3 octaves.
- ② To return to the default value, press both buttons simultaneously.
- ③ When pressing octave button, the buttons will light up like the following:

- 1 step (+/-1 OCT): RED
- 2 step (+/-2 OCT): GREEN
- 3 step (+/-3 OCT): YELLOW

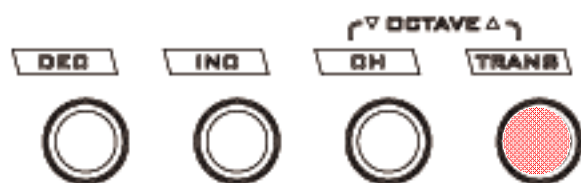
#### 2) MIDI CHANNEL CHANGE



Pressing the [DEC/INC] button while holding the CH button, you can change the MIDI channel.

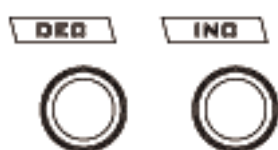
- ① LED display shows the current value.
- ② Adjust the MIDI channel and press the jog wheel (enter) while holding the CH button.

### 3) TRANSPOSE



- ① Pressing the **[DEC/INC]** button while holding the **TRANS** button, you can transpose the keyboard using semi notes for a maximum of 12 semi notes.
- ② LED display shows the current value.
- ③ Adjust the MIDI channel and press the jog wheel (enter) while holding the TRANS button.

### 4) DEC / INC



Using the **[DEC/INC]** button, you can change the program number and data value in function mode.

- ① Default operation / Program number change.
- ② Change program number and data value in function mode.

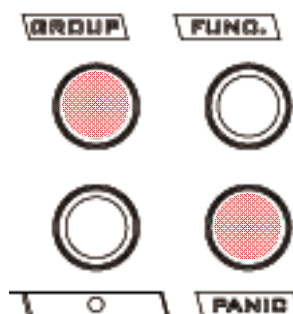
### 5) TRANSPORT



The transport control buttons can be used to control your sequencing software.

- ① ◀◀ / Rewind
- ② ▶▶ / Fast forward
- ③ ■ / Stop
- ④ ▶ / Play
- ⑤ • / Record
- ⑥ ◀◀ + ■ / Return to zero
- ⑦ ▶▶ + ■ / Go to end

### 6) GROUP/ PANIC

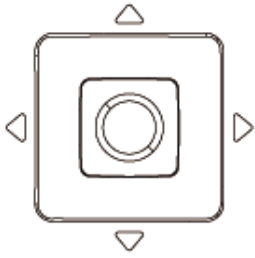


- ① **GROUP**  
The preset bank of 8 MIDI control knob selector. (Group 1: 1~8 / Group 2: 9~16)

- turns off: group 1 (1~8)
- turns off: group 2 (9~16)

- ② **PANIC**  
This button transmits all notes off, all sounds off, and resets all controllers' messages on all MIDI channels.

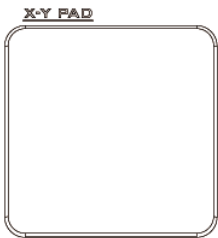
## 4.3 JOY STICK



Two modes allow the joy stick to behave as an X - Y real-time controller, or as a clickable cursor/mouse when working with Soft-synths or DAW software running on a computer.

- ① Default operation - Mouse mode(clickable)
- ② MIDI controller mode - The Joystick can be moved to the four directions, Up, Down, Left and Right. By default, the joystick will send the below data.
  - ❑ Left: Pitch Bend Down / Right: Pitch Bend Up
  - ❑ Up: Modulation / down: Channel Pressure.
- ③ Custom set can be assigned a control change number according to users setting in function mode and editing S/W.

## 4.4 X-Y PAD



Two modes allow the X-Y Pad to behave as an X - Y real-time controller, or as a MIDI controllable touch pad when working with Soft- synths or DAW software running on a computer.

- ① Default operation - MIDI control X-Y pad
  - ❑ Left : Pitch Bend Down / Right : Pitch Bend Up
  - ❑ Up / down Modulation : Modulation
- ② TOUCH PAD mode - Touching each division on X-Y pad, X-Y sends a MIDI message.
- ④ Custom set can be assigned a control change number according to users setting in editing S/W.

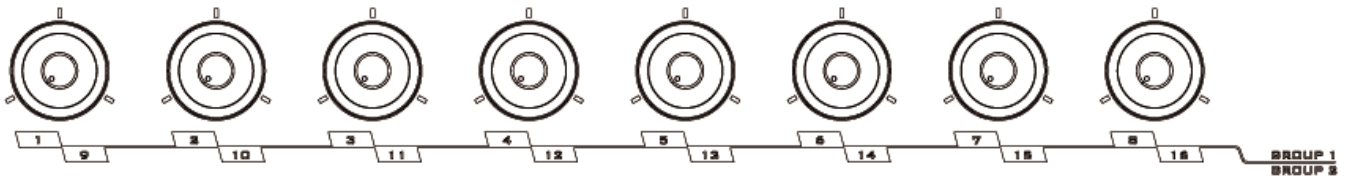
## 4.5 JOG WHEEL



Dialing Jog wheel, you can change the program numbers.

- ① Default operation - Jog wheel mode on DAW program
- ② Program mode - change the program number
- ③ Custom set can be assigned a control change number according to users setting in editing S/W.

## 4.6 KNOB

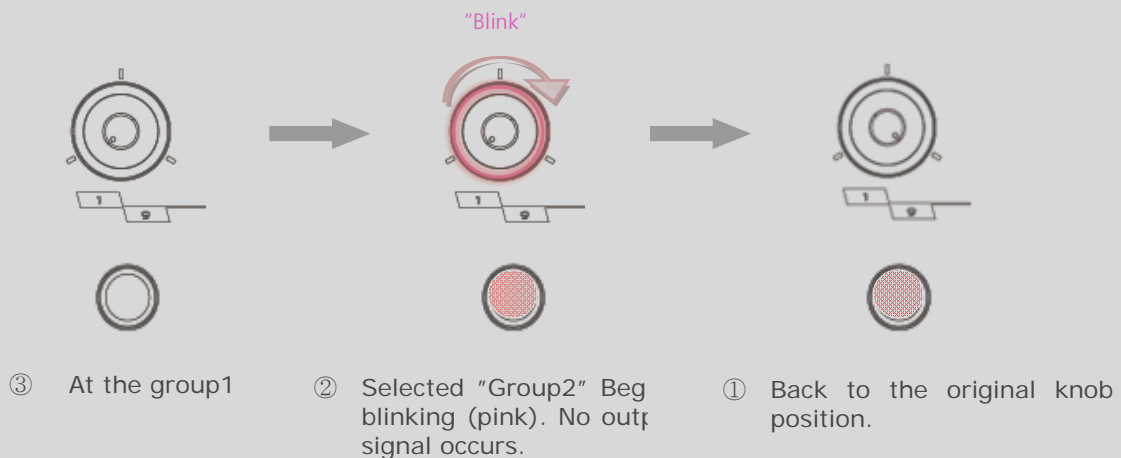


8 controller knobs can send out MIDI controller values. The controllers are divided into 2 groups.

- ① Default operation / 16 MIDI channel volume control.
- ② Group mode / Can be selected by pressing group button
  - ❑ turn off: group 1 (1~8)
  - ❑ turn off: group 2 (9~16)
- ③ Custom set can be assigned a control change number according to users setting in function mode or editing S/W.

 The knob system provides state-of-the-art technology which allows the user to assign each knob multiple functions provided within the included programs. While using this function, the user may switch between different group assignments. This can conflict with the control signal transmission functionalities, so we've added a special feature to our M49 product.

For example: While the user has the first knob assignment at the ten o' clock position and the second input at twelve, the knob LED will blink showing that the physical position of the knob and the assigned position within the application is different (thus, halting any output signals). When this occurs, simply twist the knob to match the position within the application then the knob should stop blinking. The knob should be functioning properly.



## 4.7 PEDAL



The pedal jack can be used to connect either a switch pedal such as a sustain pedal.

- ① Default operation - sustain pedal
- ② Custom set can be assigned a control change number according to users setting in function mode or editing S/W.

## 5, FUNCTION MODE

The Function Mode section describes how to use and set up the functions when the M49 has entered function mode. To enter into the function mode, press the [FUNC.] key once. During Function Mode, the Jog Wheel and the DEC+/DEC- keys are used as navigation for each parameter.

The [FUNC.] key is used as a toggle. (ON/OFF alternately)



### [Jog Wheel]:

The dial can be entered as an assignable dial for each function when the [FUNC.] key is pressed.

- ❑ When the wheel is turned to **right**, parameter can be increased up to its maximum value with one step.
- ❑ When the wheel is turned to **left**, parameter can be decreased down to its minimum value with one step.
- ❑ When the center of wheel is **clicked**, the parameter is stored to memory.

### ► How to see the function chart

|             |  |
|-------------|--|
| Steps       | The sequence by pressing the corresponded button on the function keypad. |
| Operating   | Operating functions by pressing the button on the function keypad.       |
| Description | Explanation of each operation.   |

## 5.1 Wheel Mode selecting & Factory Reset

| STEP   | Operating  | Description   |
|--------|--|---|
| Step 1 | Press <b>[FUNC.]</b> button                              | Activate Function mode  |
| Step 2 | Turn the Jog wheel<br>or Press <b>[DEC]</b> <b>[INC]</b> | Select the wheel mode<br>- <b>[JOG]</b> : Jog wheel mode<br>- <b>[P.CH]</b> : Program change mode<br>- <b>[FAC]</b> : Factory reset |
| Step 3 | Click the Jog wheel                                      | Store the new value you assigned  |

 When Factory reset is selected and clicked, **all** settings will reset, and exit to play mode automatically.

## 5.2 Slider Assignment

| STEP   | Operating  | Explanation  |
|--------|--|--|
| Step 1 | Press <b>[FUNC.]</b> button                              | Activate Function mode   |
| Step 2 | Move <b>[Slider]</b>                                     | Display current control change number                              |
| Step 2 | Turn the Jog wheel<br>or Press <b>[DEC]</b> <b>[INC]</b> | Selects the new control change number<br>- <b>[0 &gt;&gt; 127]</b> |
| Step 3 | Click the Jog wheel                                      | Store the new value you assigned                                   |
| Step 4 | Press the <b>[FUNC.]</b> button                          | Exit to play mode  |

## 5.3 Knobs Assignment

| STEP   | Operating  | Explanation   |
|--------|--|---|
| Step 1 | Press <b>[FUNC.]</b> button                              | Activate Function mode  |
| Step 2 | Turn the <b>[Target knob]</b>                            | Display current control change number                             |
| Step 2 | Turn the Jog wheel<br>or Press <b>[DEC]</b> <b>[INC]</b> | Select the new control change number<br>- <b>[0 &gt;&gt; 127]</b> |
| Step 3 | Click the Jog wheel                                      | Store the new value you assigned                                  |
| Step 4 | Press the <b>[FUNC.]</b> button                          | Exit to play mode   |

## 5.4 Joystick Assignment

| STEP   | Operating   | Explanation  |
|--------|---|--|
| Step 1 | Press <b>[FUNC.]</b> button                           | Activate Function mode   |
| Step 2 | Click Joystick  | <b>Select the part which you want adjust</b> <ul style="list-style-type: none"> <li>- <b>[DEC]</b> button indicates the each assign mode.</li> <li>- It can be changed by clicking Joystick.</li> <li>- When you select the mode, LED display shows the current value of each part you selected</li> </ul>   |
|        |   | <b>RED:</b> Displays the current usage of Joystick<br><b>GREEN:</b> Displays the current X-axis control change number<br><b>ORANGE:</b> Displays the current Y upside control change number<br><b>RED(blink):</b> Displays the current Y downside control change number  |
| Step 2 | Turn the Jog wheel or Press <b>[DEC]</b> <b>[INC]</b> | <b>Adjust the value of each mode which you selected</b>  |
|        |   | <b>RED</b> / Assign the usage of Joystick <ul style="list-style-type: none"> <li>- <b>[NOU]</b> / mouse mode</li> <li>- <b>[CC]</b> / controller mode</li> </ul> <b>GREEN</b> / Assign the X-axis control number <ul style="list-style-type: none"> <li>- <b>[Off]</b> / control not assigned</li> <li>- <b>[AFT]</b> / control is channel after touch</li> <li>- <b>[bnd]</b> / control is pitch bend</li> <li>- <b>[0 &gt;&gt; 127]</b> / Control change number</li> </ul> <b>ORANGE</b> / Assigning the Y upside control number <ul style="list-style-type: none"> <li>- <b>[Off]</b> / control not assigned</li> <li>- <b>[AFT]</b> / control is channel after touch</li> <li>- <b>[bnd]</b> / control is pitch bend</li> <li>- <b>[0 &gt;&gt; 127]</b> / Control change number</li> </ul> <b>RED(blink)</b> / Assigning the Y downside control number <ul style="list-style-type: none"> <li>- <b>[Off]</b> / control not assigned</li> <li>- <b>[AFT]</b> / control is channel after touch</li> <li>- <b>[bnd]</b> / control is pitch bend</li> <li>- <b>[0 &gt;&gt; 127]</b> / Control change number</li> </ul> |
| Step 3 | Click the Jog wheel                                   | Store the new value you assigned   |
| Step 4 | Press the <b>[FUNC.]</b> button                       | Exit to play mode  |



When the joystick is set to mouse mode, the joystick functions as a USB mouse.

## 5.5 Pedal/Knob's operating mode Assignment

| STEP   | Operating   | Explanation   |
|--------|---|---|
| Step 1 | Press <b>[FUNC.]</b> button                           | Activate Function mode  |
| Step 2 | Press the <b>[CH]</b> or pedal                        | <b>Select the part which you want adjust</b> <ul style="list-style-type: none"> <li>- <b>[CH]</b> button indicates the each assign mode</li> <li>- It can be changed by pressing <b>[CH]</b> or pedal</li> <li>- When you select the mode, LED display shows the current value of each part you selected</li> </ul>   |
|        |   | <b>RED:</b> Displays the current control change number of pedal<br><b>GREEN:</b> Displays the current operating mode of pedal<br><b>ORANGE:</b> Displays the current pedal on value<br><b>RED(blink):</b> Displays the current pedal off value<br><b>GREEN(blink):</b> Displays the current usage knobs<br><b>ORANGE (blink):</b> Displays the current control change number value when using 16channel mode.   |
| Step 2 | Turn the Jog wheel or Press <b>[DEC]</b> <b>[INC]</b> | <b>Adjust the value of each mode which you selected</b>   |
|        |   | <b>RED / Assign the control change number of pedal</b> <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / Control change number</li> </ul> <b>GREEN / Assign the operating mode of pedal</b> <ul style="list-style-type: none"> <li>- <b>[NON]</b> / momentary mode</li> <li>- <b>[TOG]</b> / toggle mode</li> </ul> <b>ORANGE / Assign the pedal on value</b> <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / pedal on data value</li> </ul> <b>RED(blink) / Assign the pedal off value</b> <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / pedal off data value:</li> </ul> <b>GREEN(blink) / Assign the usage knobs</b> <ul style="list-style-type: none"> <li>- <b>[NO]</b> / not 16channel knob</li> <li>- <b>[C16]</b> / 16channel knob</li> </ul> <b>ORANGE (blink) / Assign the knob's control change number value when using 16channel mode.</b> <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / Control change number</li> </ul> |
| Step 3 | Click the Jog wheel                                   | Store the new value you assigned  |
| Step 4 | Press the <b>[FUNC.]</b> button                       | Exit to play mode   |



## Note 1

- 1) On value describes the value sent when the pedal is pressed down
- 2) Off value describes the value sent when the pedal is released



## Note 2; Operating mode of pedal

### 1) Momentary mode

Press down on the pedal once → Send Toggle On MIDI Control with on-value.

Press down on the pedal twice → Send Toggle Off MIDI Control with off-value.

### 2) Toggle mode

Press down on the pedal → Send Momentary On MIDI Control with on-value

Release pedal → Send Momentary On MIDI Control with off-value.



## Note 3; Usage of knobs

**[NO]:** 16channel mode unavailable, all knobs use same midi channel

**[C16]:** 16channel mode, 16 knobs use channel 1-16, with the same control number

## 5.6 OPTIONS (Bank MSB/ LSB setting and Transport mode setting)

| STEP   | Operating   | Explanation   |
|--------|---|---|
| Step 1 | Press <b>[FUNC.]</b> button                           | Activate function mode  |
| Step 2 | Press the <b>[TRANS]</b> or pedal                     | <b>Select the part which you want adjust</b> <ul style="list-style-type: none"> <li>- <b>[TRANS]</b> button indicates the each assign mode</li> <li>- It can be changed by pressing <b>[TRANS]</b> button</li> <li>- When you select the mode, LED display shows the current value of each part you selected</li> </ul>   |
|        |   | <b>RED:</b> Displays the current bank MSB value<br><b>GREEN:</b> Displays the current bank LSB value<br><b>ORANGE:</b> Displays the current usage of transport buttons<br><b>RED(blink):</b> Displays the current control change number of Jog wheel<br><b>GREEN(blink):</b> Displays the current control change number of <b>[Return to zero]</b> key<br><b>ORANGE (blink):</b> Displays the current control change number of <b>[Go to end]</b> key.  |
| Step 2 | Turn the Jog wheel or Press <b>[DEC]</b> <b>[INC]</b> | <b>Adjust the value of each mode which you selected</b>   |
|        |   | <b>RED:</b> Assign the bank MSB value <ul style="list-style-type: none"> <li>- <b>[00 &gt;&gt; 127]</b> / bank MSB value</li> </ul> <b>GREEN:</b> Assign the Assign the bank LSB value <ul style="list-style-type: none"> <li>- <b>[00 &gt;&gt; 127]</b> / bank LSB value</li> </ul> <b>ORANGE:</b> Assign the usage of transport buttons <ul style="list-style-type: none"> <li>- <b>[NO]</b> / ◀◀ ▶▶ ■ ▶ ● are used as independent buttons</li> <li>- <b>[TPT]</b> / ◀◀ ▶▶ ■ ▶ ● are used as transport buttons</li> </ul> <b>RED(blink):</b> Assign the control change number of Jog wheel <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / Control change number</li> </ul> <b>GREEN(blink):</b> Assign the control change number of <b>[Return to zero]</b> key <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / Control change number</li> </ul> <b>ORANGE (blink):</b> Assign the control change number of <b>[Go to end]</b> key.. <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / Control change number</li> </ul> |
| Step 3 | Click the Jog wheel                                   | Store the new value you assigned  |
| Step 4 | Press the <b>[FUNC.]</b> button                       | Exit to play mode   |

**Note 1**

*Bank MSB is value used for Bn 00 vv message, replace vv.*

**Note 2**

*Bank LSB is value used for Bn 20 vv message, replace vv.*

**Note 3**

*Usage of transport buttons*

- NO: ◀◀▶▶■▶● are used as independent buttons
- TPT: ◀◀▶▶■▶● are used as transport buttons

**Note 4**

*Jog Wheel control number is used when jog Wheel is turned in jog Shuttle mode.*

**Note 5**

*[Return To Zero] control number is used when RWD+STOP is pressed.*

**Note 6**

*[Go to the end] control number is used when FWD+STOP is pressed.*

## 5.7 TRANSPORT BUTTON

| STEP   | Operating   | Explanation   |
|--------|---|---|
| Step 1 | Press <b>[FUNC.]</b> button                           | Activates function mode   |
| Step 2 | Press the target Transport button                     | <b>Select the part which you want adjust</b> <ul style="list-style-type: none"> <li>- Each button indicates the each assign mode</li> <li>- It can be changed by pressing target transport button again</li> <li>- When you select the mode, LED display shows the current value of each part you selected</li> </ul>   |
|        |   | <b>RED:</b> Displays the current control change number<br><b>GREEN:</b> Displays the current operating mode of each button<br><b>ORANGE:</b> Displays the current button on value<br><b>RED(blink):</b> Displays the current button off value   |
| Step 2 | Turn the Jog wheel or Press <b>[DEC]</b> <b>[INC]</b> | <b>Adjust the value of each mode which you selected</b>   |
|        |   | <b>RED:</b> Assign the control change number of Jog wheel <ul style="list-style-type: none"> <li>- <b>[00 &gt;&gt; 127]</b> / control change number</li> </ul> <b>GREEN:</b> Assign the operating mode of each button <ul style="list-style-type: none"> <li>- <b>[NON]</b> / <b>momentary mode</b></li> <li>- <b>[TOG]</b> / <b>toggle mode</b></li> </ul> <b>ORANGE</b> / Assign the button on value <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / pedal on data value</li> </ul> <b>RED(blink)</b> / Assign the button off value <ul style="list-style-type: none"> <li>- <b>[0 &gt;&gt; 127]</b> / pedal off data value</li> </ul> |
| Step 3 | Click the Jog wheel                                   | Store the new value you assigned  |
| Step 4 | Press the <b>[FUNC.]</b> button                       | Exit to play mode   |



### Note 1

"On Value" describes the value sent when the button is on (momentary /toggle)



### Note 2

"Off Value" describes the value sent when the button is off (momentary/toggle)

## 5.8 X-Y PAD

| STEP          | Operating  | Explanation  |
|---------------|--|--|
| <b>Step 1</b> | Press <b>[FUNC.]</b> button                              | Activates function mode  |
| <b>Step 2</b> | Click <b>[PANIC]</b> button                              | <b>Select the part which you want adjust</b> <ul style="list-style-type: none"> <li>- <b>[PANIC]</b> button indicates the each assign mode</li> <li>- It can be changed by pressing <b>[PANIC]</b> button again</li> <li>- When you select the mode, LED display shows the current value of each part you selected</li> </ul>  |
|               |  | <b>RED:</b> Displays the current control change number of X-axis<br><b>GREEN:</b> Displays the current control change number of Y-axis<br><b>ORANGE:</b> Displays the current value of finger off on X-axis<br><b>RED(blink):</b> Displays the current value of finger off on Y-axis   |
| <b>Step 2</b> | Turn the Jog wheel<br>or Press <b>[DEC]</b> <b>[INC]</b> | <b>Adjust the value of each mode which you selected</b>  |
|               |  | <b>RED / Assign the X-axis control number</b> <ul style="list-style-type: none"> <li>- <b>[Off]</b> : control not assigned</li> <li>- <b>[AFT]</b>: control is channel after touch</li> <li>- <b>[bnd]</b>: control is pitch bend</li> <li>- <b>[0 &gt;&gt; 127]</b>: Control change number</li> </ul> <b>GREEN: Assign the Y-axis control number</b> <ul style="list-style-type: none"> <li>- <b>[Off]</b>: control not assigned</li> <li>- <b>[AFT]</b>: control is channel after touch</li> <li>- <b>[bnd]</b>: control is pitch bend</li> <li>- <b>[0 &gt;&gt; 127]</b>: Control change number</li> </ul> <b>ORANGE / Assigning the finger off value on X-axis</b> <ul style="list-style-type: none"> <li>- <b>[Off]</b>: control not assigned</li> <li>- <b>[00 &gt;&gt; 127]</b>: finger off value</li> </ul> <b>RED(blink): Assigning the Y downside control number part</b> <ul style="list-style-type: none"> <li>- <b>[Off]</b>: control not assigned</li> <li>- <b>[00 &gt;&gt; 127]</b>: finger off value</li> </ul> |
| <b>Step 3</b> | Click the Jog wheel                                      | Store the new value you assigned   |
| <b>Step 4</b> | Press the <b>[FUNC.]</b> button                          | Exit to play mode  |



### Note 1

"Finger off value =Off" describes the value of x/y-axis will not change when finger is released from the pad



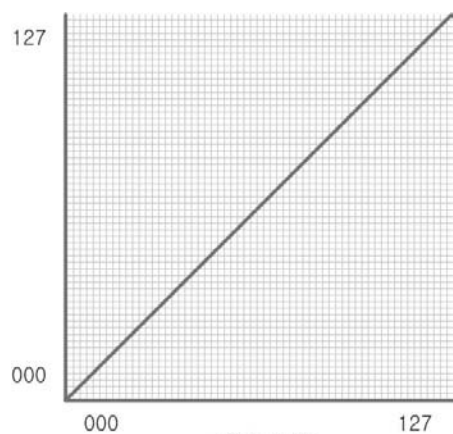
### Note 2

If "cc=pitch bend" and finger off value=64, ignore the setting of finger off value

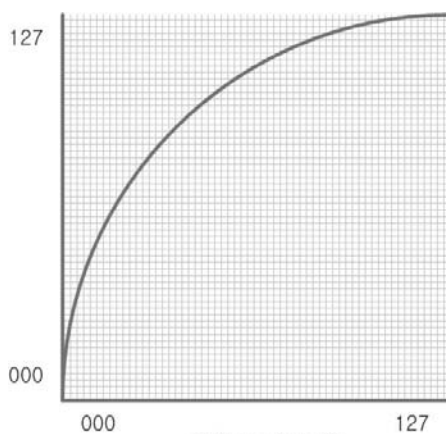
## 5.9 Changing Velocity Curve

| Steps         | Operating                | Explanation   |
|---------------|--------------------------|---|
| <b>Step 1</b> | [FUNC.]                  | Activate function mode  |
| <b>Step 2</b> | Press any note           | Display current curve number  |
| <b>Step 3</b> | Turn Jog wheel.          | Display new curve number <ul style="list-style-type: none"> <li>- [1]: Curve 1: Light curve</li> <li>- [2]: Curve 2: Normal curve</li> <li>- [3]: Curve 3: Heavy curve</li> <li>- [4]: Curve 4: Fixed 127 curve</li> <li>- [5]: Curve 5: Fixed 100 curve</li> <li>- [6]: Curve 6: Fixed 64 curve</li> </ul> |
| <b>Step 4</b> | Click Jog wheel          | Store new curve number  |
| <b>Step 5</b> | Press the [FUNC.] button | Exit to play mode   |

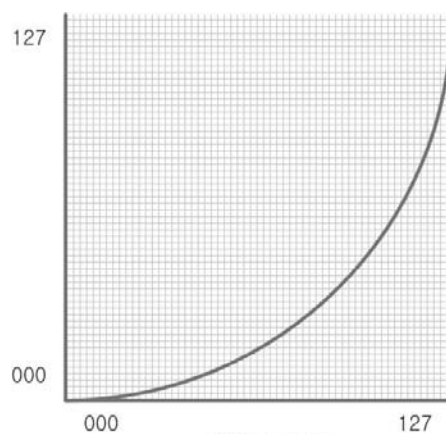
### □ Velocity curve chart



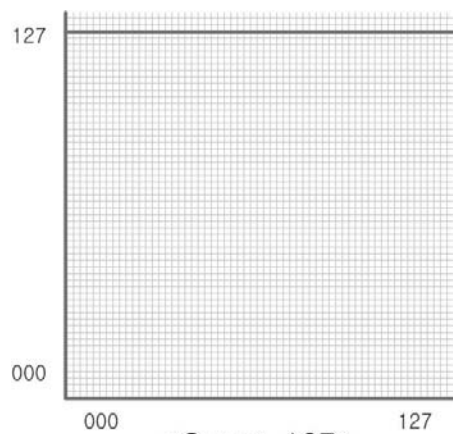
<Light>  
Curve 1: Light curve



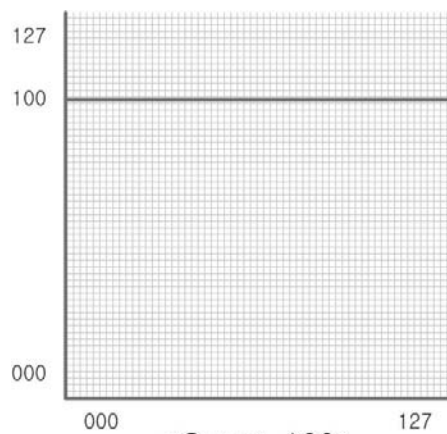
<Standard>  
Curve 2: Normal curve



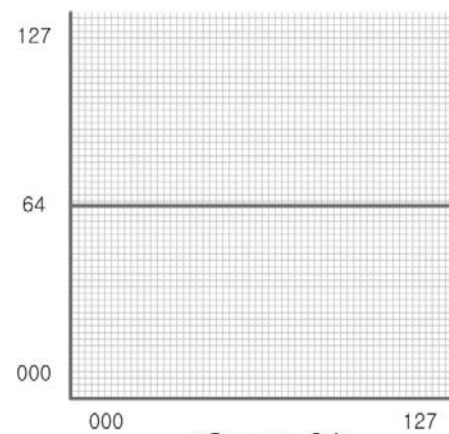
<Heavy>  
Curve 3: Heavy curve



<Const-127>  
Curve 4: Fixed 127 curve



<Const-100>  
Curve 5: Fixed 100 curve



<Const-64>  
Curve 6: Fixed 64 curve

## 6, M49 EDITING SOFTWARE

Using M49 Editing software, you can edit the parameter settings of your M49 controller through a Windows XP or Mac OS X computer. These parameter settings can be saved and recalled (loaded) as scene data on the computer, and then transmitted to (or received from) the M49 controller itself.

To use the M49 Editing Software, please run "M49.EXE (Win)" or "M49.dmg (Mac)".

### 6.1 OVERVIEW



<M49 Editing Software>

- [PREFERENCE]** Opens the PREFERENCE settings dialog box
- [LOAD]** Loads a scene data file that you had previously saved on your computer into the M49 S/W
- [SAVE]** Saves the current settings in the M49 S/W as a scene data file, using any name you specify
- [RECEIVE]** Receives the scene data from the M49 controller keyboard into the M49 S/W
- [TRANSMIT]** Transmits the current scene data in the M49 S/W to the M49 controller keyboard



Opens Infrasonic website (Windows only)

### 6.2 SETUP

Start up the M49 S/W as following steps.

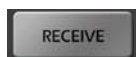
- 1) In the upper right panel of the window, click the [PREFERENCE] button. A setting dialog box will appear.
- 2) For "MIDI In", specify the M49 KBD/KNOB port; for "MIDI Out", specify the M49's CTRL port.
- 3) The port names may differ depending on your system. When this occurs, simply select the MIDI port that corresponds to the M49's KBD/KNOB and CTRL ports.
- 4) Click [OK] to close the settings dialog box.

## 6.3 Saving scene data to your computer

Here's how to save the M49 Controller's current scene data to your computer as a scene data file.

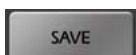
Don't operate the M49 controller keyboard while data is being transmitted or received. If an error message appears while data is being transmitted or received, check the MIDI driver and all connections.

- 1) **In the upper right panel of the window, click the [RECEIVE] button.**



The M49 controller keyboard will transmit data to the M49 Editor. When transmission is completed, the controller parameters will appear within the window.

- 2) **In the upper right panel of the window, click the [SAVE] button.**



The "Save Scene Data" dialog box will appear.

- 3) **Specify a name and location to save the file, then click the [Save] button.**

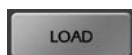
The file will be saved in the location you specify in ".ksd" format.

## 6.4 Loading scene data into the M49

Here's how to load previously-saved scene data from your computer into the M49 controller.

Don't operate the M49 controller keyboard while data is being transmitted or received. If an error message appears while data is being transmitted or received, check the MIDI driver and the connections.

- 1) **In the upper right panel of the window, click the [LOAD] button.**



The "Load Scene Data" dialog box will appear.

- 2) **Select a file with the extension ".cfg" and click the [Open] button.**

The scene data file will be loaded, and the parameter settings for the controllers will appear in the window.

- 3) **In the upper right of the window, click the [TRANSMIT] button.**



The scene data will be loaded into the M49 controller.



## 6.5 Parameter settings

### 1) GLOBAL PARAMETER



- ① **MIDI CHANNEL** Enter the MIDI channel [1...16]
- ② **TRANPOSE** Enter the transpose data value. [-12...12]
- ③ **VELOCITY CURVE** Select the velocity curve [Light, Standard, Heavy, Const 127, Const 100, Const 64]



#### Note

We recommend that you install the M49 multi-client device driver (Windows Only).

The driver is included in the CD provided with your M49 product. The file for the driver is under: *M49 Editor\Windows\Multi Client Device Driver\M49\_V1.00.02\_XPVISTA(20090921).exe*. With this driver, you are able to use multiple clients at once with the same device. Otherwise, you will need to terminate all MIDI applications in order to tweak the configurations on your M49. Again, we strongly recommend this. It's much easier!

### 2) Joy Stick



- ① **MODE Select** Select the operating mode of Joy Stick
  - *Mouse* : Capacitates the Joy Stick as a mouse
  - *Joy stick* : Capacitates the Joy Stick as a fully assignable MIDI controller
- ② **X-Axis-CC#** Enter the control change numbers of transmitted when you move the joystick to X axis.
- ③ **UP:CC# / DOWN:CC#** Enter the control change numbers of transmitted when you move the joystick to X axis.
- ④ **Description** Type the assigned functionality name so it can be easily recognized.

### 3) SLIDER



- ① **CC#** Enter the control change numbers of transmitted when you move the slider.
- ② **Description** Type the assigned functionality name so it can be easily recognized.

#### 4) X-Y PAD



**[X-Y PAD mode]**

- ① **X CC#**  
Enter the control change numbers of transmitted when you move the slider.  
[0...127], [BND] : Pitch bend, [AFT] : After touch
- ② **OFF VAL**  
Enter data value of control change numbers when you touch off from pad after control X axis.
- ③ **Y CC#**  
Enter the control change numbers of transmitted when you move the slider.  
[0...127], [BND] : Pitch bend, [AFT] : After touch
- ④ **OFF VAL**  
Enter data value of control change numbers when you touch off from pad after control Y axis.
- ③ **Description**  
Type the assigned functionality name so it can be easily recognized.



**[TOUCH PAD MODE]**

- ① **NOTE CHANNEL**  
Enter the MIDI channel of X-Y pad when operating touch mode [1...16]
- ② **NOTE**  
Enter the note number when operating touch mode [0...127]
- ③ **Description**  
Type the assigned functionality name so it can be easily recognized.

## 5) JOG WHEEL



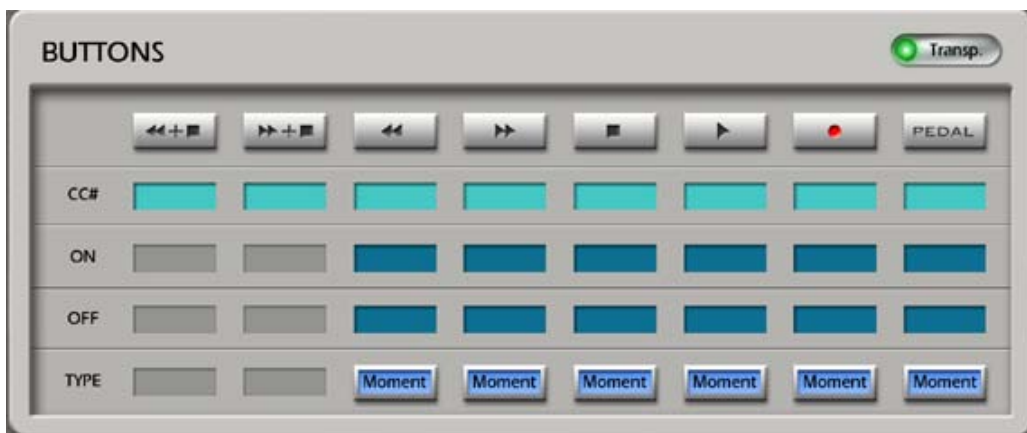
- ① **Mode** Select the operating mode of Jog wheel
  - **Jog shuttle:** Change the jog shuttle mode
  - **Program change:** Change the program number.
- ② **BANK MSB** Enter the bank MSB data value [0...127] default : [0]
- ③ **BANK LSB** Enter the bank LSB data value [0...127] default : [0]
- ④ **Description** Type the assigned functionality name so it can be easily recognized.

## 6) 8 \* MIDI CONTROLLER KNOBS



- ① **GROUP1 CC#** Enter the control change numbers of transmitted when you control the knobs on group 1.
- ② **GROUP2 CC#** Enter the control change numbers of transmitted when you control the knobs on group 1.
- ⑤ **Description** Type the assigned functionality name so it can be easily recognized.

## 7) TRANSPORT BUTTONS



- ① **CC#** Enter the control change numbers of transmitted when you press the buttons.
- ② **ON** Enter the data value when press the button.
- ③ **OFF** Enter the data value when release the button.
- ④ **TYPE** Select the button type



Momentary



Toggle

- ⑤ **Description** Type the assigned functionality name so it can be easily recognized.

## 7, APPLICATIONS

### 7.1 SAMPLITUDE

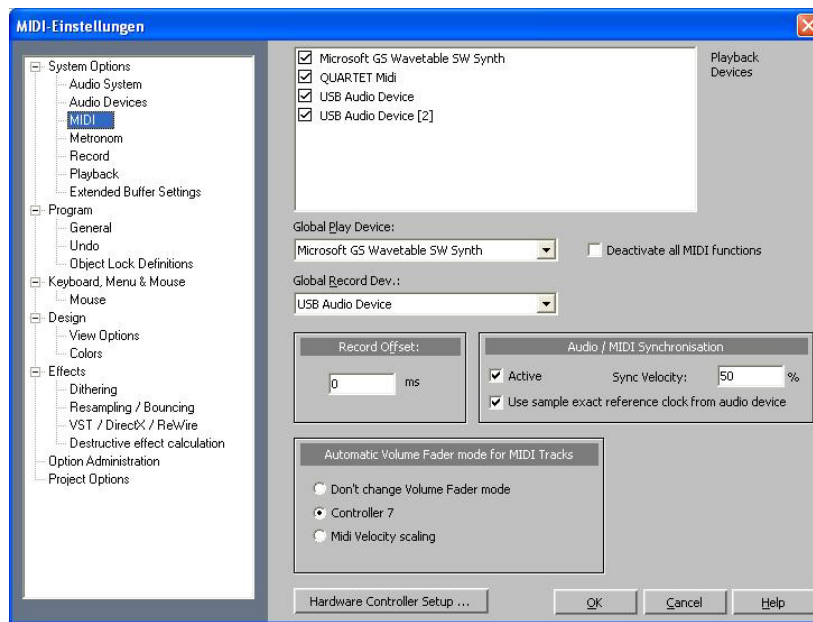


#### Note

All notes and knobs are controlled by USB Audio Device, and transport buttons are controlled by USB Audio Device[2]

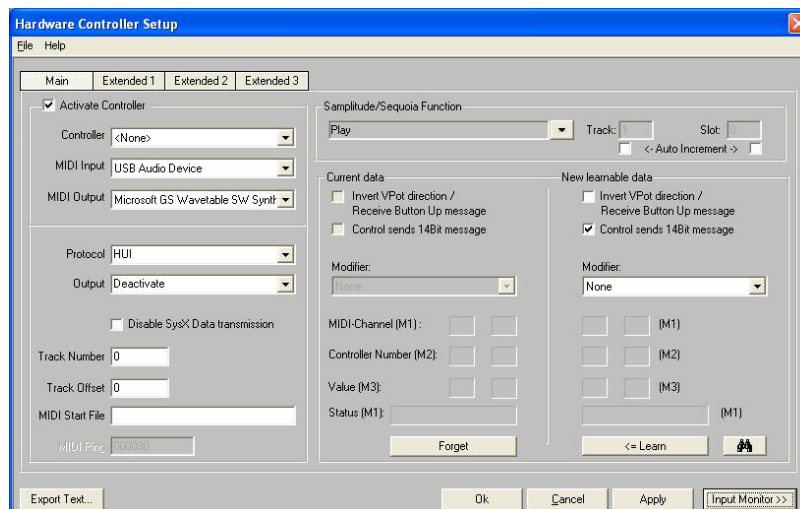
#### 1) Device Set up

When you open Samplitude 9 SE, go to "OPTION -> SYSTEM -> MIDI"; check and verify that the USB Audio Device and USB Audio Device [2] are on playback device section, and global record device to USB Audio Device (M49). Once you finish the setting, run Hardware controller setup.



#### 2) Load Preset

On hardware controller setup under: File->Open setup->choose "M49\_samplitude.cps" (This preset file contains in the driver CD in PresetM49\_Samplitude.cps) on your computer

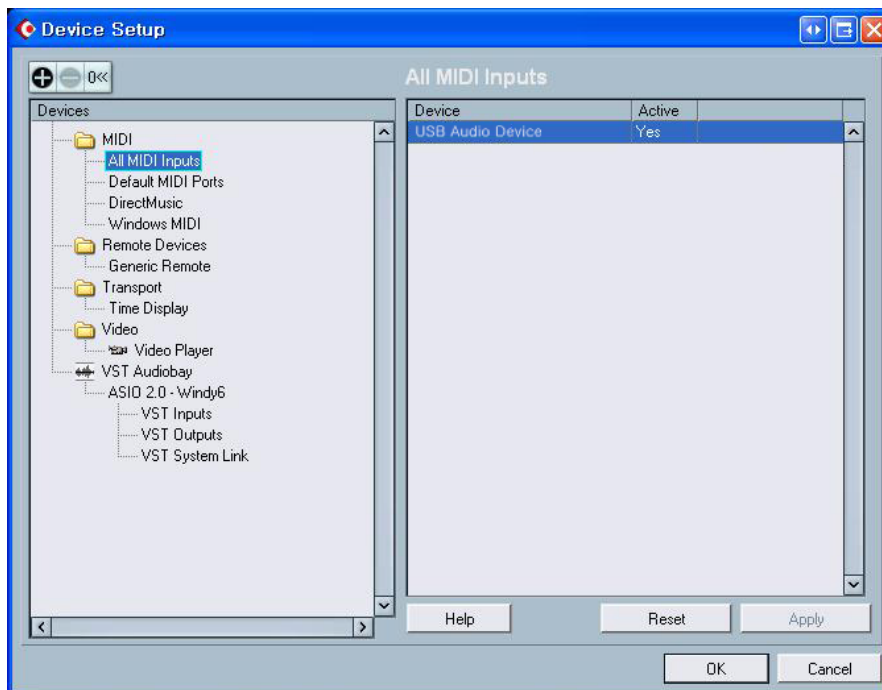


The providing Samplitude preset file will activate only transport operation; other function (volume faders, buttons) should be activated by individual assignment through M49 Editing software.

## 7.2 CUBASE

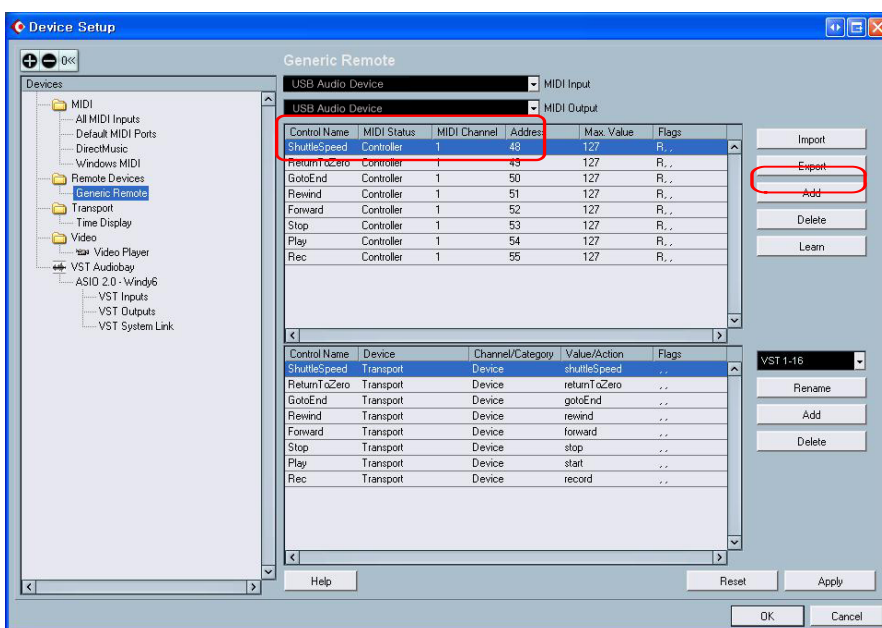
### 1) Device setup

Once you run Cubase SX, go to Device-> Device setup -> All MIDI input. Then, check and verify that USB Audio Device (M49) is set to yes.



### 2) MIDI controller function assignment

- ① Click + button on top left panel to open device list. Then, choose Generic Remote.
- ② Set MIDI in/out put to USB Audio Device.
- ③ Click Import, and then choose "M49\_Cubase.xml". (This preset file contains in the driver CD in Preset/M49\_Cubase.xml)
- ④ Now, you can assign Midi channel, control number on Generic Remote, and use M49 more effectively.

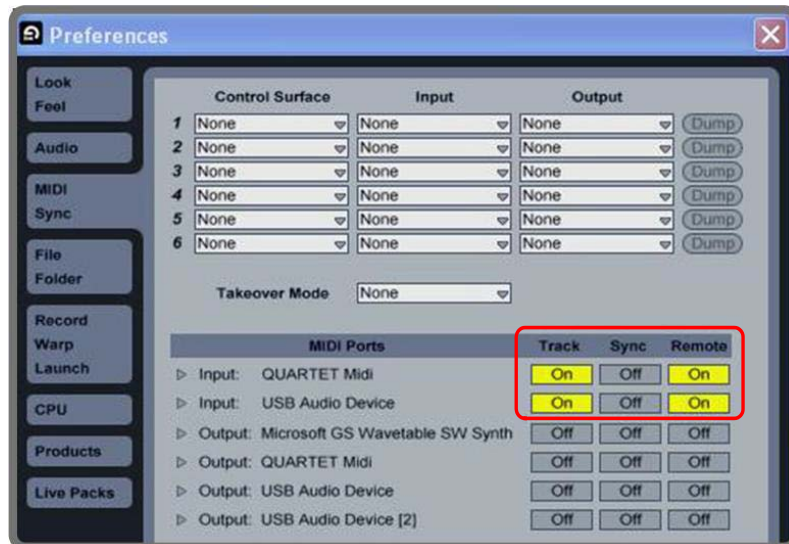


The providing Cubase preset file will activate only transport operation; other functions (such as volume faders and buttons) should be activated by individual assignment through M49 Editing software.

## 7.3 ABLETON LIVE

### 1) Device setup

Run ABLETON LIVE, go to *OPTION->Preference* to choose MIDI section. Then, active USB Audio Device (M49) in the input section mentioned in the picture below.



### 2) MIDI controller function assignment

- ① Activate MIDI button on top right panel.
- ② Click any activated sections you want to use in picture below.
- ③ You can move any knobs/fader/button on M49 that you would like to assign on ABLETON LIVE.
- ④ Once you finish, please click MIDI button again. Now, you can use your assigned knobs/fader/button on M49 freely.





## 8, Appendix

| Controller | Parameter Function | Default value | Range |
|------------|--------------------|---------------|-------|
| 0          | Bank Select MSB    | 0             | 0-127 |
| 1          | Modulation MSB     | 0             | 0-127 |
| 2          | Breath MSB         | 127           | 0-127 |
| 3          | Controller         | 0             | 0-127 |
| 4          | Foot Cntrl MSB     | 127           | 0-127 |
| 5          | Portam. time MSB   | 0             | 0-127 |
| 6          | Data Entry MSB     | 2             | 0-127 |
| 7          | Channel Vol. MSB   | 100           | 0-127 |
| 8          | Balance MSB        | 64            | 0-127 |
| 9          | Controller         | 0             | 0-127 |
| 10         | Pan MSB            | 64            | 0-127 |
| 11         | Expression MSB     | 127           | 0-127 |
| 12         | Effect Control MSB | 0             | 0-127 |
| 13         | Effect Control MSB | 0             | 0-127 |
| 14-31      | Controller         | 0             | 0-127 |
| 32         | Bank Select LSB    | 0             | 0-127 |
| 33         | Modulation LSB     | 0             | 0-127 |
| 34         | Breath LSB         | 127           | 0-127 |
| 35         | Controller         | 0             | 0-127 |
| 36         | Foot Cntrl LSB     | 127           | 0-127 |
| 37         | Portam. time LSB   | 0             | 0-127 |
| 38         | Data Entry LSB     | 0             | 0-127 |
| 39         | Chnnl Volume LSB   | 127           | 0-127 |
| 40         | Balance LSB        | 64            | 0-127 |
| 41         | Controller         | 0             | 0-127 |
| 42         | Panpot LSB         | 64            | 0-127 |
| 43         | Expression LSB     | 127           | 0-127 |
| 44-63      | Controller         | 0             | 0-127 |
| 64         | Sustain            | 0             | 0-127 |
| 65         | Portamento         | 0             | 0-127 |
| 66         | Sostenuto          | 0             | 0-127 |
| 67         | Soft Pedal         | 0             | 0-127 |
| 68         | Legato FootSwitch  | 0             | 0-127 |
| 69         | Hold 2             | 0             | 0-127 |
| 70         | Sound Controller   | 64            | 0-127 |
| 71         | Resonance          | 64            | 0-127 |
| 72         | Release Time       | 64            | 0-127 |
| 73         | Attack Time        | 64            | 0-127 |
| 74         | Cutoff             | 64            | 0-127 |
| 75         | Decay Time         | 0             | 0-127 |
| 76         | Vibrato Depth      | 64            | 0-127 |
| 77         | Vibrato Depth      | 64            | 0-127 |



| Controller | Parameter Function | Default value | Range |
|------------|--------------------|---------------|-------|
| 78         | Vibrato Depth      | 64            | 0-127 |
| 79         | Sound Controller   | 64            | 0-127 |
| 80-83      | Controller         | 0             | 0-127 |
| 84         | Portamento Control | 0             | 0-127 |
| 85-90      | Controller`        | 0             | 0-127 |
| 91         | Reverb             | 40            | 0-127 |
| 92         | Effects            | 0             | 0-127 |
| 93         | Chorus             | 0             | 0-127 |
| 94         | Effects            | 0             | 0-127 |
| 95         | Effects            | 0             | 0-127 |
| 96         | RPN Increment      | 0             | 0-127 |
| 97         | RPN Decrement      | 0             | 0-127 |
| 98         | NRPN LSB           | 0             | 0-127 |
| 99         | NRPN MSB           | 0             | 0-127 |
| 100        | RPN LSB            | 0             | 0-127 |
| 101        | RPN MSB            | 0             | 0-127 |
| 102-119    | Controller         | 0             | 0-127 |
| 120        | All Sound Off      | 0             | 0-127 |
| 121        | Reset All Contrll  | 0             | 0-127 |
| 122        | Local Control      | 0             | 0-127 |
| 123        | All Notes Off      | 0             | 0-127 |
| 124        | OMNI Off           | 0             | 0-127 |
| 125        | OMNI On            | 0             | 0-127 |
| 126        | Mono               | 0             | 0-127 |
| 127        | Poly               | 0             | 0-127 |

# END USER WARRANTY

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Windows is a trademark of the Microsoft Corporation. Other products and brand names are trademarks or registered trademarks of their respective companies.

## End User Warranty

SIMS Corp. warrants this product, under normal use, to be free of defects in materials and workmanship for a period of One(1) year from date of purchase, so long as: the product is owned by the original purchaser, with proof of purchase from an authorized SIMS Corp. dealer. This warranty explicitly excludes power supplies and included cables which may become defective as a result of normal wear and tear.

In the event that SIMS Corp. receives, from an original purchaser and within the warranty coverage period, written notice of defects in materials or workmanship, SIMS Corp. will either: replace the product, repair the product, or refund the purchase at its option. To obtain warranty service, the original purchaser or his authorized dealer must fill the support contact form at [www.infra-sonic.com](http://www.infra-sonic.com). In the event repair is required, shipment to and from SIMS Corp.

Possible handling charges shall be borne by the purchaser. SIMS Corp. will not accept returns without prepaid return shipments. In the event that a repair is required, a return authorization number must be obtained from SIMS Corp. After this number is obtained, the unit should be shipped back to SIMS Corp. in a protective package with a description of the problem and the Return Authorization Number clearly written on the package. All such returns must be shipped to SIMS Corp. headquarters in Seoul, Korea.

In the event that SIMS Corp. determines that the product requires repair because of user misuse or regular wear, it will assess a fair repair or replacement fee. The customer will have the option to pay this fee and have the unit repaired and returned, or not pay this fee and have the unit returned un-repaired.

The remedy for breach of this warranty shall not include any other damages. SIMS Corp. will not be liable for consequential, special, indirect, or similar damages or claims including loss of profit or any other commercial damage, even if its agents have been advised of the possibility of such damages, and in no event will SIMS Corp.' liability for any damages to the purchaser or any other person exceed the price paid for the product., regardless of any form of the claim. SIMS Corp. specifically disclaims all other warranties, expressed or implied. Specifically, SIMS Corp. makes no warranty that the product is fit for any particular purpose.

## Correspondence

For technical support inquiries, contact your nearest dealer, distributor or INFRASONIC directly at:

[www.infra-sonic.com](http://www.infra-sonic.com)

All features and specifications are subject to change without prior notice.

Parts of this manual are continually being updated.

Please check our web site [www.infra-sonic.com](http://www.infra-sonic.com) occasionally for the most recent updated information.