

masterkey 25/49/61

USB controller keyboard



Owner's manual

Precaution

Thank you for purchasing this digital instrument. For correct operation and safety, please read the manual carefully and keep it for future reference.

Safety Precautions



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings; install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over (Figure 1).
- 13) Unplug this apparatus during lightning storms or when unused for a long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



(Figure 1)

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

CAUTION: Apparatus shall not be exposed to dripping or splashing, and no objects filled with liquids, such as vases, shall be placed on the apparatus.

WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

**Thank you for purchasing the
Masterkey 25/49/61 USB MIDI keyboard!**

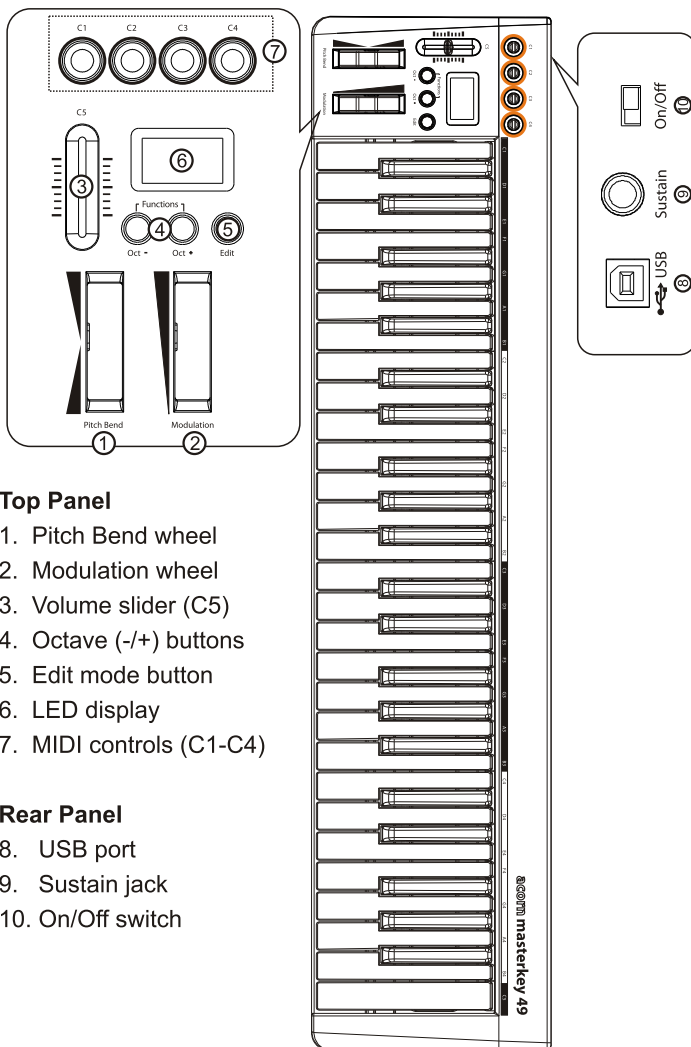
Congratulations on your purchase of the Masterkey 25/49/61 MIDI keyboard: a full-size, velocity-sensitive USB keyboard designed for easy integration with your Mac OS X or Windows computer. The Masterkey 25/49/61 is a quality keyboard controller, ideal for a multitude of music creation applications.

We recommend that you spend a few minutes reviewing this quick start guide to ensure proper setup and to maximize your experience with this product.

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Panel Control



Top Panel

1. Pitch Bend wheel
2. Modulation wheel
3. Volume slider (C5)
4. Octave (-/+) buttons
5. Edit mode button
6. LED display
7. MIDI controls (C1-C4)

Rear Panel

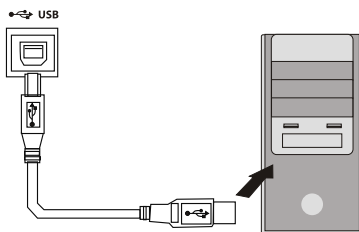
8. USB port
9. Sustain jack
10. On/Off switch

Shown above is an illustration of the Masterkey 49. All controls on Masterkey products are identical except for the number of keys.

Connecting Your Keyboard

Power and Connection via USB

1. Check that the on/off button on the back of the unit is set to “Off.”
2. Plug the USB cable provided with your MIDI keyboard to a free USB port on your computer.
3. Plug the other end of the USB cable into the USB input on the MIDI keyboard. The USB cable not only powers the keyboard but also sends MIDI data to and from your computer system.



Sustain Pedal Jack

This jack lets you connect a momentary-contact foot pedal (not included). When pressed, this pedal will sustain the sound you are playing when your fingers are no longer pressing the keys.

NOTE:

The polarity of the sustain pedal is determined by the keyboard upon startup. When your MIDI keyboard is powering up, the sustain pedal is assumed to be in the “up” (off) position.

It is important that the sustain pedal is not pressed during startup, otherwise notes will sustain when the pedal is not pressed.

Functions

The Masterkey 25/49/61 is a velocity-sensitive, standard synth-style keyboard. It has many powerful features! They are listed below and on the following pages.

Pitch Bend Wheel

This wheel is used to bend the notes being played up or down. The amount of pitch change is determined by the instrument preset for the sound you are playing.

The pitch bend wheel is spring loaded and by default is in its center position.

	Center (default)	Forward	Backward
Value	64	65-127	63 - 0

The pitch bend wheel may be reassigned to any MIDI continuous controller number (CC#) as described in the section titled “Edit mode.” These settings are retained on power down.

Modulation Wheel

The modulation wheel is free-moving with a default assignment of MIDI continuous controller number (CC#) 01. Modulation values can be sent out from 0 to 127 in a forward motion and back again. The modulation wheel may be reassigned to any MIDI CC number as described in the section titled “Edit mode.” This setting will be retained on power down.

Volume slider

The volume slider has a default assignment of MIDI CC# 07 (Channel Volume), and sends values within the range 0-127. It may be reassigned to any MIDI CC number as described in the section titled “Edit mode.” This setting will be retained on power down.

Control Knobs

The four Control knobs are assignable to any standard MIDI Continuous Controller number. The default factory settings are as follows:

Functions

Controller	MIDI Channel	MIDI CC #	Default parameter
C1	1	74	Brightness
C2	1	71	Timbre
C3	1	73	Attack time
C4	1	72	Release time

Each knob may be reassigned to any MIDI CC number as described in the section titled “Edit mode.” These settings will be retained on power down.

Octave Shift

Pressing the [Oct -] button will shift the keyboard down one octave for each press. Pressing the [Oct +] button will shift the keyboard up one octave for each press. The Masterkey 49 keyboard can be shifted up 4 octaves and down 3 octaves, covering the full MIDI note range. For the Masterkey 25 and 61 the maximum amounts of octave shift are different due to the different sizes of the keyboards, but they are still able to cover the full MIDI note range.

The LED display shows the new shift value when either button is pressed.



The buttons can also be assigned to control Transpose, Program Change or MIDI channel. This is done by pressing the [Oct +] and [Oct -] buttons at the same time, which shows the current state in the LED display. The first time you do this after power-up, the setting you will see is the default (“Oct”).



Functions

After simultaneously pressing the [Oct +] and [Oct -] buttons and releasing them, they can be used to scroll through a list of assignable functions. After about 1 second of inactivity, the last selected option will be active and now controlled by the [Oct +] and [Oct -] keys.

Here is a list of the assignable functions and a description of what they do:

Octave (Oct): As described on the previous page, each press of the [Oct +/-] buttons will shift the keyboard note range by an octave.

Transpose (Tra): When you select this option you will see the following in the display:



This means that each press of the Oct +/- buttons will shift the keyboard note range by a semitone (a half-step).

Program Change (Prg): After selecting this option, each press of the [Oct +/-] buttons will send MIDI program changes to your computer via USB. The program number will increase or decrease by one value within the range 0-127.

MIDI channel (Mch): With this choice, each press of the [Oct +/-] buttons will change the MIDI channel on which the Masterkey 25/49/61 transmits its data within the standard MIDI range of 16 channels.

NOTE:

Changes to the function of the Oct +/- buttons will not be retained on power down.

Edit Mode

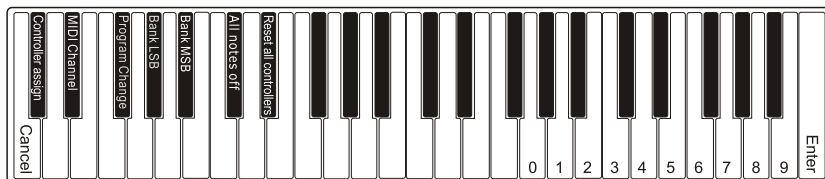
Edit mode (masterkey 49)

Whether you own a Masterkey 25, 49 or 61, the Edit functions work the same way. The only difference between the three is which key you use on the keyboard to access each function.

The following pages describe how to operate the Masterkey 49. However, the descriptions of what each function does also apply to the Masterkey 25 and 61. Refer to page 15 for a map showing the keyboard layout for these functions on Masterkey 25; page 16 has a map for Masterkey 61.

After pressing the Edit button, the LED display will blink “Edi” indicating that the keyboard is now in Edit mode. Pressing each of the black keys will display the menu abbreviations that show each key's function. Pressing the desired black key will execute the command or enter a menu.

The functions are accessible as per the keyboard map:

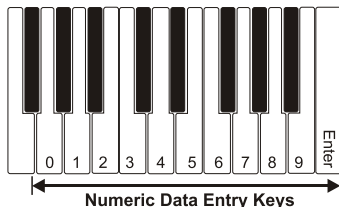


1. Numeric Data Entry Keys (G3 - C5)

Some of the advanced MIDI editing functions of the MIDI keyboard require the entry of a numeric value. This can be accomplished using the Numeric Data Entry Keys.

Functions requiring numeric input include:

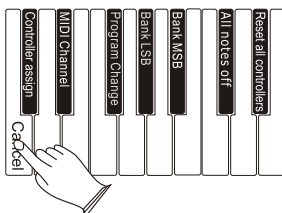
- Control Assign
- MIDI Channel
- Program Change
- Bank LSB
- Bank MSB



Edit Mode

2. Cancel Key (C1)

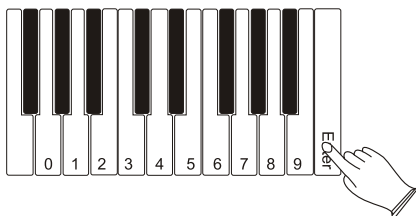
Pressing the Cancel key at any time while in Edit mode will exit the mode and return the keyboard to regular performance. Settings will remain unchanged.



3. Enter Key (C5)

When entering data in Edit mode, press the Enter key either to accept the data as a parameter change or to send the selected MIDI command (such as a program change) via the USB MIDI out.

After pressing the Enter key, the MIDI keyboard will return to the default performance display.



4. Control Assign (C#1)

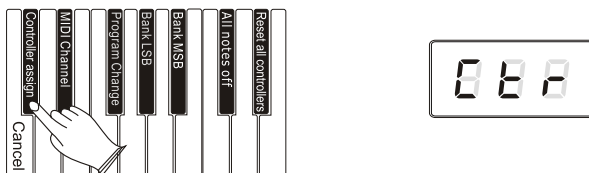
To change the controller assignment of the pitchbend/modulation wheels, the fader, or any of the four assignable MIDI controls, do the following:

- a. Press the Edit button (the LED display will blink “Edi”)



Edit Mode

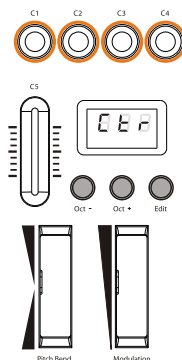
b. Press the C#1 key:



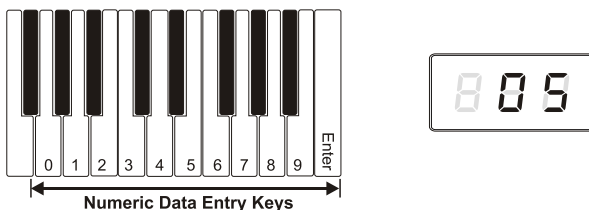
“Ctr” will blink in the display to indicate that you have accessed the Controller Assign function.

c. Select any of the seven assignable controllers by moving them. The display will show the MIDI Continuous Controller (CC) number that is assigned to each controller as you move it. Their default assignments are shown in the chart below:

Controller	MIDI CC number
Pitch bend	144
Modulation wheel	01
Master Volume	07
Controller 1	74
Controller 2	71
Controller 3	73
Controller 4	72



d. Enter the controller assignment required using the white 0-9 keys. The display should show the value entry:



e. Press the Enter key (C5). This will accept the change to the controller assignment and exit Edit mode.

NOTE:

Pressing the Edit button from any page within Edit mode will cancel any recent changes and exit the mode.

Edit Mode

5. MIDI Channel (D#1)

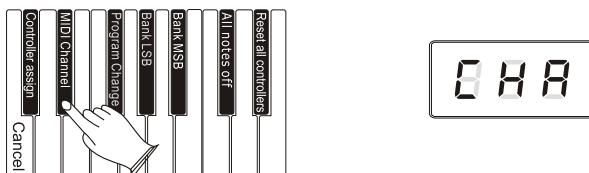
Whenever you play notes or move one of the controls on your MIDI keyboard, it transmits MIDI data to your computer on MIDI channel 1 by default. Assigning the Octave Shift buttons to the MIDI Channel function lets you change the MIDI channel to any of the other 15 channels.

For example, this would be useful if you are controlling a General MIDI instrument and want to access its drum kits, which only receive MIDI information on channel 10. Another way to change the current MIDI channel is to use Edit mode. To do so:

- a. Press the Edit button (the LED display will blink “Edi”).

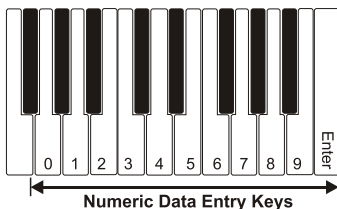


- b. Press the D#1 key:



“CHA” will blink in the display to indicate that you have accessed the MIDI Channel function.

- c. Enter the desired MIDI channel number using the white 0-9 keys. The display will show the value entry.



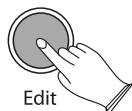
- d. Press the Enter key (C5) to accept the MIDI channel number.

Edit Mode

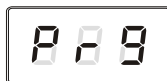
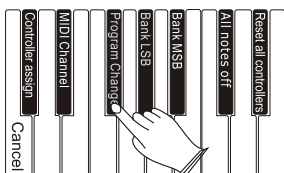
6. Program Change (F#1)

Using the Edit menu, you can send program change messages to any MIDI instrument, device or DAW via the USB connection. To do so:

a. Press the Edit button (the LED display will blink “Edi”).

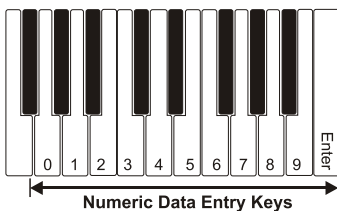


b. Press the F#1 key:



“Prg” will blink in the display to indicate that you have accessed the Program Change function.

c. Enter the program change number required using the white 0-9 keys. The display will show the value entry.



d. Press the Enter key (C5). This will send the program change command via the Masterkey 49's USB MIDI out.

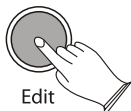
Edit Mode

7. Bank LSB and Bank MSB (G#1 and A#1)

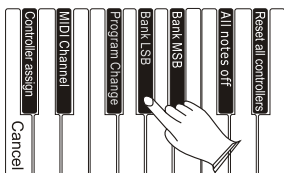
You can also send Bank LSB and Bank MSB changes to a receiving MIDI device.

To do so:

- a. Press the Edit button (the LED display will blink “Edi”).

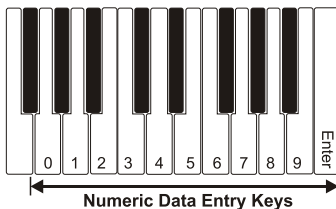


- b. Press the G#1 key for BANK LSB (or the A#1 key for Bank MSB):



“LSb” will blink in the display to indicate the selection of the LSB transmission function. (If you selected the MSB transmission function, the display will flash “MSb”.)

- c. Enter the desired value using the white 0-9 keys. The display will show the value entry.



- d. Press the Enter key (C5) to send the MIDI LSB or MSB instruction.

NOTE:

After any kind of bank message it is usually necessary to follow up with a MIDI Program Change message in order to select a new sound on the receiving device.

Edit Mode

8. All Notes Off (C#2)

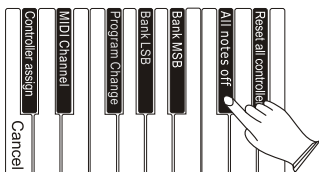
Use this feature if you find there are stuck notes on the receiving device.

To send an “All Notes Off” MIDI message:

- a. Press the Edit button (the LED display will blink “Edi”).



- b. Press the C#2 key:



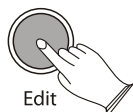
The Masterkey 49 will exit Edit mode, and you should no longer hear stuck notes on the selected MIDI channel.

9. Reset All Controllers (D#2)

If you find there is something unexpected happening to the sound, rather than having to figure out which controller message caused it you can send a "Reset All Controllers" MIDI message to set all effects to their defaults (usually 0).

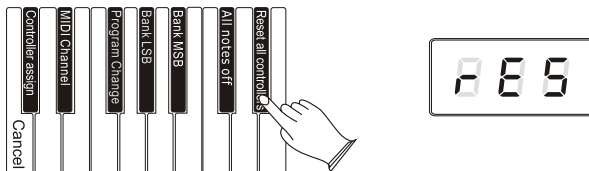
To send a “Reset All Controllers” message:

- a. Press the Edit button (the LED display will blink “Edi”).



Edit Mode

b. Press the D#2 key:



The Masterkey 49 will exit Edit mode, and any unexpected modulation that was due to a MIDI controller will have stopped.

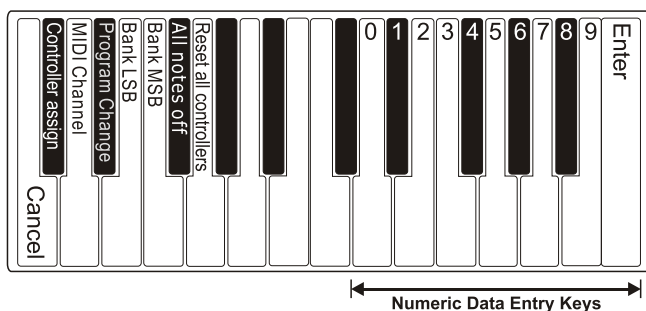
Edit Mode

Edit mode (masterkey 25)

Whether you own a Masterkey 25, 49 or 61, the Edit functions work the same way. The only difference between the three is which key you use on the keyboard to access each function.

After pressing the Edit button, the LED display will blink “Edi” indicating that the keyboard is now in Edit mode. Pressing each of the black keys will display the menu abbreviations that show each key's function. Pressing the desired black key again will execute the command or enter a menu.

The functions are accessible as per the below keyboard map:



Page	Edit Mode
7	Numeric Data Entry Keys (D3 - C4)
8	Cancel Key (C2)
8	Enter Key (C4)
8	Control Assign (C#2)
10	MIDI Channel (D2)
11	Program Change (D#2)
12	Bank LSB and Bank MSB (E2 and F2)
13	All Notes Off (F#2)
13	Reset All Controllers (G2)

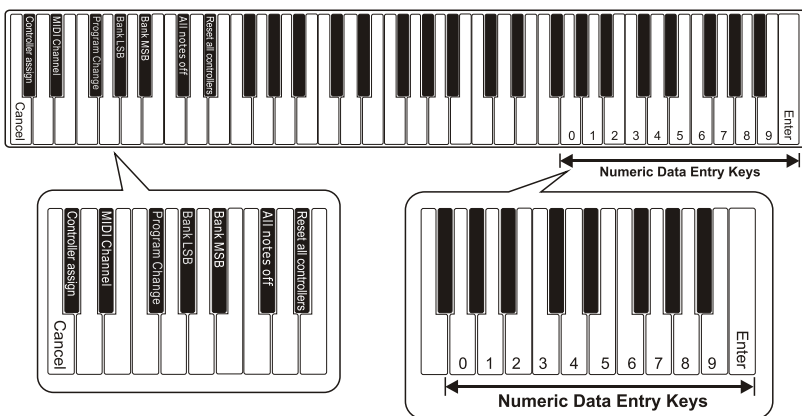
Edit Mode

Edit mode (masterkey 61)

Whether you own a Masterkey 25, 49 or 61, the Edit functions work the same way. The only difference between the three is which key you use on the keyboard to access each function.

After pressing the Edit button, the LED display will blink “Edi” indicating that the keyboard is now in Edit mode. Pressing each of the black keys will display the menu abbreviations that show each key's function. Pressing the desired black key again will execute the command or enter a menu.

The functions are accessible as per the below keyboard map:



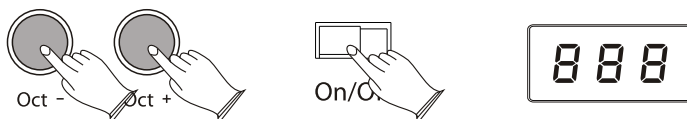
Page	Edit Mode
7	Numeric Data Entry Keys (G4 - C6)
8	Cancel Key (C1)
8	Enter Key (C6)
8	Control Assign (C#1)
10	MIDI Channel (D#1)
11	Program Change (F#1)
12	Bank LSB and Bank MSB (G#1 and A#1)
13	All Notes Off (C#2)
13	Reset All Controllers (D#2)

Factory Reset

Performing a Factory Reset will clear all battery-backed memory and restore all functions to their factory defaults, just like they were when you used this keyboard for the first time.

To perform a Factory Reset, do the following:

1. Turn the power switch on the Masterkey 25/49/61 to the “Off” position.
2. Hold down the [Oct-] and [Oct+] buttons while powering on the keyboard. You will see all of the LED segments in the display light up at once (“888”), and the default MIDI CC assignments for all controllers will be restored. After this the unit will display its software version and then return to the main performance mode, with an Octave Transposition value of 0 on the display.



Appendix

Specifications

- 25, 49 or 61 note full-size, velocity-sensitive synthesizer-style keyboard

Note: This unit does not support aftertouch.

- Pitch bend wheel
- Modulation wheel
- Octave/Advanced Functions shift buttons (2)
- Volume slider (assignable)
- Four MIDI controls (assignable)
- 3-digit red LED display
- Advanced Functions accessed via Edit button and selected by the keyboard
- USB MIDI, class compliant
- Sustain pedal jack (polarity-sensing)
- Non-volatile memory retains assignment settings on power-off

