MK-61

MIDI KEYBOARD CONTROLLER

USER'S MANUAL

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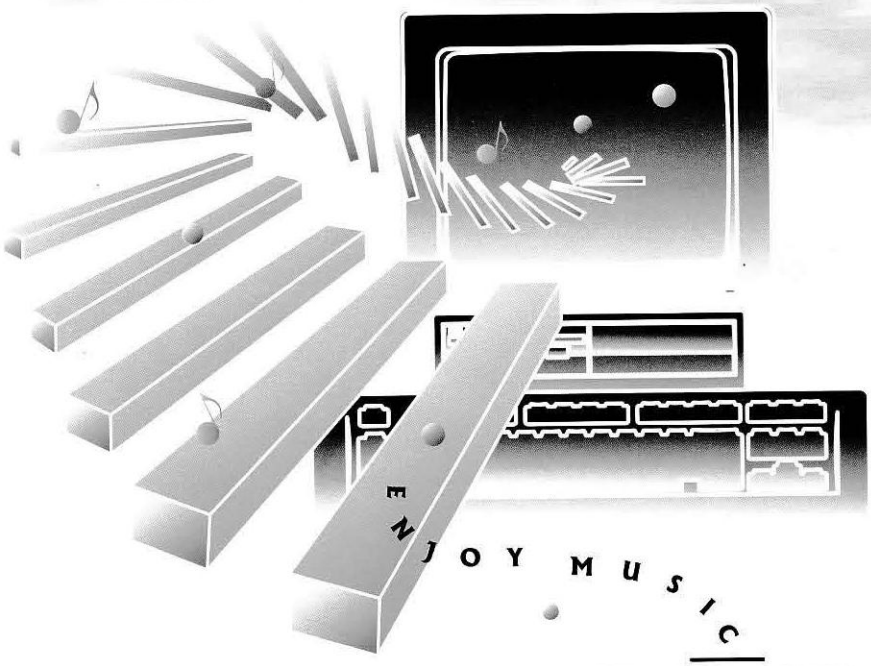

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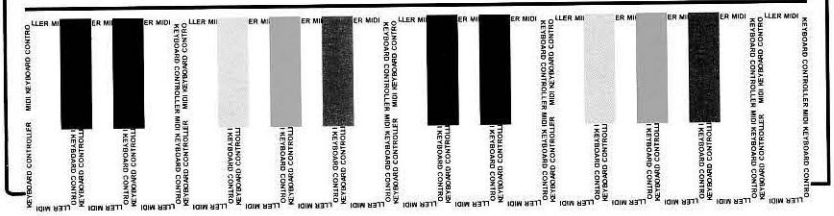

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MK-61 Owner's Manual

Preface

Thank you for your purchasing the MK-61, the MIDI master controller keyboard. When used your MK-61 in conjunction with a computer with the appropriate music softwares is then turned into a complete musical instrument or workstation.

This manual was written to help you become familiar with the powerful features of the MK-61. Please read the manual carefully to find out what you can do with your MK-61. After reading this manual, you should have a clear understanding of how to transmit different MIDI messages to the other instruments and equipments. For this sake, we strongly recommand you to have the manual at hand when you are uisng the keyboard. Thus, you can find any useful information quickly when you need it.

Main Feature

*The MK-61 MIDI master controller keyboard provides 61 dynamic keys, it can be operated on receiving 5V AC power directly from your PC sound card. Therefore, you don't need any external power-supply to activate your instrument.

*For setting up MIDI connection of your MK-61 and PC with built in sound card, your MK-61 comes with an unique 15 pin to 15 pin MIDI adapting cable for connecting your keyboard's MIDI port to PC sound card's GAME port, which makes you to expand your system easily.

*The MK-61 provides an extra MIDI-Joystick socket for connecting to joystick or other external sound sources.

*The MK-61 provides a MIDI OUT socket for connecting to other MIDI devices such as sound modules or synthesizer.

*There is a soket for an optional sustain-footswitch.

*Although the MK-61 has no built-in sound capabilities, it offers various useful MIDI functions.

Something you should know before using the MIDI Functions

MIDI is the acronym for ***Muical Instrument Digital Interface***, which makes all digital musical instruments equiped this standardized interface being able to exchange their MIDI data.

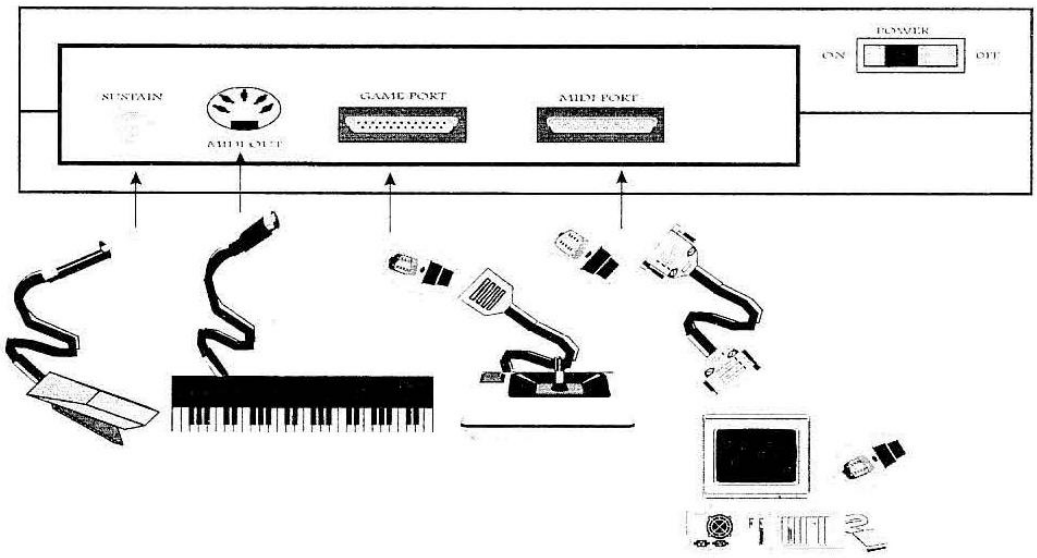
To explain how does MIDI work on your instrument in more dtails, the following illustrations will outline the MIDI functions of the MK-61, which allow you to connect the keyboard to other MIDI instruments. The versatile MIDI capability of the MK-61 will offer you tremendous power in a MIDI environment.

Using the MIDI Functions:

1. Connecting the keyboard to other MIDI instruments:

   To transmit MIDI data from your keyboard to other professional MIDI instruments, please purchase a MIDI cable and use it to connect the MIDI OUT jack of your MK-61 to the MIDI IN jack of other instruments. Make sure that the MIDI "transmit" channel on your MK-61 matches the MIDI "receive" channel of the other instruments.

2. Please refer the following diagram to know the MIDI connection:



Default Setting of The MK-61

The MK-61 will always select the following values for their paramaters when the power is turned on.

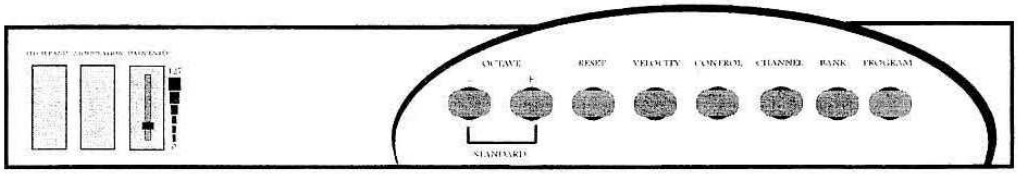
*Transmit MIDI Channel no. 1.

*Default Octave will be form C2(36) to C7(96)

*Default Control Change (CC-00=0, CC-32=0) message will be transmitted.

*Default Program Change (PG=1) message will be transmitted.

Overall Diagram Preview:



Part A. Operation panel:

1. Using the Pitch Bend Wheel:

   The Pitch Bend wheel is used for raising or lowering the pitch of a voice during performance. The range of pitch values depends on the different sound generatora being used. Please refer to the manuals of your MIDI devices for information on how to change the Pitch Bend range. To bend up the pitch, please move the wheel away form you. To bend down the pitch, please move the wheel towards you.

2. Using the Modulation Wheel:

   It is very common to use the modulation wheel to change the intensity of effects: mainly Vibrato(pitch change,) Tremolo(change the volume,) and Modulation(changes the tone.) The Modulation wheel produces a vibrato effect shortly after their sound is generated. It is most effective for voice such as strings and oboe.

3. Data Entry Slide: This slide controller allows you to adjust the following parameters: Volume, Velocity, Chorus, Reverb, Panpot, and Aftertouch from your keyboard directly.
4. Octave +/- button: By pressing these buttons, you will shift the active keyboard range one octave higher, or lower. Pressing +/- switches simultaneously to reset the pitch to preset level.

5. Internal/External reset button: Pressing this button turns the keyboard to its default setting and sends out a message to return all external MIDI instruments to their default setting as well.

6. Velocity button: You may use the velocity and numerical buttons to set the velocity of being played notes (an intensity setting from 0-127.) To set the velocity level, a higher velocity value makes the notes sound louder and brighter, a lower values let the notes sound softer and lighter.

   Since MK-61 is a velocity sensitive keyboard and it detects how quick a key moves when velocity message is first passed, you may set your keyboard's velocity level either by using the data entry slide or by using the numeral keys. To raise the dynamic sensitivity level, simply move the Data Entry control away from you. To lower the dynamic sensitivity level, simply move the Data Entry control away toward you.

7. Control Change button (Generic CC Assignment): This button is used to define the various MIDI control messages which can be sent and the way the control wheel (or data entry slider) should be used to send each type of massage.

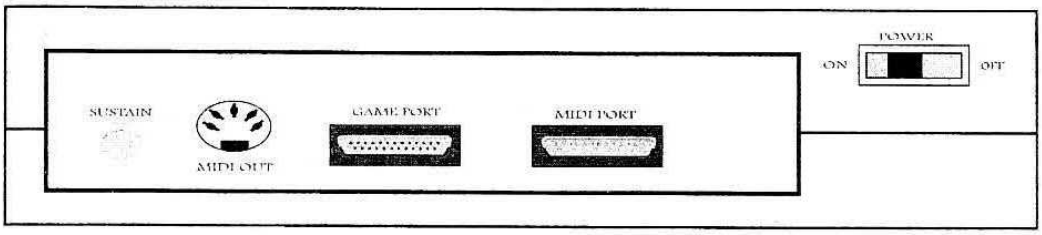
8. MIDI channel button: Pressing the MCH (MIDI Channel) button allows you to select the transmitting channel for your keyboard. The default Channel is 1 when keyboard's power is turned on. Pressing the MCH button, 0, 2 and the ENTER button to change the MIDI transmit channel from 1 to 2. Using this procedure to select any MIDI channel from 1 to 16.

9. Bank Select buttons: These button is designed to select different sound banks in different MIDI instruments. Normally, there are 128 sounds (patches) in a sound bank(such as GM/GS format,) since contemporary synthesizers and sound modules offer several sound banks containing a wide variety of sound (patch) and effects, there are 16,384 possibilities in which to select and store sound information in your own bank.

10. Program change button: When you first turn on the keyboard, the default program is "001" (which is Grand Piano patch on the GM sound list.) By pressing any combination of numeric keys then enter key, you can select any patch number between 0-127.

11. Ten Numeral Keys & Enter button: These buttons are used to enter the number of the different parameters (for example, velocity.) To enter a number, press two "zero" first and then press a number between 1 and 9 with out one-second pause. Be sure to enter all the digits of the desired number in rapid succession.

Part B. Rear Panel:



1. Sustain jack: This jack allows you to connect an optional footswitch to the keyboard. When the footswitch is depressed, notes played on the keyboard will continuously sound as long as the footswitch is held back.
2. MIDI out jack: This standard MIDI jack is used to send MIDI messages to another MIDI instruments (such as sound module).
3. Game port: you can use this jack as your sound card's game port for joystick.
4. Midi port: this jack is used to connect the keyboard with sound card on the computer,to get power from sound card and send MIDI messages directly to sound card.
5. Power on/off button: The power button turns the keyboard's power on and off. when the power is turned on, the keyboard will start at the default setting.

Overall Operating Examples

1. To set your MK-61 to send MIDI channel 9, address sound bank 122, program number 10 with a velocity value of 119 and shifted up by 2 octave, you need to follow the procedure as following:

-Press the MIDI channel button

-Press the numeral key 9

-Press the Enter key, the MK-61 now sends on channel 9

-Press the Bank select key

-Press the numeral key 1

-Press the numeral key 2

-Press the numeral key 2

-Press the enter key, you now have select sound bank 122 (123)

-Press the numeral key 1

-Press the numeral key 0

-Press the enter key, you now have select program number 10 (11)

-Press the Velocity key

-Press the numeral key 1

-Press the numeral key 1,

-Press the numeral key 9

-Press the enter key, you now have set the Velocity value at 119

-Press the Octave down button once

-Press the Octave down button twice, you now have shifted the current keyboard range 2 octave downwards.

2. The MK-61 allows you to send via MIDI any of the 128 Control Change of MIDI standard. For assigning one of the MIDI Control Change to the Data Entry slide, please refer the following procedure:

-Press Control Change button (Generic CC Assignment)

-Enter the number of the Control Change that you wish to send via MIDI (0~127) by pressring the numeral keys. For example, Reverb level (CC-91), Chorus level (CC-93), Volume (CC-07), Pan-pot (CC-10), and so on.

-Press the Enter key to confirm your selection.

-Now moving the Data Entry slide, the CC-xx message will send via will send according to the position of the Data Entry slide.

SPECIFICATION

MODEL:MK-61

Keyboard	61 Velocity sensitive standard keys
Simultaneous Note output	10 notes
Main features	Power Reset switch x 1 Octave switch x 2 Program change switch x 1 Numerical keys x 10(on keyboard) Data entry Slide MIDI channel switch Bank Velocity Pitch Bend Wheel Modulation Wheel
External Control Terminals	Sustain, MIDI OUT, Game port, MIDI port,Fuse
Dimensions	92 x 21.5 x 7.5 cm
Weight	3.38kg
Power source	PC Sound Card

Midi Implementation Chart

Model:MK-61

Date:1/16/1996
Version:1.0

Function	Transmitted	Recognized	Remarks
Basic Default Channel Changed	1 1-16	x x	
Default Mode Messages Altered	Mode 3 x **********	x x x	
Note Number True Voice	0-127 **********	x x	With Octave Change
Velocity Note ON Note OFF	0 x	x x	
After Key's Touch Ch's	x x	x x	
Pitch Bender	0	x	
Control Change	0	x	
Prog Change :True #	1-128 **********	x x	
System Exclusive	x	x	
System :Song Pos :Song Sel Common :Tune	x x x	x x x	
System :Clock Real Time :Commands	x x	x x	
Aux :Local ON/OFF Mes- :All Notes OFF sage :Active Sense :Reset	x 0 0 0	x x x x	 Send with ResExt. Send with ResExt.
Notes: Bank=select CC-00 (CC-32=00)			

O=Yes, x=No