CME

Professional Master MIDI Keyboard with Built-in USB
User's Manual

(Ver 01)

Please read this manual carefully before use.
Please keep this manual for reference.

Thank you for choosing CME Z-Key

Professional Master MIDI Keyboard with Built-in USB

Please keep all the important information here

Attach your invoice or receipt here

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For reference

Purchase date	Serial(on the back of the keyboard)
Dealer's name and addr.	
Dealer's tel.	

Warning:

● Improper connection may cause damage to the device.

Copyright:

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Package contents

Please check all the items in the product package:

● USB MIDI Master keyboard 1 pc
● USB Cable 1 pc
● User's Manual 1 pc

PRECAUTIONS

IMPORTANT

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, damage, 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 on the instrument.
3. Before cleaning the instrument, always remove the electric plug from the outlet as well as the USB cable. When cleaning, use a soft, dry cloth. Do not use gasoline, alcohol, acetone, turps or any other organic solution; do not use liquid cleaner or spray cleaner, or too wet a cloth.
4. Do not use the instrument near water or moisture, such as bathtub, washbasin, or in the washing area in the kitchen, or similar places.
5. Do not place the instrument in an unstable position where it might accidentally fall over.
6. Do not block sinks or holes of the instrument; those sinks or 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 or trip over it.
8. Do not overload the outlet and AC cable to avoid fire or electrical shock.
9. Do not insert anything in the instrument, which may cause fire or electrical shock. Do not splash any kind of liquid to the instrument.
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, and improper assembly may cause electrical shock in the future use.
12. Unplug all the connectors and take the instrument to qualified service center if anything in the list below happens:
    A. The power cord or connector get damaged or worn.
    B. Any liquid gets into the instrument.
    C. The instrument gets rain or water splashed on it.
       The instrument does not work properly after following all the instructions regarding troubleshooting.
    D. The instrument falls down or gets broken.
    E. The instrument functions poorly.
13. Do not use the instrument during lightning or thunder; otherwise the lightning may cause long-distance electrical shock.
14. Do not use the instrument when there is gas leak nearby.

Keep this manual in safe place

CAUTION:

Setting up
- Do not connect the instrument during a thunderstorm.
- Do not set up the power cord or socket in a damp place, unless the power cord or socket is specially designed for damp areas.
- When the power cord is connected to the AC outlet, do not touch the naked part of the cord or the connector.
- Always follow the instructions carefully when setting up the instrument.
- Avoid using any poor quality extending USB cable or over-long extending USB cable.
- Do not use USB HUB to connect the product
- Make sure the computer USB port has adequate power supply, otherwise the product will not work properly.

WARNING:
- Do not expose the instrument to rain or moisture, avoid fire or electrical shock.

Other Precautions:

- Keep the instrument away from electrical interface source, such as fluorescent light and electrical motor.
- Keep the instrument away from dust, heat and vibration.
- Do not expose the instrument to sunlight.
- Do not place heavy object on the instrument; do not place containers with liquid on the instrument.
- Do not touch connectors with a wet hand.
- Central Music Co. is not responsible for any damage or data loss caused by improper operation of the instrument.
- All the pictures and display in the manual are for demonstration only; they may be different from a real instrument.

Trade Marks

CME & Z-Key are the registered trade marks of Central Music Co. Other brands and names belong to the respective owners.
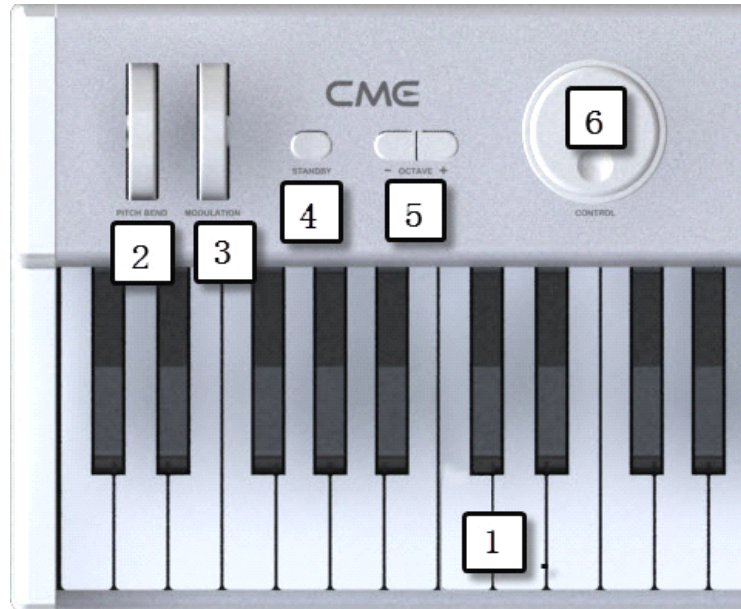
Features

- Professional semi-weighted Keyboard with aftertouch across the entire range of Z-Key series keyboards.

- Assignable data dial.

- Choice of velocity curve and aftertouch curve.

- USB plug and play, class-compliant with Windows XP / Vista / 7 or Mac OSX.

Contents

1 General View

1.1 Front Panel

1   **Keyboard**
There are four models for the Z-Key series, comprising Z-Key 49 (49 keys), Z-Key 61 (61 keys), Z-Key 76 (76 keys) and Z-Key 88 (88 keys). All the keyboards in the Z-Key series are equipped with velocity response and after-touch.

☞ **Velocity response means when you play the keyboard, it will respond to the initial force used to strike the keys.**
Aftertouch means after you press and hold a key, it will continue to respond to additional pressure applied to the keys.

2   **Pitchbend (spring loaded)**
It changes the pitch up and down, and when released it will automatically return to the center position.

3   **Modulation (not spring loaded)**
It will make the sound more vibrant, and when released it will stay at that position.

4   **Standby**
This indicates the power status, switching between Standby and Active.
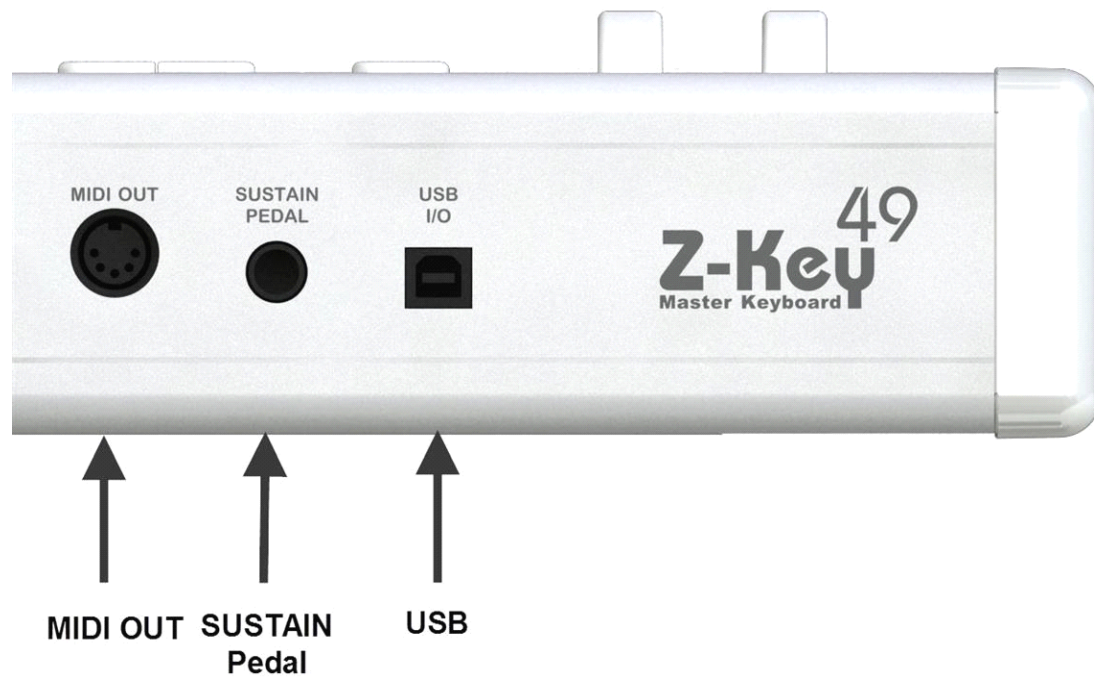
5   **Octave / Transpose**
These are used to change the keyboard pitch, one octave at a time.

6   **Encoder Data Dial (control)**
It is a data change dial. In default status, it is a tone brightness control function.

1.2 Rear Panel

- USB port: to make computer connection for MIDI data transfer and obtain power from the USB bus.

- MIDI OUT port: Standard Five Core MIDI socket.

- Sustain Pedal Jack, Three core 1/4" TRS, can be used for sustain pedal.

2 Installation Guide

2.1 Power Supply

USB Bus-powered:

Connect Z-Key to computer via USB.

2.2 Power On Sequence

When connecting your Z-Key to a system, set all the volumes to minimum then follow the correct sequence to turn all the devices on: 1) master MIDI device (which sends out MIDI data), 2) slave MIDI device (which receives MIDI data), 3) audio devices (mixer, amplifier, speakers). When you follow this order, all the signals (MIDI and audio) will perform correctly from start to finish,. When you turn off the system, follow the reverse order (turn off the audio devices first, then the MIDI devices).
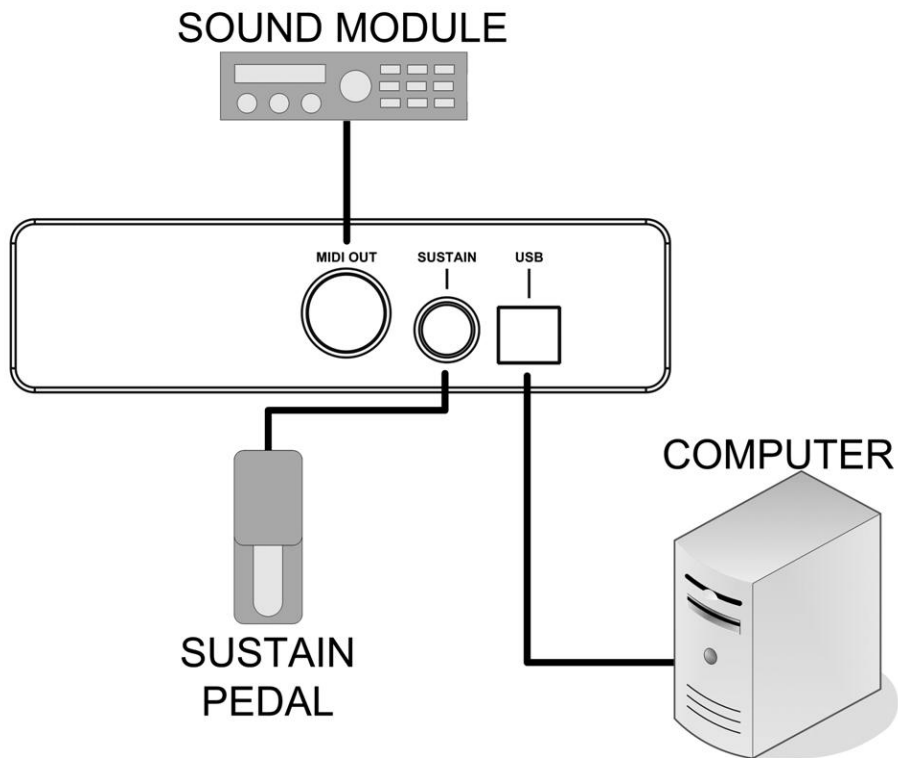
3 Connections

⚠️ Before you make these connections, ensure that the keyboard is powered off and turn off all other devices to avoid possible damage.

Please refer to the diagram to make connections:

4 Turning On

4.1 Turning On Normally

- Connect your Z-Keys to a computer via USB cable.
- By default, this product operates on Windows XP/Vista/7 and Mac OSX .

4.2 Driver installation

- After you have connected Z-Keys to your computer via USB, turn the Z-Keys on; the computer will find it and install the drivers automatically.
- You can plug and play this product on Windows XP / Vista / 7 and Mac OSX systems.
- When the driver installation is finished, this product will be recognized as the "USB Audio Device" or "CME Z-KEY".
- The MIDI driver offers 1 USB IN and 1 USB OUT.

☞ In some cases you may need to restart your computer during the driver installation. Please follow the on-screen instructions.

4.3 Turning On With Initializing

- Turning Z-Keys on with initializing restores all factory settings
- If you press and hold both 【OCTAVE-】and【OCTAVE+】 buttons while turning on this product, it will enter the initialization process. All button indicators will flash rapidly until the process is complete.
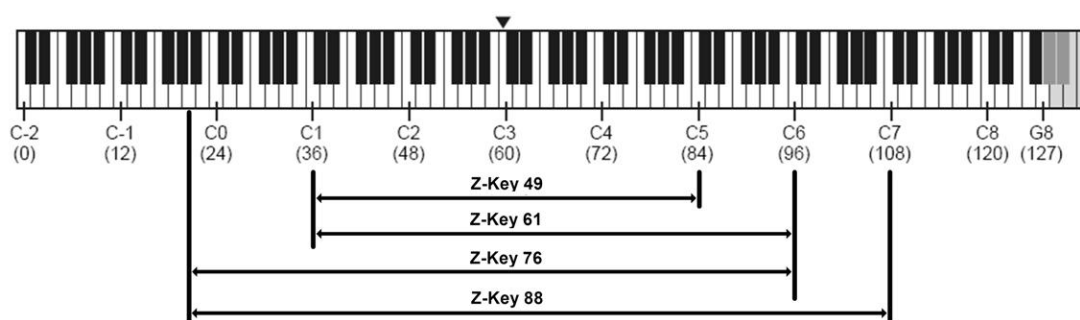
⚠ **The initializing operation will clear all the user settings, please be careful !**

5 Basic Functions

5.1 Octave Shift

■ You can shift the keyboard pitch in octaves by pressing 【- OCTAVE +】 button.
■ When the octave is shifted, the relevant button indicator will be lit
■ The octave shift range is -3 to +3. Press the two octave buttons at the same time to reset the octave shift to 00, and the indicator light will be off.

● The keyboard ranges of Z-Key series are shown below:

5.2 Pitchbend and Modulation Wheels

● Use the pitch wheel to send the pitch bend data.
● Use the modulation wheel to send the modulation data CC#1.

5.3 Using the Dial (control)

● Use the dial to send tone brightness changing data CC#74.
● Dial controller adjustment range: 0-127

5.4 Sustain Pedal

● Sustain is used to connect the damper pedal, sending damper pedal data CC#64 and switch-type data 0 or 127.
● Step on the pedal and turn on the power to reverse the pedal polarity.

5.5 Aftertouch

● After pressing a key, you can continue applying force to send channel aftertouch data.
● You can adjust the data sending rate or turn off those MIDI data (8.2).
● Please refer to the appendix 7.2 <After touch curve list>.

5.6Standby

- To enter Standby mode,press the Standby button for 2 seconds until the light turns red.
- No data will be sent when the keyboard is in Standby mode.
- Press the Standby button again to restore the keyboard to its usual operational status. The light turns from red to blue..

6 System Settings

6.1   Velocity Curve Setting

- This function lets musicians choose the velocity for different instruments to suit their genre of music. You can try different velocity curves to find your favorite and get the best touch response for the voice being played.
- Velocity Curve1: Press and hold C1(Z-Key 49/61) or A-1(Z-Key 76/88), turn on the keyboard(Normal);
- Velocity Curve2: Press and hold D1(Z-Key 49/61) or B-1(Z-Key 76/88), turn on the keyboard(Soft);
- Velocity Curve3: Press and hold E1(Z-Key 49/61) or C 0(Z-Key 76/88), turn on the keyboard(Hard);
- Velocity Curve4: Press and hold F1(Z-Key 49/61) or D 0(Z-Key 76/88), turn on the keyboard(Fixed127).

☞   The [Octave +] button light flashes three times when the Velocity Curve is adjusted to confirm that the setting has been successfully changed.

6.2   Aftertouch Curve Setting

- Aftertouch is defined as the effect when a series of data is sent while a key is being held down. You can change the sending rate by adjusting the Aftertouch Curve (8.2).
- Aftertouch Curve 1: Press and hold G4 (Z-Key 49) or G5 (Z-Key61/76) or G6 (Z-Key88), turn on the keyboard (Normal);
- Aftertouch Curve 2: Press and hold A4 (Z-Key 49) or A5 (Z-Key61/76) or A6 (Z-Key88), turn on the keyboard (Compress);
- Aftertouch Curve 3: Press and hold B4 (Z-Key 49) or B5 (Z-Key61/76) or B6 (Z-Key88), turn on the keyboard (Expand);
- Aftertouch Curve 4: Press and hold C5 (Z-Key 49) or C6 (Z-Key61/76) or C7 (Z-Key88), turn on the keyboard(Close).
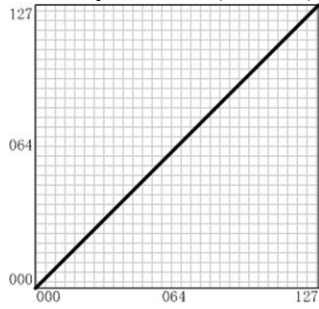
☞   If the [Octave -] button light flashes three times when the Aftertouch Curve has been adjusted,, it confirms that the setting has been successfully changed.
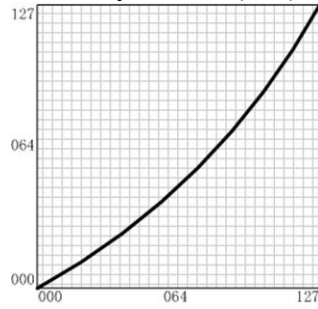
7 Appendix

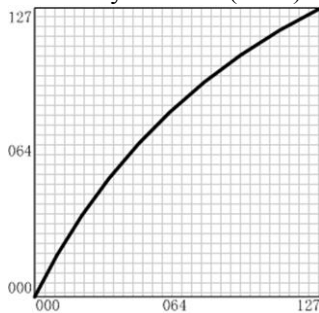## 7.1 Velocity Curve List

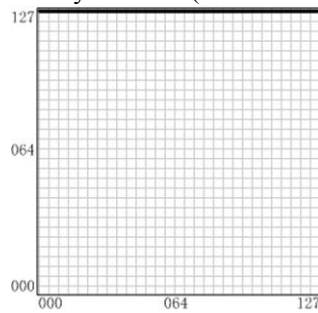Velocity Curve 1 (Normal)

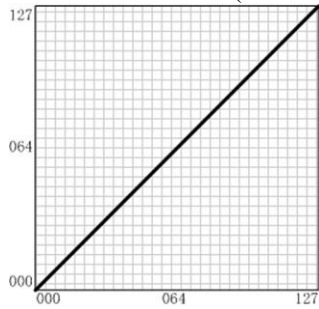Velocity Curve 2 (Soft)

Velocity Curve 3 (Hard)

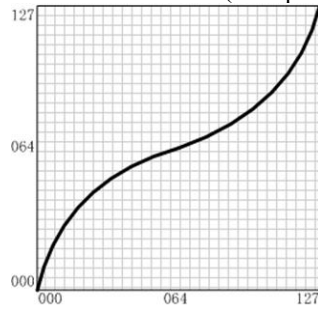Velocity Curve 4 (Fixed at 127)

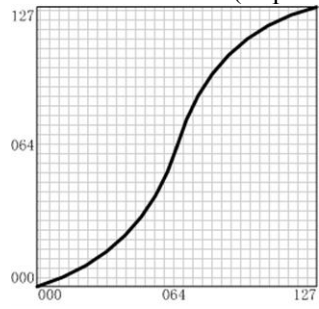## 7.2 After Touch Curve List

After Touch Curve 1 (Normal)

After Touch Curve 2 (Compress)

After Touch Curve 3 (Expand)

l

After Touch Curve 4 (Off)

None

8 Troubleshooting

Common problems with possible causes and solutions

- After turning on the power switch, the Z-Key is not powered on:
    1. Make sure the USB connection is made and the computer is on.
    2. Make sure the power connector is firmly connected to the power outlet.
    3. Faulty USB cable. Try another USB cable.

- No sound when playing Z-Key:
    1. Check the volume settings of the tone generator and speaker system.
    2. Check the MIDI connection and the audio cable
    3. Check the attack time of the filter and envelop generator.
    4. Make sure you have the right settings in your music software.

- Continuous long sound:
    1. Check Sustain Pedal and polarity.
    2. Check the release time of the envelop generator.

- Incorrect voice:
    1. Tone generator not set properly.   Initialize or Reset.

- Wrong pitch:
    1. Check Octave function of the keyboard.
    2. MIDI pitch is tuned. Adjust fine turning or coarse tuning.
    3. Pitch bend message not returned to default, please reset.

- Some functions do not work:
    1. Check the parts assigned correctly.
    2. Make sure the tone generator or music software support those functions.

9 Specifications

- ✧ Z-Key 49: 49-key keyboard (C1 - C5), (Initial Touch/After touch);
- ✧ Z-Key 61: 61-key keyboard (C1 - C6), (Initial Touch/After touch);
- ✧ Z-Key 76: 76-key keyboard (A-1 - C6), (Initial Touch/After touch);
- ✧ Z-Key 88: 88-key keyboard (A-1 - C7), (Initial Touch/After touch).

● Functions:
  - ✧ Basic: USB MIDI, Octave Shift, Pitch Band, Modulation Wheel, Pedal, MIDI Output, Knob;
  - ✧ MIDI Data Sending: Control Change;
  - ✧ Assignable Parameters: Octave, Velocity Curve(Touch Sensitivity), Pitch Band Data, Modulation Data, Luminance Information, After-touch Data, After-touch Velocity Curve Data,.

● Panel Control and Indicator:
  - ✧ Standby Button Indicator × 1;
  - ✧ Octave Button Indicator   × 2;
  - ✧ Encoderr Dial × 1.

● Input/Output Terminal:
  - ✧ USB port × 1;
  - ✧ Pedal × 1;
  - ✧ MIDI Out × 1.

● Power Supply:
  - ✧ USB bus powered.

● Dimension(W × D× H,)and Weight:
  - ✧ Z-Key 49: 719 × 266 × 83 mm,   5.9 Kg;
  - ✧ Z-Key 61: 882 × 266 × 83 mm,   7.2 Kg;
  - ✧ Z-Key 76: 1092 × 266 × 83 mm, 8.9 Kg;
  - ✧ Z-Key 88: 1255 × 266 × 83 mm, 10.1 Kg.

* Specifications and appearance are subject to change without notice.

10   MIDI Implementation Chart

CME Z-Key(MIDI KEYBOARD)
Module: Z-Key 49/61/76/88   **MIDI Implementation Chart**   Version: 1.0

Fuction	Transmitted	Recognized
Basic Channel Default	1	×

Mode   Default
                      Messages
                      Altered
	
	×
	***********
		×

Note Number True Voice	0~127 ***********	×
Velocity Note ON Note OFF	√ v=0~127 √ v=0~127	× ×
Aftertouch Key's Ch's	× √	× ×
Pitch Band	√	×
Tremolo	√	×
Control Change	0~127	×
System Command: Song Position	×	×
Aux Messages: Active Sense	×	×

√: Yes   ×: No

- CME is continually improving its products, and every attempt is made to ensure the information in the user's manual is current and accurate. However, CME will not be responsible for possible discrepancies between the manual and the real product.

CME

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