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# **FCC Class B and European CE Compliance**

The Keystation complies with Class B, Part 15 of the FCC rules.

**WARNING:** This equipment has been tested and found to comply with the limits for a CLASS B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions contained in this manual, may cause harmful interference to radio and television communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment into an outlet on a circuit different from that of the receiver; 4) consult the dealer or an experienced audio television technician.

**NOTE:** Connecting this device to peripheral devices that do not comply with CLASS B requirements or using an unshielded peripheral data cable could also result in harmful interference to radio or television reception.

The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

**This product also complies with European CE requirements.**



# Overview

Thank you for purchasing the Keystation. Keystation is an entry level MIDI keyboard controller that will easily connect to any standard computer MIDI interface or MIDI sound module.

The Keystation has no built-in sound making capabilities. This is why it is called a controller keyboard. It is normally used with a standard MIDI sound module or a computer equipped with a MIDI interface and/or some kind of sound card.

If you have any questions, comments, or suggestions about Keystation or any MIDIMAN product, we invite you to contact us directly at:

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# Features

Keystation has the following features:

- MIDI master controller keyboard with 49 undersized keys.
- On/Off Power switch
- Full control of velocity, bank switching, and channel select.
- GM (General MIDI) Reset button.
- Change Program by paging up/down or direct access.
- MIDI OUT connects to computer or directly to synthesizer.
- Uses a standard 9 volt dc, 300 milliamp power adaptor.
- Jack (on back) for use with an optional sustain-foot switch.

## What is MIDI

MIDI (Musical Instrument Digital Interface) is a series of commands and messages that allow different (mostly musical devices) to talk with each other and work on the same tasks all together.

MIDI is not sound. As a matter of fact, many modern applications for MIDI have nothing to do with sound. MIDI is now being used to control many different things including lighting, robotics and anything that needs to respond to real-time controls. MIDI commonly sends instructions to a device to turn something on or off. It can however, also send a great deal of other information such as controller information. Controller information is used to modify many different things including pitch bend, modulation, reverb depth, volume, etc..

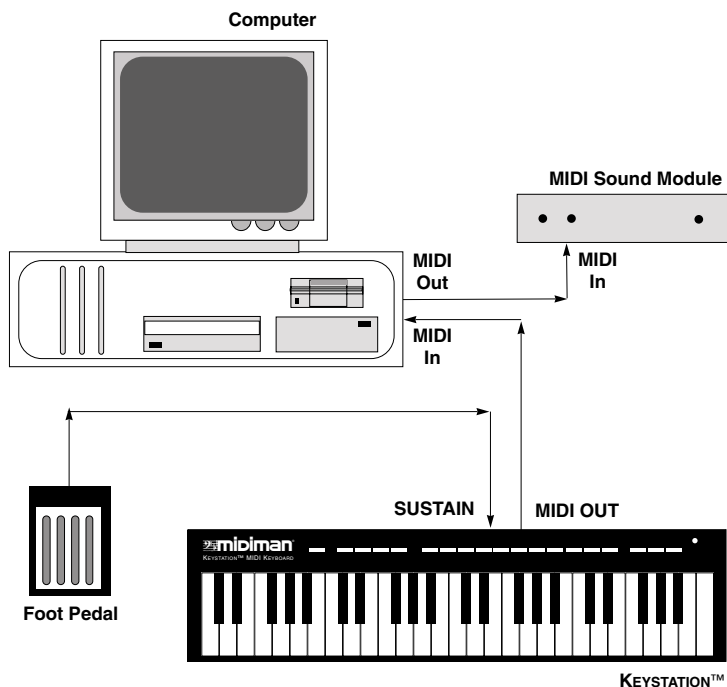
If you are using a computer to work with MIDI, your computer can receive and store this MIDI information using a program called a MIDI sequencer. You can think of a sequencer as a “virtual” tape recorder. Anything you play can be recorded and played back. Unlike a regular tape recorder, the sequencer can also take what you have played and change it. And if you accidentally play a wrong note, you can use the program to correct it instead of having to re-record any of your performance. If you are not a very good keyboard player you can record a part very slowly or even one note at a time, and then play it back at the right tempo so that it sounds as if you have been playing for years.

One standard MIDI connection provides 16 different “channels”. Each of these channels can be used to control different sounds. GM tone modules can receive on all 16 channels at the same time. Other older synthe-

sizers can only receive on a few channels and play only a few voices at a time. And, some of the very earliest synths can only receive on one channel. If you are using an older synthesizer you will have to look at the manual to determine just what it can do.

If you are interested in learning more about MIDI there are many fine books available.

# Connecting the Keystation



## Connecting Keystation to a Computer

Using a standard 5-pin MIDI cable connect one end to the MIDI Out jack of the Keystation and the other end to the MIDI In Jack of your computer's MIDI interface (See figure 1). If your set-up includes a separate tone module, like the Midiman G-Man, be sure that you also have a second MIDI cable connected from your computer's MIDI Out to the tone module's MIDI In.

## Connecting Keystation to a MIDI Tone Module

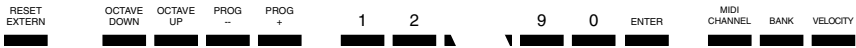
Using a standard 5-pin MIDI cable connect one end to the MIDI Out jack of the Keystation and the other end to the MIDI In jack of your tone module. If you will be using more than one tone module, you should consult your Tone Module manual to get additional information about how to hookup more than one MIDI module. If you are using an older MIDI tone module that responds to only one MIDI channel you must make sure that the Keystation MIDI transmit channel (see below) matches the MIDI receive channel set on your module.

# Keystation Default Settings

When you first turn the Keystation on make sure that the 9 volt DC power adapter is plugged into the back of the Keystation and the AC end plugged in to a power outlet. Next, slide the power switch on the back of the Keystation to On. When you turn on your Keystation it will always set itself to the following values:

- Transmit on MIDI Channel no. 1.
- Default Octave will be from C2 (Note #36) to C6 (Note #84)
- A Control Change (CC-00=0, CC-32=0) message will be transmitted. This sets the Program Bank to Bank 0 for General MIDI.
- A Program Change #1 message will be transmitted.

## Keystation Controls



The Keystation top controls, from left to right, function as follows:

**"Reset Extern" Button:** Pressing this button resets the Keystation to its default setting and sends out a message to return all external MIDI instruments to their default setting as well.

**"Octave Down" and "Octave Up" Buttons:** Pressing these buttons shifts the key numbers that the Keystation transmits either down or up an octave. If you have Keystation connected to an external MIDI tone module play any key and listen to the pitch of the sound. If you now press the Octave Down button and play the same key you will here it play the same sound an octave lower. Pressing both the Octave Down and Octave Up buttons simultaneously resets the keyboard octave range to the default value. The default values are C2 (36) to C6 (84).

**"Program -" and "Program +" Buttons:** When you first turn on the Keystation it transmits a default program (patch) # 01 (which is Grand Piano patch on the GM sound list). Pressing the "Program -" button makes the Keystation transmit the last program number. Pressing the "Program +" button makes the Keystation transmit the next program number. So, these buttons can be used to cycle backwards and forwards through the available programs (patches). You can also select any program number with the Keystation by pressing the desired numbers and then pressing the Enter button.

**Numbers "1" to "0" Buttons:** These buttons are used to set and enter the values of the different Keystation parameters including program number, MIDI transmit channel, bank number and key velocity. When using the numeric buttons to select a program number simply press the desired numbers followed by the Enter button. Any program between 1 and 128 can be selected. When modifying Keystation parameters, such as MIDI transmit channel, bank number or velocity, first press the parameter button you want to modify (e.g. "Bank"), then enter the number(s) you want to modify the parameter to and then press the Enter button.

**MIDI Channel Button:** Pressing the "MIDI Channel" Button allows you to select which MIDI channel the Keystation transmits on. This can be any MIDI channel between 1 and 16. When the Keystation is powered up this transmit MIDI channel defaults to 1. To set the transmit channel to a given value first press the MIDI Channel Button, then enter the desired channel number and then press the Enter button. For example, if you want to set the MIDI transmit channel to 10, first press the MIDI Channel button, then "1," then "0" and then the Enter button.

**Bank (Select) Buttons:** This button allows you to transmit a MIDI bank select command. Most contemporary synthesizers and sound modules offer several sound banks which each can contain up to 128 different programs. If you are using Keystation with one of these external MIDI tone modules you may want to select different banks to hear the various patches. With most sound modules there are only 3 or so available banks. To transmit any given bank select command first press the Bank Button, then enter the desired bank number and then press "Enter." For example, if you want to select bank number 3 first press the Bank button, then "3" and then Enter.

**Velocity Button:** The Velocity Button is used to set the MIDI velocity that Keystation transmits. The MIDI velocity is equivalent to how hard the note is played. The greater the velocity, the harder (and usually louder) the note is sounded. The Keystation defaults to a transmitted MIDI velocity of 127. You can however, use the Velocity Button to set the transmitted velocity to any value between 0 and 127. To set the transmit velocity to any value, first press the Velocity button, then enter the desired velocity value and then press Enter. For example, if you want to set the velocity to 64 first press the Velocity button, then "6," then "4" and then "Enter." Keystation defaults to a MIDI velocity of 100 when first turned on.

## Example

Here is a simple example you might perform on the Keystation: if you would like to send on MIDI channel 9, sound bank 3, program number 10 with a velocity value of 119 and play notes shifted down by 2 octaves you would need to do the following:

**The following sets the MIDI transmit channel to 9.**

- Press the MIDI channel button.
- Press the number 9 key .
- Press the Enter key.

**The following selects sound bank 4.**

- Press the Bank select key.
- Press the number 4 key .
- Press the Enter key.

**The following selects program number 10.**

- Press the number 1 key.
- Press the number 0 key.
- Press the Enter key.

**The following sets the MIDI transmit velocity to 128.**

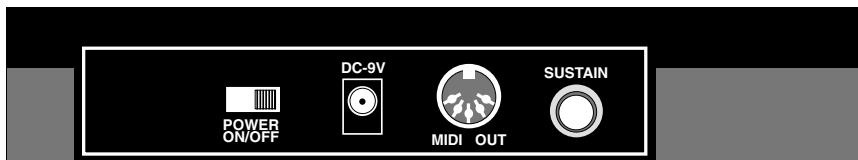
- Press the Velocity key
- Press the number 1 key.
- Press the number 2 key.
- Press the number 8 key.
- Press the Enter key.

**The following transposes the Keystation down two octaves.**

- Press the Octave Down button twice.

# Keystation Rear Panel

KEYSTATION™ Rear Panel



If you look at the back of your Keystation keyboard you will see the following:

**Sustain Jack:** This switch allows you to connect an optional standard foot switch to your Keystation. When the foot switch is depressed notes played on the Keystation will be sustained, i.e. they will continuously sound as long as the foot switch is held down.

**MIDI Out Jack:** This standard MIDI jack is used to send all MIDI messages out from the Keystation. A standard 5 pin MIDI cable would normally be used to connect this jack to the MIDI In jack of a computer or other MIDI instrument.

**Power On/Off Switch:** The Power Switch turns the Keystation's power on and off. This switch must be turned on in order to use the Keystation. Also, make sure the power supply is properly plugged into the Keystation.

## Basic Trouble-Shooting

If you are having problems with the Keystation you should first check the following common scenarios:

1. Are all your cables working?
2. Are all your cables plugged in properly (i.e. the Keystation MIDI Out connected to your computer or MIDI module MIDI In)?
3. Is the power adaptor plugged into your Keystation? Is the power switch on the back of the Keystation turned on and is the Keystation red power LED lit?
4. Is everything powered up?

5. Is your computer sequencer properly configured (see the manual for your particular sequencer)?
6. If you are using an external MIDI tone module, does the MIDI transmit channel on the Keystation match the receive channel on the module?
7. If you are using Keystation with a computer, is your MIDI interface working properly. Check your MIDI interface manufacturer manual and make sure any diagnostic tests have been run and are passing.

## Keystation MIDI Implementation

Function		Transmitted	Recognized	Remarks
<b>Basic Channel</b>	Default	1	x	
	Changed	1 to 16	x	
<b>Mode</b>	Default	Mode 3	x	
	Message	x	x	
	Altered	x	—	
<b>Note Number</b>	True	0 to 127	x	With Octave Change
	Voice	—	x	
<b>Velocity</b>	Note ON	0	x	Selectable (0 to 127)
	Note OFF	x	x	
<b>After Touch</b>	Keys	x	x	
	Channels	x	x	
<b>Pitch Bender</b>		x	x	
<b>Control Change</b>		0	x	Bank Select
<b>Program Change</b>		0	x	
	True #	0 to 127	x	
<b>System Exclusive</b>		x	x	
<b>System Common</b>	Song Pos	x	x	
	Song Sel	x	x	
	Tune	x	x	
<b>System Real Time</b>	Clocks	x	x	
	Commands	x	x	
<b>Aux Messages</b>	Local ON/Off	x	x	
	All Notes OFF	0	x	Send with ResExt
	Active Sensing	0	x	
	Reset	0	x	Send with ResExt

Notes: Bank=select CC-00 (cc-32=00)

0 = Yes, x = No

## **90 Day Limited Warranty**

MIDIMAN warrants that this product is free of defects in materials and work<sup>1</sup> from MIDIMAN and a nominal handling charge shall be born by the purchaser. In the event that repair is required, a Return Authorization number must be obtained from MIDIMAN. After this number is obtained, the unit should be shipped back to MIDIMAN in a protective package with a description of the problem and the Return Authorization clearly written on the package.

In the event that MIDIMAN 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 unrepaired.

The remedy for breach of this limited warranty shall not include any other damages. MIDIMAN 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 MIDIMAN's 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. MIDIMAN specifically disclaims all other warranties, expressed or implied. Specifically, MIDIMAN makes no warranty that the product is fit for any particular purpose.

This warranty shall be construed, interpreted, and governed by the laws of the state of California. If any provision of this warranty is found void, invalid or unenforceable, it will not affect the validity of the balance of the warranty, which shall remain valid and enforceable according to its terms. In the event any remedy hereunder is determined to have failed of its essential purpose, all limitations of liability and exclusion of damages set forth herein shall remain in full force and effect.