nektar SE49 USB MIDI Controller Keyboard User Guide

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nektar SE49 USB MIDI Controller Keyboard

Product Information

Specifications

- 49-note full-sized velocity-sensitive keybed
- 1 MIDI assignable fader
- Octave up/down buttons with LED indicators
- Transpose up/down buttons assignable to other functions
- Octave and Transpose buttons can be switched to control transport on your DAW
- USB port (back) and USB bus-powered
- Power on/off switch (back)
- 1/4 jack Foot Switch socket (Back)
- Nektar DAW Integration
- Bitwig 8-Track license

Minimum System Requirements
As a USB class-compliant device, SE49 can be used from Windows XP or higher and any version of Mac OS X. The DAW integration files can be installed on Windows Vista/7/8/10 or higher and Mac OS X 10.7 or higher.

Product Usage Instructions

Getting Started

- **Connection and Power**
  To connect the SE49 controller keyboard, use the provided standard USB cable to connect the USB port on the back of the keyboard to a USB port on your computer. The SE49 is USB bus powered, so no additional power supply is required. To turn on the keyboard, use the power on/off switch located on the back.
- **Nektar DAW Integration**
  The SE49 controller keyboard comes with setup software for many popular DAWs. This integration allows for a seamless user experience when using the keyboard with supported DAWs. The setup work has already been done, so you can focus on expanding your creative horizon. Additionally, the Nektar DAW Integration adds functionality that enhances the user experience when combining the power of your computer with the SE49.
- **Using SE49 as a Generic USB MIDI Controller**
  If you prefer to create your own setups, the SE49 range allows for complete user-configurable MIDI control. Simply connect the keyboard to your computer via USB and it will function as a generic USB MIDI controller.

You can then configure the MIDI assignments according to your preferences in your DAW or MIDI software.

- **Keyboard, Octave, Transpose & Controls**
  The SE49 features a 49-note full-sized velocity-sensitive keybed. It also includes octave up/down buttons with LED indicators and transpose up/down buttons that can be assigned to other functions. The octave and transpose buttons can also be switched to control transport on your DAW.
- **Octave Shift**
  Use the octave up/down buttons to shift the keyboard range up or down by one octave at a time. The LED indicators will show the current octave setting.
- **Transpose**
  The transpose up/down buttons allow you to transpose the keyboard in semitone steps. This is useful for playing in different keys without physically changing your hand position on the keyboard.
- **Pitch Bend and Modulation Wheels**
  The SE49 includes pitch bend and modulation wheels for expressive control over your playing. The pitch bend wheel allows you to bend the pitch of notes, while the modulation wheel can be used to add modulation effects such as vibrato or tremolo.
- **Foot Switch**
  The 1/4 jack foot switch socket on the back of the keyboard allows you to connect a foot switch for additional control options. The foot switch can be assigned to various functions in your DAW or MIDI software.

Setup Menu
The SE49 has a setup menu that allows you to configure various settings and parameters. To access the setup menu, press and hold the Setup button on the keyboard while turning on the power. Use the octave up/down buttons to navigate through the menu options and the transpose up/down buttons to change the settings.

- **Control Assign**
  In the setup menu, you can assign different MIDI control messages to the various controls on the SE49, such as the fader, wheels, and buttons. This allows you to customize the behavior of the keyboard according to your preferences.
- **Setting the MIDI Channel**
  You can set the MIDI channel for the SE49 in the setup menu. This determines which MIDI channel the keyboard will transmit on, allowing you to control different MIDI devices or software on separate channels.
- **Sending a Program Change Message**
  The SE49 can send program change messages, which allow you to switch between different sounds or patches on your MIDI devices or software. You can configure the program change message in the setup menu.
- **Sending a Bank LSB Message**
  The SE49 can also send bank LSB (Least Significant Byte) messages, which are used to select different banks of sounds or patches on your MIDI devices or software. You can configure the bank LSB message in the setup menu.
- **Sending a Bank MSB Message**
  In addition to bank LSB messages, the SE49 can also send bank MSB (Most Significant Byte) messages. These messages work together with bank LSB messages to select specific banks of sounds or patches. You can configure the bank MSB message in the setup menu.
- **Transpose**
  In the setup menu, you can also configure the transpose settings for the keyboard. This allows you to set a fixed transposition value that will be applied to all notes played on the keyboard.

- **Octave**
  Similarly, you can configure the octave settings in the setup menu. This allows you to set a fixed octave offset that will be applied to all notes played on the keyboard.
- **Keyboard Velocity Curves**
  The SE49 offers different velocity curves that determine how the keyboard responds to the velocity (force) with which you play the keys. You can select different velocity curves in the setup menu to suit your playing style.
- **Panic**
  The panic button in the setup menu allows you to send an “all notes off” message, which can be useful to quickly stop any hanging or stuck notes.
- **Transpose Button Assignments**
  You can assign specific functions or MIDI messages to the transpose buttons in the setup menu. This allows you to customize their behaviour according to your needs.
- **Transport Control without Nektar DAW Integration**
  Even without Nektar DAW Integration, the SE49 can be used to control transport functions in your DAW. By switching the octave and transpose buttons to control transport on your DAW, you can start, stop, rewind, and navigate through your project directly from the keyboard.
- **USB Port Setup & Factory Restore**
  The SE49 has a USB port on the back for connecting to your computer. In the setup menu, you can configure various USB port settings, such as MIDI clock output and power options. If necessary, you can also perform a factory restore to reset all settings to their default values.

FAQ

- **Q: Is the SE49 compatible with my operating system?**
  A: Yes, the SE49 is a USB class-compliant device and can be used with Windows XP or higher and any version of Mac OS X. The DAW integration files can be installed on Windows Vista/7/8/10 or higher and Mac OS X 10.7 or higher.
- **Q: Can I use the SE49 with other DAWs not listed in the manual?**
  A: While the SE49 comes with setup software for many popular DAWs, it can also be used as a generic USB MIDI controller with any DAW or MIDI software. You can configure the MIDI assignments according to your preferences in your DAW or MIDI software.
- **Q: How do I assign functions to the fader, wheels, and buttons?**
  A: In the setup menu, you can assign different MIDI control messages to the various controls on the SE49. This allows you to customize the behaviour of the keyboard according to your preferences. Consult the user manual for detailed instructions on how to assign functions to specific controls.
- **Q: Can I use the SE49 without connecting it to a computer?**
  A: No, the SE49 requires a connection to a computer via USB to function as a MIDI controller.
- **Q: Can I use a sustain pedal with the SE49?**
  A: Yes, the SE49 has a 1/4 jack foot switch socket on the back where you can connect a sustain pedal or other compatible foot switch for additional control options.

CALIFORNIA PROP65 WARNING:
This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information: **www.nektartech.com/prop65**.

Dispose of the product securely, avoiding exposure to food sources and groundwater. Only use the product according to the instructions.

Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, under 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 per the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interfer-ence 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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Introduction

- Thank you for buying our SE49 controller keyboard from Nektar Technology.
- The SE49 controller comes with setup software for many of the most popular DAWs. This means that for supported DAWs, the setup work has largely been done and you can focus on expanding your creative horizon with your new controller. The Nektar DAW Integration adds functionality that makes the user experience more transparent when you combine the power of your computer with Nektar SE49.
- You also get a full version of Bitwig 8-Track software which of course features SE49 integration.
- In addition, the SE49 range allows for complete user-configurable MIDI control so if you prefer to create your own setups, you can do that too.
- We hope you will enjoy playing, using and being creative with SE49 as much as we have enjoyed creating it.

Box Content

Your SE49 box contains the following items:

- The SE49 Controller keyboard
- Printed Guide
- A standard USB cable
- Software license card

If any of the items above are missing, please let us know via email: **stuffmissing@nektartech.com**.

SE49 Features

- 49-note full-sized velocity-sensitive keybed
- 1 MIDI assignable fader

- Octave up/down buttons with LED indicators
- Transpose up/down buttons assignable to other functions
- Octave and Transpose buttons can be switched to control transport on your DAW
- USB port (back) and USB bus-powered
- Power on/off switch (back)
- 1/4” jack Foot Switch socket (Back)
- Nektar DAW Integration
- Bitwig 8-Track license

Minimum System Requirements

As a USB class-compliant device, SE49 can be used from Windows XP or higher and any version of Mac OS X. The DAW integration files can be installed on Windows Vista/7/8/10 or higher and Mac OS X 10.7 or higher.

Getting Started

Connection and Power

The SE49 is USB Class compliant. This means there is no driver to install to get the keyboard set up with your computer. SE49 uses the built-in USB MIDI driver which is already part of your operating system on Windows and OS X as well as iOS (via the optional camera connection kit).

This makes the first steps simple:

- Locate the included USB cable and plug one end into your computer and the other into your SE49
- If you want to connect a foot switch to control sustain, plug it into the 1/4” jack socket on the back of the keyboard
- Set the power switch on the back of the unit to On

Your computer will now spend a few moments identifying the SE49 and subsequently, you will be able to set it up for your DAW.

Nektar DAW Integration

- If your DAW is supported with Nektar DAW integration software, you’ll need to first create a user account on our website and subsequently register your product to then gain access to the downloadable files applicable to your product.
  Start by creating a Nektar user account here: **www.nektartech.com/registration** Next follow the instructions given to register your product and finally click on the “My Downloads” link to access your files.
- **IMPORTANT:** Make sure to read the installation instructions in the PDF guide, included in the downloaded package, to ensure you don’t miss an important step.

Using SE49 as a Generic USB MIDI Controller
You do not need to register your SE49 to use your controller as a generic USB MIDI controller. It will work as a USB class device on OS X, Windows, iOS and Linux.

However, there are several additional benefits to registering your product:

- Notification of new updates to your SE49 DAW integration
- PDF download of this manual as well as the latest DAW integration files
- Access to our email technical support
- Warranty service

Keyboard, Octave, Transpose & Controls

- The SE49 features a 49-note keyboard. Each key is velocity sensitive so you can play expressively with the instrument. There are 4 different velocity curves for the keyboard so you can chose a less or more dynamic curve to suit your playing style. In addition, there are 3 fSE49ed velocity settings.
- We recommend you spend a little time playing with the default velocity curve and then determine if you need more or less sensitivity. You can learn more about velocity curves and how to select them in the “Setup” section.

Octave Buttons

To the left of the keyboard, you find the Octave buttons.

- With each press, the left Octave button will shift the keyboard down one octave.
- The right Octave button will similarly shift the keyboard up 1 octave at a time when pressed.
- Pressing both Octave buttons at the same time will reset the setting to 0.

The maximum you can shift the keyboard is 3 octaves down and 4 octaves up covering the entire MIDI keyboard range of 127 notes.

Transpose

The Transpose buttons are located below the Octave buttons. They work the same way:

- With each press, the left Transpose button will transpose the keyboard down one semi-tone.
- The right Transpose button will similarly transpose the keyboard up 1 semi-tone at a time when pressed.
- Pressing both Transpose buttons at the same time will reset the transpose setting to 0 (only if transpose is assigned).
- You can transpose the keyboard -/+ 12 semi-tones. The Transpose buttons in addition can be assigned to control an additional 4 functions. Check the Setup section of this guide for more details.

Pitch Bend and Modulation Wheels

- The two wheels below the Octave and Transpose buttons are by default used for Pitch bend and Modulation.
- The Pitch bend wheel is spring-loaded and automatically reverts to its centre position upon release. It's ideal to bend notes when you are playing phrases that require this kind of articulation. The bend range is determined by the receiving instrument.
- The Modulation wheel can be freely positioned and is programmed to control modulation by default. The Modulation wheel in addition, is MIDI-assignable with settings stored over power cycling so its retained when you switch the unit off.

Foot Switch

You can connect a foot switch pedal (optional, not included) to the 1/4" jack socket on the back of the SE49 keyboard. The correct polarity is automatically detected on boot-up, so if you plug in your foot switch after boot-up is complete, you may experience the foot switch working in reverse. To correct that, do the following:

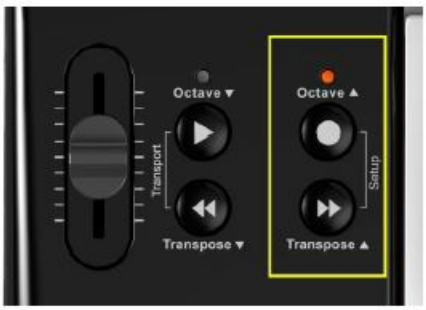
- Switch the SE49 off
- Make sure your foot switch is connected
- Switch the SE49 on

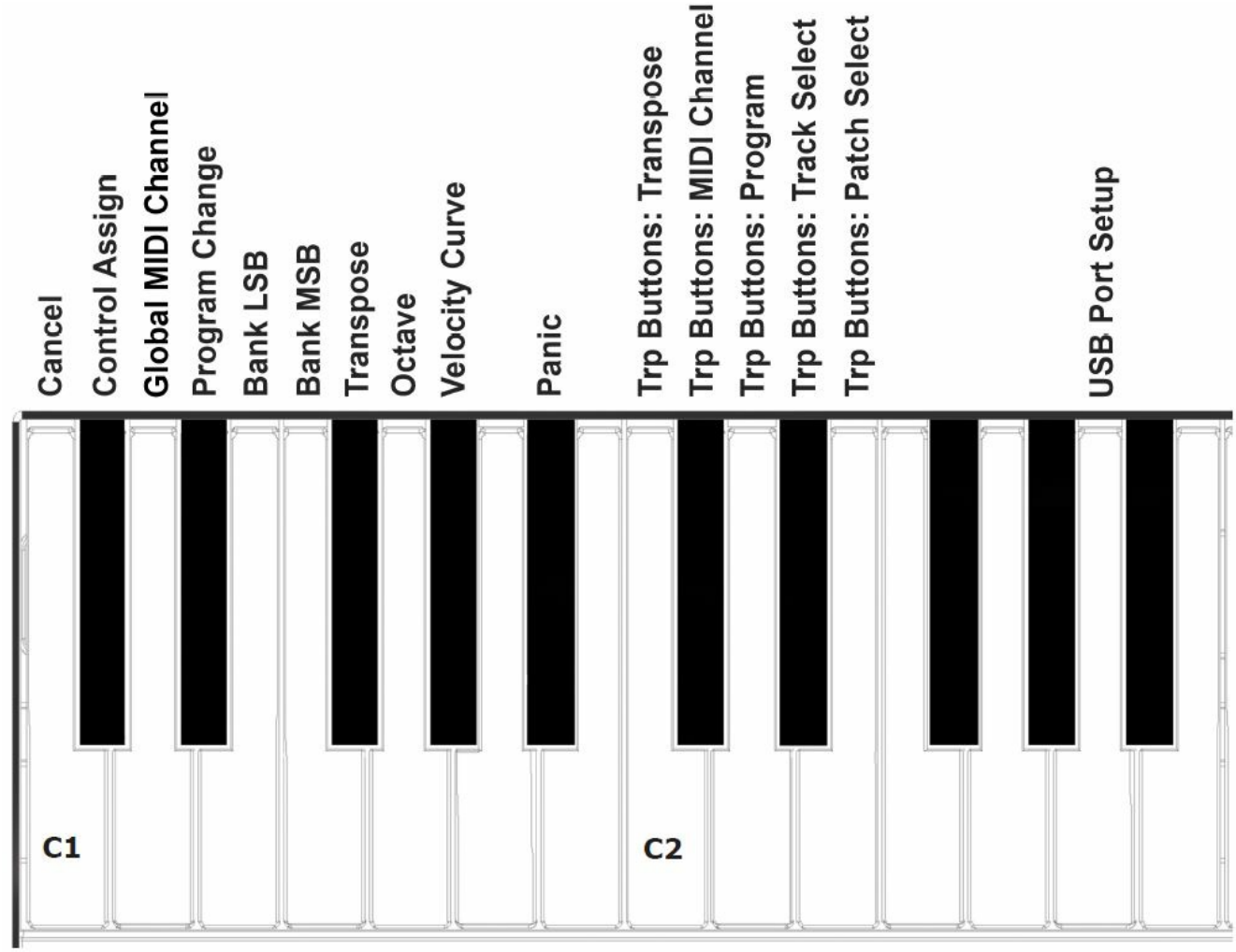
The polarity of the foot switch should now be automatically detected.

Setup Menu

The Setup menu gives access to additional functions such as selecting Transpose button functions, control assign, selecting velocity curves and more. To enter the menu, press the [Octave Up]+[Transpose Up] together (the two buttons in the yellow box, right image).

- This will mute the MIDI output of the keyboard and instead the keyboard now is used to select menus.
- When the Setup menu is active, the LED above the button will blink and its color will be orange to indicate setup is active.





- The chart below provides an overview of menus assigned to each key.
- Menu keys are the same for both SE49 and SE4961 but value entry using the keyboard is one octave higher on SE4961. Refer to the screen printing on the unit to see which keys to press to enter values.
- The functions are separated into two groups. The first group spanning C1-G#1 covers general setup functions.
- The second group spanning C2-E2 covers the transpose button assignment options.
- On the following page, we cover how each of these menus works. Note the documentation assumes you have an understanding of MIDI including how it works and behaves. If you are not familiar with MIDI, we recommend you study
- MIDI before making control assignment changes to your keyboard. A good place to start is the MIDI Manufacturers Association www.midi.org.

Control Assign
You can assign the Modulation wheel, the fader and even the foot switch pedal to any MIDI CC messages. Assignments are stored over power cycling so the keyboard is set up the way you left it, when you next switch it on.

Here is how it works:

- Press the [Octave Up]+[Transpose Up] buttons at the same time. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the low C#1 on your keyboard to select Control Assign.
- Move or press a control to select the control you want to assign a MIDI CC message to.
- Enter the MIDI CC value using the white number keys spanning G3–B4 (G4-B5 on SE4961).

- Press Enter (C5) to accept the change and exit Setup.

Setting the MIDI Channel

Controls as well as the keyboard send their messages on a MIDI channel from 1 to 16. To change the MIDI channel do the following:

- Press the [Octave Up]+[Transpose Up] buttons at the same time. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the low D1 on your SE49 keyboard to select MIDI Channel.
- Enter the MIDI channel value you want (from 1 to 16) using the white number keys spanning G3–B4.
- Press Enter (C5) to accept the change and exit Setup.

Sending a Program Change Message

You can send a MIDI program change message by doing the following:

- Press the [Octave Up]+[Transpose Up] buttons at the same time. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the low D#1 on your SE49 keyboard.
- Enter the program number you want (from 0 to 127) using the white number keys spanning G3–B4.
- Press Enter (C5). This will send the message immediately and exit Setup.

Sending a Bank LSB Message
To send a Bank LSB message, do the following:

- Press the [Octave Up]+[Transpose Up] buttons at the same time. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the low E1 on your SE49 keyboard.
- Enter the Bank number you want (from 0 to 127) using the white number keys spanning G3–B4.
- Press Enter (C5). This will send the message immediately and exit Setup.

Sending a Bank MSB Message
To send a Bank MSB message, do the following:

- Press the [Octave Up]+[Transpose Up] buttons at the same time. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the low F1 on your SE49 keyboard.
- Enter the Bank number you want (from 0 to 127) using the white number keys spanning G3–B4.
- Press Enter (C5). This will send the message immediately and exit Setup.

Transpose
You can quickly set a transpose value in the Setup menu. This is ideal if the Transpose buttons are assigned to other functions or if you just need to change a value quickly.

- Press the [Octave Up]+[Transpose Up] buttons at the same time. The LED above the button will blink and the

color is orange to indicate setup is active.
- Press the low F#1 on your SE49 keyboard.
- Enter the transpose value number you want (from 0 to 12) using the white number keys spanning G3–B4 (G4-B5 on SE4961).
- Press Enter (C5). This will change the Transpose setting immediately and exit Setup.

Octave
You can also change the octave setting on the keyboard by doing the following:

- Press the [Octave Up]+[Transpose Up] buttons at the same time. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the low G1 on your SE49 keyboard.
- Enter the octave value number you want entering 0 first for negative octave values (i.e. 01 for –1) and single digit values for positive values (i.e. 1 for +1). You enter the values using the white number keys spanning G3–B4 (G4-B5 on SE4961).
- Press Enter (C5). This will change the Octave setting immediately and exit Setup.

Keyboard Velocity Curves

There are 4 different keyboard velocity curves and 3 fixed velocity levels to choose between, depending on how sensitive and dynamic you want the SE49 keyboard to play.

Name	Description	Numeric number
Normal	Focus on mid to high-velocity levels	1
Soft	The most dynamic curve with a focus on the low t o mid-velocity levels	2
Hard	Focus on the higher velocity levels. If you don’t lik e exercising your finger muscles, this may be the one for you	3
Linear	Approximates a linear experience from low to high	4
127 FSE49ed	FSE49ed velocity level at 127	5
100 FSE49ed	FSE49ed velocity level at 100	6
64 FSE49ed	FSE49ed velocity level at 64	7

Here is how you change a velocity curve:

- Press the [Octave Up]+[Transpose Up] buttons at the same time. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the G#1 key on your keyboard to select Velocity Curve.
- Enter the value corresponding to the velocity curve you want (1 to 7) using the white number keys spanning G3–B4.
- Press Enter (C5). This will change the velocity curve setting immediately and exit Setup.

Panic
Panic sends out all notes and resets all controllers' MIDI messages on all 16 MIDI channels.

- Press the [Setup] button. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the A1 key on your keyboard to select Panic. The reset will happen immediately and SE49 will exit Setup mode.

Transpose Button Assignments

The transpose buttons can be assigned to control Transpose, MIDI Channel, Program change, and for supported DAWs, Track Select and Patch Select.

The process of assigning a function to the transpose buttons is the same for all 5 options and works as follows:

- Press the [Setup] button. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the key on your SE49 keyboard (C2-E2) that corresponds to the function you want to assign to the buttons.
- Press Enter (C5). This will accept the change and exit Setup.

Key	Function	Value Range
C2	Transpose	-/+ 12
C#2	MIDI Channel	1-16
D2	MIDI Program Change	0-127
D#2	Track Select (Nektar DAW integration only)	Down/up
E2	Patch Select (Nektar DAW integration only)	Down/up

Note:
Track Change and Patch change require that the Nektar DAW integration file is installed for your DAW. The buttons will not change the track in your DAW or patches in your virtual instruments unless installation has been completed correctly.

Transport Control without Nektar DAW Integration

The Nektar DAW Integration files automatically map the Octave and Transpose buttons so they can be used to control transport. If your DAW is not supported directly, you may still be able to control your DAW transport controls using MIDI Machine Control.

Here is how you set up the SE49 keyboard to send MIDI Machine Control messages

- Press the [Setup] button. The LED above the button will blink and the color is orange to indicate setup is active.
- Press the A2 key on your SE49 keyboard.
- Press the numeric key to enter 3
- Press Enter (C5). This will accept the change and exit Setup.

Provided your DAW is set up to receive MMC, you can now control transport functions by first pressing [Octave

Down]+ [Transpose Down] at the same time. The 4 buttons now are assigned to control the following:

Button	Function
Octave Down	Play
Octave Up	Record
Transpose Down	Rewind
Transpose Up	Stop

To revert the 4 buttons to their main functions, press the button combination [Octave Down]+[Transpose Down] again. MMC is supported by DAWs such as Pro Tools, Ableton Live and many more.

USB Port Setup & Factory Restore

USB Port Setup
SE49 has one physical USB port however there are 2 virtual ports as you may have discovered during the MIDI setup of your music software. The additional port is used by the SE49 DAW software to handle communication with your DAW. You only need to change the USB Port Setup setting if the SE49 setup instructions for your DAW specifically advise that this should be done.

Factory Restore
If you need to restore factory settings for example if you by mistake managed to change the assignments needed for DAW integration files, here is how you do that.

- Make sure your SE49 is switched off
- Press the [Octave up]+[Octave down] buttons and hold them
- Switch your SE49 on

www.nektartech.com.

Designed by Nektar Technology, Inc., California

Made in China.

Documents / Resources

	nektar SE49 USB MIDI Controller Keyboard [pdf] User Guide SE49 USB MIDI Controller Keyboard, SE49, USB MIDI Controller Keyboard, MIDI Controller Keyboard, Controller Keyboard, Keyboard

References

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