



nektar | SE49

User Guide

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Dispose of product securely, avoiding exposure to food sources and ground water. Only use the product in accordance with the instructions.

Note: 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, may cause harmful interference to radio 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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into 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.



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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 feature SE49 integration.

In addition, the SE49 range allow 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 in to your computer and the other in to your SE49
- If you want to connect a foot switch to control sustain, plug it in to 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 in order 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 choose 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 \pm 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 center 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.

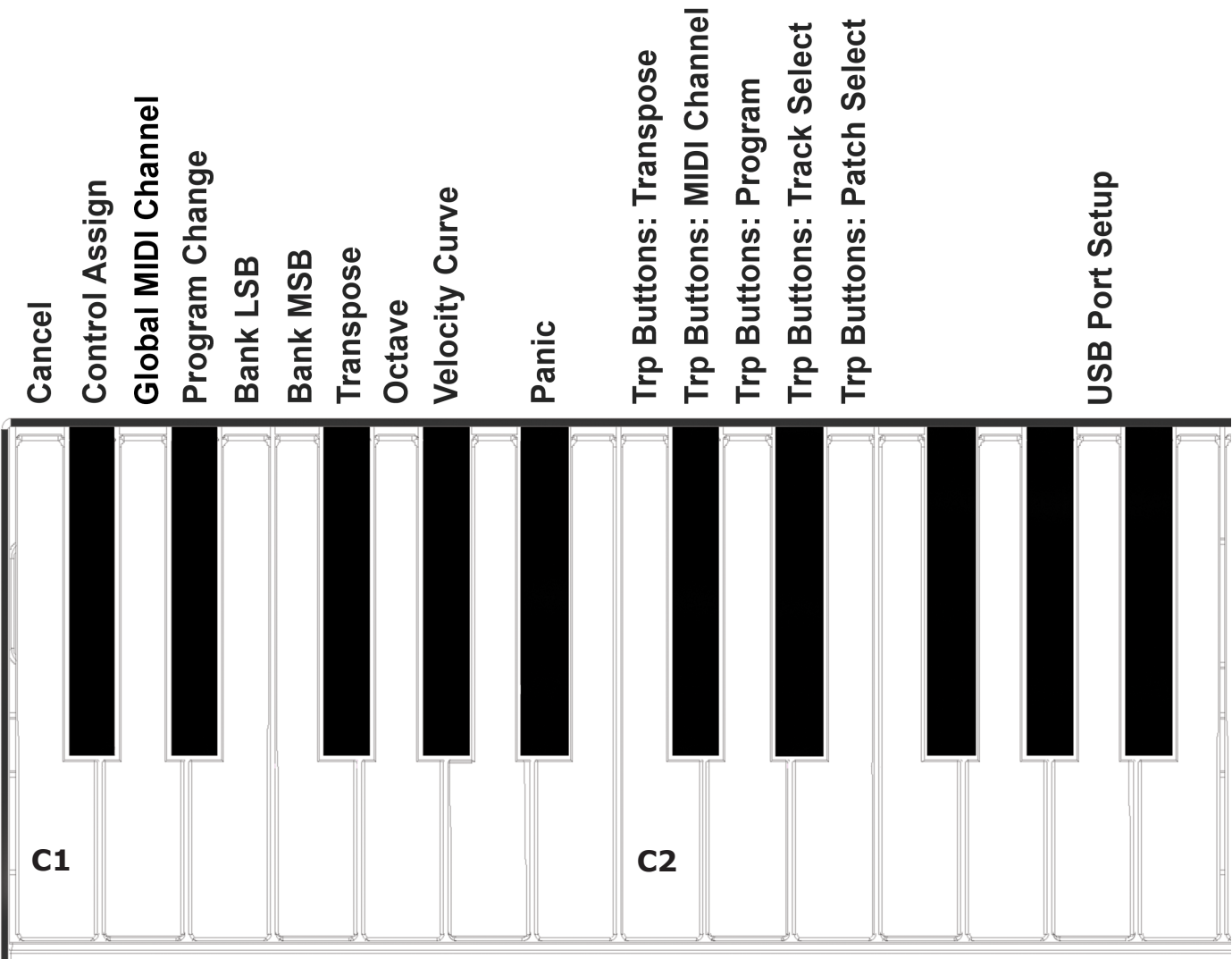
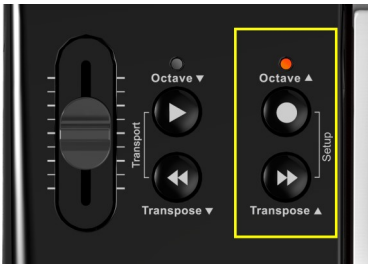


Setup Menu

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 is 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 in to 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 work. 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 to mid velocity levels	2
Hard	Focus on the higher velocity levels. If you don't like 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 the all notes off and reset 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 DAW's, 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 requires 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 DAWs 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 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 advises 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

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