

nektar | IMPACT  
GX49 | GX61

# 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

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Thank you for buying our Impact GX controller keyboard from Nektar Technology.

The Impact GX controllers are available in 49 and 61 note versions and come 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 support adds functionality that makes the user experience more transparent when you combine the power of your computer with Nektar Impact GX. Throughout this guide we refer to Impact GX49 however all text is applicable to Impact GX 61 as well. The two models are identical with the exception of the amount of keys.

You also get a full version of Bitwig 8-Track software which of course feature Impact GX integration.

In addition, the Impact GX 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 Impact GX as much as we have enjoyed creating it.

## Box Content

Your Impact GX49 box contains the following items:

- The Impact GX49 (or GX61) Controller keyboard
- Printed Guide
- A standard USB cable
- License card containing instructions for how to download your included Bitwig 8-Track software

If any of the items above are missing, please let us know via email: [stuffmissing@nektartech.com](mailto:stuffmissing@nektartech.com)

## Impact GX Features

- 49- or 61-note full-sized velocity sensitive keyboard
- Pitch bend and modulation wheels
- 1 MIDI assignable potentiometer
- Octave up/down buttons with LED indicators
- Transpose up/down buttons with LED indicators. Assignable to other functions
- 7 transport buttons for DAW integration or MIDI assignable
- Shift button activate transport buttons secondary level for a total of 14 accessible buttons
- USB port (back) and USB bus powered
- Power on/off switch (back)
- 1/4" TS jack Foot Switch socket (Back)
- Nektar DAW support integration
- Bitwig 8-Track included

## Minimum System Requirements

As a USB class compliant device, Impact GX49 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

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## Connection and Power

The Impact GX49 is USB Class compliant. This means there is no driver to install, to get the keyboard set up with your computer. Impact GX49 uses the built-in USB MIDI driver which is already part of operating systems such as Windows, OS X and iOS (via the optional camera connection kit). On Linux you may need to install a MIDI package such as JACK.

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 Impact GX49
- If you want to connect a foot switch to control sustain, plug it in to the 1/4" TS jack socket on the back of the keyboard. Note that foot switch pedals with a TRS jack may not be compatible.
- Set the power switch on the back of the unit to On

Your computer will now spend a few moments identifying the Impact GX49 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](http://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 Impact GX49 as a Generic USB MIDI Controller

You do not need to register your Impact GX49 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 Impact GX49 DAW integration
- PDF download of this manual as well as the latest DAW integration files
- Access to our email technical support
- Warranty service

## Keyboard & Real-Time Controls

The Impact GX49 features a 49 note (61 note on GX61) 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 fixed 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

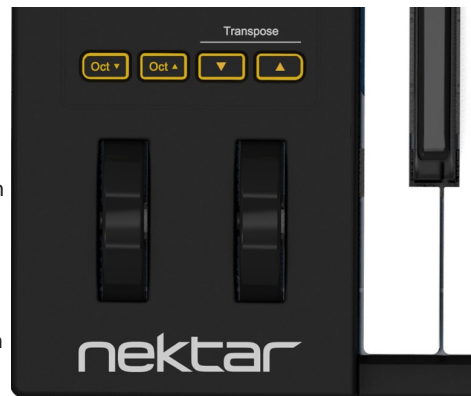
To the left of the keyboard you find the Octave buttons (Oct Down/Oct Up).

- 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 resets the setting to 0.

The maximum you can shift the keyboard is 3 octaves down and 4 octaves up (GX61 can be shifted 3 octaves up), covering the entire MIDI keyboard range of 127 notes.

The below chart shows you the color coding for each octave setting.

0	[Oct Down]+[Oct Up] both illuminated	+1	[Oct Up] illuminated orange
-1	[Oct Down] illuminated orange	+2	[Oct Up] illuminated green
-2	[Oct Down] illuminated green	+3	[Oct Up] illuminated red
-3	[Oct Down] illuminated red	+4	[Oct Up] illuminated yellow (GX49 only)



### Transpose

The Transpose buttons are located to the right of 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 can also be assigned to control an additional 2 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 Impact GX 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 Impact GX49 off
- Make sure your foot switch is connected
- Switch Impact GX49 on

## Transport Buttons and Potentiometer

The Transport and navigation buttons are located above the Octave and Transpose buttons. The buttons are used for DAW control in conjunction with the Impact GX DAW integration files. If you plan to use your Impact GX49 with a supported DAW, make sure to download the files you need, by first creating a Nektar user account as described on page 4. Once you have downloaded the package applicable to your DAW, make sure to read the included PDF guide which describes how to set it up and how it all works.

### Assignable MIDI buttons (14)

The Transport/Navigation buttons can be used as generic MIDI buttons when no Nektar DAW integration is present. There are 7 buttons, each with a transport function icon and each able to send a MIDI message when pressed.

Pressing the top left button activates a secondary level of button assignments, providing another 7 MIDI assignments, which means you can have quick access to 14 MIDI buttons in total.

You can use the default MIDI assignments for MIDI learn immediately, or each can be programmed as needed. To program the buttons with your own MIDI messages, access the Setup menu as explained on page 7.



### Potentiometer

The potentiometer can be assigned to any MIDI cc message but is by default assign to send MIDI cc 7 (volume). To change the assignment, access the Setup menu as explained on page 7.

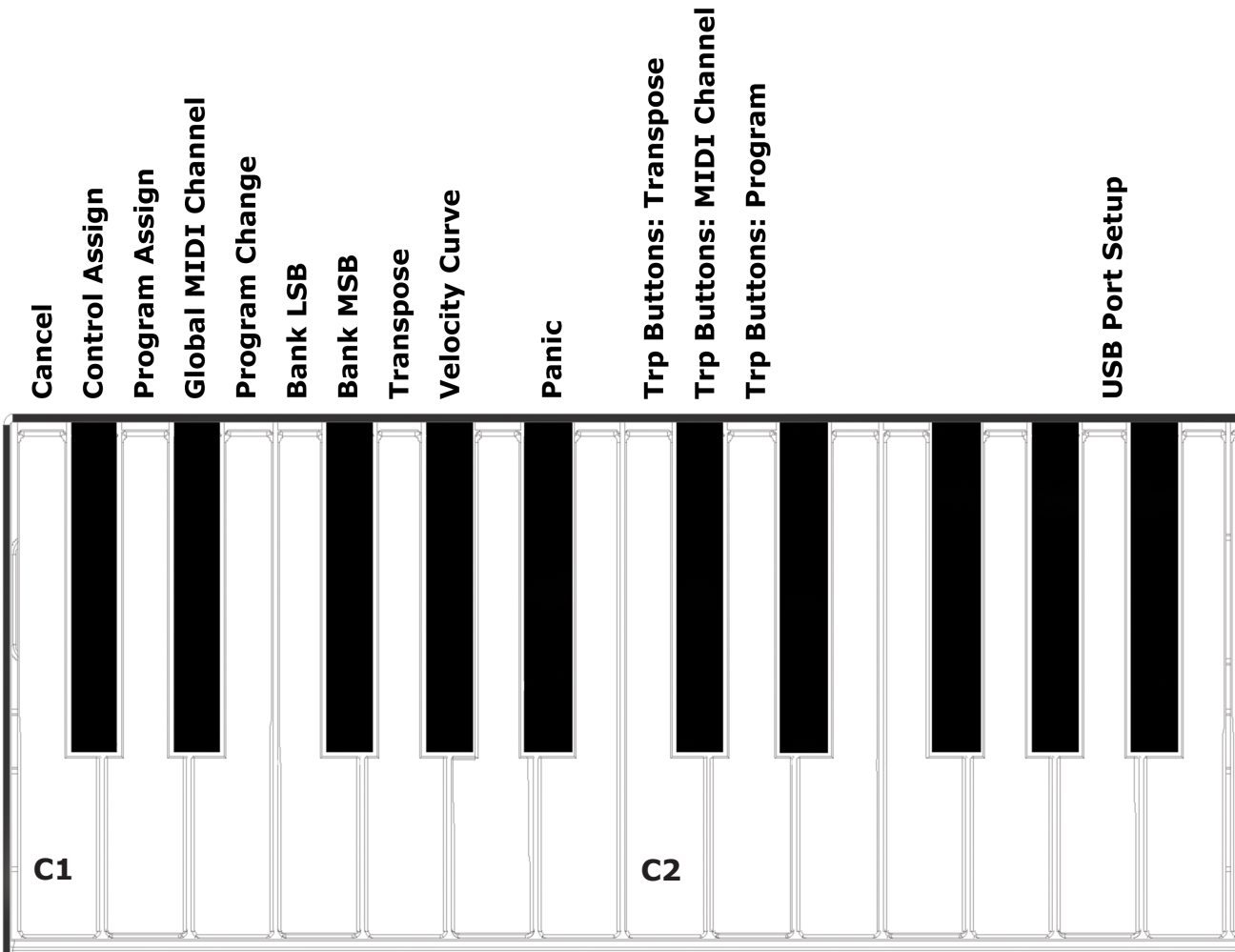
The two LED's below the potentiometer are only used with Nektar DAW integration.

## 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 [Setup] button which is illuminated in blue when active. This will mute the MIDI output of the keyboard and instead the keyboard now is used to select menus.

The chart below provides an overview of menus assigned to each key.

Menu keys are the same for both Impact GX49 and GX61 but value entry using the keyboard is one octave higher on GX61. 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-D2 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](http://www.midi.org)

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## Cancel

You can cancel any value entry by pressing Cancel (C1) as long as you have not already pressed Enter (C5).

## MIDI CC Assign

You can assign the Modulation wheel, the potentiometer, any of the 14 MIDI buttons (when not used for DAW integration) and even the foot switch pedal, to any MIDI CC message. 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 [Setup] button. The LED button is illuminated blue 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 GX61).
- Press Enter (C5) to accept the change and exit Setup.

## Program Assign

Program messages are used to change program (also sometimes called preset or patch) on a receiving device. The message is typically used on MIDI hardware but in some cases is also used to change sounds on software plugins.

Each of the 14 assignable buttons can be programmed to send MIDI Program change messages (when not used for DAW integration):

- Press the [Setup] button. The LED button is illuminated blue to indicate setup is active.
- Press the low D1 on your keyboard to select Program Assign.
- Press one of the assignable MIDI buttons to select it for assignment.
- Enter the Program value using the white number keys spanning G3–B4 (G4–B5 on GX61).
- Press Enter (C5) to accept the change and exit Setup.

## Global MIDI Channel

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

- Press the [Setup] button. The LED button is illuminated blue to indicate setup is active.
- Press the low D#1 on your GX keyboard to select MIDI Channel.
- Enter the MIDI channel value you want (from 1 to 16) using the white number keys spanning G3–B4 (G4–B5 on GX61).
- Press Enter (C5) to accept the change and exit Setup.

## Sending a Program Message

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

- Press the [Setup] button. The LED button is illuminated blue to indicate setup is active.
- Press the low E1 on your GX keyboard.
- Enter the program number you want (from 0 to 127) using the white number keys spanning G3–B4 (G4–B5 on GX61).
- Press Enter (C5). This will send the message immediately and exit Setup.



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## Sending a Bank LSB Message

To send a Bank LSB message, do the following:

- Press the [Setup] button. The LED button is illuminated blue to indicate setup is active.
- Press the low F1 on your GX keyboard.
- Enter the Bank number you want (from 0 to 127) using the white number keys spanning G3–B4 (G4–B5 on GX61).
- 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 [Setup] button. The LED button is illuminated blue to indicate setup is active.
- Press the low F#1 on your GX keyboard.
- Enter the Bank number you want (from 0 to 127) using the white number keys spanning G3–B4 (G4–B5 on GX61).
- 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 [Setup] button. The LED button is illuminated blue to indicate setup is active.
- Press the low G1 on your GX keyboard.
- Enter the transpose value number you want, entering 0 first for negative transpose settings (i.e. 01 for -1) and regular values for positive settings (i.e 1 for +1). You enter the values using the white number keys spanning G3–B4 (G4–B5 on GX61).
- Press Enter (C5). This will change the Transpose 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 Impact GX 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 Fixed	Fixed velocity level at 127	5
100 Fixed	Fixed velocity level at 100	6
64 Fixed	Fixed velocity level at 64	7

Here is how you change a velocity curve:

- Press the [Setup] button. The LED button is illuminated blue 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 (G4–B5 on GX61).
- Press Enter (C5). This will change the velocity curve setting immediately and exit Setup.

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## 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 button is illuminated blue to indicate setup is active.
- Press the A#1 key on your keyboard to select Panic. The reset will happen immediately and Impact will exit Setup mode.

## Changing Transpose Button Function

The transpose buttons can be assigned to control Transpose, Global MIDI Channel and Program change. The process of assigning a function to the transpose buttons is the same for all options and works as follows:

- Press the [Setup] button. The LED button is illuminated blue to indicate setup is active.
- Press the key on your GX keyboard (C2-D2) 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

## Transport Control without Nektar DAW Integration

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The Nektar DAW Integration files automatically map the transport and navigation buttons to their respective functions in supported DAWs. 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 Impact GX keyboard to send MIDI Machine Control messages

- Press the [Setup] button. The LED button is illuminated blue to indicate setup is active.
- Press the A2 key on your GX 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 from the GX49. The buttons are assigned as follows

Button	Function
Click	No
<< (Rewind)	Yes
>> (Forward)	Yes
Cycle/Loop	No
Stop	Yes
Play	Yes
Record	Yes

MMC is supported by DAWs such as Pro Tools, FL Studio and many more.

### Programming the 7 secondary MIDI buttons when MMC is Active

If you have set up MMC functionality as described above, you can still assign MIDI messages to the 7 MIDI buttons on the secondary level. To assign these buttons with your own messages, follow the steps covered on page 8.

## Factory Restore

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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 Impact GX49 is switched off
- Press the [Octave up]+[Octave down] buttons and hold them
- Switch your Impact GX49 on

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