



NEKTAR IMPACT LX^{MK3}



OWNER'S MANUAL

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Thank you for buying our Impact LX ^{mk3}. It means a lot to us and we hope it will enhance your musical creativity for years to come.

Impact LX ^{mk3} is powered via USB so start by connecting the USB-C connector on the included cable to the Socket on the rear. Connect the USB-A connector to a free USB socket on your computer. If you are using a USB hub we recommend that it's powered by a separate power supply. Bus-powered hubs may also work but it's best to start by connecting directly to your computer.

If you prefer to use your own USB cable feel free to do so. You can connect to any USB port on your computer including USB-C.

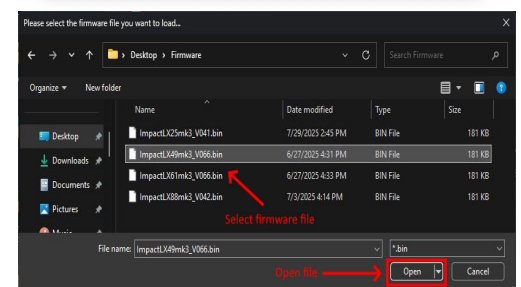
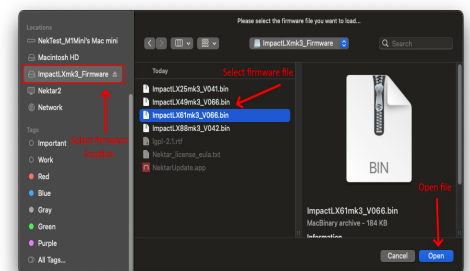
You can start playing the keyboard immediately though we recommend you update the firmware first.

Updating your Impact LX ^{mk3}'s firmware is important to ensure what we describe in the owner's manual will match your own experience. Thankfully the process is straight forward:

Firmware update

1. Make sure Impact LX ^{mk3} is connected to your computer via USB but make sure it's switched off at this point.
2. Locate the file 'Nektar Update' app in the Windows firmware folder or MacOS .dmg file located in the package that this guide came with. If you downloaded this document from one of our web pages, you'll need to first create a Nektar user account and register your product, as described on [page 23](#).
3. Launch the Nektar Update application.
4. With LX ^{mk3} switched off, press and hold [Mixer]+[Preset] while switching the unit on. The display should read 'Upd'.
5. Follow the Nektar Update app's on-screen instructions to load and update the firmware. Note: the firmware file may be immediately detected in which case just click "Update". To select it manually click the [Load File] button to locate the file as shown in the images.
6. If the 'Load File' button is grayed out, close the updater app and open it again.
7. Once the update process is complete, switch Impact LX ^{mk3} off.
8. Hold the 2 [Octave] buttons while switching the unit on again. Once the display reads "000", release the buttons. This process restores the unit to factory default settings and ensures everything works correctly following.

Note: If you see a fail message during the verification of the firmware update, simply complete steps 7 and 8. Then check the firmware version displayed after the restore matches the firmware file.



That's it, Impact LX ^{mk3} is ready so lets move on to learn more about the keyboard in detail.



1 Velocity sensitive 25, 49, 61 or 88 note keyed depending on your LX^{mk3} model. Choose between 4 velocity curves and 3 fixed velocity values in the Setup menu.

2 Pitch bend and modulation wheels. MIDI assignable to any MIDI cc message.

3 Octave up/down buttons. Can also be used to transpose the keyboard +/- 12 semitones. Press both buttons to toggle Octave and Transpose.

4 Scale/Chord button enables instant activation/deactivation of both Scale and Chords. Long-press to activate the Scale/Chord menu and use the fader buttons to program scale and chord settings (LX25: use the pads).

5 Activate the keyboard's Hold Notes feature. The default Hold mode simply holds notes played, until 1 or more notes are played. A second mode is available to enable holding notes while playing the keyboard as normal. See the owner's manual pdf for detailed information.

6 8 faders used for DAW channel mixing in Mixer mode and envelope control in Instrument mode. Fully MIDI programmable in Preset mode.

7 8 illuminated fader buttons are used to mute or solo channels in Mixer mode and for instrument parameter control in Instrument mode. Fully MIDI programmable in Preset mode.

8 The Looper button is only used for DAWs that we support with the Looper function. Press [Shift]+[Looper] to toggle Looper and current mode function and press [Looper] to activate looper record.

9 The large encoder is used for global control, independent of mode selection but also used as a data encoder for example for menu selection when Setup mode is activated. With Nektar DAW integration the associated button is used to toggle between 3 options: Volume, Instrument Parameter and Selected parameter.

10 LED display showing control values and menu selections when Setup mode is engaged (use the [data encoder] to scroll menu options and press the [Select] button to confirm).

11 3 mode buttons select Mixer, Instrument and Preset modes. Additional buttons are used for DAW navigation and NI NKS preset browsing.

12 [Page] button toggles encoder (13) control options when used with Nektar DAW integration. Selects Pan and Send control in Mixer mode, page 1 and 2 in Instrument mode.

13 8 full resolution encoders configured according to selections in Mixer, Instrument and Preset modes.

14 6 Transport buttons control Loop, Rewind, Forward, Stop, Play and Record with alternate functions Quantize, Goto L, Goto R, Undo and Click activated using [Shift]+[Transport button].

15 8 velocity sensitive pads programmable to send MIDI cc messages as well as MIDI notes. Press [Shift]+[Pad Learn (16)] to program MIDI notes by pressing a pad and playing a key on the keyboard. Remember to save to 1 of the 8 pad map locations, in the Setup menu.

16 Arrow up/down buttons load the next/previous pad map. Quick select by holding one of the buttons and striking a pad 1-8.

17 Power on/off switch.

18 USB-C port for power and data. Use the included USB C-A cable or an optional USB C-C cable.

19 1/4" TS jack for connection of a foot switch (optional, not included). The foot switch socket can be programmed to send any MIDI message but is set by default to send a sustain message. Polarity automatically detected on power up. **Note:** Cannot be used with an expression pedal.



After completing the firmware update and with your Impact LX ^{mk3} connected to your computer, you're ready to go. Impact LX ^{mk3} uses your OS class compliant MIDI driver so any MIDI software should detect it.

Since the DAW integration is covered in a separate manual, we'll mainly be going through the keyboard and MIDI functions. The previous page gave you a visual overview of Impact LX ^{mk3} but here we'll go through everything in more detail.

The keys

The Impact LX ^{mk3} keybed is very responsive allowing you to play low velocity values and gradually increase them.. If the default velocity curve works for you, great. If you want to reach higher velocity values more easily or with less effort, try the other velocity options until you find one that best suits your playing style. There are 4 velocity curves and 3 fixed. Here is how you change the setting:

- Press [Shift] + [Preset] button to activate Setup mode (printed below the Preset button).
- Move the data encoder (9) until the display reads "Set". This is the Settings menu.
- Press the [Select] button next to the encoder.
- Move the encoder until the display reads "uCU" and press [Select].
- Using the encoder, you can now scroll through the 4 curves (uC1-4) and the fixed (uF-1-3).

Play the keyboard and change your selection as you go, until you are sure you have found the best option for you. The curves are described in more detail on [page 15](#).

Octave & transpose buttons

When you press one of the [Octave] buttons, the notes played by the keyboard are shifted up or down by 1 octave for every press.

The display shows the current octave shift value. Holding one of the [Octave] buttons returns the value to zero.

The buttons also function as transpose buttons. Transpose allows you to shift the notes played by the keyboard in 1 semitone increments (or decrements), covering any interval between -12 and 12.

- To toggle Octave and Transpose, press the two [Octave/Transpose] buttons at the same time. The display reads "TRA" when transpose is selected and "OCT" when Octave is selected.

For example, if you play a song in G and want to try a slightly higher key like Ab, set transpose to 1. To transpose down from G to E, count the keys from G to E (3) and set the transpose value to -3.

- To reset Transpose to zero, hold one of the buttons until the display reads "zero".

Pitch bend and modulation wheels

The two wheels below the Octave and Transpose buttons are 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 for bending notes when playing phrases that require this 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.

Both the Pitch Bend and Modulation wheels are MIDI assignable. They can be set to send any MIDI CC message, Aftertouch, or even Pitch Bend messages (for the Modulation wheel). Settings are stored across power cycles, so you won't lose them when you switch the unit off. Pitch Bend and Modulation assignments are not stored as part of the Impact LX ^{mk3} presets. To return their assignments to default, set the Pitch Bend assignment type to "Pb" and set the Modulation wheel to MIDI CC "01".

Foot Switch

You can connect a foot switch pedal (optional, not included) to the 1/4" jack socket on the back of the Impact LX ^{mk3} keyboard. The correct polarity is automatically detected on boot-up. If you plug in your foot switch after boot-up is complete, you may experience the foot switch working in reverse. To correct that, follow these steps:

- Switch the Impact LX ^{mk3} off.
- Make sure your foot switch is connected.
- Switch the Impact LX ^{mk3} on. The polarity of the foot switch should now be automatically detected.

Just like the wheels, the foot switch socket can be assigned to send any MIDI CC message. The default assignment is MIDI CC 64.

MIDI output jack (LX88^{mk3} only)

The MIDI Out DIN connector on the back of Impact LX88 ^{mk3} allows you to connect to other MIDI equipment, such as a sound module or sequencer. To do so, connect a MIDI cable (not included) from Impact LX88 ^{mk3}'s MIDI Out to the MIDI input on the receiving device.

It's also possible to use the MIDI Out as a USB-to-MIDI interface. Using a music application or Digital Audio Workstation (DAW) on your computer, you can then route MIDI messages from the software to external MIDI hardware via the Impact LX88 ^{mk3}'s MIDI Out. Here is how you change the port setting to use MIDI Out from USB:

- Press [Shift] + [Preset] button to activate Setup mode (printed below the Preset button).
- Move the data encoder (9) until the display reads "Set". This is the Settings menu.
- Press the [Select] button next to the encoder.
- Move the encoder until the display reads "Out" and press [Select].
- Use the data encoder to set output via USB to "On".
- Press [Shift] + [Preset/Setup] button to exit.

The [Scale/Chord] button is a master control for both the Scale and Chord functions. Scale and Chord can be enabled/disabled individually in the Scale/Chord menu. Press [Scale/Chord] to enable it and play both white and black keys on the keyboard.

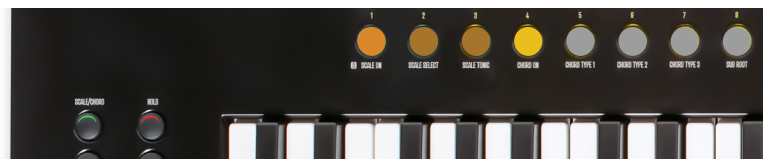
The default scale is set to Major with its tonic (first note of the scale) set to C. With this configuration, whenever you play a black key, you'll be playing the same note as the white key below, keeping all notes within the Major scale and in the key of C. This becomes more important when different scale types and/or chords are used.

For example, the Blues 9 Note scale contains several semitone intervals, meaning that in the key of C, some black keys will trigger their regular notes. As you explore different scales in various keys, the scale feature makes it easier to create without first having to perfect your technique. And that's even more true when we bring the Chord menu into the equation, but more about that later!

Let's explore some of the features.

The Scale/Chord menu

To activate the Scale/Chord menu, long-press [Scale/Chord] (i.e. hold the button for about 2 seconds). The LED buttons below the faders will then update (LX25 ^{mk3} uses the pads instead). In the image below, [Scale On] is active with [Scale Select] and [Scale Tonic] off (dim).



- **[Scale On]:** Switches Scale on/off. This option makes it possible to use the Chord function without the scale affecting the notes played. If both Scale and Chord are active, chords will only play notes within the selected scale.
- **[Scale Select]:** Hold and move the data encoder to select scales S01 to S11 (see table on the next page). Release when you have found the desired scale.

[Scale Tonic]: Sets the tonic (first note) of the scale. If the tonic is set to Ab, all keys on the keyboard will play notes within the current scale in the key of Ab. The first note in the scale is still played by the black key corresponding to Ab/G#. (Self-correction: I've rephrased "triggering" to "corresponding to" as it sounds more direct)

Tip: Use [transpose](#) instead of setting the tonic if you want to continue playing predominantly the white keys. To play in the key of Ab/G#, set transpose to -4 and keep the tonic set to C.

Exit Scale/Chord menu

To exit the menu and return the fader buttons to other use, long-press [Scale/Chord].

Our curated list contains the scales we find most useful with variety to spark new creative directions. If your favorite scale is missing, feel free to let us know and we'll aim to include it in an update.

Email suggestions@nektartech.com

Scales

Scale No	Name	Scale No	Name
S01	Major	S07	Pentatonic
S02	Major Harmonic	S08	Flamenco
S03	Minor Melodic	S09	Blues 9 Note
S04	Minor Harmonic	S10	Blues 6 Note
S05	Gypsy	S11	Arabic Hijaz
S06	Minor Hungarian		

Chords

The chord list range from 2 to 5 note harmonies and they are grouped accordingly so C20-23 are 2 note harmonies, C3-C33 are 3 note harmonies etc. By enabling the [Sub-octave] you are able to add an additional root note -1 or -2 octaves below the played note, for richer chords. With scale enabled, you get the best results by choosing major chords and letting the scale settings adjust the chord to minor when needed. Read more about chords on the next page.

Chord No	Name	Chord No	Name
C20	Dyad (2 notes) minor 3rd	C40	M7
C21	Dyad (2 notes) major 3rd	C41	Major 7
C22	Dyad (2 notes) fifth	C42	Maj7
C23	Dyad (2 notes) octave	C43	Diminished
C30	Minor	C50	Major 9th
C31	Major	C51	11th spread
C32	Sus2	C52	11th compact
C33	Sus4		

Chord settings are part of the Scale/Chord menu, which is activated by long-pressing (about 2 seconds) the [Scale/Chord] button. If [Scale On] is active, the currently selected scale will affect chords and adjust chord notes to conform with the scale.

For example, with the default major scale and major chord selections, playing a C will, as expected, result in a C major chord. Playing an A will result in an A minor chord (C# is adjusted to C), so you don't need to select a minor chord type to play minor chords within the scale.



[Chord On]: Activates the Chord module. As explained, you can use Scale and Chord at the same time, causing the played chord to adjust to the selected scale.

[Chord Type 1, 2, 3]: Hold one of these buttons and move the data encoder to select a chord type (see list on the previous page). You can select a chord type for each button and switch in real time between the three while you play. Just press a Chord Type button to select it.

Chord inversion: A chord inversion rearranges the chord so that notes other than the root are played as the lowest note. Toggle through inversions by pressing [Chord Type]. You can set up [Chord Type 1, 2, 3] to play the same chord type, each with its own inversion, to achieve a voicing that is more compact or stretched, depending on your preferences.

[Sub Root]: When activated, the root note (the one you play on the keyboard) is duplicated one or two octaves below the played note. Hold [Sub Root] and move the data encoder to select either -1 or -2.

Creating user chords

The Impact LX ^{mk3} can store two user chords, each with up to 6 notes. User chords are selected in the same way as the preset chords:

1. Hold one of the [Chord Type] buttons and move the data encoder to the end of the list to select either "Ur1" or "Ur2".
2. With a user chord selected, you can program the chord:
3. Hold the selected [Chord Type] button.
4. Press the key that plays the root of your chord first.
5. Press up to 5 additional keys to complete your chord. You do not need to hold the keys; they can be played one at a time.
6. Release the [Chord Type] button.

Once programmed, a user chord can be used just like any of the library chords, including inversion selection and Sub Root functionality.

Exit Scale/Chord menu

To exit the menu and return the fader buttons to other use, long-press [Scale/Chord].

When [Hold] is activate, notes played on the keyboard are held until another note (or multiple notes) are played. You can play melody lines in perfect legato or continuous chords for ambient atmosphere etc.

In MIDI terms, this is achieved by postponing the MIDI note off message that's normally sent when you release the key. When one or more notes are played, the postponed MIDI note off message is finally sent to terminate the note(s) and new MIDI note on messages are sent.

Deactivate [Hold] at any time to terminate (i.e. send note off messages) any currently held notes.

Hold 1 and Hold 2

The above describes the default Hold 1 mode which is easy to understand and use. There is also a Hold 2 mode which has more options to allow you to play while notes are held as well as add and remove notes at any time. Where "press" is mentioned in the below, we really mean "hold" but we use "press" to avoid complex sentences with many mentions of "hold".

- To switch from H1 to H2, press (i.e. hold) the [Hold] button and move the data encoder to select H2. Then release [Hold].

With [Hold] engaged you can play the keyboard as normal. That's intentional and will become clear in a second.

Let's go through how to hold a note.

- Press [Hold], then play and release a key. The key is now held and you can release [Hold].

With [Hold] released, the keyboard can now be played without affecting the held note. If you play a held key, it doesn't trigger.

- To add a note, repeat the step above but this time play a different note.
- To terminate/remove a note, repeat the step above but this time play a note that's held.
- Multiple notes can be held by repeating the step above, by playing keys together or one after the other.
- To Terminate all notes, deactivate [Hold].

Impact LX^{mk3} gives you several options to control a DAW or other MIDI software, with three different ways to set up its many controls:

1. **Install the Impact DAW Integration files** for use with an existing DAW (must be on our list of supported DAWs).
2. **Set up a DAW with controller learn.**
3. **Programming Impact LX^{mk3} controls** for your software.

Option 1 involves installing our DAW Integration files and following the included PDF guide. You will need to create a user account and register your Nektar product here: www.nektartech.com/registration

For more information on the setup process, check the [Getting started with Nektar](#) page.

If you plan to use your DAW's learn function or Impact's presets, we recommend reading through this chapter in order to understand how Impact LX^{mk3} is structured and how assignments are stored in memory.

Mixer, Instrument and Presets

Your Impact LX^{mk3} comes with 5 user-configurable presets, but you actually have 7 usable presets in total. That's because the Mixer and Instrument buttons each recall their own read-only preset. Each preset stores control settings for the 8 faders, 8 fader buttons, and 8 encoders.

The Preset button recalls the currently selected user preset. You have two ways to recall any of the 5 user presets:

1. Press and hold [Preset] while moving the data encoder to change the preset selection.
2. Use the Setup menu to load a specific preset.

Below, you'll find a list of what each of the 5 presets is programmed to by default. Remember, you can customize each of these with your own MIDI settings, which we'll cover later in this guide.

PRESET	DESCRIPTION
1	GM Instrument preset
2	GM Mixer 1-8
3	GM Mixer 9-16
4	Learn friendly 1 (Fader buttons Toggle)
5	Learn friendly 2 (Fader buttons Toggle)

Presets 1, 4, and 5 are set up to transmit on the global MIDI channel. This means when you change the global MIDI channel, you also change the MIDI channel these presets transmit on. With 16 MIDI channels available, you can create 16 unique setups and simply change the MIDI channel to switch between them easily.

A list of controller assignments for each of the 5 presets is available on [pages 33-37](#).

Global controls

Global controls only have one setting that does not change when presets or pad maps are loaded.

The global controls are:

- Pitch bend and modulation wheels.
- Foot switch socket.
- 6 transport buttons.

Each of the global controls can be assigned as described in the Control Assign section on [page 17](#).

The large encoder is also a form of global control except it's assignment is fixed.

The 8 pads are velocity-sensitive and programmable with either note or MIDI switch messages. This means you can use them as regular MIDI buttons, in addition to playing your drum beats and percussive melody parts. There are 4 pad velocity curves and 3 fixed velocity options .

1. Press the [up/down] arrow buttons to the right of the pads to load the next or previous pad map.
2. Hold one of the [up/down] arrow buttons and press the pad number that corresponds to the pad map you want to load. For example, press [pad 7] to load pad map 7.



[Page 35](#) shows the 4 Pad Maps' default assignments. Map 1 is a chromatic scale which continues in Map 2. If you have a drum setup that's laid out this way (many are), you can access drums 1-8 using Map 1 and drums 9-16 using Map 2.

Pad Learn

It's easy to change a pad note assignment using the Pad Learn function. It works as follows:

1. Press the function button combination [Shift]+[Pad Learn]. The display will now blink, showing P1 (pad 1) as the default selected pad.
2. Hit the pad you want to assign a new note value to. The display blinks and updates to show the number of the pad you selected.
3. Press the key on the keyboard that corresponds to the note you want to assign to the pad. You can keep playing notes on the keyboard until you have found the one you want.
4. Repeat steps 2 and 3 to assign notes to additional pads.
5. Press [Shift]+[Pad Learn] when done. The new assignments are stored in memory until another pad map is loaded.

Assigning MIDI Messages to Pads

The pads can also be used as MIDI switch buttons. To learn more, check the Setup section [page 17](#) which covers how controls are programmed.

Pad Velocity Curves

You can choose between 4 velocity curves and 3 fixed velocity value options. For more information about the velocity curves and how to choose them, read about the Setup Menu and go to [page 15](#) for details about pad velocity curves.

- Press [Shift] + [Preset] button to activate Setup mode (printed below the Preset button).
- Move the data encoder (9) until the display reads "Set". This is the Settings menu.
- Press the [Select] button next to the encoder.
- Move the encoder until the display reads "PCU" and press [Select].
- Using the encoder, you can now scroll through the 4 curves (uC1-4) and the fixed (uF-1-3).

The Setup menu is where you select keyboard settings and perform MIDI control programming.

- To activate the Setup menu, press [Shift]+[Preset>] (Setup).
- To exit the Setup Menu at any time, repeat the above step.

With the Setup menu active, the display now reads “Ctl”.

The **Control (Ctl)** menu contains MIDI assignment options for all controls on Impact LX^{mk3}.

Setup (Set) is where you select velocity curves, perform a memory dump and other general setup functions.

First we'll take a look at the Settings menu:

- Move the large data encoder to select “Set”.
- Press the [Select] button paired with the data encoder to select “Set”.

You can now use the data encoder to scroll through the options in the Settings menu:

1. Global MIDI Channel (GCh).
2. Keyboard velocity curve (VCU).
3. Pads velocity curve (PCU).
4. Drawbar mode for faders (drb).
5. Memory dump (Mem).
6. Low-power mode (LP).
7. Back to main menu (Bac).

To select an option, press the [Select] button.

Global MIDI Channel (GCh)

The keyboard always sends MIDI on the Global MIDI channel. Other controls such as buttons, faders, encoders and pads can be programmed individually to send on any of 16 MIDI channels available.

All controls as well as the keyboard, are initially set up to send on the global MIDI channel which is set to 1.

- Make sure Setup is active and “Set” is selected, as described above.
- Move the data encoder until the display reads “GCh”, then press [Select].
- Move the data encoder to set the MIDI channel to a value from 1-16.
- Press [Select] to go back to the menu list or press [Shift]+[Preset/Setup] to exit.

Keyboard velocity curves (vCU)

Impact LX mk3 has 7 different keyboard velocity options to choose from, including 4 curves and 3 fixed. Start with the default curve and play for a while, then change to one of the other options if you prefer.

- Make sure Setup is active and “Set” is selected, as described on [page 14](#).
- Move the data encoder until the display reads “uCU”, then press [Select].
- Move the data encoder to select velocity curves “uC1-4” or the fixed velocity values “FCU 1-3”. You can play the keyboard and make changes as you play.
- Press [Select] to go back to the menu list or press [Shift]+[Preset/Setup] to exit.

Curve No	Name	Fixed No	Name
VC1	Default - evenly balanced for most use	VF1	Fixed velocity 127
VC2	Dynamic - wide velocity range	VF2	Fixed velocity 100
VC3	Hard1 - a slightly louder version of default	VF3	Fixed velocity 64
VC4	Hard2 - emphasis on higher values		

Pad curves (PCU)

There are 4 different pad velocity curves and 3 fixed velocity levels to choose from. As with the keyboard curve, start with the default option and change if you find it doesn't suit you.

Curve No	Name	Fixed No	Name
PC1	Default - Focus on mid to high velocity levels	PF5	Fixed velocity 127
PC2	The most dynamic curve with a focus on the low to mid velocity levels	PF6	Fixed velocity 100
PC3	Focus on the higher velocity levels.	PF7	Fixed velocity 64
PC4	Approximates a linear experience low to high		

- Make sure Setup is active and “Set” is selected, as described on [page 14](#).
- Move the data encoder until the display reads “PCU”, then press [Select].
- Move the data encoder to select velocity curves “PC1-4” or the fixed velocity values “PF1-3”. You can play the pads and make changes as you play.
- Press [Select] to go back to the menu list or press [Shift]+[Preset/Setup] to exit.

Drawbar on/off (drb)

The Drawbar function reverses the value output of the 8 faders from the default 0-127 to 127-0. This can also be achieved by reversing the min/max values of a control when you program Data 1 and Data 2. However if you don't want to change the reversal permanently in your preset, this function is ideal and here is how to activate it:

- Make sure Setup is active and “Set” is selected, as described on [page 14](#).
- Move the data encoder until the display reads “drb”, then press [Select].
- Move the data encoder to set drawbar to “On” or “Off”.
- Press [Select] to go back to the menu list or press [Shift]+[Preset/Setup] to exit.

Memory dump (MEM)

The Memory Dump function will back up your current controller assignment settings including by sending out MIDI sysex data. The data can be recorded in your DAW or other application capable of recording sysex data and replayed/sent back to your Impact LX^{mk3} keyboard when you want to reload your settings.

Sending out a sysex memory dump for backup:

- Make sure your MIDI software application is set up and capable of recording MIDI Sysex data
- Start recording
- Make sure Setup is active and "Set" is selected, as described on [page 14](#).
- Move the data encoder until the display reads "MEM", then press [Select].
- The display reads "SYS" while the MIDI sysex memory data is sent.
- Stop recording when you can see that data is no longer received in your software and the display reads "000".

The content of your Impact LX^{mk3} memory should now be recorded in your MIDI software and the unit has exited Setup mode.

Restoring a memory dump/backup

A memory dump/backup MIDI sysex file can be sent to the Impact LX^{mk3} at any time. With the unit powered on, make sure the Impact LX^{mk3} is the output destination of the MIDI software or track that contains the sysex data. Activate send or play to update the unit.

Low power mode (LP)

Impact LX^{mk3} can be run at lower power to enable connectivity and powering from an iPad or to conserve battery power when running it with a battery powered laptop.

When Low Power Mode is on, all pad LEDs are permanently off. To enable the LEDs again, switch Low Power mode off again.

- Make sure Setup is active and "Set" is selected, as described on [page 14](#).
- Move the data encoder until the display reads "LP", then press [Select].
- Move the data encoder to set Low Power Mode to "On" or "Off"
- Press [Select] to go back to the menu list or press [Shift]+[Setup/Preset] to exit.

Back (Bac)

Select "Bac" and press [Select] to go back to the previous level.

You can program all assignable controls without software, directly on the device. All assignments are stored over power cycling which means your settings are safe at least until you overwrite them by loading a preset or pad map. It's a good idea to save if you have made comprehensive changes.

- To get started with control assignments, first activate [Setup mode](#) by pressing [Shift]+[Setup].
- Press the [Select] button paired with the data encoder to select "Ctl".

You can now use the data encoder to scroll through the options in the menu. We'll go each option in the order of the menu

MIDI CC (CC)

This function allows you to change the MIDI cc number of a control (if applicable. Assignment type has to be MIDI CC). Most of the controls by default are assigned to send the MIDI cc message type. Here is how it works:

1. Make sure the display shows "cc" and press the [Select] button.
2. Move or press a control so it's selected. The value you see in the display is the currently assigned MIDI cc message (000-127).
3. Change the MIDI cc value by moving the data encoder. The assignment change is instant so if you exit the Setup menu after making changes, those changes remain active.
4. Press [Select] to accept the change and go back to option selection or repeat steps 2-3 to program another control.

Data 1 and Data 2 values (d1, d2)

The Data 1 and Data 2 options are required by some control assignments as shown in the chart on the next page. The factory presets mainly use regular MIDI cc assignments with minimum (Data 1) MIDI cc values set to 1 and max (Data 2) set to 127). Controls can be scaled to any MIDI values in between or any other applicable setting according to the chart on the next page. Here is how you change Data 1 and Data 2 values:

1. If the display doesn't show one of the Control menu options (cc, d1, d2 etc) , press [Select] to go back.
2. Move the data encoder until the display reads "d1" for Data 1 and press [Select].
3. Move or press the control you want to edit so it's selected.
4. Set the Data 1 value by moving the data encoder.
5. Repeat steps 3 and 4 to edit Data 1 for other controls.
6. Press [Select] to go back to menu selection and repeat steps 2 to 5 select menu "d2 for Data 2 to adjust that value.

The chart on the following page provides an overview of the Data 1 and Data 2 settings for each assignment type.

Controller type	Assignment type	Data 1	Data 2
Pitch bend	MIDI cc	Min value	Max value
Mod wheel	Aftertouch	Min value	Max value
Faders 1-8	Pitch bend	Min value	Max value
Encoders 1-8			
Buttons 1-8	MIDI cc toggle	cc value 1	cc value 2
Transport btns	MIDI cc trigger/release	Trigger value	Release value
Foot switch	Note	Note on velocity	MIDI note #
Pads 1-8	Note toggle	Note on velocity	MIDI note #
	MIDI Machine Control	Sub-ID #2	n/a
	Program	Program no	n/a
	Global MIDI channel select	1-16	n/a

MIDI Channel Assign (Ch)

Each control can send on a specific MIDI channel or follow the Global MIDI channel. The General MIDI mixer presets are examples of how specific MIDI channels can be used, If a receiving device or software is able to receive on multiple MIDI channels.

1. From the menu (CC, d1 etc), select “Ch” and press [Select].
2. Move or press a control to select it. The value you see in the display is the selected control’s currently assigned MIDI channel (000-16).
3. Change the MIDI channel by moving the data encoder.
4. Repeat steps 2-3 to change the MIDI channel for other controls.
5. Press [Select] to revert to the menu.

Note: The MIDI specifications allow for 16 MIDI channels from 1-16. When 000 is selected, the control is assigned to the global MIDI channel. Most of the default presets assign controls to the Global MIDI channel so you may see this value often when you move a control.

Assignment types (ASG)

We already touched on assignment types in the section about Data 1 and Data 2. If you go beyond standard MIDI cc control, the assignment type is the first to consider before programming can start.

The display abbreviations for each of the assignment types is added to the chart from the Data 1 & 2 section.

1. From the menu (CC, d1 etc), select "Asg" and press [Select].
2. Move or press a control to select it. The display shows the currently selected assignment type.
3. Change the assignment type by moving the data encoder.
4. Repeat steps 2-3 to change the assignment type for other controls.
5. Press [Select] to revert to the menu.

If you are using Nektar DAW integration but would like to send program messages or change the global MIDI channel, you can for example program the fader buttons in preset mode or set up the pads to do that.

Controller type	Assignment type	Data 1	Data 2	Display abbreviations
Pitch bend	MIDI cc	Min value	Max value	CC
Mod wheel	Aftertouch	Min value	Max value	At
Faders 1-8	Pitch bend	Min value	Max value	Pbd
Encoders 1-8				
Buttons 1-8	MIDI cc toggle	cc value 1	cc value 2	Tog
Transport btns	MIDI cc trigger/release	Trigger value	Release value	Trg
Foot switch	Note	Note on velocity	MIDI note #	n
Pads 1-8	Note toggle	Note on velocity	MIDI note #	nt
	MIDI Machine Control	Sub-ID #2	n/a	nnc
	Program	Program no	n/a	Prg
	Global MIDI channel select	1-16	n/a	GCh

Both Presets and Pad Maps can be stored from the save menu. Here is what's stored:

- Each of the 5 Preset contains programmed MIDI settings for the 8 encoders, 8 faders and 8 LED buttons.
- The 8 Pad Maps store the settings for the 8 pads for a total of 64 programmable pads.

Saving a Preset (Sav)

1. From the menu (CC, d1 etc), select "Sav" and press [Select].
2. Move the data encoder to scroll through the 5 preset locations (Pr1-5).
3. Press [Select] to save the current settings to the selected Preset location.

Saving a Pad Map (Sav)

The process for saving a Pad Map is identical to saving a preset except use the pads [Arrow Up/Down] buttons to select the destination pad map in step 2.

1. From the menu (CC, d1 etc), select "Sav" and press [Select].
2. Press the pads [Arrow Up/Down] buttons to select the Pad Map location (PM 1-8).
3. Press [Select] to save the current settings to the selected Pad Map location.

Loading a Preset (Lod)

Loading a Preset will replace all current Preset settings with the stored settings. Make sure your current settings are saved first if you want to preserve them.

To load hold [Preset] and move the data encoder to scroll through the 5 preset locations. Note that a preset is loaded as soon as the preset is selected.

It's also possible to load from the Control menu so you don't have to exit Setup to work on a new preset:

1. From the menu (CC, d1 etc), select "Lod" and press [Select].
2. Move the data encoder to scroll through the 5 preset locations (Pr1-5).
3. Press [Select] to load the selected preset.

Loading a Pad Map

Pad Maps can be loaded outside the Setup menu. To exit Setup, press [Shift]+[Setup/Preset]/

- Pressing the pads [Arrow Up/Down] buttons loads Pad Maps immediately.
- You can also hold one of the [Arrow Up/Down] buttons and press one of the pads to load a Pad Map.

If your unit is misbehaving or you just want it returned to the original factory state, here is how you do that:

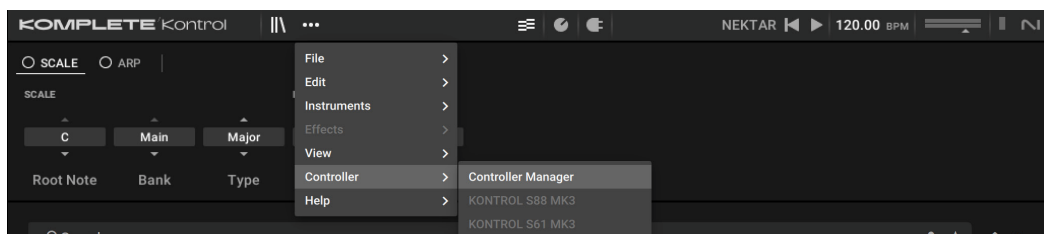
- Make sure your Impact LX^{mk3} is switched off.
- Press the [Octave down]+[Octave up] buttons simultaneously.
- Switch your Impact LX^{mk3} on.
- Keep holding the buttons for 3 seconds, then release.

Native Instruments NKS control standard is compatible with thousands of plugins including of course the extensive Native Instruments collections and 3rd party plugins. To use NKS you'll need to first make sure you have installed Complete Kontrol.

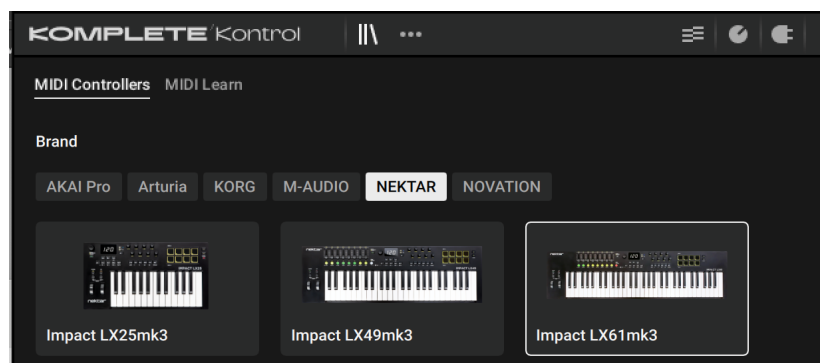
Complete Kontrol is part of the Complete Select 15 license included with your Impact LX ^{mk3} so you can get started straight-away. To claim your license, follow the instructions on the included printed Complete Select 15 page which also contains your voucher code. With your voucher code at hand, you can [submit your claim here](#).

Complete Kontrol Setup

Launch Complete Kontrol by either inserting it on a track in your DAW or run the standalone version. Then go to Settings>Controller>Controller Manager.



In the Controller Manager click the Nektar tab and select your Impact LX ^{mk3}. If you don't see an option for your model, select any of the available.



Playing instruments, control and navigating Complete Kontrol libraries.

If your Impact LX^{mk3} is connected to your DAW or the standalone version of Complete Kontrol, you should now be able to play instruments available in the Complete Kontrol library.

If you are not able to play instruments, check the following:

1. Make sure the [Inst] button on Impact LX ^{mk3} is active.
2. In your DAW, make sure that the Complete Kontrol plugin receives MIDI from your MIDI controller.
3. Set the MIDI input of the track hosting Complete Kontrol to Impact LX ^{mk3}.
4. Set record arm active for the track so it receives MIDI.

Complete Kontrol Mapping to Impact LX ^{mk3}

The following overview shows you how Impact LX ^{mk3} is mapped to plugin parameters in Complete Kontrol.

Encoders 1-8 (1): Adjust eight plugin parameters according to the selected page.

Browse Up/Down (2): Switch to the previous/next preset.

Shift + Browse Up/Down (3+2): Switch to the previous/next plugin slot in Complete Kontrol.

Page + Browse Up/Down (4+2): Switch to the previous/next page of instrument or effect parameters mapped to the encoders.



Using Complete Kontrol with Nektar DAW integration

Nektar DAW integration use the same controls as Complete Kontrol in instrument mode but switch the configuration when Complete Kontrol is detected on a track. The seamless workflow enables you to keep Instrument mode selected without having to worry about whether you are controlling a hosted plugin via Nektar DAW integration or Complete Kontrol.

What is Nektar DAW integration?

Nektar DAW integration is a custom development by the Nektar team to deliver unique features and workflow tailored for you Impact LX^{mk3}.

Integration files are available from your [Nektar account](#), after registering your product as covered on the [Getting started with Nektar](#) page.

Supported DAWs

Impact LX^{mk3} currently supports Ableton Live Suite 10 or higher, Bitwig Studio, Cakewalk/Sonar, Cubase 13 and higher, FL Studio, Garageband, Logic Pro 10.8 and higher, Nuendo, Reaper, Reason, Studio One 5 or higher,

If you use any other DAW you can still use Impact LX^{mk3} with Complete Kontrol NKS and as a generic MIDI controller.

Verify everything is setup correctly and working

Before we move on to the DAW integration functionality, check that the following has been completed:

1. Firmware is updated to the latest version.
2. The DAW integration files have been installed.
3. Your DAW is setup as described in the installer documentation.

To verify it's all working, press [Play] on Impact LX^{mk3}. If the DAW plays, press [Stop] and we are ready to go through how Impact LX^{mk3} works with your DAW.

Navigation and transport

The navigation and transport buttons are global controls so they work the same way regardless of which mode (Mixer, Instrument or Preset) is selected. To access the secondary functions silkscreened below each button, hold [Shift] and press the corresponding button.



The next page details each button's primary and secondary function.

The chart below details each buttons primary and secondary function.

Button	Main function	Alternate [Shift]	Option
Track ▲	Previous track.	Previous bank of 8 tracks.	Hold [Track] and move the large encoder to scroll through tracks.
Track ▼	Next track.	Next bank of 8 tracks.	Hold [Track] and move the large encoder to scroll through tracks.
Browse ▲	Load previous preset in DAW browser.	Navigate columns in DAW browser.	
Browse ▼	Load next preset in DAW browser.	Navigate columns in DAW browser.	
Loop ↺	Activates Cycle/Loop.	Quantize current selection.	
Rewind ⏮	Moves the playhead 1 bar back.	Go to left location/loop start.	[Inst]+[Rew] go to prev plugin slot*.
Forward ⏭	Moves the playhead 1 bar forward.	Go to right location/loop end.	[Inst]+[Fwd] go to next plugin slot*.
Stop ■	Stops playback.	Undo last action.	
Play ▶	Activates play.	Click/Metronome on/off.	
Record ●	Activates record.	Capture MIDI - if supported by DAW	

* Ableton Live Suite, Bitwig Studio, FL Studio and Studio One only

Global and selected parameter control

The large encoder controls parameters globally which means it's assignment is not affected when switching modes. The associated [Select] button toggles through the following 3 options:

- [Green]:** Adjusts volume on the currently selected mixer channel. Hold [Select] and move the large encoder to control channel Pan instead.
- [Amber]:** The global control is assigned to filter cutoff when an instrument track is selcted. Hold [Select] and move the encoder to control resonance.
- [Orange]:** Controls the selected parameter. Just move the parameter and control it.



Controlling the selected parameter is a significant, yet easy to use, feature. Any parameter on the currently selected channel can be controlled by the large encoder, as long as it's automatable.

Try moving channel volume, pan, send levels, instrument and insert plugin parameters to get a feel for what can be controlled in your DAW.

Note: In most DAWs it's enough to click on parameters to control them.

Fine control using Selected parameter control

As you control parameters notice that the actual values are displayed on the Impact LX^{mk3} display. This is particularly usefull when using the large encoder for fine control at a higher resolution.

- With [Select] illuminated orange, hold the button and move the encoder to control at up to 10 bit resolution.

You may already have noticed that one of the LED buttons is green and blinks when you play. The green LED represents the bar where the playhead is located right now. The 8 LED buttons numbered 1-8 (see image below) together represent an 8 bar bank. The bank moves with the DAWs playhead, as it advances through your projects timeline (for FL Studio, see [the next page](#)).

The 9th LED button (illuminated red in the image) is referred to as the [Looper] button.



LX25mk3 only: LX25mk3 is not equipped with faders and the associated 9 LED buttons. Instead, activate the [Looper] button located to the right of the pads (below arrow down). [Pads 1-8] are used in place of [Buttons 1-8] when [Looper] is active.



Timeline navigation

Here are the main features of the timeline navigation:

- Move the playhead to a new location by pressing any of the 8 buttons. You can do this regardless of whether the DAW is playing or not.
- Set loop points by holding one button and press another. If Loop or Cycle is not already activated in your DAW, the action will activate it.
- Adjust the length of the loop from 1 to 8 bars by holding [Looper] and pressing [LED button 1-8]. For example, to set a loop length of 1 press [Looper]+[LED button 1].
- Move the loop and playhead by 1 bar or 100 bars by holding the [Looper] button and move the large encoder to the new location. The display shows the location as you scroll through the timeline.
- Disable/enable Looper by pressing [Shift]+[Looper].
- LED button color coding: playhead location= green, bars within loop=orange, bars outside of loop=yellow.

Loop recording

The loop recording feature does the following with one [Looper] button press:

1. Activate Click/Metronome.
2. Deactivate the DAWs Loop/Cycle feature.
3. Activate record.

Start playing whenever you are ready and press [Looper] when you are done. The looper will now:

1. Deactivate the Click/Metronome.
2. Enable the DAWs Loop/Cycle feature.
3. Positions the loop points around the loop.
4. Activate play so you can hear the recorded part.

The [Looper] button is now in play mode so the button is green. The LED buttons now only show the length of the loop. To adjust it, press [Looper]+[LED button (1-8)].

With the loop point set you can now activate the transport [Record] button to overdub or press the [Looper] button to revert to timeline control and start recording a new loop.

Ableton Live Suite, Bitwig Studio and Logic Pro also have clip (Live Loops in Logic Pro) record/playback in addition to the regular timeline looper control.

To toggle Impact LX ^{mk3} between timeline looper and clips mode, press [Select]+[Looper].

Recording and playing clips

If you already used the timeline recording, you know what to do. Press [Looper] to record the next clip.

- Press a button without illumination to trigger recording to the corresponding clip slot.
- Press [Looper] to stop recording and activate playback.
- Press [Looper] at any time to start recording in the next empty clip or to stop recording.
- Press any orange or green button to trigger clip playback in the corresponding slot.
- The last triggered/recorded clip is always the 'selected' clip for editing.
- To navigate banks of 8 clips, press [Shift] +[buttons 1-8] to select a bank. Bank 1 contains clips 1-8, bank 2 = 9-16 etc giving you access to up to 64 clips.

Duplicate, adjust loop length and delete a clip

Using the [Shift] button the looper allow additional clip handling:

- To duplicate a clip, hold the orange/green LED that triggers the clip and press the destination LED button. For example, hold [LED button 2] and press [LED button 7] to duplicate the content of clip 2 to clip 7. Note the action will overwrite any existing content in clip 7.
- Adjust the length of a clip by holding its LED button and use the large encoder to set the loop length. The value in the display shows the length in bars.
- Delete a clip by holding [Looper] and press the LED trigger button twice.

Clip overdub, half/double length, trigger selected and stop

The transport can be used for clip focused functions. The [Looper] button is used as the modifier but if you release it before you press another button is pressed, it will activate record. It's best not to dwell on the [Looper] button while deciding what to do.

Here are the features you can trigger:

- | | |
|--------------------|--|
| [Looper]+[Rew]: | Will half the clip length. |
| [Looper]+[Fwd]: | Doubles the clip length. If clip length was halved first, this reverses that action. |
| [Looper]+[Record]: | Toggles overdub record on the selected clip. Overdub does not alter the loop length. |
| [Looper]+[Stop]: | Stop clip playback without affecting arrangement playback. |
| [Looper]+[Play]: | Trigger the selected clip. |

FL Studio is built around the Channel Rack's patterns. Impact LX^{mk3}'s looper control is therefore focused on FL Studio's patterns.

You may already have noticed that one of the LED buttons is green and blinks when you play. The green LED represents the pattern playing right now. The 8 LED buttons together represent a 8 pattern bank which updates when you select patterns outside of the current bank, either from Impact LX^{mk3} or in FL Studio.

Pattern play

Here are the main features of the timeline navigation:

- Select a pattern in a bank of 8 by pressing any of the 8 buttons. You can do this regardless of whether FL Studio is playing or not.
- Select patterns outside the current bank by holding the [Looper] button and move the large encoder. The display shows the currently selected pattern number and updates as you scroll through the list. The selected pattern is also updated in FL Studio so you can see your custom names as you scroll.
- Disable/enable Looper by pressing [Shift]+[Looper].
- LED button color coding:
 - Selected pattern, playing = green.
 - Selected pattern, not playing = orange.
 - Patterns not empty, not selected = yellow.
 - Empty patterns = off.



Pattern recording

The loop recording feature does the following with one [Looper] button press:

1. Go to the next empty Pattern in FL Studio.
2. Activate record in FL Studio.
3. In Pattern mode, listen for incoming MIDI notes so you can start playing when you are ready.
4. Press [Looper] again when you are done. Record is deactivated and the Pattern is adjusted to the length of the recorded part.
5. Press [Looper] to repeat the process, recording to the next empty Pattern.

After step 4. [Looper] is in playback mode so you can freely press any of the other buttons to select patterns and hear what you have recorded.

- To overdub/replace without altering the loop length, press [Looper]+[Pattern button].
- To quantize your performance at any stage press [Shift]+[Loop/Quantize].
- Use the [Play] and [Record] buttons on Impact LX^{mk3} to record as you normally do in FL Studio.

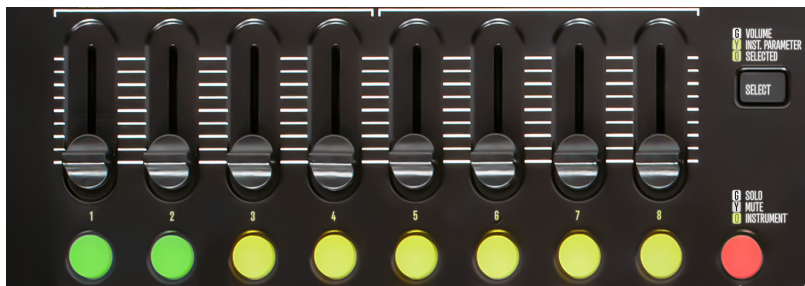
If you mainly work across channels to build up all instrumentation of your Pattern, make sure to press [Looper]+[Pattern button] to overdub if you want to preserve the original Pattern length. Using the [Track] buttons on Impact LX^{mk3}, you can navigate the channels and select the instruments as your Pattern develops.

You can control your DAW's mixer in banks of 8 channels. Most DAWs show the currently selected bank with a line under the 8 channels so it's easier to follow.

To open/close the Mixer window, press [Shift]+[Mixer].

Mixer Chanel volume, Pan and Sends

With the mixer preset active, moving faders 1-8 will control the 8 mixer channels in the current bank.



If the faders are not perfectly aligned with the bank's 8 channel volume parameters, the display shows whether to move the fader up or down for seamless soft-takeover.

- The 8 pots control pan for each of the corresponding channels when the blue LED is illuminated.
- Press the [Page] button to switch the encoders to control up to 8 sends on the currently selected channel. The white LED is illuminated when sends control is active.

LX25^{mk3}: On the Impact LX25^{mk3}, the 8 encoders control 8 mixer channels by default. You can switch them to control Pan by pressing and holding [Mixer] while moving the encoders. If the [Page] button is white and set to sends, the same action will control

Bank select (1-8, (9-16) etc

If your project contains more than 8 mixer channels you can bank over to the next group of 8 channels.

- To do this, press [Shift]+[Bank>]. The controls are now assigned to channels 9-16.
- Push the same key combination again to control 17-24 etc.
- To go back you press [Shift]+[<Bank].

LX25^{mk3}: On Impact LX25^{mk3} press and hold [Mixer] while pressing [Octave-] or [Octave+] to move the bank.

Mute and Solo

The 8 LED buttons can be used to control the mixer banks Solo and Mute status.

If the Looper is engaged, toggle Looper off by pressing [Shift]+[Looper]. Repeat to reactivate Looper again.

- A red LED indicates if a channel is record armed.
- Press any of [LED buttons 1-8] to mute channels. Muted channels are illuminated yellow.
- Press [Looper]+[LED button 1-8] to solo channels. Solo'ed channels are illuminated green and all other channels are yellow.

LX25^{mk3}: On Impact LX25^{mk3}, you can use the pads to control mute for tracks 1-8. Press and hold [Mixer] while hitting pads 1-8. This will toggle mute on or off for the corresponding channels. Release the [Mixer] button and the pads revert to trigger MIDI notes. It is not possible to control the Solo function with LX25^{mk3}.

Selected channel parameter control

Global encoder control is a great supplement to mixer mode both with the selected channel control of volume and pan (when [Select] is green) and the Selected parameter control which can control any parameter on the channel, including plugins. Learn more about [Global and selected parameter control on page 25](#).

The silkscreen labels printed on Impact LX^{mk3} are a great guide to parameter assignments for instrument control. Many instrument plugins are already premapped with parameters assigned to follow the labels, including of course your DAWs own instruments.

- Start by selecting a track hosting an instrument.
- Press the [Inst] button to activate instrument mode.
- To view or close the instrument plugin, press [Shift]+[Inst].
- Adjust encoders and faders to check if they are already mapped for control.
- If you are using Komplete Kontrol, [go to page 22](#) for details regarding NKS control.

Focus/macro controls

Ableton Live, Bitwig Studio, Cubase/Nuendo, Logic Pro and Studio One have Macro, Quick or Smart controls which can be operated from Impact LX^{mk3}.

- Press the [Page] button to toggle between LX mapped control (blue LED is on) and Macro/Quick/Smart controls (blue and white LEDs are on).

Two page control

Cakewalk/Sonar, FL Studio and Reaper do not have macros so instead you have 2 pages for LX mapped control which gives you options for customization.

- Press [Page] to toggle control page selection. The blue and white LED's alternately illuminate to indicate which page is selected.

Grab/Learning parameters

Impact LX^{mk3} is designed to make the process of assigning parameters to controls easy. In all supported DAWs it's possible to "grab" or quick-assign parameters when LX mapping is selected (only 1 Page LED is on). Here is how:

1. With [Inst] active, hold [Shift] and move a parameter in the instrument plugin.
2. Move/activate the encoder, fader or LED button the parameter should be assigned to.
3. Release [Shift].
4. Repeat to map all encoders, faders and buttons to your liking.

The assignments are stored in Ableton Live, Cakewalk (press [Shift] twice to save), FL Studio, Logic Pro, Reaper (press [Shift] twice to save) and Studio One.

Cubase, Nuendo and Reason retain custom assignments for as long as the DAW is open.

Bitwig Studio

With Bitwig Studio, Impact LX^{mk3} is configured to use the DAWs Remote Controls pages. Many of Bitwig Studio's own devices are already premapped but the Remote Controls pages provides flexibility for full customization.

Faders

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
F1	MIDI CC	73	127	0	Global	Attack
F2	MIDI CC	75	127	0	Global	Decay
F3	MIDI CC	72	127	0	Global	Release
F4	MIDI CC	91	127	0	Global	Effect depth 1 (Reverb Send level)
F5	MIDI CC	92	127	0	Global	Effect depth 2
F6	MIDI CC	93	127	0	Global	Effect depth 3 (Chorus send level)
F7	MIDI CC	94	127	0	Global	Effect depth 4
F8	MIDI CC	95	127	0	Global	Effect depth 5

Buttons

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
B1	MIDI CC (Toggle)	0	127	0	Global	Bank MSB
B2	MIDI CC (Toggle)	2	127	0	Global	Breath
B3	MIDI CC (Toggle)	3	127	0	Global	Control Change (Undefined)
B4	MIDI CC (Toggle)	4	127	0	Global	Foot Controller
B5	MIDI CC (Toggle)	6	127	0	Global	Data Entry MSB
B6	MIDI CC (Toggle)	8	127	0	Global	Balance
B7	MIDI CC (Toggle)	9	127	0	Global	Control Change (Undefined)
B8	MIDI CC (Toggle)	11	127	0	Global	Expression Controller

Fader

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
E1	MIDI CC	74	127	0	Global	Brightness
E2	MIDI CC	71	127	0	Global	Harmonic Content
E3	MIDI CC	5	127	0	Global	Portamento Rate
E4	MIDI CC	84	127	0	Global	Portamento Depth
E5	MIDI CC	78	127	0	Global	Control Change (Vibrato Delay)
E6	MIDI CC	76	127	0	Global	Control Change (Vibrato Rate)
E7	MIDI CC	77	127	0	Global	Control Change (Vibrato Depth)
E8	MIDI CC	10	127	0	Global	Pan

Faders

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
F1	MIDI CC	7	127	0	1	CH1 Volume
F2	MIDI CC	7	127	0	2	CH2 Volume
F3	MIDI CC	7	127	0	3	CH3 Volume
F4	MIDI CC	7	127	0	4	CH4 Volume
F5	MIDI CC	7	127	0	5	CH5 Volume
F6	MIDI CC	7	127	0	6	CH6 Volume
F7	MIDI CC	7	127	0	7	CH7 Volume
F8	MIDI CC	7	127	0	8	CH8 Volume

Buttons

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
B1	MIDI CC (Toggle)	12	127	0	1	Mute
B2	MIDI CC (Toggle)	12	127	0	2	Mute
B3	MIDI CC (Toggle)	12	127	0	3	Mute
B4	MIDI CC (Toggle)	12	127	0	4	Mute
B5	MIDI CC (Toggle)	12	127	0	5	Mute
B6	MIDI CC (Toggle)	12	127	0	6	Mute
B7	MIDI CC (Toggle)	12	127	0	7	Mute
B8	MIDI CC (Toggle)	12	127	0	8	Mute

Fader

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
E1	MIDI CC	10	127	0	1	CH Pan
E2	MIDI CC	10	127	0	2	CH Pan
E3	MIDI CC	10	127	0	3	CH Pan
E4	MIDI CC	10	127	0	4	CH Pan
E5	MIDI CC	10	127	0	5	CH Pan
E6	MIDI CC	10	127	0	6	CH Pan
E7	MIDI CC	10	127	0	7	CH Pan
E8	MIDI CC	10	127	0	8	CH Pan

Faders

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
F1	MIDI CC	7	127	0	9	CH1 Volume
F2	MIDI CC	7	127	0	10	CH2 Volume
F3	MIDI CC	7	127	0	11	CH3 Volume
F4	MIDI CC	7	127	0	12	CH4 Volume
F5	MIDI CC	7	127	0	13	CH5 Volume
F6	MIDI CC	7	127	0	14	CH6 Volume
F7	MIDI CC	7	127	0	15	CH7 Volume
F8	MIDI CC	7	127	0	16	CH8 Volume

Buttons

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
B1	MIDI CC (Toggle)	12	127	0	9	Mute
B2	MIDI CC (Toggle)	12	127	0	10	Mute
B3	MIDI CC (Toggle)	12	127	0	11	Mute
B4	MIDI CC (Toggle)	12	127	0	12	Mute
B5	MIDI CC (Toggle)	12	127	0	13	Mute
B6	MIDI CC (Toggle)	12	127	0	14	Mute
B7	MIDI CC (Toggle)	12	127	0	15	Mute
B8	MIDI CC (Toggle)	12	127	0	16	Mute

Fader

Ctrl	Msg Type	CC	Data 1	Data 2	Chan	Param
E1	MIDI CC	10	127	0	9	CH Pan
E2	MIDI CC	10	127	0	10	CH Pan
E3	MIDI CC	10	127	0	11	CH Pan
E4	MIDI CC	10	127	0	12	CH Pan
E5	MIDI CC	10	127	0	13	CH Pan
E6	MIDI CC	10	127	0	14	CH Pan
E7	MIDI CC	10	127	0	15	CH Pan
E8	MIDI CC	10	127	0	16	CH Pan

Faders

Ctrl	Msg Type	CC	Data 1	Data 2	Chan
F1	MIDI CC	80	127	0	Global
F2	MIDI CC	81	127	0	Global
F3	MIDI CC	82	127	0	Global
F4	MIDI CC	83	127	0	Global
F5	MIDI CC	85	127	0	Global
F6	MIDI CC	86	127	0	Global
F7	MIDI CC	87	127	0	Global
F8	MIDI CC	88	127	0	Global

Buttons

Ctrl	Msg Type	CC	Data 1	Data 2	Chan
B1	MIDI CC (Toggle)	66	127	0	Global
B2	MIDI CC (Toggle)	67	127	0	Global
B3	MIDI CC (Toggle)	68	127	0	Global
B4	MIDI CC (Toggle)	69	127	0	Global
B5	MIDI CC (Toggle)	98	127	0	Global
B6	MIDI CC (Toggle)	99	127	0	Global
B7	MIDI CC (Toggle)	100	127	0	Global
B8	MIDI CC (Toggle)	101	127	0	Global

Fader

Ctrl	Msg Type	CC	Data 1	Data 2	Chan
E1	MIDI CC	89	127	0	Global
E2	MIDI CC	90	127	0	Global
E3	MIDI CC	96	127	0	Global
E4	MIDI CC	97	127	0	Global
E5	MIDI CC	116	127	0	Global
E6	MIDI CC	117	127	0	Global
E7	MIDI CC	118	127	0	Global
E8	MIDI CC	119	127	0	Global

Faders

Ctrl	Msg Type	CC	Data 1	Data 2	Chan
F1	MIDI CC	80	127	0	Global
F2	MIDI CC	81	127	0	Global
F3	MIDI CC	82	127	0	Global
F4	MIDI CC	83	127	0	Global
F5	MIDI CC	85	127	0	Global
F6	MIDI CC	86	127	0	Global
F7	MIDI CC	87	127	0	Global
F8	MIDI CC	88	127	0	Global

Buttons

Ctrl	Msg Type	CC	Data 1	Data 2	Chan
B1	MIDI CC (Trig)	66	127	0	Global
B2	MIDI CC (Trig)	67	127	0	Global
B3	MIDI CC (Trig)	68	127	0	Global
B4	MIDI CC (Trig)	69	127	0	Global
B5	MIDI CC (Trig)	98	127	0	Global
B6	MIDI CC (Trig)	99	127	0	Global
B7	MIDI CC (Trig)	100	127	0	Global
B8	MIDI CC (Trig)	101	127	0	Global

Fader

Ctrl	Msg Type	CC	Data 1	Data 2	Chan
E1	MIDI CC	89	127	0	Global
E2	MIDI CC	90	127	0	Global
E3	MIDI CC	96	127	0	Global
E4	MIDI CC	97	127	0	Global
E5	MIDI CC	116	127	0	Global
E6	MIDI CC	117	127	0	Global
E7	MIDI CC	118	127	0	Global
E8	MIDI CC	119	127	0	Global

Map 1

	Note	Note No.	Data 1	Data 2	Data 3	Chan
P1	C1	36	0	127	0	Global
P2	C#1	37	0	127	0	Global
P3	D1	38	0	127	0	Global
P4	D#1	39	0	127	0	Global
P5	E1	40	0	127	0	Global
P6	F1	41	0	127	0	Global
P7	F#1	42	0	127	0	Global
P8	G1	43	0	127	0	Global

Map 2

	Note	Note No.	Data 1	Data 2	Data 3	Chan
P1	G#1	44	0	127	0	Global
P2	A1	45	0	127	0	Global
P3	A#1	46	0	127	0	Global
P4	B1	47	0	127	0	Global
P5	C2	48	0	127	0	Global
P6	C#2	49	0	127	0	Global
P7	D2	50	0	127	0	Global
P8	D#2	51	0	127	0	Global

Map 3

	Note	Note No.	Data 1	Data 2	Data 3	Chan
P1	C3	60	0	127	0	Global
P2	D3	62	0	127	0	Global
P3	E3	64	0	127	0	Global
P4	F3	65	0	127	0	Global
P5	G3	67	0	127	0	Global
P6	A3	69	0	127	0	Global
P7	B3	71	0	127	0	Global
P8	C4	72	0	127	0	Global

Map 4

	Note	Note No.	Data 1	Data 2	Data 3	Chan
P1	C1	36	0	127	0	Global
P2	D1	38	0	127	0	Global
P3	F#1	42	0	127	0	Global
P4	A#1	46	0	127	0	Global
P5	G1	43	0	127	0	Global
P6	A1	45	0	127	0	Global
P7	C#1	37	0	127	0	Global
P8	C#2	49	0	127	0	Global

This DOC covers the following USB peripheral keyboard products, referenced collectively as Impact LX mk3:

- Impact LX25 mk3
- Impact LX49 mk3
- Impact LX61 mk3
- Impact LX88 mk3

European Union

Impact LX mk3 has been tested to meet or exceed Emissions and Immunity requirements European Standards EN55032: 2012, EN 61000-3-3: 2013, EN 61000-3-2: 2006 + A1: 2009 & A2: 2009 and EN55035: 2017. Impact LX mk3 is in conformity with the provisions of EMC Directive 2014/30/EU.

EU Importer/Responsible person:

Nektar Technology GmbH, Alter Kirchenweg 83
24983 Handewitt, Germany
Email: eusales@nektartech.com

United States

Impact LX mk3 has been tested to comply with FCC regulations Part 15, SubPart B, Class B, test method ANSI C63.4: 2014.

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.

United Kingdom

Impact LX mk3 has been tested to comply with UK emissions and immunity regulations. A declaration of conformity can be obtained by contacting Nektar Technology (UK) via email: uksales@nektartech.com.