



IMPACT LX MINI

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Thank you for buying the Nektar Impact LX Mini keyboard and pad controller.

The Impact LX Mini comes with great interactive performance features such as joystick for pitch bend and modulation control, foot switch socket (foot switch not included), Part 2, Arpeggiator/Repeat, 8 velocity sensitive pads and of course Nektar DAW integration. Nektar DAW integration configures LX Mini for most popular DAWs, delivering a unique integrated control experience. With LX Mini you can focus on expanding your creative horizon while exploring the many features.

Impact LX Mini is of course user configurable for complete MIDI control. If you prefer to create your own setups, you can do that, too.

We hope you enjoy Impact LX Mini as much as we have enjoyed creating it.

Box content

Your Impact LX Mini box contains the following items:

- The Impact LX Mini keyboard/pad controller
- Printed owner's manual
- A standard USB cable
- 1/8" to 1/4" adapter cable for foot switch connectivity options

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

Minimum system requirements

As a USB class compliant device, Impact LX Mini 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.

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1. **Keyboard:** The 25 note mini keyboard is velocity sensitive and doubles as function and value selector, when Setup mode is active.
2. **Joystick:** Controls pitch bend (left/right), MIDI cc #1 modulation (up), MIDI cc #4 foot controller (down). Press the shaft to trigger MIDI cc #1 at max value (127). Up, down and push options are MIDI assignable.
3. **[Octave down/up] buttons:** Shift octave down by 4 octaves or up by 5 octaves. Press both buttons at the same time to change the octave setting to 0.
4. **Part 2 / Transpose buttons:** Press and hold either of the two buttons to temporarily change settings for Part 2 functions octave, transpose, MIDI channel for the duration the button is held. For details, go to page 17. The buttons can also transpose the keyboard. See page 7.
5. **Transport buttons:** The 7 buttons are primarily used by Nektar DAW Integration, delivering comprehensive control over a supported DAW's arrangement features. The buttons are also MIDI assignable (see Setup mode page 16) or can be used for MIDI learn.
6. **[Shift]:** The LED illuminated [Shift] button switches the 7 transport buttons between two assignments, which means a total of 14 MIDI messages can be sent using the 7 buttons. With Nektar DAW Integration, [Shift] provides access to secondary DAW functions as indicated by the screen printing. To download Nektar DAW Integration files, see page 6.
7. **[Shift]+[Internal]:** Pressing these two buttons activates Setup mode which includes the features listed above the keys. See page 15.
8. **Arp/Repeat [On/Off]:** Enable or disable the Arpeggiator/Repeat function. The button's white LED blinks to indicate the current tempo when Arp/Repeat is active.
9. **Arp/Repeat [Function]:** The Arp/Repeat Function menu allows programming of settings for pads and keyboard independent of each other. To hear changes, make sure the Arp/Repeat [On/Off] button is enabled. See page 8.
10. **[Internal]:** Selects Internal mode which loads MIDI assignments for the 8 pots. [Internal]+[Pad 1-4] in addition load Pad Maps 1-4.
11. **[Instrument]:** If Nektar DAW Integration is installed and active, select [Instrument] to control plugin instruments in your DAW using the 8 pots. When Nektar DAW Integration is not active, the mode can be selected to use the pots for MIDI learn.
12. **Volume pot and LEDs:** The large control pot is by default assigned to send MIDI cc #7 (volume) but can be assigned to any MIDI cc message. To change the assignment, access Setup mode as explained on page 16. When Nektar DAW integration is used, the pot controls the currently selected track's volume. The two LEDs below the pot are only used with Nektar DAW Integration.



13. Pots (eight): Functionality changes according to the mode selected. When Arp/Repeat [Function] is selected, Arp/Repeat parameters are controlled according to the screen printing. When [Internal] is selected, the pots send their assigned MIDI messages. [Instrument] is mainly used to control plugin instruments via Nektar DAW Integration software.

14. [Page] button: With [Internal] mode active, [Page] toggles the MIDI assignments for the 8 pots. The blue and white LEDs indicate the current selection. It works similarly in most cases when [Instrument] mode is selected with Nektar DAW integration running.

15. Pads: The velocity sensitive pads can be programmed to send MIDI Note, CC and Program messages. Read more about pads on page 12.

16. [Clips] and [Scenes] buttons: When Arp/Repeat [Function] is selected, the buttons are used to disable the repeat function for either keyboard or pads, as indicated by the screen printing. The buttons are otherwise used for Nektar DAW Integration, if supported by the DAW.

17. Power [On/Off] switch: Switch power to the unit on/off.

18. USB connector: Connect the included USB micro-B cable to the socket and the other end to a USB computer/device.

19. Foot switch socket: 1/8" TRS jack for connecting a foot switch pedal (not included). The socket controls sustain by default and polarity is automatically detected on power up. Connect the included 1/8" to 1/4" adaptor cable for use with a 1/4" jack foot switch.

DAW & MIDI Control

Impact LX Mini can be used to play and control a Digital Audio Workstation (DAW), MIDI software instruments and MIDI hardware connected to your computer. Getting Impact LX Mini set up with your computer may require some basic setup but for the most part is straight forward.

Updating firmware & downloading Nektar DAW Integration software

We recommend you at minimum update your units firmware so you are sure everything works as described in this manual. You'll need to first create a user account on our website and subsequently register your product, to gain access to the downloadable files applicable to your product. Make sure to select any DAW you use as well as your OS. Without completing this part correctly, you may not see the DAW integration files you need.

Start by creating a Nektar user account here: www.nektartech.com/registration

Next follow the instructions given, to register your product and finally download the package applicable to your DAW.

Using Impact LX Mini as a generic USB MIDI controller

Impact LX Mini works as a generic USB MIDI controller straight out of the box. For MIDI control, the LX Mini's large pot (12) sends MIDI cc#7 to control volume and in Internal mode, the eight pots (13) send MIDI messages that can be used to control instruments.

To get the most out of your setup you may need to customize the LX Mini setup, which can all be done in the Setup menu.

Power on and get started

The Impact LX Mini is USB Class compliant. This means there is no driver to install. Impact LX Mini uses the built-in USB MIDI driver which is already part of operating systems such as Windows, Mac OS and iOS (via the optional camera connection kit). On Linux you will need to install JACK and ALSA for MIDI.

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 LX Mini (see page 5, bullet 18).
- If you want to connect a foot switch to control sustain, plug it in to the 1/8" jack socket on the side of the keyboard (see page 5 bullet 19). Use the included 1/8" to 1/4" adaptor cable if your foot switch has a 1/4" jack.
- Set the power switch to On.

Keyboard

The Impact LX Mini features a 25 note mini velocity sensitive keyboard which, despite its compact size, allows surprisingly expressive control. There are 3 different keyboard velocity curves and 3 fixed velocity levels to choose from, depending on how sensitive and dynamic you want the Impact LX Mini keyboard to play.

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 on page 18.

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.

Using octave shift, the keyboard covers the entire MIDI keyboard range of 128 notes.



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

Octave	Color	Octave	Color
0	[Oct Down]+[Oct Up] both orange	+1	[Oct Up] orange
-1	[Oct Down] orange	+2	[Oct Up] green
-2	[Oct Down] green	+3	[Oct Up] red
-3	[Oct Down] red	+4	[Oct Up] yellow
-4	[Oct Down] yellow	+5	[Oct Up] orange

Part 2 / Transpose buttons

Part Two is a unique feature which allows you to completely change the configuration of the keyboard while pressing one button and then return to original settings on button release. With this feature you can instantly shift the octave or transpose up/down, trigger two octaves when playing one note, add an interval to a part or layer two sounds on different MIDI channels.

Activating Part Two - momentary or latching

Part Two is active when one of the Part 2 buttons [Arrow down] or [Arrow up] are pressed and held. Release the button to deactivate Part Two. If you prefer Part 2 to latch, press and hold [Arrow down] while pressing [Arrow up]. The [Arrow down] button is now illuminated green to illustrate it's latched. Press and hold [Arrow up], then press [Arrow down] to latched [Arrow up]. To deactivate Part 2 from a latched state, press the green button.

And finally, to keep your hands free for performing, it's also possible to assign the foot switch to activate Part 2. See page 17 to learn how.

With the default settings, Impact LX Mini plays an additional note, one octave higher than the note played when Part Two is activated. In parameter terms, this means that Octave is set to +1 and Layer is set to on. Try it, and experience how you can dynamically extend the range of notes available beyond the keyboard, in real time. [Part 2 Arrow down] shifts octave and transpose settings down and [Part 2 Arrow up] shifts them up. Learn how to change the Part 2 parameters in the 'Part Two Programming Options' section on page 17.

Transpose

The arrow buttons can also be used to transpose the keyboard by up to +/- 12 semi-tones.

- Hold [Shift] and press [Arrow down] to transpose the keyboard down one semi-tone for every [Arrow down] press.
- Hold [Shift] and press [Arrow up] to transpose the keyboard up one semi-tone for every [Arrow up] press.
- Hold [Shift] and press both [Arrow down]+[Arrow up] at the same time to reset the transpose setting to zero.
- Hold [Shift] at any time to view the transpose status. If both [down/up] buttons are orange, transpose is set to zero.

Hold Note (Latching)

With hold active, a MIDI note on message is sent when a key is pressed but a MIDI note off message is not sent when the key is released, as would normally happen. Instead, playing the same key again will send the MIDI note off message. Here is how you activate hold:

- Press and hold [Shift]. The status of the [Clips/Keys] buttons now indicate whether key hold is on or off. Press the button to activate key hold.
- Press one or more notes on the keyboard. The notes triggered will continue playing, until the same key is pressed again.
- Deactivate hold by pressing [Shift]+[Clips/Keys] one more time. This doesn't change the status of any held notes but you can now play the keyboard normally while notes are held. If however you press a held note, a MIDI note off message will be sent.
- To terminate all currently held notes, hold [Shift] and double-press [Clips/Keys].
- You can use the pad hold function as described in the steps above, by pressing [Scenes/Pads] instead of [Clips/Keys].

The hold function can be used while Arp/Repeat is active so you have your hands free to adjust parameters.

Arpeggiator and Note Repeat

Impact LX Mini's arpeggiator and note repeat feature can help create interesting musical parts by adjusting a few controls. There are two Arp/Repeat engines, one for the keyboard and another for the pads. Settings are programmed independently for keyboard and pad with only the tempo source shared.

Played notes are quantized to the nearest 1/16 note value. If you are a little behind the beat you may get unintentional or intentional note offsets. Play a little ahead of the beat if you need the notes to be right on the downbeat.

Activating Arp/Repeat

When LX Mini is switched on for the first time, the Arp/Repeat [On/Off] button is in its on position.

- Press the [On/Off] button at any time to activate or deactivate Arp/Repeat.
- When the button is on, the LED blinks in time with the current tempo setting.
- Press the [Function] button to program arp/repeat settings.

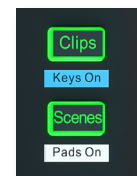


The following assumes [Function] is selected and [Arp/Repeat On/Off] is active.

Switching Arp/Repeat on/off independently for keys and pads

It is possible to deactivate Arp/Repeat for the keyboard or pads independently.

- Press the [Keys On (Clips)] button to activate/deactivate keyboard arp/repeat.
- Press the [Pads On (Scenes)] button to activate/deactivate pads arp/repeat.
- If both keyboard and pads are deactivated, the arp/repeat [On/Off] button continues to blink (if on) but arp/repeat does not respond to triggered notes.



When the LX Mini is switched on for the first time, both keyboard and pads are enabled to trigger their arp/repeat engine.

Resetting Arp/Repeat settings to default

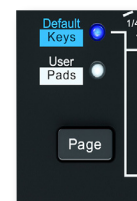
Arp/Repeat settings can be reset to their default values independently for keys and pads.

- To reset the keyboard Arp/Repeat settings hold [Function] until the pads change color, then press [Clips (Keys On)].
- To reset the pads Arp/Repeat settings hold [Function] until the pads change color, then press [Scenes (Pads On)].

Programming Arp/Repeat settings

Arp/Repeat settings are programmed independently for keyboard and pads.

- Press the [Page] button to change selection.
The blue LED is illuminated when programming settings for the keyboard and the white LED is illuminated for pads.



With the above all set correctly and [Function] active, the 8 pots are now used to adjust Arp/Repeat settings as illustrated by the silk screen printing.



Rate

The Arp/Repeat Rate parameter determines the timing value that notes are played at.

- Move the pot labelled “Rate” and position the indicator to point at any rate of 1/4, 1/8, 1/16, 1/32 or 1/64 as shown by the screen printing.
- To select triplets, hold [Function] while pressing [Pad 6], labelled “Triplets”, until the pad is illuminated red. When triplets are active the rate values are 1/4T, 1/8T, 1/16T, 1/32T or 1/64T.
- Press [Function]+[Pad 6] again to switch triplets off (illuminated yellow).

Swing

Swing moves every second note closer to the next or previous note. This results in a shuffle rhythm. By default the swing value is 0% which means that swing is off.

- Move the pot labelled “Swing” counterclockwise to select a value from 0 to -50%. A negative value will move every second note closer to the preceding note.
- Move the Swing pot clockwise to select a swing value from 0 to +50%. A positive value will move every second note further away from the preceding note.
- When the Swing pot is at 0 (center position) swing is off.

Accent Level

An accent plays a repeated note at its played velocity +/- accent level. The accent level range is set from 0 to +/-50 in increments of 10.

- Move the “Accent Level” pot clockwise to increase the accent velocity level.
- Move the pot ccw (counterclockwise) to set accent level to 0.

Interval

Sets the repeat interval for the set Accent Level (from 2 to 8). An interval setting of 2 means every second note will be played with the accent offset value, and a setting of 8 plays every 8th note with the accent offset value, etc.

- Move the “Interval” pot. The pad LEDs are updated to indicate the currently selected value from 2-8.

Tempo & sync

Tempo can be set between 30 and 240 BPM using 3 different methods:

- Move the pot labelled “Tempo” to change tempo in real-time.
- Hold [Function] and strike [Pad 7 - Tap Tempo] in a steady rhythm until the tempo is set.
- Enter a specific tempo value in Setup mode. See page 19.

MIDI clock

Impact LX Mini automatically detects if MIDI clock is received on USB MIDI port 1. Clock will then switch from internal clock to MIDI clock. When the Arp/Repeat engine is sync'd to MIDI clock, tempo can only be set on the master clock device (such as a DAW or MIDI equipment sending MIDI clock).

To learn how to route MIDI clock to Impact LX Mini's USB MIDI port 1, read the documentation of the product acting as master clock source. If you want to send MIDI clock from your DAW to LX Mini, check [this page](#) for setup instructions.

Arpeggiator and Note Repeat

Arp Mode

When multiple notes are played, they can be broken up to play as an arpeggio instead of repeating.

- Move the “Arp Mode” pot and position it to point at one of the selection options Up, Up/Down, Down, As played. The notes triggered are played in the direction selected. If ‘As played’ is selected, the arpeggio will play the notes in the order the keys are pressed.
- Point the Arp Mode pot at its minimum position to set it to off. Played notes now repeat.

Arp Octave

An arpeggio can be extended to play up to 3 octaves above the triggered notes. Arp Octave does not have any impact on played notes if Arp Mode is set to its off position.

- Move the “Arp Octave” pot and set it to +1, +2 or +3.
- Set Arp Octave to 0 to only arpeggiate the notes played.

Gate

The 8th pot is used to change the note gate parameter.

- Move the pot towards its minimum position to shorten the length of the notes played.
- Move the pot towards its maximum position to increase the length of the notes played. At the max position, notes are played legato.

Gate is a fun real-time parameter which can have an effect somewhat similar to controlling an envelope decay parameter with the added advantage of allowing edits if you record the note data in your DAW.

Controlling Arp/Repeat velocity with joystick modulation

Velocity values can be adjusted in real-time using the joystick modulation control (up), instead of playing notes at the triggered velocity value. This feature can bring excitement to any Arp/Repeat part and is well worth exploring.

- To activate, hold [Function] and press [Pad 5 - Mod>Vel] until pad 5 is red. Arp/Repeat velocity is now controlled by the joystick up movement. When Mod>Vel is on, the joystick up movement no longer controls modulation.

Simultaneously adjusting parameters for both keys and pads

Parameters controlled by the pots can be adjusted for both keys and pads at the same time.

- Press and hold [Shift]+[Page] while moving the pot that controls the parameter you want to change.
- Release the buttons when done.

The [Internal] and [Instrument] modes change the use of the eight pots (13) and the associated [Page] button. Either modes can be used for parameter control but in slightly different ways.

Internal mode

The Internal mode is intended to allow quick assignment of parameters either by using a software product's MIDI learn mode or by assigning specific MIDI messages to each of the controls in Setup mode.

The [Page] button switches assignments enabling access to 16 different parameters from the eight pots, at any time. The default assignments for each of the pages are listed in the two tables below. You can assign your own MIDI messages as described on page 16. Changes are stored in the two page locations as soon as they are assigned and stored over power cycling.

Page 1 - Default				Page 2 - User			
Pot	MIDI cc #	Description/function	MIDI Chan.	Pot	MIDI cc #	Description/function	MIDI Chan.
1	73	Attack	Global	1	77	Control Change (Vibrato Depth)	Global
2	75	Decay	Global	2	78	Control Change (Vibrato Delay)	Global
3	72	Release	Global	3	91	Effect depth 1 (Reverb Send Level)	Global
4	76	Control change (Vibrato Rate)	Global	4	92	Effect depth 2	Global
5	74	Cutoff/brightness	Global	5	93	Effect depth 3 (Chorus send level)	Global
6	71	Resonance/timbre	Global	6	94	Effect depth 4	Global
7	5	Portamento time	Global	7	95	Effect depth 5	Global
8	84	Portamento control	Global	8	10	Pan	Global

Instrument mode

If you have installed Nektar DAW Integration, your DAW's instruments most likely are ready to be controlled when [Instrument] is selected. Check the dedicated PDF user guide included with the DAW integration file package for more details regarding controlling plugins from Impact LX Mini.

You can also use Instrument mode for MIDI learn when Nektar DAW Integration is not active.

Quick Adjust Parameters in Another Mode

The quick adjust feature allows you to change a parameter in another mode and immediately jump back to the current mode following. For example, If you are adjusting instrument plugin parameters with [Instrument] active and just need to change the Arp/Repeat tempo, this feature is what you need.

Press and hold the mode button that controls the parameter you want to adjust. In our above example, you would hold [Function]. While holding the mode button, the pot controlling the parameter you want to change. In our above example it would pot 5 : Tempo. Release the mode button. LX Mini now jumps back to the previous mode which in the above example was [Instrument].

The option is available from any of the 3 modes Instrument Internal and Function.

Pads

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 as well as to punch out your drum beats and percussive melody parts. In addition, the pads have 4 velocity curve options and 3 fixed velocity options you can choose between.



Pad Maps

You can load and save up to 4 different pad setups in 4 memory locations called Pad Maps. Here is how you load Pad Maps:

- Press and hold the [Internal] button. The pad corresponding to the currently loaded Pad Map is now illuminated.
- Press the pad that corresponds to the Pad Map you want to recall. That's it. The Pad Map has been loaded.

Page 14 shows the 4 Pad Maps' default assignments. Map 1 is a chromatic scale which is continued 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 [Shift]+[Internal] to activate Setup mode. The Internal button's LED now blinks white.
2. On the keyboard, press E1, labelled 'Pad Learn'.
3. All pad LEDs are now off, except the currently select pad. Press any pad to select it.
4. Press a key on the keyboard to learn its note to the selected pad. Use the octave buttons if necessary.
5. Repeat steps 3 and 4 to select pads and assign notes.
6. Press [Instrument], [Internal] or [Function] to exit when done.

The pad assignments are retained in memory until changed or a pad map is loaded. Make sure to store in one of the 4 pad maps if you want to be able to recall your assignments at any time.

Programming MIDI messages to pads

The pads can also be programmed as MIDI switch buttons. To learn more, check the Setup section on page 16 that covers how controls are programmed to send MIDI control messages.

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, go to page 18.

Clips & Scenes buttons

The two Clips & Scenes buttons are sometimes used by Nektar DAW Integration to enhance the use of the pads with certain DAWs.

The pads' color coding provides information about their current status. As you change Pad Maps for instance, you will notice that the MIDI note off color changes. This tells you which Pad Map is currently loaded:

Pad Map	COLOR
1	Green
2	Orange
3	Yellow
4	Red

The above Pad Map color coding is true when pads are programmed to send MIDI note or MIDI cc messages. If you program the pads to send MIDI Program change messages, all pad LEDs are off except the one that corresponds with the last sent MIDI Program message. The active pad is illuminated orange. This enables you to always see at a glance which MIDI Program is active, even if you have a mix of pads sending notes and program messages.

Factory Pad Maps

Map 1 - Chromatic scale

	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 - Chromatic scale (cont)

	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 - Major scale in C

	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

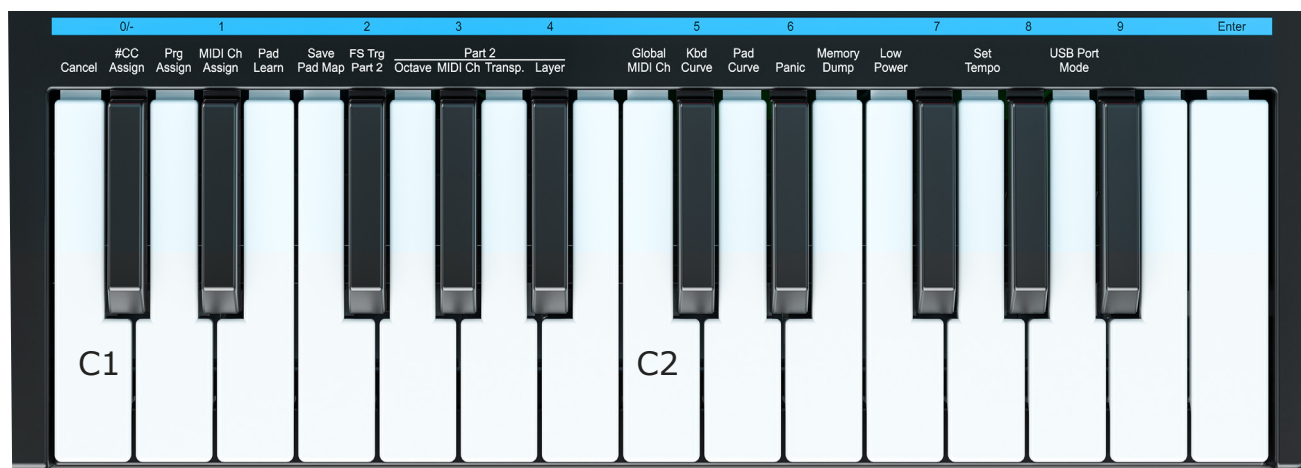
Map 4 - GM drum kit

	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

Setup mode gives access to additional functions such as selecting Part 2 button options, control assign, selecting velocity curves and more. To enter the menu, press the [Shift]+[Internal] buttons. [Internal] blinks while Setup mode is active and the keyboard's MIDI output is deactivated so it can be used to select menus instead.

All settings are stored immediately and retained over power cycling.

The screen printing above the keys shows which function or option is selected by each key.



The functions and how they can be used is covered over the following pages. Note that 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. The MIDI Manufacturers Association website www.midi.org, is a good place to start.

Cancel

You can cancel any value entry or menu selection by pressing 'Cancel' (C1) as long as you have not already pressed [Enter] (C3).

Assign a MIDI cc message to a control

MIDI cc messages can be assigned to joystick up, joystick down, joystick push button, the 7 transport buttons + its shift status, the large volume pot, any of the 8 pots in 2 pages (16 total), the foot switch socket and the 8 pads.

All settings are retained when you switch Impact LX Mini off. So the next time you switch the unit on, all settings are recalled as you left them.

Here is how you assign a MIDI cc message to a control:

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press C#1 on the keyboard to select #cc Assign.
- Move or press a control to select it for assignment.
- Enter a MIDI CC value between 0-127, using the black number keys labelled 0-9.
- Press [Enter] (C3) to accept the change and exit Setup.

Setup mode

Program Assign

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

Each of the assignable buttons and pads can be programmed to send a MIDI Program change message. You will need to know which messages your receiving device expects to get this right, so make sure to consult the documentation available for that product.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press D1 on the keyboard to select Prg Assign.
- Move or press a control to select it for assignment.
- Enter a program value between 0-127, using the black number keys labelled 0-9.
- Press [Enter] (C3) to accept the change and exit Setup.

MIDI Channel Assign

Each control can be assigned a specific MIDI channel from 1-16 or it can follow the Impact LX Mini's global MIDI channel by selecting the value 0.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press D#1 on the keyboard to select MIDI Ch Assign.
- Move or press a control to select it for assignment.
- Enter a MIDI channel value between 0-16, using the black number keys labelled 0-9.
- Press [Enter] (C3) to accept the change and exit Setup.

Pad Learn

It's easy to change a pad note assignment using the Pad Learn function. Try these steps:

- Press [Shift]+[Internal] to activate Setup mode. The Internal button's LED now blinks white.
- On the keyboard, press E1, labeled 'Pad Learn'.
- All pad LEDs are now off, except the currently select pad. Press any pad to select it.
- Press a key on the keyboard to learn its note to the selected pad. Use the octave buttons if necessary.
- Repeat the previous 2 steps to select pads and assign notes.
- Press [Instrument], [Internal] or [Function] to exit when done.

Save Pad Map

If a Pad Map is loaded, all current assignments will be replaced by the settings of the loaded Pad Map. To retain current settings, save to one of the 4 Pad Map locations for recall at any time.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press F1 on the keyboard to select 'Save Pad Map'. The 4 pads corresponding to Pad Maps 1-4 are now each illuminated in their identifying color.
- Select the Pad Map location you want to save the current configuration to. The pad will now blink.
- Press [Enter] (C3) to save to the selected Pad Map location and exit Setup.

Set Foot Switch to trigger Part 2

Part 2 can be activated by an attached foot switch after completing the following steps.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press F#1 on the keyboard to select 'FC Trg Part 2'.
- The [Arrow down/up] Part 2 buttons now blink. Press one of the [Arrow down/up] buttons depending on which behaviour you want assigned to the foot switch.
- Press [Enter] (C3) to accept the change and exit Setup. The foot switch now activates part 2.

To revert to previous foot switch settings, repeat the above steps, then press the button currently assigned in step 3, to de-assign it.

Part 2 Octave

Part 2 buttons can be assigned to shift the octave of played notes by up to 3 octaves in either direction depending on whether you press the Part 2 [Arrow down] or [up] button. The default octave setting is set to 1, but because Layer is also on, the octave is layered with the played note.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press G1 on the keyboard to select Part 2 'Octave'.
- Enter an octave offset value between 0-3, using the black number keys labelled 0-9. A value of 0 sets octave to off.
- Press [Enter] (C3) to accept the change and exit Setup.

Part 2 MIDI Channel

If you are playing an instrument which is capable of playing sounds on different MIDI channels, you'll be able to play a different sound by changing the MIDI channel when a Part 2 button is pressed. If Layer is on, MIDI note events will be sent on both the global MIDI channel and the Part 2 MIDI channel, playing 2 sounds at the same time.

- Press the [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press G#1 on the keyboard to select Part 2 'MIDI Ch.'
- Enter a MIDI channel value between 0-16, using the black number keys labelled 0-9. Select 0 if Part 2 MIDI channel should be off.
- Press [Enter] (C3) to accept the change and exit Setup.

Part 2 Transpose

As with octave, Part 2 buttons can be assigned to transpose notes played by up to 11 notes in either direction.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press A1 on the keyboard to select Part 2 'Transpose'.
- Enter a transpose value between 0-11, using the black number keys labelled 0-9. A value of 0 sets Transpose to off.
- Press [Enter] (C3) to accept the change and exit Setup.

Part 2 Layer

Part 2 Octave, MIDI channel and Transpose settings can be layered with the note played when Part 2 Layer is on. When set to off, Part 2 settings replace the note played.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press A#1 on the keyboard to select Part 2 'Layer'. The status of Part 2 Layer is immediately changed and the unit exits Setup mode.

Global MIDI Channel

The Impact LX Mini keyboard and any controls (including pads) assigned to MIDI Channel 0, send their messages on the global MIDI channel from 1 to 16. To change the global MIDI channel do the following: By default, all controls are set up to send their messages on the global channel. You may never need to change that but if you do, here is how:

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press C2 on the keyboard to select 'Global MIDI Channel'.
- Enter the MIDI channel value between 1-16, using the black number keys labelled 0-9.
- Press [Enter] (C3) to accept the change and exit Setup.

Keyboard Velocity Curve

Impact LX Mini 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 an option that might suite your playing style better.

Description	Vel Curve No	Description	Fixed No
Soft - emphasis on lower values	1	Fixed velocity 127	5
Default - evenly balanced for most use	2	Fixed velocity 100	6
Hard1 - higher values than default	3	Fixed velocity 64	7
Hard2 - emphasis on higher values	4		

In the selection steps below, use pads 1-7 to select a velocity option from the chart above by striking a pad. The currently selected velocity curve is illuminated red and the 6 unselected options are illuminated yellow. Here is how you make a selection:

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press C#2 on the keyboard to select 'Keyboard Velocity Curve'.
- Select the desired curve option from the chart above, then strike the corresponding pad.
Selection is instant and Impact LX Mini will exit Setup mode.

Pad Curve

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

Description	Vel Curve No	Description	Fixed No
Dynamic - wide velocity range	1	Fixed velocity 127	5
Default - evenly balanced for most use	2	Fixed velocity 100	6
Hard1 - a slightly louder version of default	3	Fixed velocity 64	7
Hard2 - emphasis on higher values	4		

In the selection steps below, use pads 1-7 to select a velocity option from the chart above by striking a pad. The currently selected velocity curve is illuminated red and the 6 unselected options are illuminated yellow. Here is how you make a selection:

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press D2 on the keyboard to select 'Pad Velocity Curve'.
- Select the desired curve option from the chart above, then strike the corresponding pad.
Selection is instant and Impact LX Mini will exit Setup mode.

Panic

Panic sends out the “all notes off” and “reset all controllers” MIDI messages on all 16 MIDI channels.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press the D#2 key on the keyboard to select ‘Panic’. The reset will happen immediately and Impact LX Mini will exit Setup mode.

Memory Dump

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 Mini 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
- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press the E2 key on the keyboard to activate ‘Memory Dump’.
- Stop recording when you can see that data is no longer received in your software. The content of your Impact LX Mini memory should now be recorded in your MIDI software.

Restoring a backup:

A memory dump/backup MIDI sysex file can be sent to the Impact LX Mini at any time, while the unit is powered on, in order to restore a backup. Make sure the Impact LX Mini is the output destination of the MIDI track containing the backup data.

Low Power Mode

Impact LX Mini 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.

There are a couple of ways the Impact LX Mini can enter and exit Low Power Mode:

- With LX Mini off, press and hold the [Cycle]+[Record] buttons and switch the unit on.
 - Release the buttons once the unit has powered up. Low Power Mode is now active while the unit is on.
- When activated in this manner, Low Power Mode selection is not stored when you switch Impact LX Mini off.

The Low Power Mode on setting can also be stored when the LX Mini is switched off:

- Make sure LX Mini is on.
- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press F2 ‘Low Power’. Low Power Mode is now on, if it was off prior to pressing F2. Repeat the steps to toggle off again.

Set Tempo

The internal tempo for Arp/Repeat can be set to a specific tempo.

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press G2 on the keyboard to select ‘Set Tempo’.
- Enter the desired tempo value from 30 to 240 bpm, using the black number keys labelled 0-9.
- Press [Enter] (C3) to accept the change and exit Setup.

MMC Transport & Pro Tools setup

MMC Transport Control

The Nektar DAW Integration software automatically maps 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 DAW's transport controls using MIDI Machine Control. For Pro Tools, you can use the dedicated setup below.

Here is how you set up the Impact LX Mini keyboard to send MIDI Machine Control messages:

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press A2 'USB Port Mode' on the keyboard.
- Press G#1 to select the numerical value 3.
- Press [Enter] (C3) to accept the change and exit Setup.
- Make sure your DAW is set up to receive MMC from Impact LX Mini's USB MIDI port 2.

Provided your DAW is set up to receive MMC, you can now control transport functions from Impact LX Mini. The buttons are assigned according to the chart on the right.

MMC is supported by many DAWs and devices but is not needed for DAWs supported by Nektar DAW Integration.

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

Pro Tools setup

To set up Impact LX Mini for Pro Tools, you first need to set the Impact LX Mini's USB Port Setup Mode to 4:

- Press [Shift]+[Internal] to activate Setup mode. The [Internal] button blinks while Setup is active.
- Press A2 'USB Port Mode' on the keyboard.
- Press A#1 to select the numerical value 4.
- Press [Enter] (C3) to accept the change and exit Setup.

In Pro Tools, go to Peripherals and select the 'MIDI Controller' tab. Next select the following settings:

Type: 'M-Audio Keyboard'

Receive From: 'Impact LX Mini MIDI 2' in OSX / MIDIIN2 (IMPACT LX Mini) in Windows.

Send To: 'Impact LX Mini MIDI 2' in OSX / MIDIOUT2 (IMPACT LX Mini) in Windows.

- Click OK to exit.

Impact LX Mini is now set up to work with Pro Tools. When [Instrument] is selected, the 8 pots control volume for each of the mixer channels in the current bank.

The chart below shows what the transport buttons do.

Transport	Loop buttons	[Shift] active/illuminated blue
[Click] : Not Assigned	[Loop]+[Play] : Loop playback	S1 : Mute selected track
[<<] : Rewind	[Loop]+[Record] : Loop record	S2 : Solo selected track
[>>] : Forward	[Loop]+[Stop] : Undo	<Track : Select previous track
[Loop] : Used with other buttons. See next column	[Loop]+[<<] : Go to start	Track> : Select next track
[Stop] : Stop playback	[Loop]+[>>] : Go to end	<Patch : Jump back 8 tracks
[Play] : Start playback		Patch> : Jump ahead 8 tracks
[Record] : Arm for recording		

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

Declaration of Conformity

European Union

Impact LX Mini 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 Mini is in conformity with the provisions of EMC Directive 2014/30/EU.

United States

Impact LX Mini 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 Mini 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.

www.nektartech.com

Designed by Nektar Technology, Inc

(Rev 7)

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