

MIDI Setup with TonePort UX2 and KB37

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This document provides general information for MIDI operation of GearBox™ and 3rd-party recording software, using TonePort UX2 and KB37 controllers, as well as instructions on using the KB37 with Reason's™ Remote codec.

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Footswitch Connections

The two Footswitch jacks on the rear panel of TonePort UX2/KB37 provide remote control of GearBox operations or functions within the included Ableton Live Lite™ 5 and other audio software.

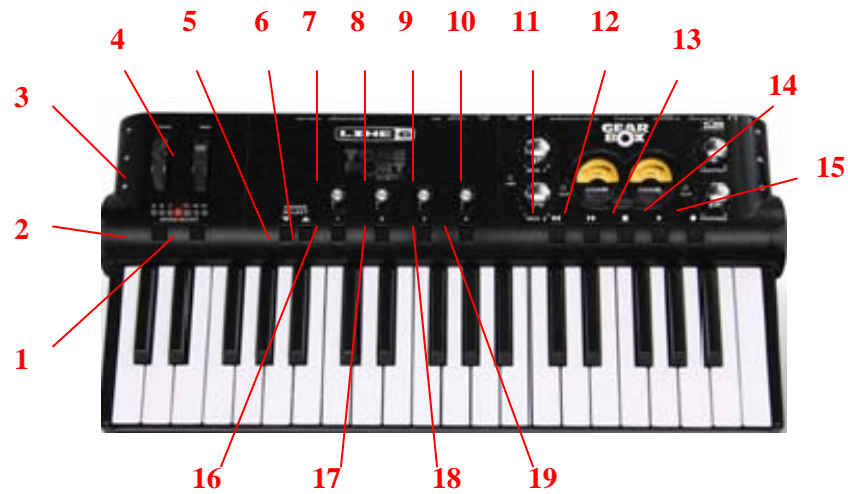
TonePort KB37 features an expression pedal jack and a number of knobs, wheels and buttons that can be configured to control various parameters in GearBox or other audio software.



Tip – You will want to first connect your hardware to TonePort *before* connecting the USB cable to your computer. If you already have a USB cable connecting TonePort to your computer, exit any software that is using TonePort, mute your speakers, and then disconnect your USB cable.

TonePort KB37 Controller Layout

The KB37's controls send MIDI events. The knobs and buttons are named as follows:



- | | |
|----------------------------|-------------------------|
| 1. Octave Up | 11. Transport - Rewind |
| 2. Octave Down | 12. Transport - Forward |
| 3. Pitch Bend Wheel | 13. Transport - Stop |
| 4. Modulation Wheel | 14. Transport - Play |
| 5. Sound Select (Previous) | 15. Transport - Record |
| 6. Sound Select (Next) | 16. Button 1 |
| 7. Knob 1 | 17. Button 2 |
| 8. Knob 2 | 18. Button 3 |
| 9. Knob 3 | 19. Button 4 |
| 10. Knob 4 | |

TonePort KB37 Default Messages

KB37 ships with a default set of messages assigned to its controllers as shown below, which you can of course reconfigure in the Line 6 Audio-MIDI Devices control panel.

Default message map for GearBox 3.0

Controller name	GearBox parameter
Modulation wheel	Tweak
Sound Select (Previous)	Next Tone Preset
Sound Select (Next)	Previous Tone Preset
Knob 1	Amp - Drive
Knob 2	Amp - Bass
Knob 3	Amp - Middle
Knob 4	Amp - Treble
Button 1	Stomp - toggle on/off
Button 2	Mod - toggle on/off
Button 3	Delay - toggle on/off
Button 4	Reverb - toggle on/off
Stop	Stop
Play	Play
Record	Loop
Rewind	Rewind
Forward	Forward
Expression pedal	Wah
Footswitch 1	Stomp
Footswitch 2	Tuner

Default MIDI messages (non-GearBox)

Controller name	MIDI message
Sound Select (Previous)	Patch increment -1
Sound Select (Next)	Patch increment +1
Knob 1	CC 73 (Attack Time)
Knob 2	CC 75 (Decay Time)
Knob 3	CC 72 (Release Time)
Knob 4	CC 91 (Effects 1 Depth)
Button 1	CC 65 (Portamento)
Button 2	CC 127 (Poly On)
Button 3	CC 126 (Mono On)
Button 4	CC 123 (All Notes Off)
Stop	MMC Pause
Play	MMC Play/Stop
Record	MMC Record Punch
Rewind	MMC Rewind
Forward	MMC Fast Forward
Expression pedal	CC 11 (Expression)
Footswitch 1(Sustain)	CC 64 (Sustain)
Footswitch 2	MMC Record Punch

Note – By default, KB37 send *both* GearBox and non-GearBox messages simultaneously. The following section shows you how easy it is to change what messages are sent.

Re-mapping the KB37 control messages

To re-map the functions of any of these controllers, go to **Edit>Preferences** and follow these steps:

Select the **Hardware** tab

Click here to display the **Line 6 Audio-MIDI Device** control panel

Select the **MIDI** tab

Click here to recall any **Preset Mappings**

Click here to display the **MIDI Control Settings Panel**

This column populates with all re-assignable controllers for your device (**TonePort KB37** shown here)

Name and Save your Custom Mapping as a **Preset**

MIDI Control Settings

MIDI Device: Line 6 TonePort KB37

Preset: My Mapping

Switch/Controller	GearBox Control	To MIDI Out	MIDI CC/Action	Switch Mode	Toggle1/Down	Toggle2/Up
Footswitch 1	None	MIDI CC	Custom	Toggle	2	127
Footswitch 2	None	MIDI CC	006 - Data Entry	Toggle		
Sound Select 1	None	MIDI CC	097 - Data Decrement	Toggle		
Sound Select 2	None	MIDI CC	096 - Data Increment	Toggle		
Button 1	None	MIDI CC	065 - Portamento On/Off	Toggle		
Button 2	None	MIDI CC	127 - Poly Mode On	Single		
Button 3	None	MIDI CC	126 - Mono Mode On	Single		
Button 4	None	MIDI CC	123 - All Notes Off	Single		
Transport Play	None	MMC	Play/Stop	Toggle		
Transport Stop	None	MMC	Pause	Single		
Transport Rec	None	MMC	Record Punch	Toggle		
Transport Fwd	None	MMC	Fast Forward	Momentary		
Transport Rew	None	MMC	Rewind	Momentary		
Expression Pedal	None	MIDI CC	011 - Expression			
Mod Wheel	None	MIDI CC	001 - Modulation Wheel			
Knob 1	None	MIDI CC	073 - Snd Ctrl 4 Attack			
Knob 2	None	MIDI CC	075 - Snd Ctrl 6			
Knob 3	None	MIDI CC	072 - Snd Ctrl 3 Release			
Knob 4	None	MIDI CC	091 - Efx 1 Reverb			

Apply OK Cancel

Choose the **Type** of Control, which **CC/Action** it will perform, and the **Switch Mode** for your controllers

Click **Apply**, then **OK** when done

MIDI Controller Message Types

TonePort UX2/KB37 allow you to configure controllers to send a variety of different MIDI message formats (MIDI CC, MMC, Mackie/Logic Control), to remotely control functions within other audio software. Below are the types of MIDI messages you can send from TonePort's controllers. Check the documentation for your audio software for its MIDI remote control capabilities and instructions for assigning functions.

MIDI CC (On/Off) – Choosing this function allows selection of any CC from 0-127, listed by number and the standard command association (for example, 007 Volume).

MIDI CC (Custom) – For Footswitches and Buttons, this function allows a pair of CC's and values to be assigned so that the controller can trigger two different functions for each successive push. (See the Footswitch 1 example below in the Ableton Live Setup section for an example).

MIDI Machine Control – This function offers a set of MMC commands listed by name. The command is sent on push down of the pedal/button, and no command is sent on pedal up. When the Fast Forward or Rewind commands are selected, the Switch Mode menu becomes available and Momentary is a selectable option. This offers the ability to either toggle these functions on/off, or to have them perform when the pedal is held down only.

Mackie/Logic Control – This function offers a limited set of commands that can be sent conforming to the Mackie Control or Logic Control format. If the audio software supports these popular controller devices, then it should also support these commands from TonePort.

Note – The Mackie Control protocol uses MIDI note events to activate specific functions. When using the KB37 as a Mackie Control input device, MIDI note messages may trigger Mackie Control-related functions within a given host application. In Ableton Live™ for example, D5 (MIDI note 74) toggles between the Arrangement and Session views.

Assign GearBox Functions to TonePort UX2/KB37 Controllers

Rather than controlling Ableton Live or other recording software, you can choose to have one or more controllers affect GearBox functions, such as amp/effect parameters, increment through Presets, Mute outputs, switch to the tuner, and more!

This is all done in the **Line 6 Driver MIDI Control Settings Panel**:

MIDI Control Settings
MIDI Device: Line 6 TonePort KB37

Switch/Controller	GearBox Control
Footswitch 1	Stomp Enable
Footswitch 2	Tuner
Program Decrement	Previous Tone
Program Increment	Next Tone
Button 1	Stomp Enable
Button 2	Mod Enable
Button 3	Delay Enable
Button 4	Reverb Enable
Transport Rew	Track Rewind
Transport Fwd	Track Forward
Transport Stop	Track Stop
Transport Play	Track Play
Transport Rec	Loop Enable
Expression Pedal	Wah - Position
Mod Wheel	Tweak
Knob 1	Drive/Pre1
Knob 2	Bass/Pre2
Knob 3	Mid/LowMid(B)/Pre3
Knob 4	Treble/HiMid(B)/Pre4

KB37 Controllers shown here mapped to various GearBox functions.

Clicking the dropdown menu reveals all GearBox parameters assignable to **Knob 1**

MIDI Control Settings
MIDI Device: Line 6

Switch/Controller	GearBox Control
Footswitch 1	Mic Pre 7
Footswitch 2	Mic Pre 8
Program Decrement	Mic Pre 9
Program Increment	Mic Pre 10
Button 1	Mic Pre 11
Button 2	Mic Pre 12
Button 3	DI Lo Cut (Bass)
Button 4	DI Level (Bass)
Transport Rew	DI Delay (Bass)
Transport Fwd	Cab - Mic Model
Transport Stop	Cab - Early Refl.
Transport Play	Gate - Threshold
Transport Rec	Gate - Decay
Expression Pedal	Volume - Level
Mod Wheel	Wah - Position
Knob 1	Stomp - Param 2
Knob 2	Stomp - Param 3
Knob 3	Stomp - Param 4
Knob 4	Stomp - Param 5
Knob 1	Stomp - Param 6
Knob 2	Comp - Threshold
Knob 3	Comp - Gain
Knob 4	EQ - Gain 1
Knob 1	EQ - Freq 1
Knob 2	Drive/Pre1
Knob 3	Bass/Pre2
Knob 4	Mid/LowMid(B)/Pre3
Knob 1	Treble/HiMid(B)/Pre4

Dual-Tone GearBox settings

Note that if you have selected one of the **Dual-Tone** settings in the **Source Select** menu, then the controllers will affect the parameters for **Tone 1** only. The Dual-Tone settings are the ones with the “&” in their names.



Dual-Tone settings are the ones with the “&” in their names

For example, if you are currently using **Inst & Mic 1** as your Source, then TonePort UX2/KB37 will only trigger their assigned functions for the **Instrument** tone.

TonePort UX2/KB37 Controllers and Ableton Live 5 Line 6 Edition™

The Line 6 Audio-MIDI driver includes a **MIDI Mapping preset** that configures TonePort UX2/KB37 controllers for Ableton Live 5 Line 6 Edition, so that anytime you start a new Live Session, it will load with the following MIDI control settings:

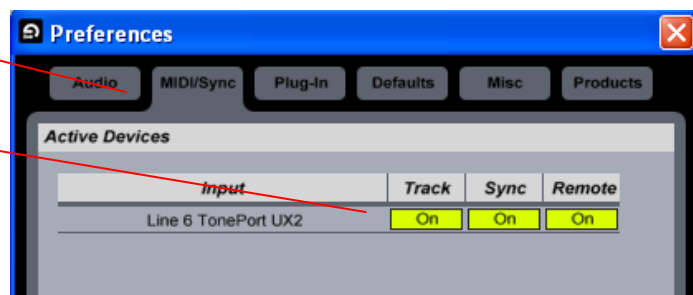


All you need to do is choose your TonePort UX2/KB37 as an “active” controller device within the Ableton Live software, and select the Ableton Live MIDI Preset in the Line 6 Driver. The following steps show you how...

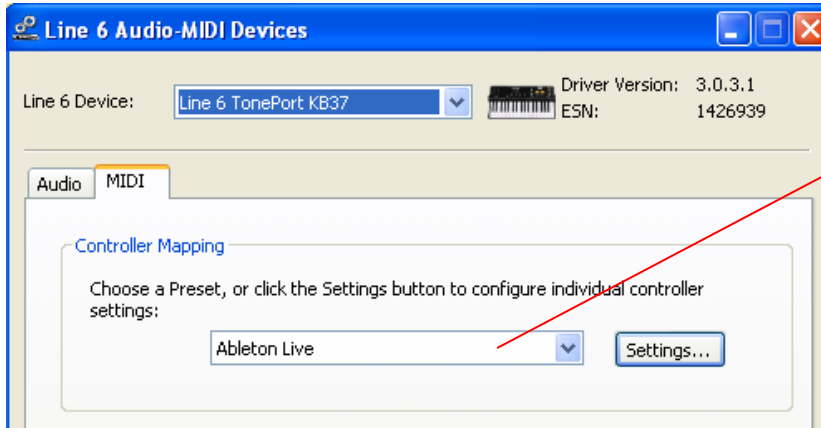
- 1. Select TonePort UX2/KB37 as an active remote control device in Ableton Live 5**
With TonePort UX2 connected to your computer’s USB port and the GearBox software running, launch Ableton Live Lite 5 and go **Options > Preferences (Windows)** or **Live > Preferences (Mac)**.

Go to the **MIDI** tab

Click **Track, Sync** and **Remote** buttons **On** to make your TonePort an **active MIDI device/controller**



2. Once the above settings are made, go to the GearBox application **Edit > Preferences > Hardware > Driver Settings**, and click the **MIDI** Tab



Select the **Ableton Live** MIDI Mapping Preset, and click **Apply**

Setting up MIDI Control manually in Ableton Live 5 Line 6 Edition

As an example, we'll show you how to set up the Start/Stop and Punch In/Out functions for the TonePort UX2/KB37 footswitches manually. First, set up your TonePort as the active MIDI device/controller as described above, then set/verify the MIDI settings shown below in the Line 6 Driver MIDI Control Settings Panel.

Switch/Controller	GearBox Control	To MIDI Out	MIDI CC/Action	Switch Mode	Toggle1/Down	Toggle2/Up
Footswitch 1	None	MIDI CC	Custom	Toggle	2 127	3 127
Footswitch 2	None	MIDI CC	006 - Data Entry	Toggle		

In Ableton Live Lite 5 Line 6 Edition, follow these steps...

In the upper right corner of the Main Window, click on the **MIDI** button. It should light up blue, indicating you have entered **Learn Mode**



Then go over to the **Transport** and click on the **Play** button



Press **Footswitch 1**. The numbers **1/2** appear inside the Play Button (MIDI CC 2)



Click on the **Stop** Button then press **Footswitch 1** again. The numbers **1/3** appear (MIDI CC3)



Now click on the **Record** button, then press **Footswitch 2**. The numbers **1/6** appear, meaning MIDI CC 6 toggles Record on/off



Click on the **MIDI** button when done, to exit **MIDI Learn Mode**



You're done! Using the same procedure, you can now re-map any of the TonePort UX2/KB37 controllers to remotely control various operations in Ableton Live 5 Line 6 Edition. For more information on Live controls, please refer to your Ableton help documentation.

Using TonePort KB37 with Reason™

The Line 6 Audio-MIDI driver includes a **MIDI Mapping preset** that configures TonePort KB37 for use with Reason. Due to Reason's dynamic environment, the KB37 works with Reason's Remote™ interface via a Remote codec for KB37, which is installed with GearBox 3.0.

IMPORTANT: Earlier versions of Reason do not support the Remote codec, so be sure to install the latest available update (see <http://www.propellerheads.se>).

What is a Remote codec?

The Remote codec performs the task of *mapping* KB37 MIDI messages to Reason-specific functions. For example, the codec maps the KB37's transport control to Reason's transport functions.

But there are hundreds of knobs and buttons in Reason, and only a few controls on the KB37. To manage all those Reason parameters, the Remote codec maps the knobs and buttons to various Reason Device parameters, relative to the currently selected track. Therefore, a default map for the KB37's buttons and knobs exists for each device.

KB37 mapping variations

Because most Reason devices have more parameters than the KB37 has physical controls, we have provided **mapping variations** for these devices.

When selecting a mapping variation, a new set of parameters will be mapped to the KB37 for a selected Reason device. For example, the KB37's "Sound Select" buttons are mapped to move up and down across tracks. *Variation 2* maps the buttons to the target device's "patch up/patch down" parameters.

To switch between mapping variations in Reason, you need to use the following keystrokes:

Mac

[Command] + [Option] + numerical keys [1] to [10]

Windows

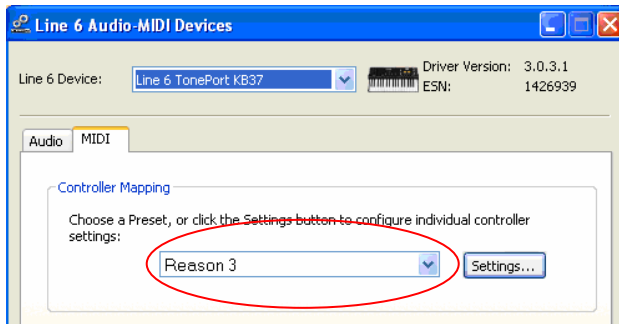
[Ctrl] + [Alt] + numerical keys [1] to [10]

Note that in both cases, [1] selects the default standard mapping

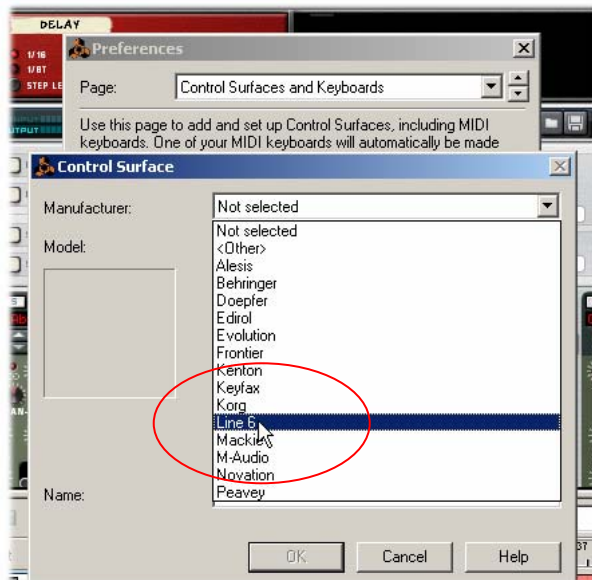
Tip – You can get an overview of which Reason parameters are assigned to a given mapping variation. To do this, select "Remote Override Edit Mode" from Reason's Options menu.

To use the KB37 with Reason's Remote codec:

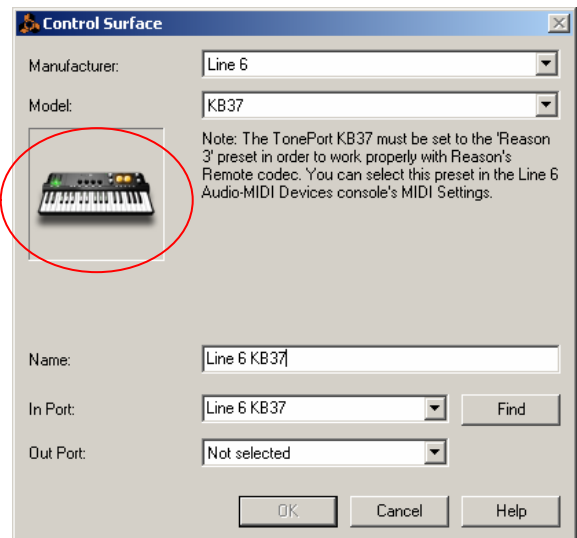
1. Select the "Reason 3" MIDI Mapping preset and click OK:



2. In Reason, open the "Control Surfaces and Keyboards" page in Reason's Preferences dialog, click 'Add', then select "Line 6" from the Manufacturer list, and click OK:



Voila! You should see the KB37 picture appear in the Model box:

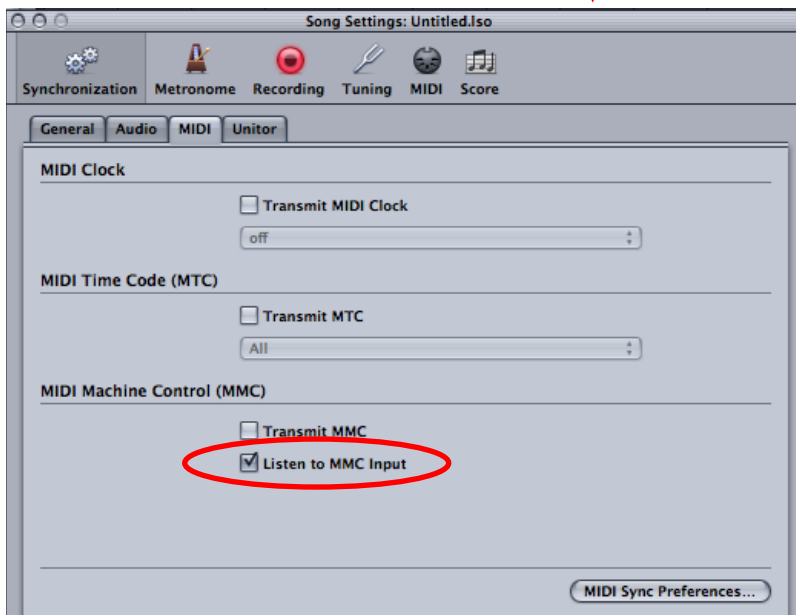
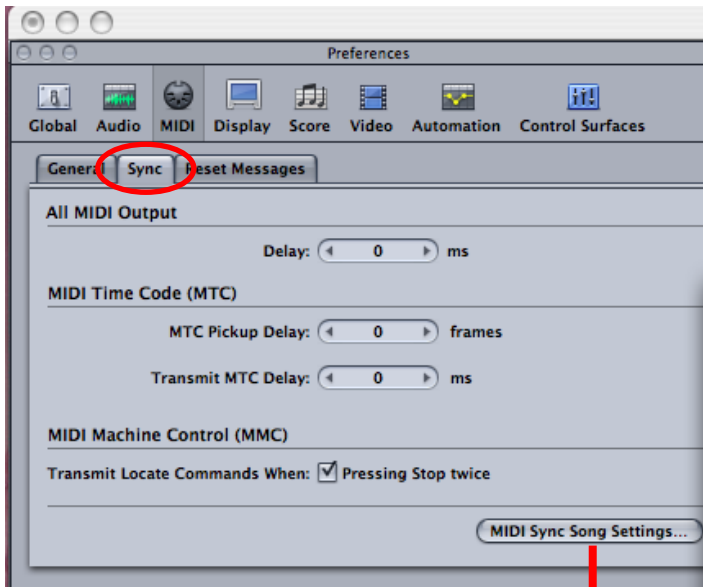


Click **OK** and you're ready to Remote!

Using MMC to control transport functions in Logic 7

Listen to MMC Input must be enabled in Logic 7 in order to receive MMC from the KB37. Here's how:

1. From the main application menu, open Preferences>MIDI
2. Select the *Sync* tab
3. Click the *MIDI Sync Song Settings...* button in the bottom right; this launches the Song Settings dialog.
4. In the section labeled "MIDI Machine Control (MMC)" check the *Listen to MMC Input* option



Note that this is a per-Song option. To make this option global, you must modify your template file.

Using MIDI to control transport functions in Digital Performer

Listen to MMC Input must be enabled in Logic 7 in order to receive MMC from the KB37. Here's how:

1. Create new MIDI Settings preset in the Line 6 Audio-MIDI Preferences dialog, using MIDI CC assignments for transport button functions. For example:

Transport Rew	CC 115	Momentary
Transport Fwd	CC 116	Momentary
Transport Stop	CC 117	Momentary
Transport Play	CC 118	Momentary
Transport Rec	CC 119	Momentary

2. Save preset (e.g. name them "Digital Performer MIDI preset")
3. Click 'Apply' (if available), then 'OK' to dismiss the dialog
4. Open (or return focus to) Digital Performer 5.1
5. Type <Shift+L> or select the Setup menu, Commands item
6. Eliminate any MIDI note mappings found in this list to avoid unexpected events
7. Type 'stop' into the search string (top of the dialog window) & click 'Search' (dialog will scroll to the appropriate section of the list)
8. Under Transport Commands, click the cell in the "Play" row, "MIDI EVENT" column
9. Press-and-hold the Play button on the KB37 and press <Enter> or <Return> before releasing the KB37 button
10. Notice that the captured MIDI CC msg. is '#118|127' (momentary down state)
11. Under the adjacent source field, select TonePort KB37 from the list
12. Repeat the same procedure for the remaining transport buttons; the Learn function should ensure that the proper CCs are captured. Note: the <enter>-while-depressed part is crucial, as releasing the KB37 button before accepting the captured message can cause it to 'listen' for a value of '0' from the assigned CC
13. **Important:** Scroll to the top of the Commands list and click the square box to the left of 'Master Master' under the heading 'MIDI Masters', so it's in a grey [active] state

KB37 Transport buttons should now work with Digital Performer.