



User Manual

V0.1

MIDIPLUS

Contents

INTRODUCTION	2
IMPORTANT NOTES:	2
1. OVERVIEW	3
1.1 THE TOP PANEL	3
1.2 THE REAR PANEL	3
2. GUIDE	4
2.1 READY TO USE	4
2.2 X KNOB	5
2.3 TRANSPOSE AND OCTAVE	5
2.4 PITCH AND MODULATION	5
2.5 KNOBS	6
2.6 TRANSPORT BUTTONS	6
2.7 KEYBOARD	7
3. SETTING MODE	7
3.1 CHANGING THE X KNOB MODE	7
3.2 CHANGING THE TRANSPORT BUTTONS MODE	8
3.3 CHANGING THE KEYBOARD VELOCITY CURVE	8
3.4 CHANGING THE BANK MSB	8
3.5 CHANGING THE BANK LSB	9
3.6 SELECTING A SMART SCALE	9
3.7 CHANGING THE CC NUMBER	9
3.7.1 Changing The Knobs'CC Number	9
3.7.2 Changing The Buttons'CC Number	10
3.7.3 Changing The Mod Touch Strip's CC Number	10
3.8 CHANGING THE CONTROLLER CHANNEL	10
3.9 CHANGING THE MIDI CHANNEL	10
4. FACTORY RESET	11
5. DAW SETTINGS	11
5.1 STEINBERG CUBASE/NUENDO (MACKIE CONTROL)	11
5.2 FL STUDIO (MACKIE CONTROL)	13
5.3 STUDIO ONE (MACKIE CONTROL)	14
5.4 PRO TOOLS (HUI)	16
5.5 LOGIC PRO X (MACKIE CONTROL)	17
5.6 REAPER (MACKIE CONTROL)	18
5.7 CAKEWALK SONAR (MACKIE CONTROL)	19
5.8 BITWIG (MACKIE CONTROL)	22
5.9 ABLETON LIVE (MACKIE CONTROL)	23
6. APPENDIX	25
6.1 SPECIFICATIONS	25
6.2 SCREEN DISPLAY AND FUNCTIONAL INTERPRETATION	25
6.3 SCALES	26
6.4 MIDI CC LIST	27

Introduction

Thank you for purchasing the 3rd generation X series MIDI keyboard X8H III. It has 88-key hammer action FATAR full-weighted keybed, 4 knobs, 6 buttons, Pitch and Modulation touch strips. Build in 16 Smart scales included Chinese pentatonic, Japanese scale, Blues scale etc.. And added four velocity curves, including Grand Piano, Orchestra, Synthesizer and Max Fixed. Also supports Mackie Control and HUI protocols, provides you with a better use experience.

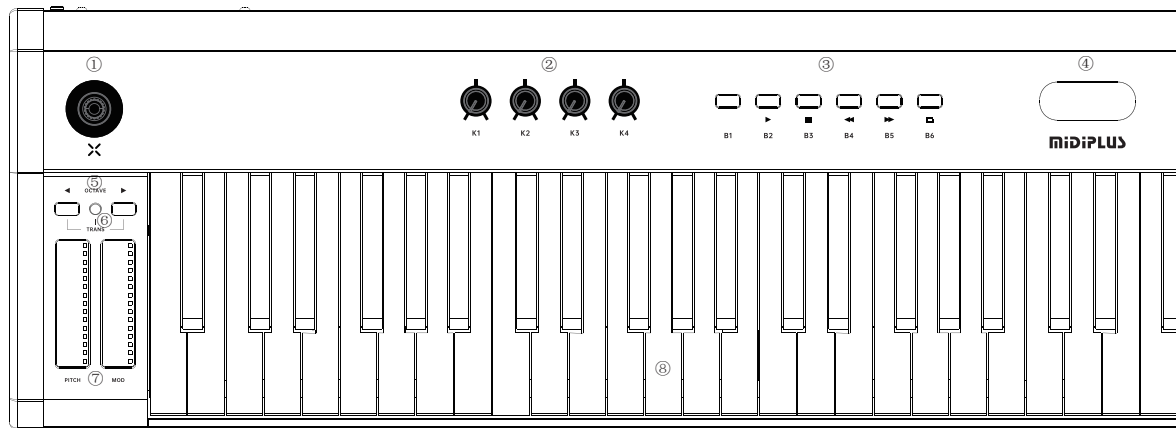
Important Notes:

Please read the following precautions carefully before use to avoid damaging the equipment or causing personal injury. Precautions include but are not limited to the following:

1. Read and understand all the illustrations.
2. Always follow the instructions on the device.
3. Before cleaning the device, always remove the batteries and the USB cable. When cleaning, use a soft and dry cloth. Do not use gasoline, alcohol, acetone, turpentine or any other organic solutions; do not use a liquid cleaner, spray or cloth that's too wet.
4. Disconnect the USB cable and remove the batteries if not used for extended periods.
5. Do not use the device near water or moisture, such as a bathtub, sink, swimming pool or similar place.
6. Do not place the device in an unstable position where it might accidentally fall over.
7. Do not place heavy objects on the device.
8. Do not place the device near a heat vent at any location with poor air circulation.
9. Do not open or insert anything into the device that may cause a fire or electrical shock.
10. Do not spill any kind of liquid onto the device.
11. Do not expose the device to hot sunlight.
12. Do not use the device when there is a gas leak nearby.

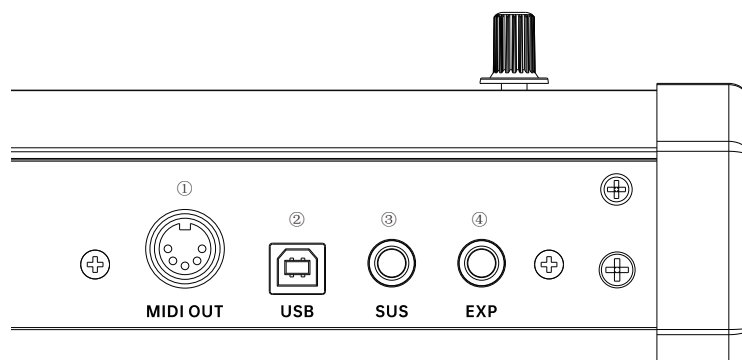
1. Overview

1.1 The Top Panel



- ① **X knob:** Control DAW and software instrument parameters or setting the keyboard parameters.
- ② **Knobs:** Control DAW or software instrument parameters.
- ③ **Transport buttons:** Control the transport of DAW.
- ④ **Display:** Provides real time feedback of control information.
- ⑤ **Transpose button:** Activate keyboard's semitone control
- ⑥ **Octave buttons:** Activate keyboard's octave control.
- ⑦ **Pitch & Modulation touch strips:** Control the pitch bend and modulation parameters of your sound.
- ⑧ **Keyboard:** Trigger notes on/off, also can be used as shortcuts to access edit more parameters.

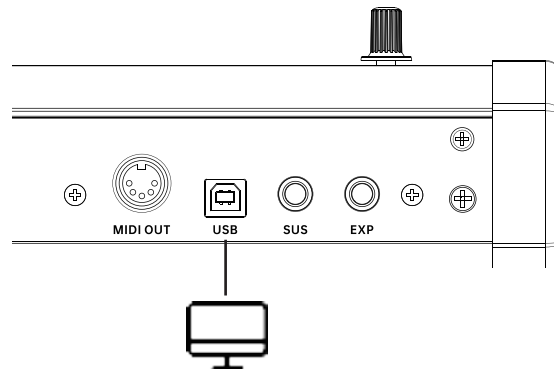
1.2 The Rear Panel



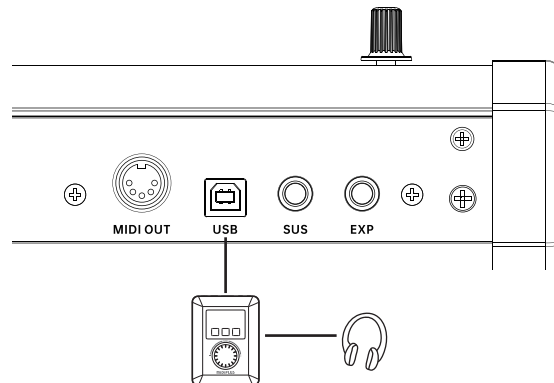
- ① **MIDI OUT:** Connect to MIDI device or modular
- ② **USB:** Connect to your computer, this port provides both power and MIDI data
- ③ **SUS:** Connect to a sustain pedal
- ④ **EXP:** Connect to a expression pedal

2. Guide

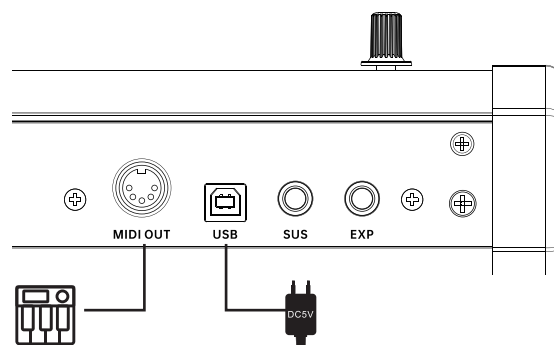
2.1 Ready to use



Use with computer: Connect X8H III to your PC or Mac using the included USB cable. Power is also supplied through this connection. X8H III is a class-compliant USB device, so its drivers are automatically installed when connecting to a computer.



Use with **MIDIPLUS** miniEngine series sound engine: Connect X8H III to the USB Host of miniEngine using the included USB cable, connect your speaker or headphone to miniEngine and turn on the miniEngine.



Use with external MIDI device: Connect to a USB 5V power adapter using the included USB cable, connect the MIDI OUT of X8H III to MIDI IN of external MIDI device with a 5 pin MIDI cable.

2.2 X Knob

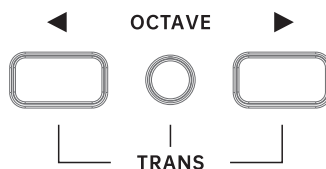


The X knob has two working mode, power on defaults to normal mode, press it about 0.5 seconds to switch to setting mode, the relevant parameter options of the keyboard can be set in this mode, for more details, please refer to [3. Setting Mode](#).

Normal Mode: Turn the X knob to send Program Change(default) or CC7 message, this option can be changed by Setting Mode.

Setting Mode: Turn the X knob to select options, press to confirm, press about 0.5 seconds to exit the setting mode.

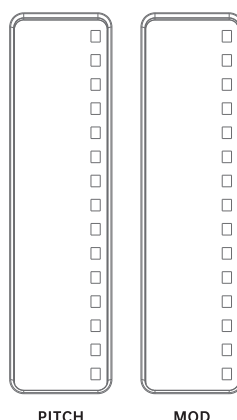
2.3 Transpose and Octave



Pressing the ◀ or ▶ button to shift the octave range of keyboard, when activated, the selected octave button will light up, pressing the ◀ and ▶ buttons simultaneously will quickly reset the octave shift.

Press and hold the **TRANS** button, then pressing the ◀ or ▶ button to transpose, when activated, the **TRANS** button will light up, and this can be toggled on and off by pressing the **TRANS** button, when off, the **TRANS** button backlit will dimmer, the previously used transpose setting will be stored while the unit remains powered.

2.4 Pitch and Modulation



Two capacitive touch strips allow for real-time pitch bend and modulation control. The LED light strips will reflect the current status of each controller.

Sliding up or down on the Pitch touch strip will raise or lower the pitch of the selected tone. The range of this effect is set within the hardware or software instrument being controlled.

Sliding up on the Modulation touch strip increases the amount of modulation on the selected tone. The response depends on the settings of the instrument being controlled. Certain instruments or presets will not use the modulation parameter.

2.5 Knobs

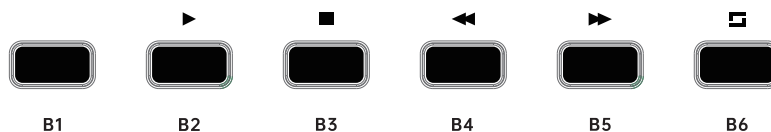


X8H III has 4 assignable knobs with backlit, the default control functions of each knob are as follows:

Knob	Function	MIDI CC Number
K1	Chorus Send Level	CC93
K2	Reverb Send Level	CC91
K3	Timbre/Harmonic Intens	CC71
K4	Brightness	CC74

You can assign any MIDI CC (continuous controller) number to each knob in Setting Mode. Please refer to [3.7.1 Changing The Knobs CC Number](#) for detailed operation steps.

2.6 Transport Buttons



X8H III has 6 buttons with three mode: MCU(default), HUI and CC mode, you can change this in Setting Mode. Please refer to [3.2 Changing The Transport Buttons Mode](#) for detailed operation steps.

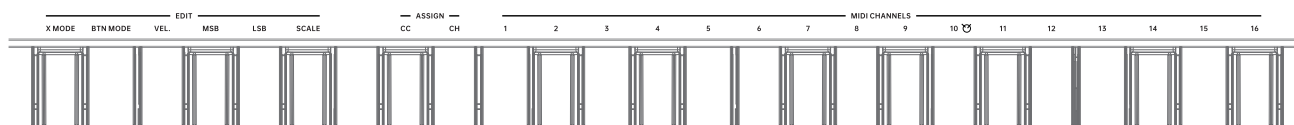
In MCU and HUI mode, these buttons controls the transport of DAWs, and control the in CC mode please refer to [5. DAW Settings](#) for detailed operation steps:

Button	Function	MIDI CC Number
B1	Undefined	CC25
B2	Undefined	CC26
B3	Undefined	CC27
B4	Undefined	CC28
B5	Undefined	CC29
B6	Undefined	CC30

Any MIDI CC number can be assigned to each button in Setting Mode, please refer to [3.7.2 Changing The Buttons' CC Number](#) for detailed operation steps.

2.7 Keyboard

X8H III provides 88-key hammer action FATAR fully-weighted keybed for sending note switch and velocity information in normal state. These keys also can be used as shortcuts to set controllers, MIDI channel in Setting Mode, for details, please refer to [3. Setting Mode](#).



When in Setting Mode, the keys with labeled functions will be used as shortcuts to access the parameters, the labeled keys as follow:

X MODE: Changing the X knob mode, select between **Program Change** (default) or **CC** mode.

BTN MODE: Changing the Transport button mode, select between **Mackie Control** (default), **HUI** and **CC** mode.

VEL.: Setting the keyboard velocity sensitive curve, select between **Grand Piano**, **Orchestra**, **Synthesizer** and **Max Fixed**.

MSB: Setting the controller number for "Most Significant Byte" (ie, MSB) of Bank Select. This message has a range between 0 and 127. The default is 0.

LSB: Setting the controller number for "Least Significant Byte" (ie, LSB) of Bank Select. This message has a range between 0 and 127. The default is 0.

SCALE: Selecting the build in Smart Scale, when a scale is selected, the scale notes will be mapped on the white keys, for details, please refer to [6.3 Scales](#), the default is Off.

ASSIGN CC: Setting the CC Number of each controller, including Mod touch strip, 4 knobs and 6 buttons, the range between 0 and 127.

ASSIGN CH: Setting the MIDI Channel of each controller, including Mod touch strip, 4 knobs and 6 buttons, the range between 0 and 16, the default is 0.

MIDI CHANNELS: Setting the MIDI Channel of keyboard, the range between 1 and 16, the default is 1.

3. Setting Mode

In the Setting Mode, you can set your keyboard easily. Long press the X knob about 0.5 second, the screen will display "SEL" when enter the Setting Mode.

3.1 Changing The X Knob Mode

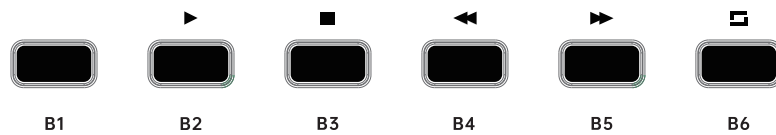


Long press the X knob about 0.5 second, when the screen display "SEL", then follow these steps:

1. Press the key labeled "**X MODE**", the screen will display the currently selected mode,
2. Turn the X knob to select **Program Change** or **CC** mode (the screen will display "Pc" or "cc"),
3. Press the X knob to confirm, the screen will display you just selected mode,

Now you can press the other keys labeled functions to set other parameters, or long press the X knob to exit the Setting Mode.

3.2 Changing The Transport Buttons Mode

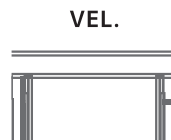


When the screen display "SEL", follow these steps:

1. Press the key labeled **"BTN MODE"**, the screen will display the currently selected mode,
2. Turn the X knob to select Mackie Control, HUI or CC mode (the screen will display "MCU", "HUI" or "CC"),
3. Press the X knob to confirm, the screen will display you just selected mode,

Now you can press the other keys labeled functions to set other parameters, or long press the X knob to exit the Setting Mode.

3.3 Changing The Keyboard Velocity Curve

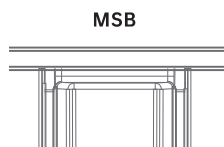


When the screen display "SEL", follow these steps:

1. Press the key labeled **"VEL."**, the screen will display the currently selected velocity curve,
2. Turn the X knob to select **Grand Piano**, **Orchestra**, **Synthesizer** or **Max Fixed** (the screen will display "Pno", "orc", "Syn" or "F IH"),
3. Press the X knob to confirm, the screen will display you just selected velocity curve,

Now you can press the other keys labeled functions to set other parameters, or long press the X knob to exit the Setting Mode.

3.4 Changing The Bank MSB

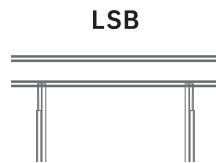


When the screen display "SEL", follow these steps:

1. Press the key labeled **"MSB"**, the screen will display the currently value,
2. Turn the X knob to set the controller number between 0 and 127,
3. Press the X knob to confirm, the screen will display you just selected controller number,

Now you can press the other keys labeled functions to set other parameters, or long press the X knob to exit the Setting Mode.

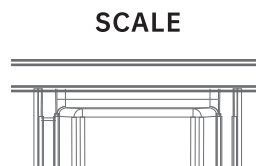
3.5 Changing The Bank LSB



When the screen display "SEL", follow these steps:

1. Press the key labeled **"LSB"**, the screen will display the currently value,
 2. Turn the X knob to set the controller number between 0 and 127,
 3. Press the X knob to confirm, the screen will display you just selected controller number,
- Now you can press the other keys labeled functions to set other parameters, or long press the X knob to exit the Setting Mode.

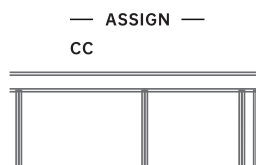
3.6 Selecting a Smart Scale



When the screen display "SEL", follow these steps:

1. Press the key labeled **"SCALE"**, the screen will display the currently scale,
2. Turn the X knob to select a scale,
3. Press the X knob to confirm, the screen will display you just selected scale name.

3.7 Changing The CC Number



The controller of X8H III can be assigned to any CC Number as you like, please refer to [6.4 MIDI CC List](#) for details. These controllers included: Mod touch strip, 4 knobs and 6 buttons, the range between 0 and 127.

3.7.1 Changing The Knobs'CC Number

When the screen display "SEL", follow these steps:

1. Press the key labeled **"ASSIGN CC"**, the screen will display the CC number of the last use controller,
2. Turn the knob you want to assign, K1 for instance, the screen displays **"93"**,
3. Turn the X knob to select a CC number, select **"52"** for instance,
4. Press the X knob to confirm, the screen displays **"93"**,
5. Long press the X knob to exit the Setting Mode.

Now the CC number of K1 knob is assigned to CC52 successfully.

3.7.2 Changing The Buttons'CC Number

When the screen display "SEL", follow these steps:

1. Press the key labeled "**ASSIGN CC**", the screen will display the CC number of the last use controller,
2. Press the button you want to assign, B2 for instance, the screen displays "25",
3. Turn the X knob to select a CC number, select "53" for instance,
4. Press the X knob to confirm, the screen displays "53" you just selected number.
5. Long press the X knob to exit the Setting Mode.

Now the CC number of B2 button is assigned to CC53 successfully. Then you should change the button into CC mode refer to [3.2 Changing the Transport Buttons Mode](#).

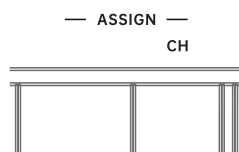
3.7.3 Changing The Mod Touch Strip's CC Number

When the screen display "SEL", follow these steps:

1. Press the key labeled "**ASSIGN CC**", the screen will display the CC number of the last use controller,
2. Touch the **MOD** touch strip, the screen displays "1",
3. Turn the X knob to select a CC number, select "54" for instance,
4. Press the X knob to confirm, the screen displays "54",
5. Long press the X knob to exit the Setting Mode.

Now the CC number of **MOD** touch strip is assigned to CC54 successfully.

3.8 Changing The Controller Channel



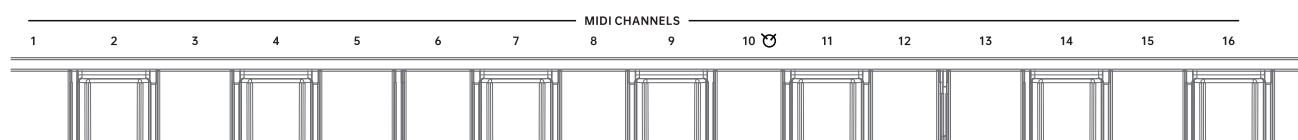
When the screen display "SEL", follow these steps:

1. Press the key labeled "**ASSIGN CH**", the screen will display the channel of the last use controller,
2. Select the controller you want to assign, **MOD** touch strip or one of Knobs and Buttons,
3. Turn the X knob to select a Channel, select "10" for instance,
4. Press the X knob to confirm, the screen displays "10" you just selected number.
5. Long press the X knob to exit the Setting Mode.

Now the channel of the controller you selected in step 2 is assigned to Channel 10 successfully.

Note: When the controller channel is selected to 00, the controller channel will follow the keyboard channel, ie if the keyboard channel was selected to channel 2, then the controller events will be sent to channel 2 as well.

3.9 Changing The MIDI Channel



1. Long press the X knob about 0.5 second, when the screen display "SEL",
 2. press the corresponding note on the keyboard below the MIDI channels you wish to select. 10 for instance, the screen will displays "10",
- The keyboard will exit the Setting Mode, and the MIDI Channel is changed to channel 10 successfully.

4. Factory Reset

At some point you may wish to reset your device back to factory settings. To perform a factory reset on your X8H III, please follow these steps:

1. Disconnect the USB cable,
2. Press and hold the "B1" and "B2" buttons,
3. Plug in the USB cable,
4. Release the "B1" and "B2" buttons when the screen displays "rES".

Note: Performing a factory reset will clear all your changes to the keyboard. Please operates carefully.

5. DAW Settings

X8H III has 6 buttons with three mode: Mackie Control(default), HUI and CC mode, they can be controls the transport of most popular DAWs. And most of DAWs can be used Mackie Control mode except Pro Tools, you need to change the buttons into HUI mode, please refer to [3.2 Changing the Transport Buttons Mode](#).

5.1 Steinberg Cubase/Nuendo (Mackie Control)

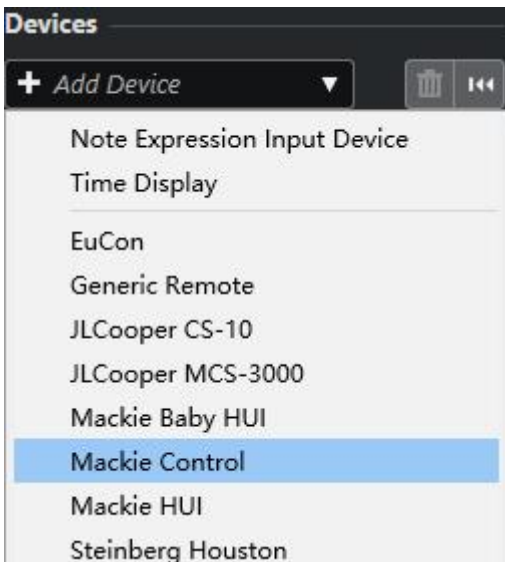
1. Go to menu: **Studio > Studio Setup...**



2. Click on the **Add Device**



3. Select the **Mackie Control** from the pop-up list



4. In the Mackie Control window, set the **MIDI Input** as **MIDIIN2(X8H III)** and the **MIDI Output** as **MIDIOUT2(X8H III)**



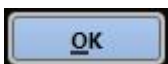
5. Click on the **MIDI Port Setup**



6. In the right side of the window, find the **MIDIIN2(X8H III)**, then deactivate the "In 'All MIDI'"



7. Click on **OK** to finish setup

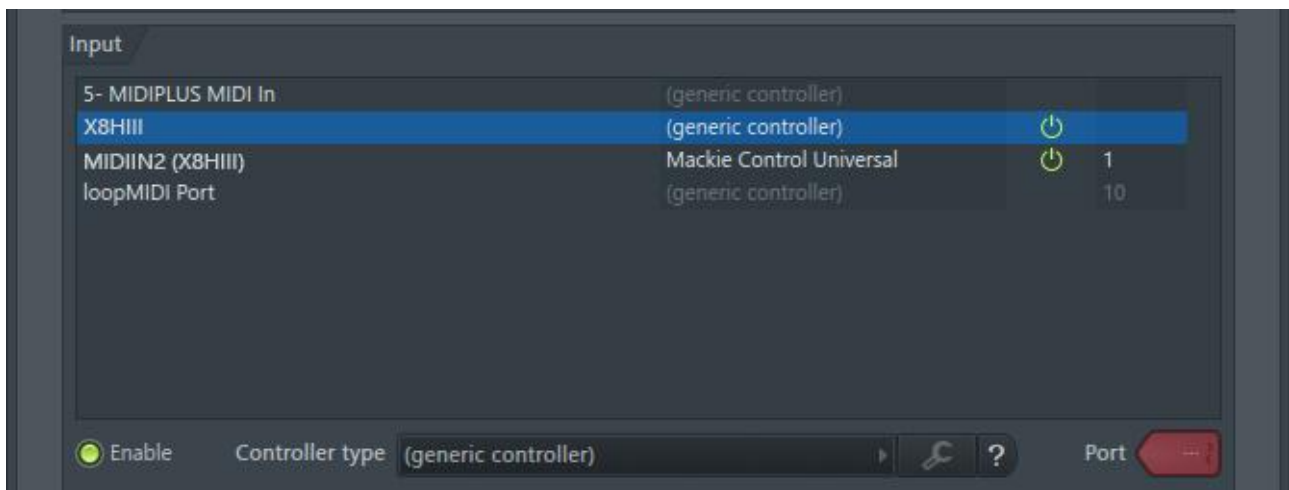


5.2 FL Studio (Mackie Control)

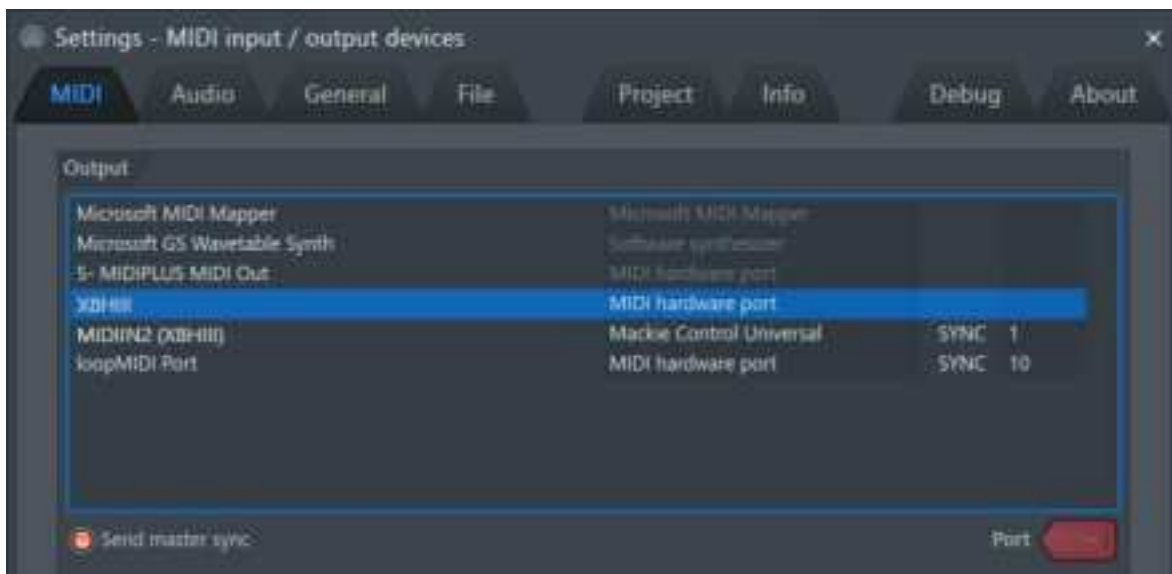
1. Go to menu: **Options > MIDI settings** (keyboard shortcut F10)



2. In the Input tab, find and **Enable** both **X8H III** and **MIDIIN2(X8H III)**, set the **Controller type** of **MIDIIN2(X8H III)** as **Mackie Control Universal, Port 1**

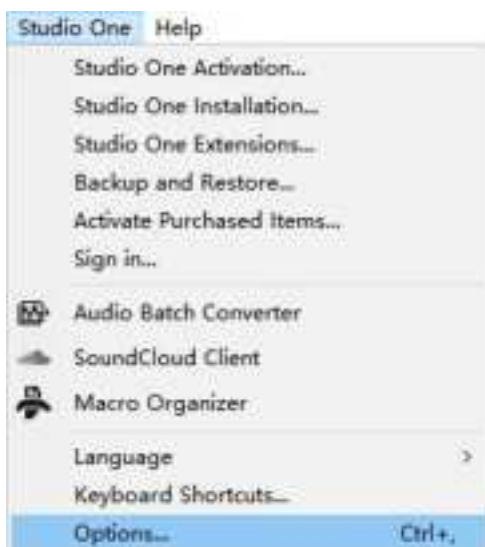


3. In the Output tab, find **X8H III** and **MIDIIN2(X8H III)**, then and **Enable** the **Send master sync**, set the **Port** of **MIDIIN2(X8H III)** to **Port 1**, close the window to finish setup.

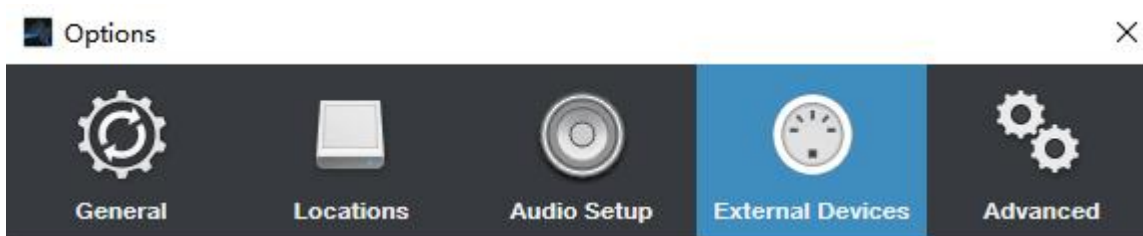


5.3 Studio One (Mackie Control)

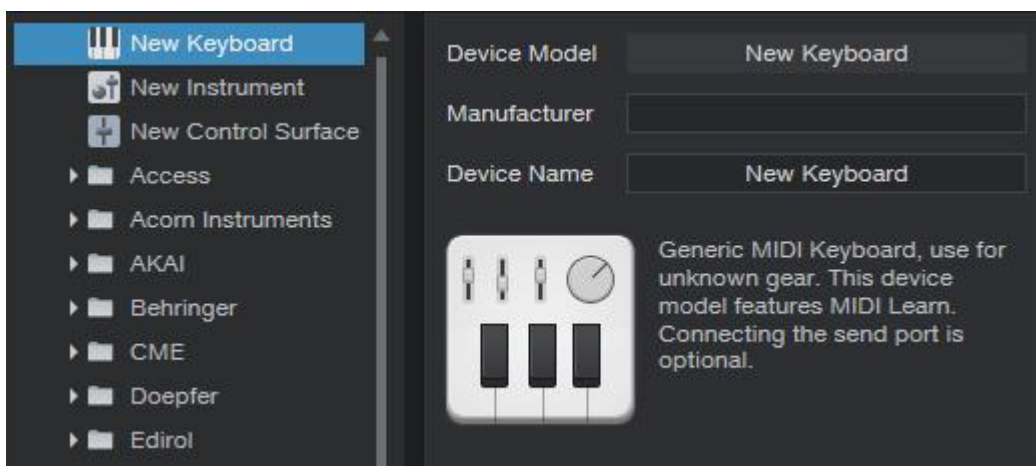
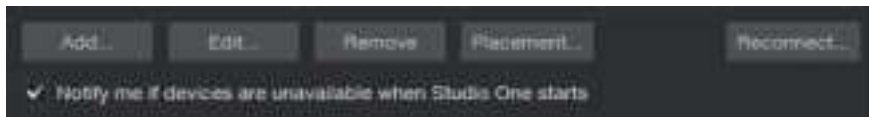
1. Go to menu: **Studio One** > **Options...**(keyboard shortcut: Ctrl+,)



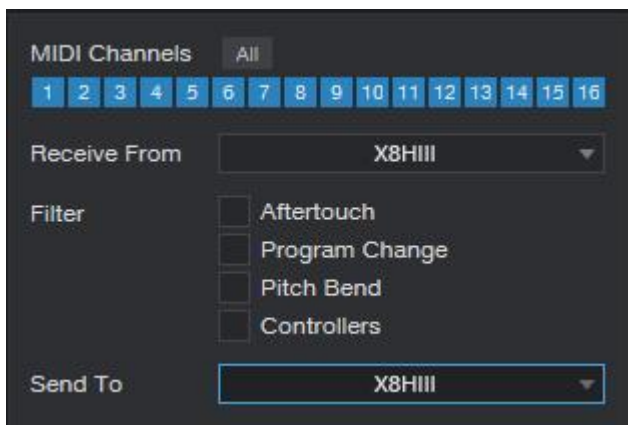
2. Select the **External Devices**



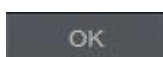
3. Then click on **Add...**



5. Set both **Receive From** and **Send To** as **X8H III**



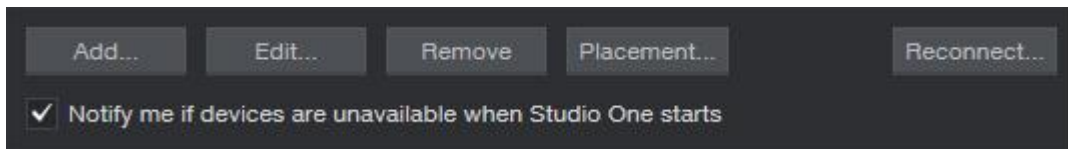
6. Click on OK to finish this part



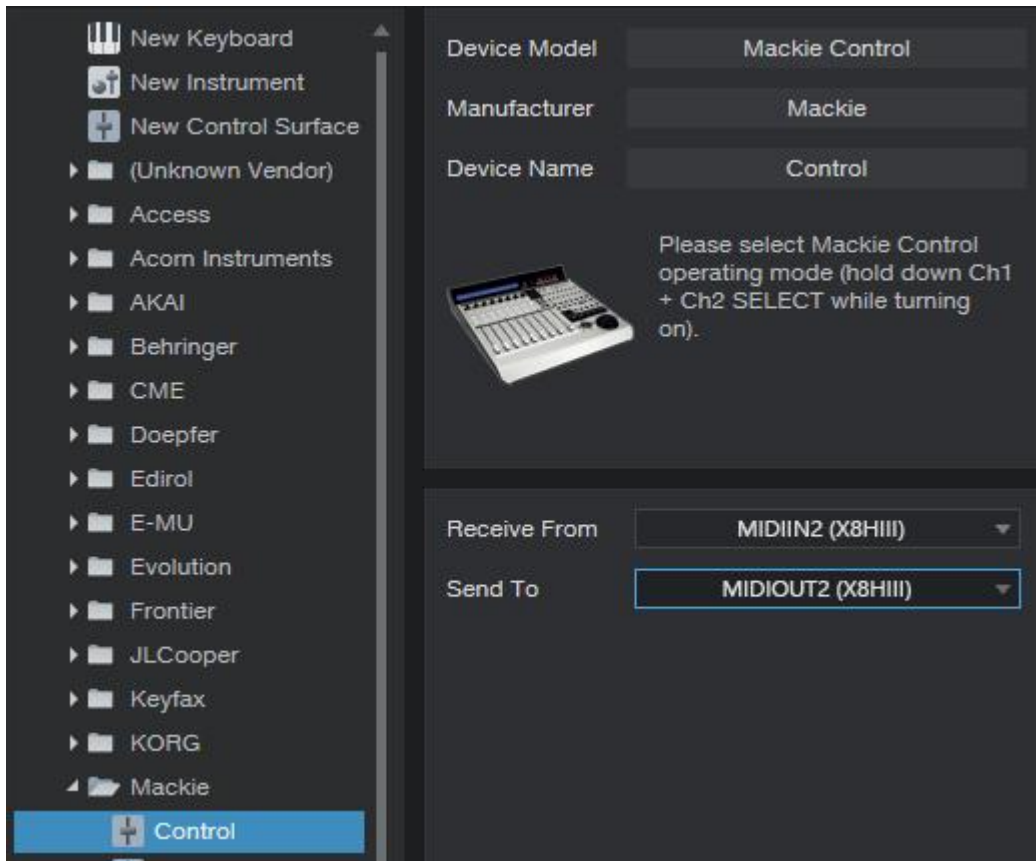
7. Select another **External Devices**



8. And click on **Add...**

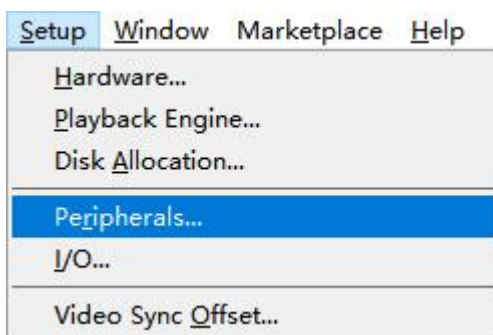


8. Find the **Mackie** folder in the list and select **Control**, set both **Receive From** and **Send To** as **MIDIIN2(X8H III)**, then click on **OK** to finish setup.



5.4 Pro Tools (HUI)

1. Change the transport buttons into HUI mode refer to [3.2 Changing The Transport Buttons Mode](#).
2. Go to menu: **Setup** > **Peripherals...**

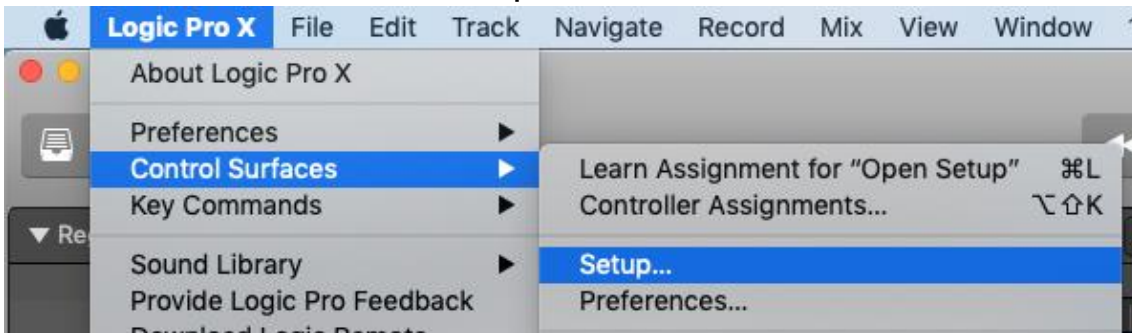


3. In the pop-up window, click on the **MIDI Controllers** tab, find the #1 row, select **HUI** in the pop-up list of **Type**, select **MIDIIN2(X8H III)** both in the pop-up list of the **Receive From** and **Send To**, then close the Peripherals window to finish setup.

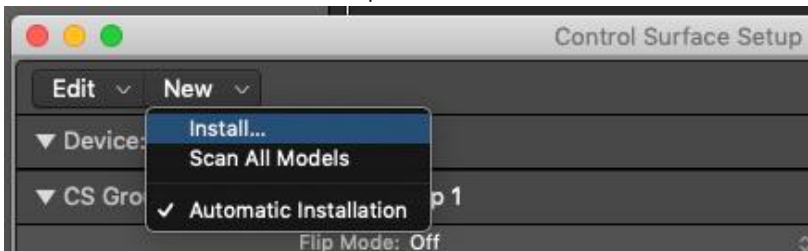


5.5 Logic Pro X (Mackie Control)

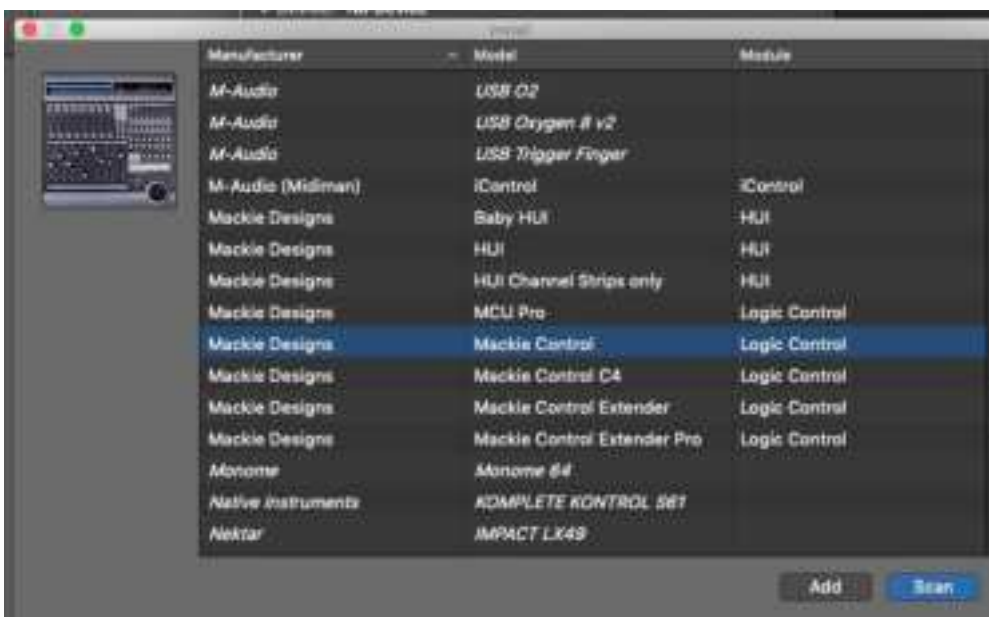
1. Go to menu: **Control Surfaces** > **Setup...**



2. In the Control Surface Setup window, click on **New**, select **Install** from the pop-up list,



3. In the Install window, select **Mackie Control**, then click on **Add**



4. In the Control Surface Setup window, find the Device: **Mackie Control**, set the **Output Port** and **Input**

Port as **X8H III port 2**, close the window to finish setup.

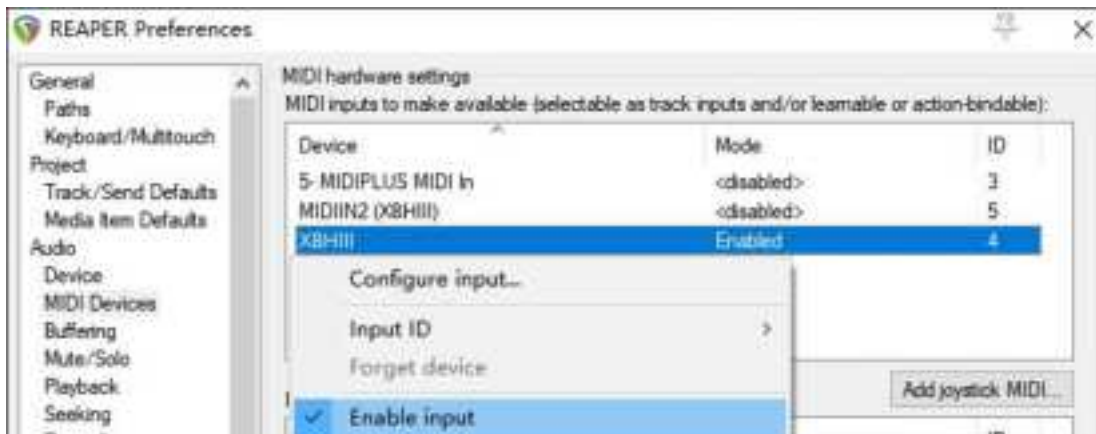


5.6 Reaper (Mackie Control)

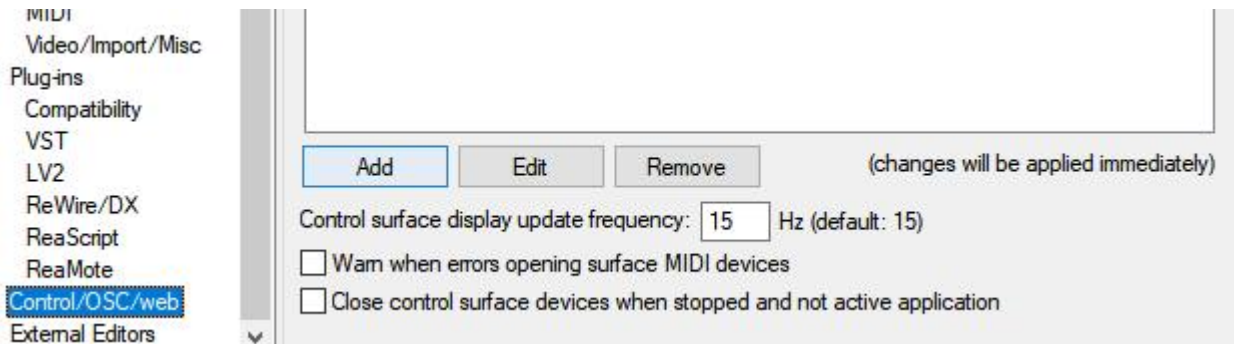
1. Go to menu: **Options > Preferences...** (keyboard shortcut: Ctrl+P)



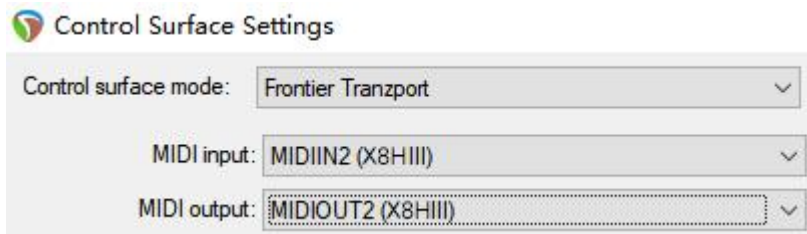
2. In the Preferences window, click on the **MIDI Devices** tab, find and right click on the the **X8H III** from the Device list, select **Enable input**,



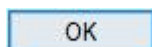
3. In the Preferences window, click on the **Control/OSC/web** tab, then click on **Add**



4. In the Control Surface Settings window, select **Frontier Tranzport** from the pop-up list of **Control surface mode**, select **MIDIIN2** from the pop-up list of **MIDI input**, select **MIDIOUT2** from the pop-up list of **MIDI output**.

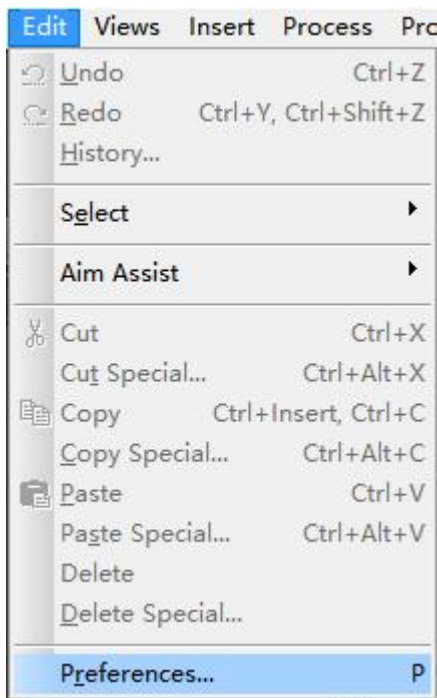


5. Click on **OK** to finish setup.

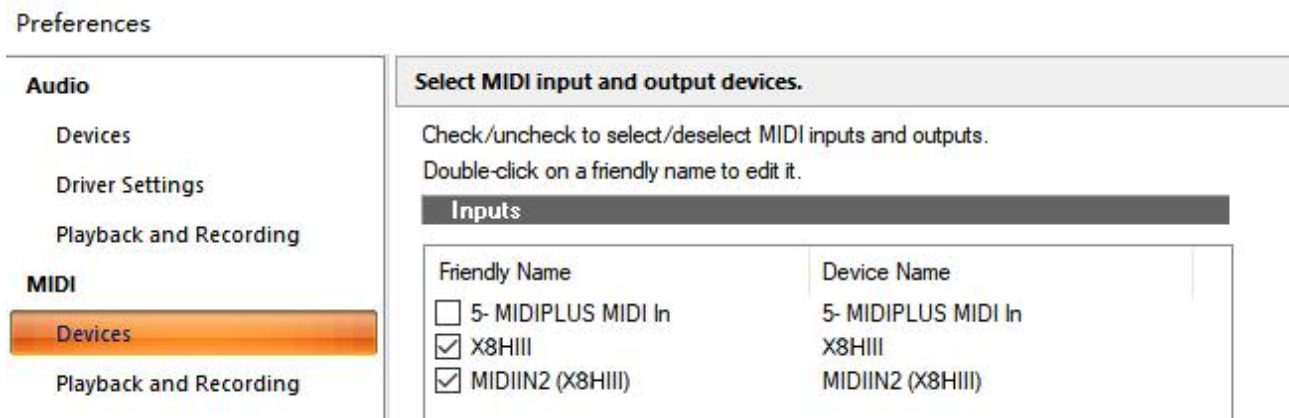


5.7 CakeWalk Sonar (Mackie Control)

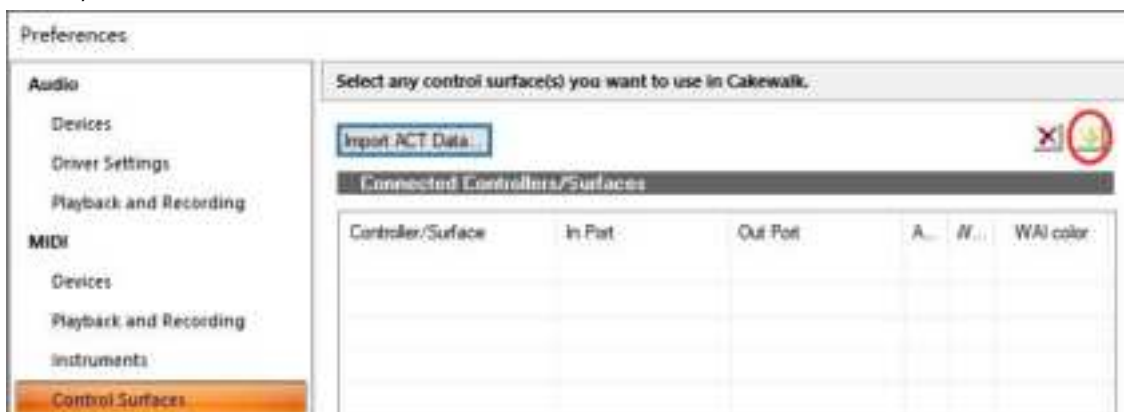
1. Go to menu: **Edit > Preferences...**



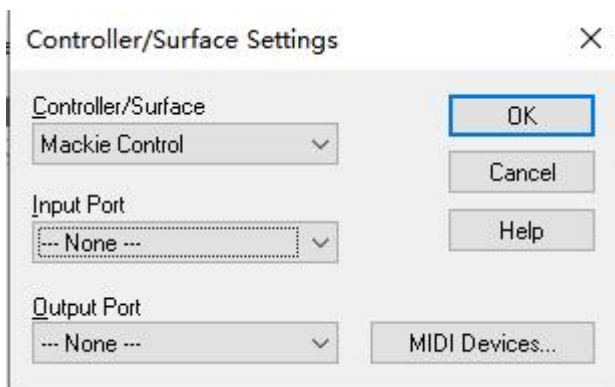
2. In the Preferences window, click on **Devices** tab, then check the **X8H III** and **MIDIIN2(X8H III)** from the **Friendly Name** of the Inputs,



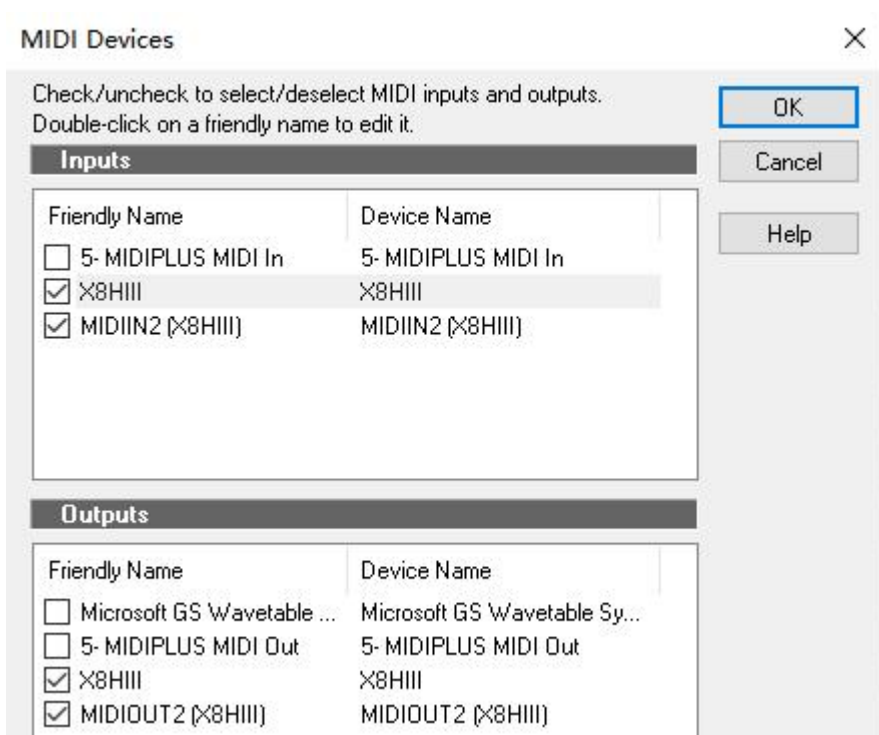
3. In the Preferences window, click on **Control Surfaces** tab, then click on the **Add** icon as picture below,



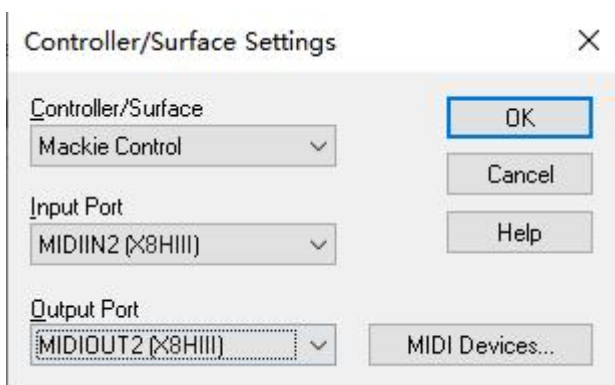
4. In the Controller/Surface Settings window, select **Mackie Control** from the pop-up list of **Controller/Surface**, then click on the **MIDI Devices...** button,



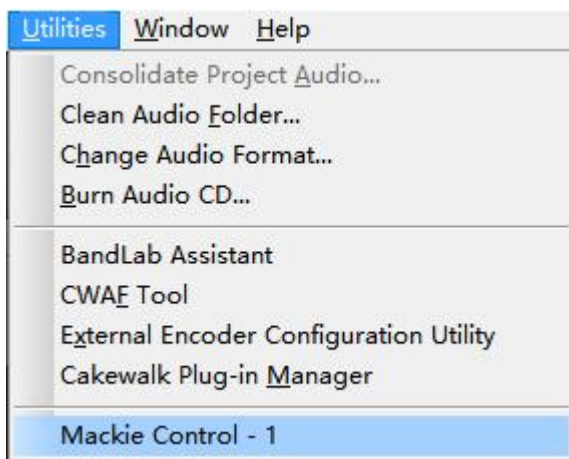
5. In the MIDI Devices window, check the **X8H III** and **MIDIIN2(X8H III)** from the **Friendly Name** of the Inputs, and also check the **X8H III** and **MIDIOUT2(X8H III)** from the **Friendly Name** of the Outputs, then click on **OK**,



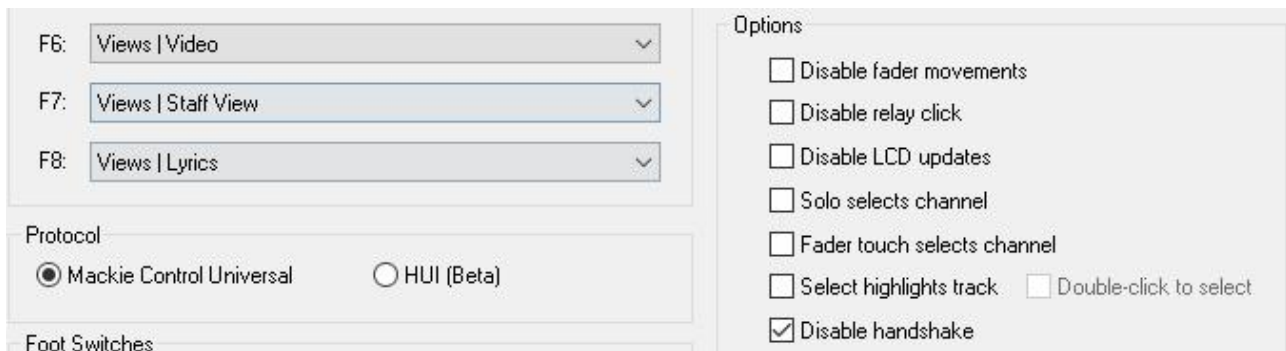
6. In the Controller/Surface Settings window, select **MIDIIN2(X8H III)** from the pop-up list of **Input Port**, select **MIDIOUT2(X8H III)** from the pop-up list of **Output Port**, then click on the **OK** button,



7. Go to menu: **Utilities > Mackie Control - 1**

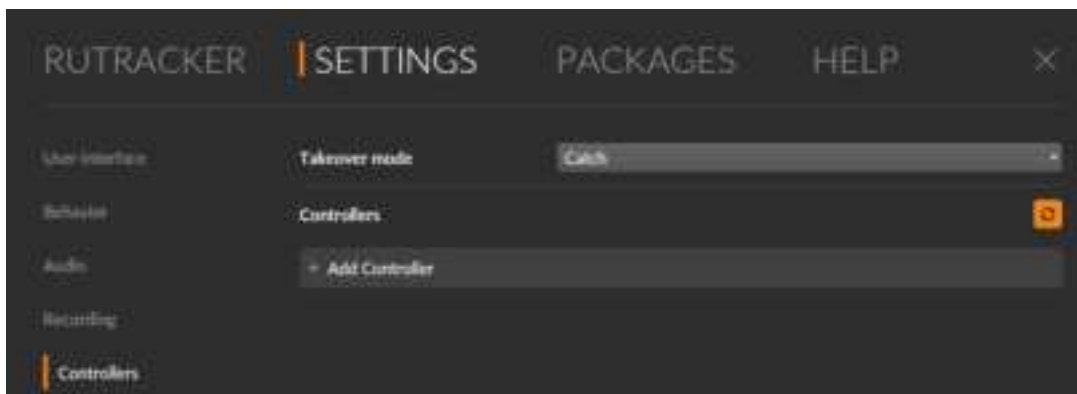


8. In the pop-up window, find and check the **Disable handshake** from the **Options** box, close the window to finish setup.

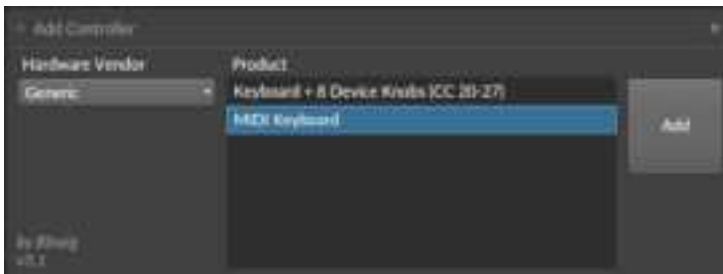


5.8 Bitwig (Mackie Control)

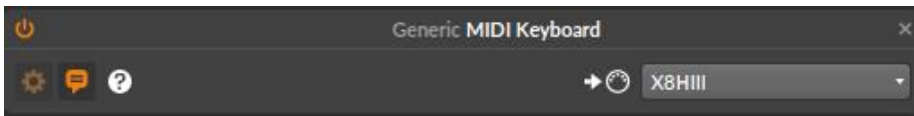
1. Open Bitwig, click on **SETTINGS** tab in dashboard, then select **Controllers** tab, click on **Add Controller**,



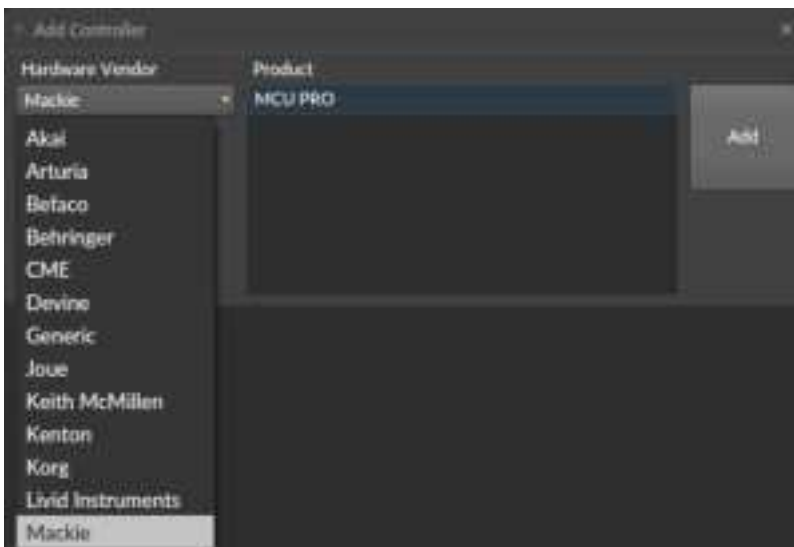
2. In the Add Controller window, select **Generic** from the pop-up list of **Hardware Vendor**, select **MIDI Keyboard** under the **Product** box, then click on **Add**,



3. In the **Generic MIDI Keyboard** window, select **X8H III** as Input port,



4. Repeat step 1 to add a controller, in the Add Controller window, select **Mackie** from the pop-up list of **Hardware Vendor**, select **MCU PRO** under the **Product** box, then click on **Add**,

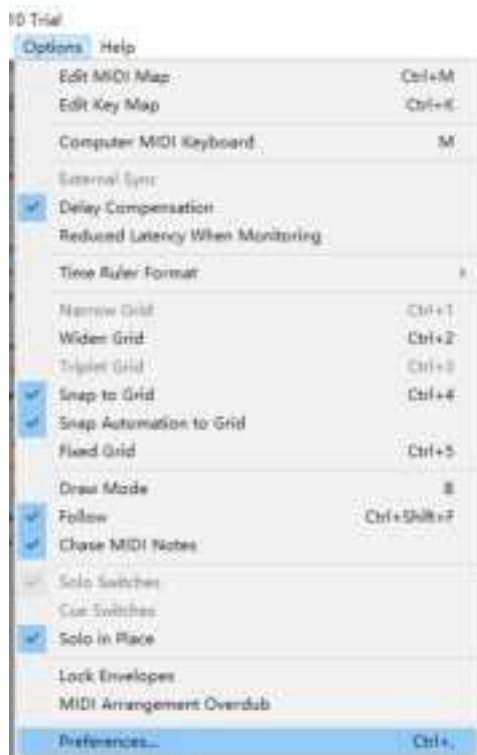


5. In the Mackie MCU PRO window, select **MIDIIN2(X8H III)** as Input port, and select **MIDIOUT2(X8H III)** as Output port, close the window to finish setup.

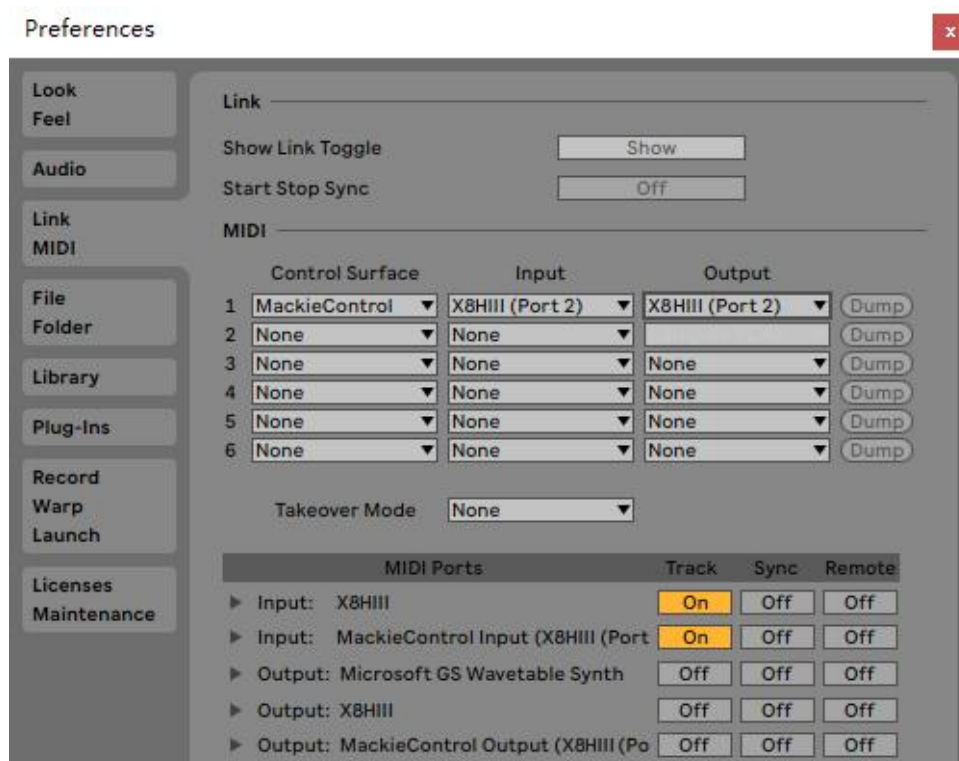


5.9 Ableton Live (Mackie Control)

1. Go to menu: **Options > Preference...**



2. Click on the **Link MIDI** tab, select **MackieControl** from the pop-up list of Control Surface, and select **X8H III (Port 2)** from the pop-up list of both Input and Output.



6. Appendix

6.1 Specifications

Product Name	X8H III
Keyboard	88-key hammer action FATAR full-weighted keybed
Maximum Polyphony	64
Screen	Nixie tube
Buttons	2 Octave buttons, 1 Transpose button and 6 Transport buttons
Knobs	1 Clickable encoder and 4 knobs
Connectors	USB port, MIDI OUT, Sustain pedal input, and Expression pedal Input
Dimensions	1337*261*97mm
Net Weight	12. 5kg

6.2 Screen display and functional interpretation

Display	Description
<i>c01</i>	MIDI Channel 1
<i>SEL</i>	In the Setting Mode
<i>PcU</i>	Mackie Control mode
<i>hU1</i>	HUI mode
<i>cc</i>	CC mode
<i>Pc</i>	Program Change mode
<i>nor</i>	The Normal velocity curve of keyboard
<i>F1H</i>	The Fixed velocity curve of keyboard
<i>L1G</i>	The Light velocity curve of keyboard
<i>hAr</i>	The Hard velocity curve of keyboard
<i>rES</i>	Factory resetting

6.3 Scales

Display	Scale	Degree Formula
<i>oFF</i>	-	-
<i>cn1</i>	China 1	C, D, E, G, A
<i>cn2</i>	China 2	C, bE, F, G, bB
<i>JP1</i>	Japan 1	C, bD, F, G, bB
<i>JP2</i>	Japan 2	C, D, bE, G, bA
<i>bl1</i>	Blues 1	C, bE, F, #F, G, bB
<i>bl2</i>	Blues 2	C, D, bE, E, G, A
<i>bEb</i>	BeBop	C, D, E, F, G, A, bB, B
<i>WhE</i>	Whole Tone	C, D, E, #F, #G, bB
<i>MEB</i>	Middle East	C, bD, E, F, G, bA, B
<i>dor</i>	Dorian	C, D, bE, F, G, A, bB
<i>LYd</i>	Lydian	C, D, E, #F, G, A, B
<i>hAR</i>	Harmonic Minor	C, D, bE, F, G, bA, B
<i>rIn</i>	Minor	C, D, bE, F, G, bA, bB
<i>PhY</i>	Phrygian	C, bD, bE, F, G, bA, bB
<i>hUP</i>	Hungarian Minor	C, D, bE, #F, G, bA, B
<i>EGY</i>	Egypt	C, bD, bE, E, G, bA, bB

6.4 MIDI CC List

CC Number	Purpose	CC Number	Purpose
0	Bank Select MSB	66	Sostenuto On/Off
1	Modulation	67	Soft Pedal On/Off
2	Breath Controller	68	Legato Footswitch
3	Undefined	69	Hold 2
4	Foot Controller	70	Sound Variation
5	Portamento Time	71	Timbre/Harmonic Intens
6	Data Entry MSB	72	Release Time
7	Main Volume	73	Attack Time
8	Balance	74	Brightness
9	Undefined	75 ~ 79	Undefined
10	Pan	80 ~ 83	General Purpose Controller 5 ~ 8
11	Expression Controller	84	Portamento Control
12 ~ 13	Effect Controller 1 ~ 2	85 ~ 90	Undefined
14 ~ 15	Undefined	91	Reverb Send Level
16 ~ 19	General Purpose Controller 1 ~ 4	92	Effects 2 Depth
20 ~ 31	Undefined	93	Chorus Send Level
32	Bank Select LSB	94	Effects 4 Depth
33	Modulation LSB	95	Effects 5 Depth
34	Breath Controller LSB	96	Data Increment
35	Undefined	97	Data Decrement
36	Foot Controller LSB	98	NRPN LSB
37	Portamento LSB	99	NRPN MSB
38	Data Entry LSB	100	RPN LSB
39	Main Volume LSB	101	RPN MSB
40	Balance LSB	102 ~ 119	Undefined
41	Undefined	120	All Sound Off
42	Pan LSB	121	Reset All Controllers
43	Expression Controller LSB	122	Local Control On/Off
44 ~ 45	Effect Controller LSB 1 ~ 2	123	All Notes Off
46 ~ 48	Undefined	124	Omni Mode Off
49 ~ 52	General Purpose Controller LSB 1 ~ 4	125	Omni Mode On
53 ~ 63	Undefined	126	Mono Mode On
64	Sustain	127	Poly Mode On
65	Portamento On/Off		

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