

MPK49 MIDI I/O Details

When the MPK49 is connected to the computer via USB, it appears as three MIDI inputs and two MIDI outputs to the computer. On Windows, these inputs and outputs appear as several instances of **USB Audio Device**. On a Macintosh these inputs and outputs appear as several instances of **Akai MPK49**. This guide will explain the function of each of the input and output ports as they appear to the computer.

MIDI Input Devices

Windows	Macintosh	
USB Audio Device	AKAI MPK49	<p>The MPK49 keys, pads, buttons, knobs, and sliders can be assigned to one of two different 16 channel USB MIDI outputs on the MPK49.</p> <p>When a key, pad or control is touched on the MPK49, the currently assigned output for that control (A or B) will be indicated in the lower-left corner of the MPK49's LCD display.</p> <p>On the computer, the MIDI input titled USB Audio Device (or AKAI MPK49 on the Macintosh) receives MIDI from keys, buttons, knobs, and sliders on the MPK49 which have been assigned to USB MIDI output A.</p>
USB Audio Device (2)	AKAI MPK49 (2)	<p>This MIDI input on the computer receives MIDI from keys, buttons, knobs, and sliders on the MPK49 which have been assigned to USB MIDI output B (on the lower-left of the MPK49's LCD display).</p> <p>This output option is only active when on the MPK49 when it is connected to the computer via USB.</p> <p>When the MPK49 is powered via an external power adapter alone, and not connected via USB, no MIDI will be generated by keys, buttons, knobs, and sliders on the which have been assigned to USB MIDI output B on the MPK49.</p>
USB Audio Device (3)	AKAI MPK49 (3)	<p>This MIDI input on the computer receives MIDI from physical MIDI In jack on the MPK49.</p> <p>Any MIDI sent into the MPK49's MIDI In jack will be sent to the computer via USB Audio Device (3) (or AKAI MPK49 (3) on the Macintosh).</p>

MIDI Output Devices

Windows	Macintosh	
USB Audio Device	AKAI MPK49	<p>This MIDI output on the computer sends MIDI out from the computer into to the MPK49 (directly).</p> <p>This output is used by software programs to send SysEx information and updates to the MPK49.</p>
USB Audio Device (2)	AKAI MPK49 (2)	<p>When the MPK49 is connected to the computer via USB, the MIDI Out jack on the back of the MPK49 becomes a MIDI output for the computer (see "2" above), and does not send out MIDI data from the keys, pads or controls on the MPK49.</p> <p>When the MPK49 powered by a power adapter alone, and is not connected via USB, this output jack functions like it would on a stand-alone keyboard or MIDI controller, and will output MIDI directly from the MPK49's MIDI Out jack.</p> <p>When connected to the computer via USB, the MIDI output on the computer titled USB Audio Device (2) (or AKAI MPK49 (2) on the Macintosh) sends MIDI out from the computer to via the physical MIDI Out jack on the MPK49.</p> <p>This is used to output MIDI from software via the MIDI Out jack on the MPK49.</p> <p>MIDI can be sent from computer software, via USB Audio Device (2) (or AKAI MPK49 (2) on the Macintosh) to external MIDI devices (like sound modules or other keyboards) which are connected to the MIDI output on the MPK49.</p>

Using the MPK49 with the computer and external devices at the same time

When the MPK49 is powered via the optional MP6-1 power adapter alone (and is not connected via USB), the **MIDI Out** jack functions like it would on a stand-alone (non-USB) keyboard or MIDI controller. Any MIDI generated from the keys, pads, or controls will be sent out the **MIDI Out** jack.

However, when the MPK49 is connected to the computer via USB, the **MIDI In** and **MIDI Out** jacks on the MPK49 become a inputs and outputs for the *computer*. The advantage of this is that in this situation, its like you have a USB MIDI controller, and a separate 1-in, 1-out USB MIDI interface.

So, when the MPK49 is connected via USB, and you want to get MIDI from it's keys, pads or controls to an external MIDI device connected to it's **MIDI Out** jack, the signal needs to go into the computer and get routed (by your software) back out **USB Audio Device (2)** (or **AKAI MPK49 (2)** on the Macintosh) to the MPK49's **MIDI Out** jack, and on to your external MIDI device.

In ProTools, Cubase, Sonar, or Ableton

1. In any existing project, create a new MIDI track.
2. Set the MIDI input for this track to **USB Audio Device** (or **AKAI MPK49** on the Macintosh), or if you've set your MPK49 to send MIDI from output **B**, choose **USB Audio Device (2)** (or **AKAI MPK49 (2)** on the Macintosh).
3. Set the MIDI output for this track to **USB Audio Device (2)** (or **AKAI MPK49 (2)** on the Macintosh)
4. Set input monitoring for this track to **On** or **In**, so that incoming MIDI from the MPK49 will be *monitored* and sent right back out the chosen output.
5. **Note:** If you experience a delay between the time when you strike a key or a pad, and when you hear a sound from your software or external MIDI module, open your software's audio options, and reduce the buffer size of your sound card. This will reduce the overall latency, and will improve any MIDI delay you are experiencing.

In Logic

1. In any existing project, create a new **External MIDI** track.
2. Set the **Port** (MIDI output) for this track to **AKAI MPK49 (2)**
3. Turn on **Record Ready** for the MIDI track.
4. **Note:** If you experience a delay between the time when you strike a key or a pad, and when you hear a sound from your software or external MIDI module, open your software's audio options, and reduce the buffer size of your sound card. This will reduce the overall latency, and will improve any MIDI delay you are experiencing.