

# CONDUCTIVE LABS

# MRCC

## MIDI Router Control Center

### Quick Start Guide



Thank you for choosing MRCC for your MIDI studio! We really appreciate it! If you would be so kind, tag your social media posts with #MRCC so we can find them. We would love to see how MRCC improves your studio and makes it a better place to create. Share your stories and music on our forums in the “Show me what you got!” section.

Download the complete MRCC User Manual at  
<https://conductivelabs.com/download>

All the best,  
Steve and Darryl

## **What's in the box:**

1. MRCC – MIDI Router Control Center
2. International AC Power Supply
3. AC Outlet/Mains Adapters
4. USB Type A to B Cable
5. This Quick Start Guide
6. Optional accessories (if ordered)

## **Power Supply Specifications:**

Input: 100 to 240V AC, 50/60Hz

Output: 5.25V DC, 3A, USB Type C connector

## **MRCC Power Consumption:**

MRCC alone uses a minimum of 26mA, and up to 990mA primarily depending on how many LEDs are lit and their brightness. Each USB A Host Port supports up to 500mA as per USB 2.0 specification.

The MRCC is compatible with most USB-PD (Power Delivery) specification power supplies with a 5V DC, 15W (minimum) rating. MRCC will operate correctly down to 4.5V DC, but USB 2.0 devices are only required to operate down to 4.75V. MRCC absolute maximum input is 5.5V DC. Higher voltages will cause damage that is not covered by warranty. When using a 3<sup>rd</sup> party power supply, use the shortest USB cable possible to prevent voltage drop.



### **Precautions, not limited to:**

1. Read and follow all instructions.
2. Unplug before cleaning and use only a soft dry cloth. Do not use any cleaners, it could damage the silkscreen ink.
3. Do not use the instrument near water or moisture, such as a bathtub, sink, swimming pool or similar place.
4. Do not expose the instrument to hot sunlight.
5. Do not spill any kind of liquid onto the instrument.
6. Do not place the instrument in an unstable position where it might accidentally fall. Do not place heavy objects on the instrument.
7. Do not open or insert anything into the instrument that may cause a fire or electrical shock.
8. Always contact Conductive Labs LLC if you have an issue. **You will invalidate your warranty if you open and remove the cover.** However, you may exchange the end caps for rack ears.
9. Do not use the instrument when there is a gas leak nearby.
10. Conductive Labs LLC is not responsible for any damage or data loss caused by improper operation of the instrument.
11. The MRCC RJ45 port **is NOT ETHERNET**. Do not attach any Ethernet devices to MRCC, it may damage MRCC and/or the Ethernet device.

**Not following the above Precautions will void the manufacturer's warranty.**



EU Declaration of Conformity available at <https://conductivelabs.com/download>

**EU REACH** Compliance Report available upon request from authorized entities.

**WEEE Statement** This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. Conductive Labs products are WEEE registered via authorized resellers in their respective regions.

**FCC Compliance Statement** *This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.*

**This Quick Start Guide** is a supplement to the MRCC User Manual, available at: <https://conductivelabs.com/download>. For complete information on using MRCC, please refer to the User Manual. Check the site for available language translations.

**Support for MRCC** is provided by Conductive Labs and our experienced users on the Conductive Labs forums. Please register on the forums for questions not answered in this guide or the User Manual. As part of forum registration, you will receive a verification email. If you do not receive it check your spam/junk folder, the verification emails often end up there. If you experience any problem with registering on the forums, let us know using the contact page on our website and we'll get you set up. You can register on the forums at <https://forum.conductivelabs.com>

## Getting Started

1. Plug in your MIDI controllers (keyboards, sequencer, The NDLR) into MRCC's MIDI Inputs and/or USB host or PC port.

Note: MRCC USB Host ports only work with USB MIDI Class compliant devices. Those are devices that do not require a special driver when used with a computer. Consult the manufacturer of the device if you aren't sure.

Note: 3.5MM jacks labeled A and B are MIDI TRS standard inputs and outputs. You can choose 1 of the inputs (A or B or DIN). Do not connect more than one device to an **Input** with shared jacks. You can use the A and B **Outputs** simultaneously.

2. Connect sound modules to the MRCC MIDI outputs, or use virtual synths or a DAW on your PC using MRCC's USB type B PC connection port and the provided cable.

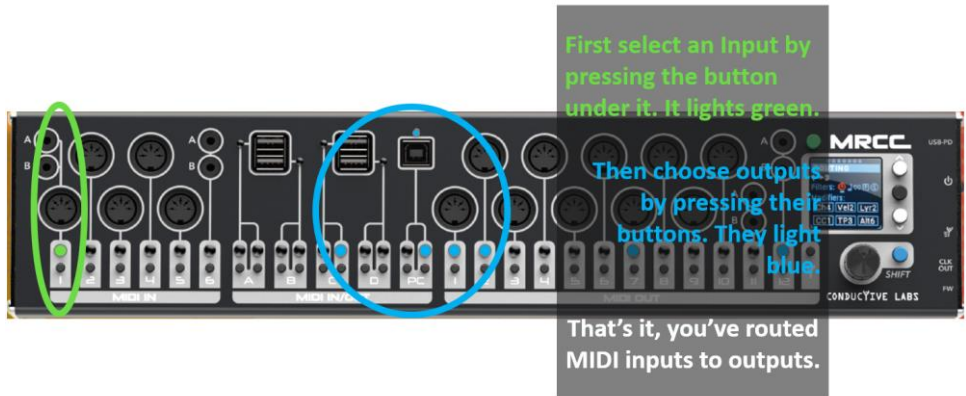
Hint: For hardware MIDI controllers and sound modules, it helps a lot to label them with their MIDI channels.

Note: For a computer DAW (Digital Audio Workstation), each one is different. Check the DAW documentation for setting up MIDI tracks and virtual instruments, such as VSTs.

3. **Power MRCC** using the supplied power supply and outlet/mains adapter for your region:
  - a. Attach the appropriate mains adapter, then plug it into a power outlet.
  - b. Plug the power supply cable with USB C connector into the MRCC on the right-side panel where it is labeled USB-PD, then switch it on. The MRCC LEDs flash and the screen will come on.

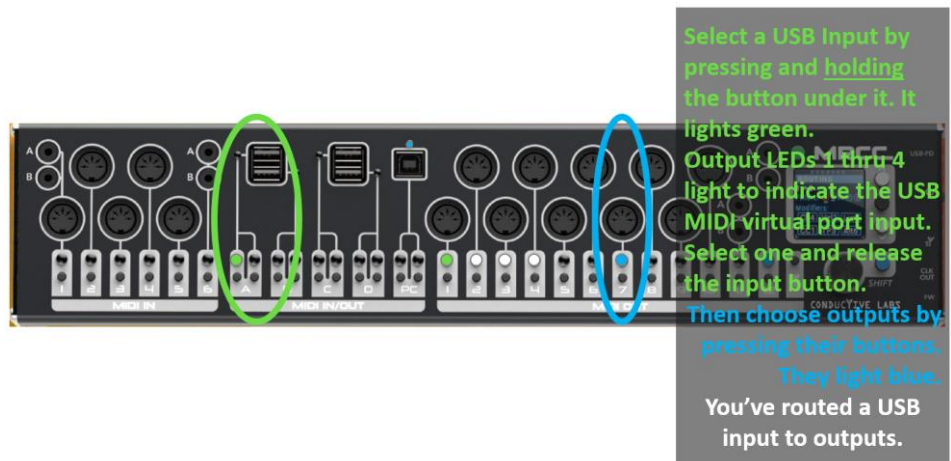
## 4. Basic MIDI Routing

### Routing MIDI Inputs 1 thru 6



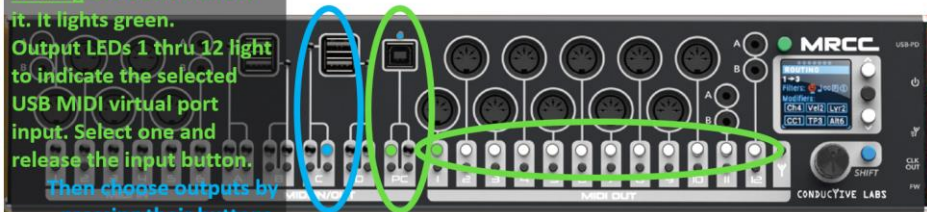
### Routing USB Host Ports A thru D

The USB Host ports light green when a USB device is attached. They do not light when a device is only taking power and not data. If a port lights Amber, it means the device is drawing more power than allowed for USB 2.0. If a USB Host port lights Amber, disconnect the device and power cycle MRCC to reset the port. Your device may require it's own power supply.



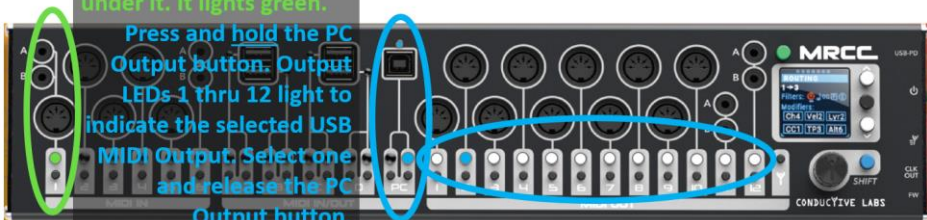
## Routing a PC USB Virtual MIDI Input to Outputs

Select the PC connection input by pressing and holding the button under it. It lights green. Output LEDs 1 thru 12 light to indicate the selected USB MIDI virtual port input. Select one and release the input button. Then choose outputs by pressing their buttons. They light blue. In your DAW, choose the MRCC PC Port to send MIDI to the selected Outputs.



## Choosing USB PC Port Virtual Outputs

Select an Input by pressing the button under it. It lights green. Press and hold the PC Output button. Output LEDs 1 thru 12 light to indicate the selected USB MIDI Output. Select one and release the PC Output button. Select the Output in your DAW or soft synth to play or record MIDI from the selected Input.



### 5. Saving your settings

System settings in the SETTINGS menu are automatically saved when you change them. Routing, filtering, label assignments and other settings may be saved from the TOOLS LOAD/SAVE menu:

- a. Turn the encoder to the TOOLS page.
- b. Press the white 'down' button until the cursor reaches the Preset line.
- c. Turn the encoder clockwise to select a preset number to save to.
- d. Press the 'down' button until SAVE is highlighted.
- e. Press Enter button to save.



## 6. Firmware Updates

Conductive Labs provides periodic firmware updates to enhance features or fix reported issues. You can find the latest released firmware update on the Download section of the Conductive Labs website. Before updating your firmware, check the version you are currently using by rotating the encoder until you see the SETTINGS screen.

Hint: Press the Green button briefly to move the selection to the top of the menu if it is not already there.

- a. On the SETTINGS screen, press the white 'down' button once, then rotate the encoder clockwise to the last page. The FW version and Serial Number are shown there.
- b. Typically, firmware updates will not overwrite your settings or patches.
- c. Registered users of the Forum can download pre-release "beta" versions of firmware when available. We appreciate our users help in testing changes and enhancements. Please report your success or issues with pre-release firmware on the beta forum.



- d. Instructions for updating firmware are on the Download page at [conductivelabs.com](http://conductivelabs.com).

## 7. Other Cool Stuff

Check the User Manual for a complete description of current functionality.

Press and hold the Green button to put MRCC into Standby mode. Press it again to resume.

Press and hold the Blue Shift button + the Y button (next to port 12) to start a light show. You can select various lightshow motifs from the SETTINGS menu.

You can adjust the port LED brightness from the SETTINGS menu. Speaking of LEDs, you might notice the flickering amber light below the USB B port. It's just an internal LED we sometimes use for diagnostics.

## 8. Accessories

There are currently 3 accessories available for MRCC:

### **MRCC 2U Rack Ears, 19" Rack Mounting Brackets**

The MRCC rack mount brackets enables MRCC to be mounted in a standard 19 inch rack. The MRCC is 2U.

To install the 2U Rack Ears, first remove the existing end cap screws (4 per side) using a 2.5MM hex driver. Using the screws you removed, replace the left end cap with the smaller rack ear. Replace the right end cap with the rack ear that has a large opening. It will look like this:



Hint: First put the screws in finger tight, being careful not to cross thread them. Then gently tighten with the hex driver.

### **MRCC Remote 7 Port Extender**

The MRCC Remote 7 Port extender provides a slick way to get ports to where you need them in your studio or performance space. Five - 5 pin DIN outputs are added, plus two 3.5MM TRS jacks which are shared with two of the 5 outputs. One 3.5MM TRS is MIDI type A and the other is TRS MIDI type B.

The Remote 7 attaches to MRCC via a “shielded connector” Ethernet cable (CAT6a cable included). That is, an Ethernet cable with a metal shield over the RJ45 jacks that is connected on each end via a drain wire in the cable.

Note that **the MRCC RJ45 port is NOT ETHERNET**. Do not attach any Ethernet devices to MRCC, it may damage MRCC and/or the Ethernet device.

The Remote 7 outputs can be configured as thru ports for outputs 1-5, or as additional outputs, individually routable with the remote button. See SETTINGS page 2 “R7 Ports:”

The remote button is located between the output 12 button and encoder and marked with the “Y guy”. Select an Input, then press and hold the remote button, then select the remote port to route to. They light yellow when routed.

Note: When 2 MRCC’s are connected with an Ethernet cable, the Remote 7 may also be connected using a special RJ45 splitter. In

this configuration, the Remote 7 may only be used as “thru ports” for outputs 1-5. Use the Contact link at [conductive labs.com](http://conductive labs.com) to ask how to order a splitter.

### **MRCC XpandR 4x1**

Need even more DIN ports? Use MRCC XpandR 4x1 to add four 5-pin DIN inputs and one output using an MRCC USB Host Port. The 4 inputs and 1 output are mapped to the MRCC USB Host MIDI ports, so routing them is just like routing USB MIDI virtual ports. Up to 4 XpandR’s can be added per MRCC (using the 4 USB host ports).

### **Notes:**

**Conductive Labs LLC**, a corporation registered in the State of Oregon, USA.

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