

## TAPCO Link.MIDI Firmware 2.2 to 2.4 Update Instructions

Your Link.MIDI firmware can be updated from a PC or a Macintosh. The following procedures describe how to update the Link.MIDI from a PC and from a Mac.

### Update Procedure for Windows XP (SP1 or later)

Please read the update procedure below carefully before attempting to update your TAPCO Link.MIDI.

1. You need a program that can send SysEx binary files (which have a .syx extension) to MIDI devices. The only one that we have tested is MIDI-OX, which can be downloaded from <http://www.midiox.com>. Use other programs **at your own risk**; they might work, or they might render your Link.MIDI inoperable, requiring a trip back to the factory for reprogramming.
2. Close all applications that use MIDI services and then disconnect all audio and MIDI devices from your computer aside from the TAPCO Link.MIDI that you want to update. Disconnect all MIDI devices from the Link.MIDI.
3. Check that the Link.MIDI is in USB mode by making sure that the THRU button is not engaged.
4. Install MIDI-OX by launching the installer (midioxse.exe) and following the installation procedure.
5. Launch MIDI-OX.
6. In the Options menu, first make sure that **Pass SysEx** is checked at the bottom. Then, choose **Configure Buffers...** Under **Low Level Output Buffers**, change the **Size** to 32768 Bytes. (This number is too wide for the field to display, but it will still work correctly.)
7. Again in the Options menu, choose **MIDI Devices**. In the dialog that appears, under the **MIDI Outputs** section on the left, select one of the **USB Audio Device** entries. (Do not select more than one.) Click OK to exit the dialog.
8. From the View menu, choose **SysEx...**
9. From the File menu in the SysEx View and Scratchpad window, choose **Send SysEx File...** and then navigate to the .syx update file (LinkMIDI\_2\_2\_to\_2\_4.syx). As soon as you open the file, MIDI-OX will begin sending it to the Link.MIDI. This will cause all four of the Out Activity LEDs on the Link.MIDI to light up.
10. **Wait until the Out Activity LEDs go off**, which should happen after about 10 or 15 seconds, and then unplug your Link.MIDI and plug it back in.
11. Open up Device Manager. One way to do this is to right-click on My Computer (on your desktop, or in the Start menu, etc.) and choose Properties, then click on the Hardware tab and then the Device Manager button.
12. In Device Manager, expand the **Sound, video and game controllers** section. You should see at least one **USB Audio Device** item; one of them represents your TAPCO Link.MIDI. Right-click on each one and choose **Properties**. In the **Location** field in the dialog box that appears, you will see a location number, followed by the device's name in parentheses. The Link.MIDI's name should be **TAPCO Link.MIDI USB v2.4**. If one of the USB Audio Devices has this name, you're all set! You can close all the windows and programs you've opened to perform the update and go back to using your Link.MIDI as usual.

If none of the USB Audio Device items have the correct name and there is instead an "Other devices" section with a "USB device" entry, contact TAPCO Technical Support.



## Update Procedure for Mac OS X (10.3.9 and later)

Please read the update procedure below carefully before attempting to update your TAPCO Link.MIDI. Refer to the Troubleshooting section at the end of this section if your results during the update differ from what the instructions describe or if the update is interrupted.

If you have a Mackie Control Universal Pro connected to your computer via USB, disconnect it before proceeding.

Please note that if you have multiple Link.MIDI devices, you will have to update them one at a time by following the steps below for each unit. Before you update each Link.MIDI, make sure that all of the other Link.MIDIs are disconnected from your computer.

1. Close all applications that use MIDI services and then disconnect all MIDI devices from your Link.MIDI.
2. Check that the Link.MIDI is in USB mode by making sure that the THRU button is not engaged.
3. You are now ready to start the update process, which will take about one minute. Once you start the update, **do not disconnect your Link.MIDI** until these instructions say to do so.
4. Start the update by double-clicking the Run Update application inside the updater disk image. This will cause the Terminal application to open and begin updating your Link.MIDI. Don't worry if you haven't used Terminal before—you don't have to do anything besides watch the update happen.
5. If the updater runs successfully, you should see a series of percentages appear in the Terminal window, followed by an "Update complete!" message and then "logout" and "[Process completed]". You can now close the Terminal window, and you can quit Terminal if you don't have any more Link.MIDI units to update. Unless you are repeating an update twice as directed by the Troubleshooting section, you can proceed to step 6 below.

If the Terminal window does not display the "Update complete!" message after more than one minute, **do not disconnect your Link.MIDI**. Instead, refer to the Troubleshooting section below.

6. Disconnect your Link.MIDI from your computer and then plug it back in.
7. Confirm that your Link.MIDI was updated successfully by opening the System Profiler application using the alias inside the updater disk image. (System Profiler can also normally be found in the Utilities folder inside the Applications folder on your hard drive. If you have previously moved System Profiler to a different location, you will have to open it manually.) In the **Contents** pane on the left, click on the **USB** item (you may have to expand the Hardware section first). Now, in the USB Device Tree pane on the right, you should see a **TAPCO Link.MIDI USB v2.4** entry. If you do, you're all done! You can quit System Profiler and start using your freshly updated Link.MIDI as usual.

If you have more Link.MIDI units to update, disconnect the one you just updated and then connect the next one. Begin updating it by starting at step 2 above. You can leave System Profiler running, but each time you reach step 7, choose Refresh from the View menu to make sure that it displays current information.

### Troubleshooting

Here are some solutions for problems you might experience during the update process.

- Terminal displays the message: **Could not find TAPCO Link MIDI USB Ver 2.2 to update.**  
First, double-check to make sure that your Link.MIDI is properly connected to your computer with a USB cable. Next, since the updater is not running, it's OK to try using some of your MIDI applications and devices to make sure that your Link.MIDI is still properly functioning. Also, try disconnecting and then reconnecting



your Link.MIDI. If none of that works, the following procedure should get you back on track:

1. Open the **Audio MIDI Setup** application in the Utilities folder, which is inside the Applications folder on your hard drive.
2. Click on the **MIDI Devices** tab at the top of the window that opens.
3. From the pop-up menu labeled **Configuration**, choose **New Configuration**.... Type a descriptive (or not) name and then click **OK**. You should now see three icons in the main pane of the window: IAC Driver, Network, and TAPCO Link MIDI USB Ver 2.2.
4. Quit Audio MIDI Setup and then try running the update again by starting at step 4 in the update procedure above. If the update succeeds, you don't need to re-run it for a second time.
5. Once you have finished updating all of your Link.MIDI units, you can return to your previous MIDI configuration by opening Audio MIDI Setup again and changing the active Configuration back to what it was before.

If these steps don't solve the problem, even after multiple tries, your Link.MIDI might have already been updated to firmware version 2.4. Perform step 7 of the update procedure to check (using System Profiler).

- Terminal displays a different error, or the update never completes or is interrupted. If necessary, stop the update by pressing Control-C. Then, repeat steps 4 and 5 of the update procedure **TWO more times**. Even if Terminal displays "Update complete!" after the first re-try, **do not disconnect your Link.MIDI until the updater completes successfully twice in a row**. Once the updater runs successfully for the second time in a row, you can proceed to step 6 of the update procedure.

If the updater still won't complete successfully, contact TAPCO Technical Support for assistance (1-877-827-2669).

- Link.MIDI does not appear in System Profiler after update; "Vendor-Specific" shows up instead.

Contact TAPCO Technical Support (1-877-827-2669).

## Fixed or Updated Since Version 2.2

This section describes improvements that have been made to the Link.MIDI firmware since the previous version.

### Windows Vista compatibility

Fixed an issue that would prevent the Link.MIDI from showing up in Device Manager or functioning with MIDI applications under Windows Vista.

### Improved SysEx handling

Fixed an issue in USB mode where the first few bytes of consecutive System Exclusive messages coming into MIDI inputs 2, 3, or 4 might not be sent through to the host computer correctly.

Be sure to check [www.tapcoworld.com](http://www.tapcoworld.com) frequently for any additional driver or software updates for your Link.MIDI.

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