

WatsonMIDI™

by Watson Pipe Organ Co.

Connecting WatsonMIDI to GrandOrgue

Complete Setup Guide for Virtual Organ Playback on Mac

Overview

This guide walks you through connecting WatsonMIDI to GrandOrgue, the free virtual pipe organ software, on your Mac. Once configured, you can record performances from a MIDI keyboard and play them back through GrandOrgue's high-quality organ samples.

WatsonMIDI uses a feature called **Separate MIDI Routing** to keep your keyboard (for recording) and GrandOrgue (for playback) on independent paths. This prevents feedback loops and ensures clean, reliable operation.

Signal Flow — Live Playing:



Both apps receive from your keyboard at the same time. You hear GrandOrgue while WatsonMIDI records.

Signal Flow — Playback:



WatsonMIDI sends recorded notes through a separate virtual cable to GrandOrgue.

What You Need

- ✓ A Mac computer (Apple Silicon M1 or newer recommended)
- ✓ WatsonMIDI installed from the Mac App Store
- ✓ GrandOrgue installed (free from grandorgue.github.io)
- ✓ A GrandOrgue organ sample set loaded
- ✓ A USB-MIDI keyboard (e.g., Casio, Yamaha, Roland, or any MIDI controller)

Step 1: Enable the IAC Driver

The IAC Driver (Inter-Application Communication) is built into every Mac. It creates virtual MIDI cables between applications. You need to enable it and create a second bus for WatsonMIDI playback.

1. Press Command + Space to open Spotlight Search.
2. Type Audio MIDI Setup and press Return.
3. In the menu bar, click Window → Show MIDI Studio.
4. Find the IAC Driver icon and double-click it.
5. Check "Device is online" to activate it.
6. In the Ports section, click the + button to add a second bus. You should now have Bus 1 and Bus 2.
7. Click Apply, then close Audio MIDI Setup.

Tip: You only need to do this once. The IAC Driver stays enabled even after restarting your Mac. Bus 2 is used specifically for WatsonMIDI playback to keep it separate from other MIDI traffic.

Step 2: Connect Your Keyboard

Plug your MIDI keyboard into your Mac via USB. It should appear automatically in both WatsonMIDI and GrandOrgue.

1. Connect your keyboard's USB cable to your Mac.
2. If your keyboard uses a traditional 5-pin DIN MIDI connector, connect it through a USB-to-MIDI adapter cable.
3. Open Audio MIDI Setup → Window → Show MIDI Studio to verify your keyboard appears.

Tip: Most modern keyboards connect via USB directly. If your keyboard only has the round 5-pin MIDI ports, you will need a USB-MIDI interface cable (available for around \$15–20).

Step 3: Configure WatsonMIDI

Enable Separate MIDI Routing so WatsonMIDI uses your keyboard for recording and IAC Driver Bus 2 for playback.

1. Open WatsonMIDI on your Mac.
2. Go to the Settings tab (gear icon).

3. Set Connection Type to USB MIDI.
4. Turn on the **Separate MIDI Routing** toggle.
5. For **MIDI Input**, select your keyboard (e.g., "CASIO USB-MIDI").
6. For **MIDI Output**, select **IAC Driver Bus 2**.
7. Verify both show green dots confirming the connections are active.

Result: You should see green indicators for both Input and Output devices in the Separate MIDI Routing section.

Tip: WatsonMIDI remembers your device selections. If you restart the app, toggling Separate MIDI Routing off and back on will restore your chosen devices.

Step 4: Configure GrandOrgue

GrandOrgue needs two things: the right MIDI input devices enabled, and each manual (keyboard division) set up to receive notes from any device.

4a. Enable MIDI Input Devices

1. Open GrandOrgue and load your organ sample set.
2. Go to the menu: Audio/MIDI → Audio/MIDI Settings.
3. Click the MIDI Devices tab.
4. Under **MIDI Input Devices**, check **both** of these:
 - **Your keyboard** (e.g., "CASIO USB-MIDI") — for live playing
 - **IAC Driver Bus 2** — for WatsonMIDI playback
5. Click OK to save.

4b. Configure Each Manual (Critical Step)

Each manual in GrandOrgue must be configured to accept MIDI from **any device**. Without this step, the manual will only respond to your keyboard and will ignore WatsonMIDI playback.

For each manual (repeat this for every keyboard/division):

1. Right-click on the manual (keyboard) in GrandOrgue's interface.
2. Select MIDI Settings from the context menu.
3. Click the "**Listen for Event**" button at the bottom of the dialog.
4. Press a key on your MIDI keyboard. GrandOrgue auto-detects the event type, channel, and device. The **Event** field will change to "9x Note" and the **Device** will show your keyboard name.
5. **NOW THE KEY STEP:** Change the **Device** dropdown from your keyboard name (e.g., "CASIO USB-MIDI") back to "**Any device**".
6. Verify these final settings:

Setting	Value
Device	Any device
Event	9x Note
Channel	Any channel

7. Click OK.

8. Repeat steps 1–7 for **every manual** you want to use (Pedal, Great, Swell, etc.).

Important: The "Listen for Event" step captures the correct event type and channel, but it locks the Device to your specific keyboard. You **MUST** change it back to "Any device" so the manual also receives playback from IAC Bus 2. This is the most common reason playback produces no sound.

Step 5: Test Your Setup

Test 1: Live Playing

1. Make sure at least one stop is activated in GrandOrgue (click a stop knob to engage it).
2. Play notes on your keyboard.
3. You should hear GrandOrgue producing organ sound through your speakers.

Result: If you hear sound, your keyboard is properly connected to GrandOrgue. If not, revisit Step 4b and make sure the manual has Event set to "9x Note".

Test 2: Record and Play Back

1. In WatsonMIDI, go to the Player tab.
2. Press the red Record button.
3. Play a short piece on your keyboard. You should hear GrandOrgue while recording.
4. Press Stop, then save the recording with a name.
5. Select your recording and press Play.
6. GrandOrgue should play back the recording through your speakers.

Result: If you hear the recording playing through GrandOrgue, everything is working correctly. You are ready to use WatsonMIDI with GrandOrgue!

Tip: WatsonMIDI captures notes and expression data from your keyboard. Stop/registration changes made by clicking on GrandOrgue's screen are internal to GrandOrgue and are not captured in the recording. Before playback, select the stops you want in GrandOrgue first.

Troubleshooting

No Sound During Live Playing

- Verify your keyboard is connected and appears in Audio MIDI Setup → MIDI Studio.
- In GrandOrgue's MIDI Devices settings, confirm your keyboard is checked as an input.
- Make sure at least one stop is activated in GrandOrgue.
- Check the manual's MIDI settings — Event must be **"9x Note"**, not "(none)". Use "Listen for Event" to set it up.

No Sound During Playback

- Confirm **IAC Driver Bus 2** is checked in GrandOrgue's MIDI Devices settings.
- Verify each manual's Device is set to **"Any device"** (not locked to your keyboard name). This is the #1 cause of playback silence.
- In WatsonMIDI Settings, confirm MIDI Output shows "IAC Driver Bus 2" with a green dot.
- If WatsonMIDI was restarted, toggle Separate MIDI Routing off and back on to re-establish connections.
- Try restarting GrandOrgue if you recently changed its MIDI device settings.

IAC Driver Not Appearing

- Open Audio MIDI Setup and verify "Device is online" is checked for the IAC Driver.
- Make sure you have two buses (Bus 1 and Bus 2) in the IAC Driver's Ports section.
- Close and reopen both WatsonMIDI and GrandOrgue after enabling the IAC Driver.

Feedback Loop or Stuck Notes

- Make sure Separate MIDI Routing is enabled in WatsonMIDI with different input and output devices.
- Never set the same IAC Bus as both input and output — this creates a feedback loop.
- The recommended setup (keyboard as input, IAC Bus 2 as output) prevents all feedback loops.

Playback Sounds Choppy or Delayed

- Close unnecessary applications to free system resources.
- In GrandOrgue's Audio settings, increase the buffer size for stability or decrease it for lower latency.

Quick Reference

WatsonMIDI Settings

Setting	Value
Connection Type	USB MIDI
Separate MIDI Routing	ON
MIDI Input	Your keyboard (e.g., CASIO USB-MIDI)
MIDI Output	IAC Driver Bus 2

GrandOrgue Settings

Setting	Value
MIDI Input Devices	Your keyboard + IAC Driver Bus 2 (both checked)
Manual → Device	Any device
Manual → Event	9x Note
Manual → Channel	Any channel

Workflow at a Glance

Action	What to Do
Record	Press Record in WatsonMIDI → Play your keyboard → Press Stop → Save
Play Back	Select stops in GrandOrgue → Select recording → Press Play
Live Play	Just play your keyboard — GrandOrgue responds in real time

Need Help?

Email: support@watsonpipeorgan.com

Website: www.watsonpipeorgan.com

Tutorials: youtube.com/@WatsonMIDI

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