WatsonMIDI™

User Manual

Quick Start Guide for Musicians

Capture the Music. Share the Ministry.

1. Connecting to Your Instrument

WatsonMIDI connects to any pipe organ, digital organ, or keyboard with a MIDI output. You have two connection options:

Option A: Wired Connection (USB-MIDI Cable)

What You Need:

- USB-MIDI cable (USB-A to 5-pin DIN MIDI)
- Lightning to USB Camera Adapter (for older iPads) or USB-C adapter (for newer iPads)

Steps:

1. Connect the MIDI cable's **IN** connector to your instrument's **MIDI OUT** port
2. Connect the USB end to your iPad via the camera adapter
3. Open WatsonMIDI
4. Tap the **Settings** tab (gear icon)
5. Under "MIDI Connection," your device should appear automatically
6. Tap to select it — a **green dot** confirms connection

Tip: *The MIDI cable's IN connector receives data FROM the instrument's OUT port. This is the most common point of confusion!*

Option B: Wireless Connection (CME WIDI Jack)

What You Need:

- CME WIDI Jack Bluetooth MIDI adapter
- 5-pin DIN MIDI cable (if not built into your console)

Steps:

7. Connect the WIDI Jack to your instrument's **MIDI OUT** port
8. Power on the WIDI Jack (LED will blink)
9. Open WatsonMIDI
10. Tap the **Settings** tab
11. Under "MIDI Connection," tap **Scan for Devices**
12. Select "WIDI Jack" from the list
13. Wait for connection — a **green dot** confirms success

Auto-Connect Feature: Once you've connected to your WIDI Jack, WatsonMIDI remembers it. Next time you open the app with the WIDI Jack powered on, it will connect automatically within 2-3 seconds.

2. Recording, Naming, Saving & Playback

Making a Recording

14. **Connect** to your instrument (see Section 1)
15. Tap the **Player** tab
16. Tap the red **Record** button
17. **Play your piece** on the instrument
18. When finished, tap **Stop**

During Recording:

- The timer shows elapsed time
- A red recording indicator confirms capture is active
- All MIDI data is captured: notes, expression pedals, stop changes, and registrations
- Screen stays awake — your iPad won't sleep during recording
- Background recording — if you switch apps or lock your screen, recording continues!

Naming & Saving Your Recording

After stopping the recording, a save dialog appears:

19. **Title:** Enter the recording name (e.g., "Amazing Grace")
20. **Number:** Optional — enter a reference number (e.g., "378")
21. **Category/Folder:** Select a folder (Hymns, Christmas, Easter, etc.) or create a custom folder
22. **Composer:** Optional — add composer name
23. Tap **Save**

Playing Back a Recording

To Your Instrument (Live Playback):

24. Ensure your instrument is connected (green dot)
25. In the Library, tap a recording to select it
26. Tap the **Play** button — MIDI data streams to your instrument
27. The instrument plays exactly as you recorded it!

Listening Mode (Headphone Preview):

28. In the Player tab, enable **Listening Mode**
29. Tap Play — hear the recording through your iPad/headphones

30. Use the scrubber to skip to any position
31. Perfect for reviewing recordings without the instrument

3. Creating Services/Playlists & Sharing

Creating a Service/Playlist

Organize recordings for your Sunday service, event, or performance:

32. Tap the **Services** tab
33. Tap **+ New Service**
34. Enter a name (e.g., "Sunday March 15" or "Easter Vigil")
35. Tap **Create**

Sharing Recordings

WatsonMIDI allows musicians to share their recordings with a church for use during their absence, special services, or training purposes.

Why Share?

Scenario	Benefit
Musician on vacation	Church can play pre-recorded pieces
Training a new musician	Provide example performances
Substitute needed last-minute	Church has backup recordings ready
Preserving musical heritage	Archive recordings for future generations

How to Share a Recording

36. In the **Library**, select a recording
37. Tap the **Share** icon (or swipe and tap "Share")
38. Choose a sharing format (see table below)
39. Send via AirDrop, Email, Messages, or save to Files

Sharing Formats:

Format	Best For	Recipient Needs

WatsonMIDI File	Church iPad with WatsonMIDI	WatsonMIDI app
Standard MIDI (.mid)	Any MIDI software	MIDI player or DAW
Protected (Symphony)	DRM-protected sharing	WatsonMIDI (Audition+)

3a. Protected Sharing (Symphony Tier)

Symphony tier users can share recordings with built-in play limits to protect their intellectual property. Files are encrypted with AES-256 encryption before sharing.

How to Share with Protection

40. Select recordings or a service/playlist to share
41. Tap **Share → Share Protected**
42. Choose your protection level:

- **Play Once** — Recipient can play each recording once, then it's automatically removed
- **Limited Plays** — Recipient can play 3, 5, 7, 10, or 20 times (you choose)
- **Keep Forever** — No restrictions (unlimited plays)

43. Add your name as **Creator Attribution** (optional) — this shows recipients who created the recording
44. Tap **Share Protected**
45. Send via AirDrop, Email, or save to Files

How Protection Works

- Files are encrypted with **AES-256 encryption** before sharing
- When the recipient imports the file, play counts are stored **locally on their device**
- Each time they play a recording, the count decrements
- When plays are exhausted, the recording is **automatically removed** from their library
- Protected recordings show a **lock icon** and remaining play count in the Library

Tier Requirements

Action	Tier Required
Create protected shares	**Symphony**
Receive & play protected content	Audition, Recital, or Symphony

Important: Once shared, you cannot remotely revoke access or change play limits. Choose your protection level carefully before sharing.

Sharing Best Practices

For Trust-Based Relationships:

- Use standard WatsonMIDI format (.wmidi) — simpler, no play limits
- Best for church iPads you control or trusted colleagues

For Protected Sharing:

- Use Protected Sharing when you want to limit how many times recordings can be played
- Good for commercial arrangements or when sharing with multiple churches
- Consider "Limited Plays (10-20)" for regular church use
- Use "Play Once" for audition or preview purposes

3b. Church Setup for Receiving Recordings

What the Church Needs

- An iPad (any model that runs iOS 15+)
- WatsonMIDI app installed (available on App Store)
- For protected content: Audition tier or higher
- MIDI connection to the instrument (wired or Bluetooth)

Importing Shared Recordings

46. Church receives the shared file (via email, AirDrop, etc.)
47. Tap the file to open it
48. Select **"Open in WatsonMIDI"**
49. The recording appears in the Library
50. Connect to the instrument and tap Play!

For Protected Content:

- Protected recordings show a **lock icon** with remaining play count
- Each play decrements the count
- When plays are exhausted, the recording is automatically removed

Example: Vacation Coverage

Scenario: Susan, the church organist, will be away for two Sundays.

Susan's Preparation:

51. Records all pieces for both services in WatsonMIDI
52. Creates two service playlists: "June 8 Service" and "June 15 Service"
53. Shares each recording with the church office via AirDrop

Sunday Morning:

54. Volunteer opens WatsonMIDI on church iPad
55. Opens "June 8 Service" playlist
56. When it's time for a piece, taps Play
57. Instrument plays exactly as Susan recorded it!

4. Backing Up & Restoring Your Library

Your recordings are precious! WatsonMIDI stores recordings locally on your device. **If you uninstall the app or get a new device, your recordings will be lost unless you back them up.**

Backup Options

Option	Best For	What's Included
Backup Library	Complete backup (recommended)	.zip file with .watsonmidi files
Export as Standard MIDI	Use with other software	Individual .mid files

Note: The Backup Library creates a .zip archive containing .watsonmidi files. Each .watsonmidi file preserves all recording data including metadata and audio.

How to Backup

58. Go to **Settings** tab
59. Scroll to **Import / Export** section
60. Tap **Backup Library**
61. Select what to backup: Full Library or specific folders
62. Choose save location (iCloud Drive recommended)
63. Tap **Open** to save

How to Restore

64. Go to **Settings → Import / Export**
65. Tap **Import WatsonMIDI Files**
66. Navigate to your backup
67. Select files and tap **Open**

5. Using WatsonMIDI with Virtual Organ Software (Mac)

WatsonMIDI works with virtual pipe organ software like GrandOrgue and Hauptwerk on your Mac. This lets you record performances from a MIDI keyboard and play them back through high-quality organ samples — no physical pipe organ required.

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

How It Works

During Live Playing:

Your keyboard sends MIDI to your Mac. Both WatsonMIDI and GrandOrgue receive the signal at the same time — you hear organ sound through GrandOrgue while WatsonMIDI quietly records everything.

During Playback:

WatsonMIDI sends recorded notes through a separate virtual cable (IAC Driver Bus 2) to GrandOrgue, which plays the sound through your speakers. Because playback uses a different route than your keyboard, there are no feedback loops.

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) or Hauptwerk
- A virtual organ sample set loaded in your organ software
- 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 your virtual organ software.

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

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 (or Hauptwerk)

Your virtual organ software needs two things: the right MIDI input devices enabled, and each manual (keyboard division) configured to receive notes from any device. The instructions below use GrandOrgue as an example; Hauptwerk follows a similar pattern in its MIDI settings.

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** your keyboard (e.g., "CASIO USB-MIDI") and **IAC Driver Bus 2**
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. Repeat the following for every manual (Pedal, Great, Swell, etc.):

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
5. **KEY STEP:** Change the **Device** dropdown from your keyboard name back to **"Any device"**
6. Verify the final settings: Device = **Any device**, Event = **9x Note**, Channel = **Any channel**
7. Click **OK** and repeat for every manual you want to use

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: Make sure at least one stop is activated in GrandOrgue, then play notes on your keyboard. You should hear organ sound through your speakers.

Test 2 — Record and Play Back: In WatsonMIDI, press Record, play a short piece, press Stop, and save the recording. Then select your recording and press Play. GrandOrgue should play back the recording through your speakers. If you hear it, everything is working!

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.*

Quick Reference: WatsonMIDI + Virtual Organ Settings

WatsonMIDI 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 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

Troubleshooting Virtual Organ Setups

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

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

Connection Status

Indicator	Meaning
Green dot	Connected and ready
No dot	Not connected
Scanning...	Searching for devices

Recording Workflow

68. **Connect** — Settings → Select device
69. **Record** — Player → Red button → Play → Stop
70. **Save** — Enter title → Select folder → Save
71. **Find** — Library → Browse or search
72. **Play** — Select recording → Play button

Sharing Workflow

73. **Select** — Library → Tap recording
74. **Share** — Share icon → Choose format
75. **Send** — AirDrop, Email, or Files
76. **Import** — Recipient opens file → "Open in WatsonMIDI"

Support

For questions or assistance:

- **Email:** support@watsonpipeorgan.com
- **Website:** www.watsonpipeorgan.com

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