V-1.3

USER MANUAL

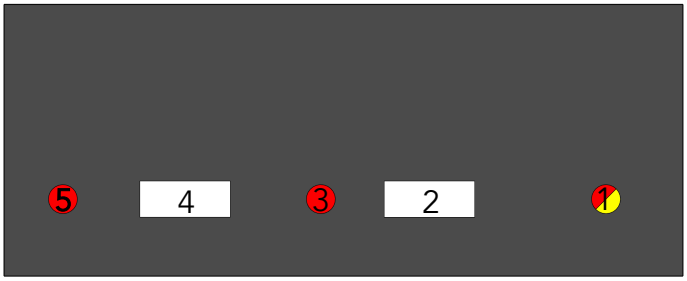
The USB GO BOX Mk2 is a compact, dual-port, six-button USB-C controller designed for dependable show control of sound playback systems. As the successor to the original USB GO BOX, the Mk2 retains the "small and simple" hardware concept while adding significantly more flexibility on the software side, including improved Learn and Companion modes that expand how the buttons can be configured and used. With two independent USB-C connections, the unit can control two destination computers at the same time, such as a main and backup machine. Keeping them in sync with a single button and true redundant control.

TOP

1. GO
2. STOP
3. LAST
4. NEXT
5. LOAD
6. PAUSE

REAR

1. Power / Status LED
2. USB 1 (config)
3. Traffic LED 1
4. USB 2
5. Traffic LED 2



Modes

The USB GO BOX Mk2 can operate in four distinct modes, each defining the type of MIDI data the unit outputs and how it is intended to integrate with your playback or show-control workflow. The available modes are MSC (MIDI Show Control), PC (Program Change), Learn Mode, and Companion Mode. In the first three modes, the GO BOX Mk2 outputs MIDI traffic over USB based on button presses, making it suitable for direct control of compatible software on one or two connected computers in sync. Companion Mode is different: it disables MIDI output and instead works with a module for Bitfocus Companion. This mode is only accessible via the GO BOX Control Panel application (it cannot be selected using on-box mode cycling).

MSC

MSC (MIDI Show Control) is the USB GO BOX Mk2's default mode and is designed to be immediately usable with MSC-capable playback software, most notably as a plug-and-play control solution for QLab. When the unit is set to MSC mode, each button press transmits standard MIDI Show Control commands over USB, allowing the GO BOX Mk2 to trigger common transport-style actions without any custom mapping or setup. The GO BOX Mk2 sends these MSC messages to the connected destination computer(s), enabling the same control actions to be performed on a main and backup system in sync.

A table of the button command definitions is provided below.

Button	MSC Command	RAW
1	GO	0xF0, 0x7F, 0x7F, 0x02, 0x7F, 0x01, 0xF7
2	PANIC ALL	0xF0, 0x7F, 0x7F, 0x02, 0x7F, 0x08, 0xF7
3	Select Last	0xF0, 0x7F, 0x7F, 0x02, 0x7F, 0x14, 0xF7
4	Select Next	0xF0, 0x7F, 0x7F, 0x02, 0x7F, 0x13, 0xF7
5	Load	0xF0, 0x7F, 0x7F, 0x02, 0x7F, 0x5, 0xF7
6	Pause	0xF0, 0x7F, 0x7F, 0x02, 0x7F, 0x2, 0xF7

Program Change

Program Change (PC) Mode is intended for software and systems that can respond to specific MIDI messages, offering greater flexibility than MSC by allowing you to decide what each command does within the destination application. In PC mode, each button press sends a Program Change message over USB.

In PC mode, the USB GO BOX Mk2 outputs Program Change messages 0 through 5 on MIDI Channel 1.

Note that Ableton Live users cannot use PC mode for transport-style control, as Ableton does not allow Program Change messages to be mapped to transport functions.

A table of the button command definitions is provided below.

Button	MSC Command	RAW
1	Chan 1 PC 0	0xC0, 0x00
2	Chan 1 PC 2	0xC0, 0x01
3	Chan 1 PC 3	0xC0, 0x02
4	Chan 1 PC 4	0xC0, 0x03
5	Chan 1 PC 5	0xC0, 0x04
6	Chan 1 PC 6	0xC0, 0x05

Learn

Learn Mode allows the USB GO BOX Mk2 to be configured to output user-defined "musical" MIDI messages from each of its six buttons, providing maximum flexibility for integration with software that supports MIDI mapping. In this mode, the GO BOX Mk2 defaults to MIDI Note messages, but each button can be reassigned to transmit a different musical MIDI command as required.

Button assignments can be created in two ways: using the GO BOX Control Panel application, or by "teaching" the GO BOX Mk2 via incoming MIDI as described later in this manual. Once learned, the programmed messages are transmitted over USB whenever the corresponding button is pressed.

When Learn Mode is configured to use MIDI Notes, the GO BOX Mk2 behaves like a keyboard: it sends a Note On message when a button is pressed, and a corresponding Note Off message when the button is released.

A table of the default Learn Mode button values is provided below.

Button	MSC Command	RAW
1	Chan 1 Note C0 Velocity 127	0x90, 0x24, 0x7F
2	Chan 1 Note D0 Velocity 127	0x90, 0x26, 0x7F
3	Chan 1 Note E0 Velocity 127	0x90, 0x28, 0x7F
4	Chan 1 Note F0 Velocity 127	0x90, 0x29, 0x7F
5	Chan 1 Note G0 Velocity 127	0x90, 0x2B, 0x7F
6	Chan 1 Note A0 Velocity 127	0x90, 0x2D, 0x7F

Companion

Companion Mode is intended for use with Bitfocus Companion, allowing the USB GO BOX Mk2 to trigger far more than standard MIDI control.

Using the GO BOX Companion module, each of the six buttons can be assigned to actions across a wide range of devices, software, and protocols supported by Companion—including OSC, HID keystrokes, direct application control, and virtually anything that has a Companion module available.

In Companion Mode, all MIDI output from the GO BOX Mk2 is disabled. This is a deliberate, but it also means the unit will appear to "stop working" as a MIDI controller if Companion Mode is enabled unintentionally or without the operator realising. For this reason, Companion Mode is only accessible via the GO BOX Control Panel application (it cannot be selected using on-box mode cycling), and any GO BOX Mk2 currently in Companion Mode will continuously flash its status LED as a clear warning that the unit is not outputting MIDI. You can still navigate out of Companion Mode using on box Mode or Reset controls

To use Companion Mode, you will need to download and install the USB GO BOX Mk2 Companion module. A dedicated section later in this manual explains the installation process and provides a detailed guide to configuring and using the GO BOX Mk2 in Companion Mode.

On-Box Controls

Several core settings on the USB GO BOX Mk2 can be changed directly from the unit, without using the GO BOX Control Panel application. These functions are accessed by holding specific button(s) while powering on the GO BOX Mk2. Using these startup shortcuts you can change the operating mode, reset the unit, enable or disable Rapid Fire mode, and enter Learn Mode programming.

Mode Setting

To cycle through the on-box modes **MSC**, **PC**, and **Learn**, **hold the GO button during power-up**.

Reset

To restore the GO BOX Mk2 to factory settings, **hold the STOP button during power-up**.

Rapid Fire
To enable or disable Rapid Fire mode, **hold the Yellow LOAD button during power-up**.

Teach Mode
To begin "teaching" the GO BOX Mk2 new MIDI commands for Learn Mode, **hold the LAST and NEXT buttons together during power-up**.

A detailed, step-by-step guide to teaching and managing Learn Mode button assignments is provided in the next section.

Using Teach Mode

In Learn Mode, the USB GO BOX Mk2 can output user-programmed "musical" MIDI messages. To assign (or change) what a button sends, you can program the unit directly from the hardware using Teach Mode.

This terminology is intentional: the GO BOX Mk2 has an output mode called Learn Mode, and it also has a programming function used to *teach* button assignments. In earlier documentation these were both referred to as "Learn Mode," which could be confusing. The programming process itself is the same—only the naming has been clarified.

What you need before you start

- **A computer running any software capable of sending MIDI** (a MIDI monitor, DAW, utility app, etc.).
- A USB cable connected to **USB 1 (Config USB)** — this is the port **closest to the Status LED**.
    - Teach Mode will not work correctly if you use the other USB port.

Enter Teach Mode

1. Disconnect power/USB from the GO BOX Mk2.
2. Press and hold **LAST** and **NEXT**.
3. While holding both buttons, connect the GO BOX Mk2 to your computer via **USB 1 (Config USB)**.
4. Release the buttons once powered.
5. The **Status LED will blink**, indicating the unit is in Teach Mode and waiting for you to choose a button to program.

Teach a command to a button

1. **Press the button** you want to program.
2. The **Status LED will stop blinking**.

   - This indicates the GO BOX Mk2 is now "armed" and waiting to receive a MIDI message to store for that button.
3. On your computer, **send the MIDI command** you want that button to output.
   - Ensure you are sending the command **to the GO BOX Mk2** (as the MIDI destination/output in your software).
4. Once received, the **Status LED will begin blinking again**, confirming the command has been learned and the unit is ready to program another button.

Program additional buttons

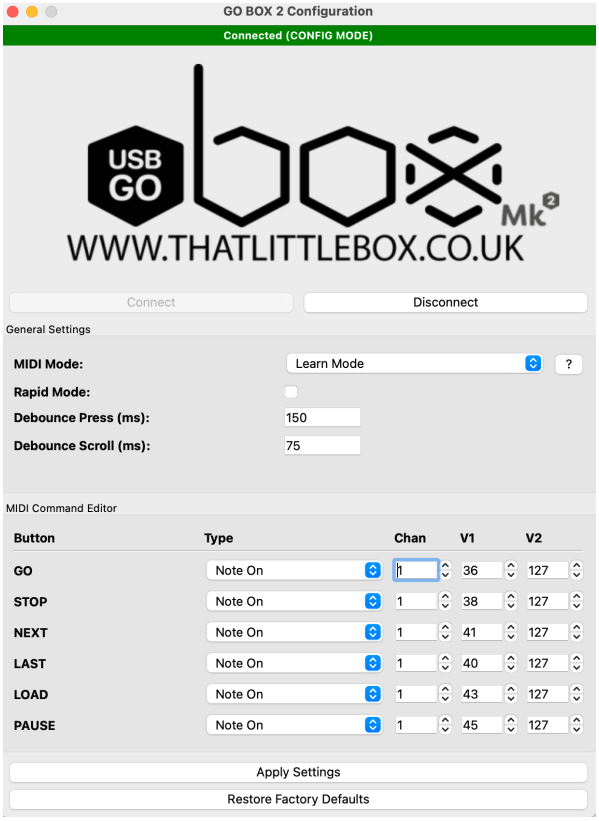
- Repeat the same process:
  1. press a GO BOX button (LED stops blinking),
  2. send a MIDI command (LED returns to blinking).

Exit Teach Mode and return to normal operation

- When you are finished programming:
  1. **Unplug** the GO BOX Mk2.
  2. **Plug it back in normally** to return to standard operation and MIDI output.

GO BOX Control Panel

GO BOX Control Panel is a macOS and Windows application used to view and edit the stored settings on the USB GO BOX Mk2. It provides a clear overview of the unit's current configuration, along with quick access to mode selection, button-message editing, Rapid Mode, and debounce timing.



Connecting to the USB GO BOX Mk2

1. Connect the GO BOX Mk2 to the computer running the Control Panel using Config USB (USB 1) — the USB port closest to the Status LED.
2. Click Connect.
3. When the connection is successful:
    - The current device settings are displayed in the window.
    - The status strip at the top changes from red (Disconnected) to green (Connected).

To end the session, click Disconnect.

General Settings

The General Settings section allows you to adjust core device behaviour:

- MIDI Mode
  Select the operating mode for the GO BOX Mk2:
    - MSC
    - Program Change
    - Learn
    - Companion (Serial) — this is the only way to enter Companion Mode.
- Rapid Mode
  Enable/disable Rapid Mode from the application. (Note: Rapid Mode is automatically enabled when using Companion Mode, as indicated by the on-screen warning text.)
- Debounce Press (ms)
  Sets the debounce time for button presses. Higher values reduce the chance of accidental double-triggers; lower values can feel more responsive.
- Debounce Scroll (ms)
  Sets a separate debounce time for scrolling buttons (typically NEXT and LAST). This value is independent so you can keep GO/STOP operation safely debounced while allowing smoother, faster scrolling on NEXT/LAST by using a lower scroll debounce value.

MIDI Command Editor

The MIDI Command Editor provides a simple way to define what each button outputs (where applicable to the selected mode). Each button row includes:

- Type (e.g. Note On, etc.)
- Chan (MIDI channel)
- V1 / V2 (message values, depending on the selected message type)

This is the quickest way to confirm defaults and to apply consistent button mappings without using on-box Teach Mode.

Applying changes

After editing any settings:

1. Click Apply Settings to write changes to the GO BOX Mk2. Changes are not committed to the device until this is pressed.
2. Disconnect the GO BOX Mk2 after applying changes. The GO BOX Mk2 will not output MIDI reliably (and will not operate correctly with Companion) until it has been disconnected and reconnected, so the recommended workflow is:
    - Apply Settings → Disconnect → reconnect as required for your intended use.

Restore Factory Defaults

Click Restore Factory Defaults to reset the unit back to its default configuration from within the application (equivalent to a factory reset).

Important note on Companion Mode

Companion Mode disables all MIDI output and switches the GO BOX Mk2 to serial-only operation for Bitfocus Companion. If enabled unintentionally, the unit will appear not to function as a MIDI controller. For this reason:

- Companion Mode can only be enabled/disabled via the Control Panel (not on-box mode cycling).
- The GO BOX Mk2 will flash its Status LED continuously while in Companion Mode as a clear warning.

Co Box Companion Module

To use the USB GO BOX Mk2 in Companion Mode, you must install the USB GO BOX Mk2 Companion module in Bitfocus Companion. This module is available as a download from the That Little Box website and is installed into Companion as a third-party module from a local file.

Download the module

1. Visit the That Little Box website and locate the USB GO BOX Mk2 Companion module download.
2. Download the module file to a known location (for example, your Downloads folder).
3. Do not rename or edit the downloaded file.

Install a third-party module in Bitfocus Companion

1. Launch Bitfocus Companion.
2. Open the Settings area (or the Companion configuration interface where modules are managed).
3. Locate the section for Modules (or Connections) and choose the option to Add / Install module from file(wording may vary slightly by Companion version).
4. Browse to the downloaded GO BOX Mk2 module file and select it.
5. Confirm any prompts about installing a third-party module.
6. Restart Companion if prompted (recommended even if not required).

After installation, the GO BOX Mk2 module will appear in your available modules list and can be added like any other Companion module.

What the module provides

The GO BOX Mk2 Companion module exposes button down and button up events for all six buttons. This allows you to build reliable Companion triggers that can:

- Fire a single action on press (button down)
- Fire a different action on release (button up)
- Perform press-and-hold logic using Companion's internal logic/actions
- Trigger actions across other modules, enabling control of OSC devices, applications, switchers, recorders, playback systems, and more

Further Reading

Bitfocus Companion is a broad platform with extensive capabilities that are outside the scope of this GO BOX Mk2 user manual. For deeper guidance on building Companion button pages, triggers, feedbacks, variables, and advanced logic, refer to:

- The official Bitfocus Companion documentation
- The Bitfocus Companion community resources (forums/Discord)
- Module-specific documentation for the devices and applications you plan to control

For the latest downloads, module updates, and product support information, refer to the That Little Box website.