FB4 QuickStart Guide

Device Overview



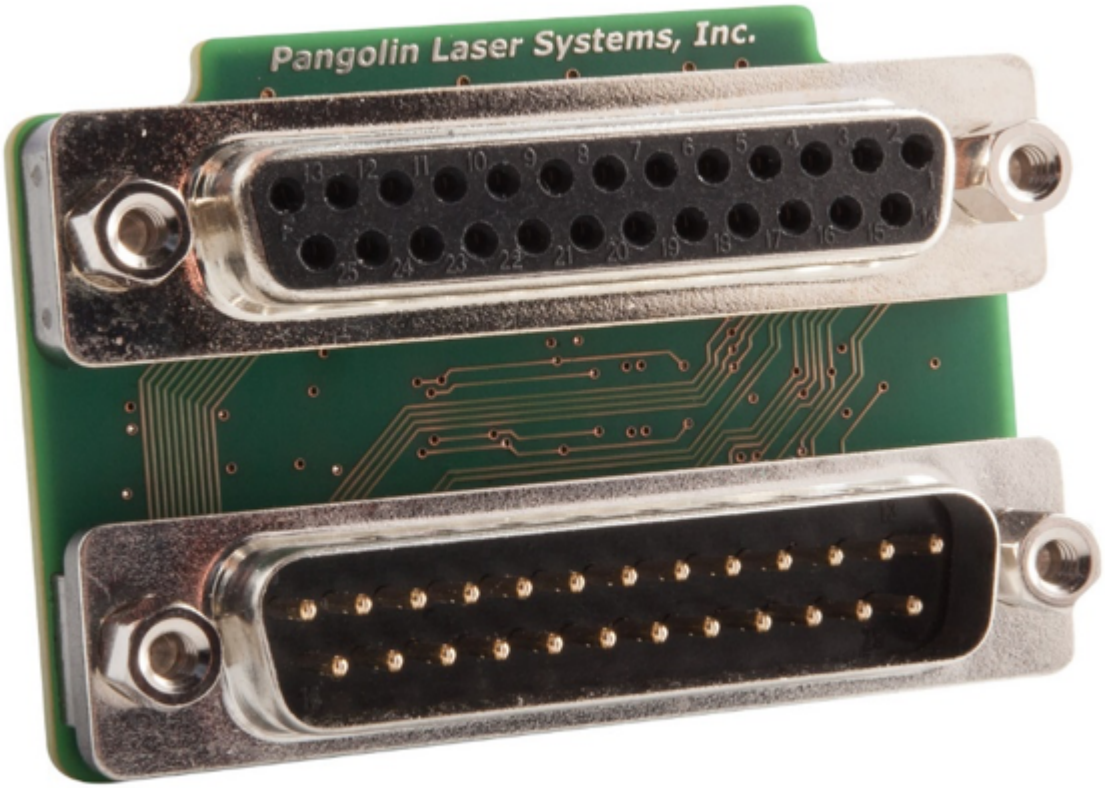
1. OLED display
2. MicroSD card slot
3. RJ-45 ethernet connector
4. Status LEDs
5. UI control knob

Optional daughterboards

DMX Daughterboard



ILDA Daughterboard



Getting started

When using FB4 for the first time. Take the following steps:

1. Make sure the included microSD card is properly inserted in the microSD slot
2. Connect an ethernet cable between the network port on FB4 and your computer
3. Turn on the power to FB4
4. Wait until FB4 has acquired an IP address. The yellow LED should blink once a second. (See the section “Status LEDs” for more information)
5. Start Pangolin Laser Show Designer QuickShow or Beyond on your computer
6. The PC should now connect to FB4

Operation modes

Beyond/QS In Beyond/QS mode, FB4 connects to Pangolin Quickshow or Beyond software via an ethernet network. Geometric correction is being handled by the control software and native geometric correction on FB4 is turned off to avoid conflicts.

ILDA Input In ILDA input mode, the signals from the ILDA input connector on the FB4-ILDA daughterboard are transmitted to the color and axis output connectors on FB4. In this mode, native geometric correction on FB4 is turned off.

This operation mode is not available when there is no FB4-ILDA daughterboard connected.

DMX-512 In DMX-512 mode, FB4 is being controlled through the DMX input port on the FB4-DMX daughterboard. The content is stored on the SD card and FB4 can apply multiple effects to them.

In this mode, geometric correction can be applied natively on FB4.

This operation mode is not available when there is no FB4-DMX daughterboard connected.

ArtNET In ArtNET mode, FB4 is being controlled with an ArtNET signal via the ethernet port on FB4. The content is stored on the SD card and FB4 can apply multiple effects to them.

In this mode, geometric correction can be applied natively on FB4.

Autoplay In autoplay mode, FB4 can be configured to play laser content from the SD card without any external input. FB4 can be programmed to play single cues or entire playlists of cues immediately after power-up or at specific times.

In this mode, geometric correction can be applied natively on FB4.

Time Code In time code mode, FB4 plays content from the SD card in sync with an external timecode source. FB4 can receive ArtNET timecode via the ethernet connector.

In this mode, geometric correction can be applied natively on FB4.

Slave Mode In slave mode, FB4 plays content from the SD card in sync with a “Master” FB4 which is working in autoplay mode. The ethernet network is being used to synchronize the FB4s.

In this mode, geometric correction can be applied natively on FB4.

Test mode Test mode can be used to play test patterns from the SD card for the purpose of testing your laser or adjusting FB4’s internal parameters or geometric correction.

User interface

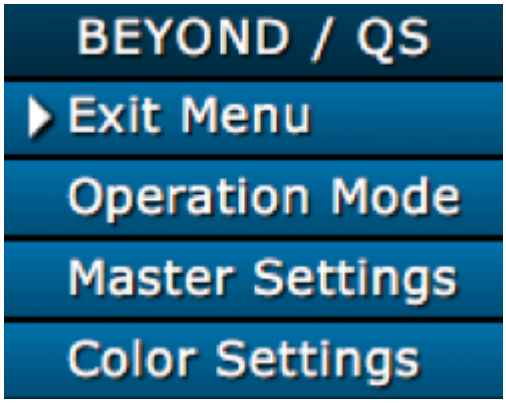
To modify settings and change operating modes, the control knob can be used in conjunction with the OLED display.

Activating the display

Press the knob once to activate the display.

The bar on the top displays the current operation mode of FB4. The white arrow can be moved between menu items by rotating the knob. Pushing the knob will activate the menu item next to the arrow.

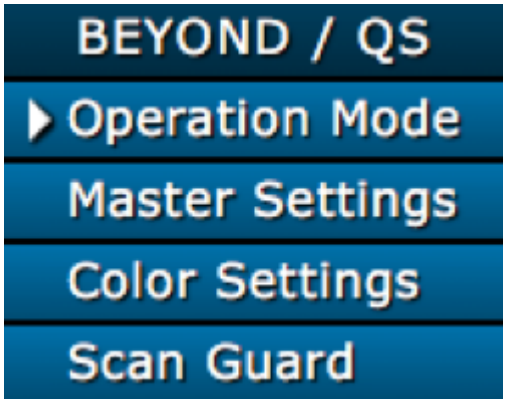
The items displayed in the menu may vary between different operation modes and when different accessory boards are connected to FB4.



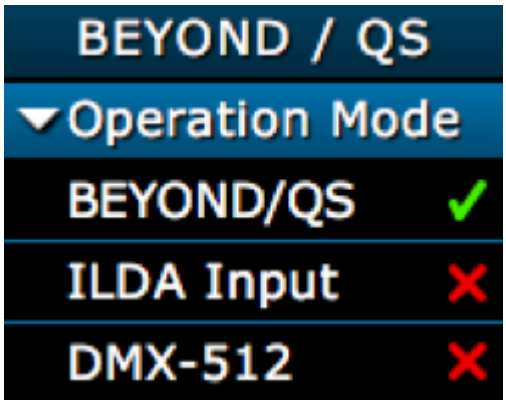
Changing operation mode

In this example, we will demonstrate how to change the operation mode from Beyond to ILDA input. The menu item “ILDA Input” may not be present on your FB4 is there is no “FB4-ILDA” daughterboard connected.

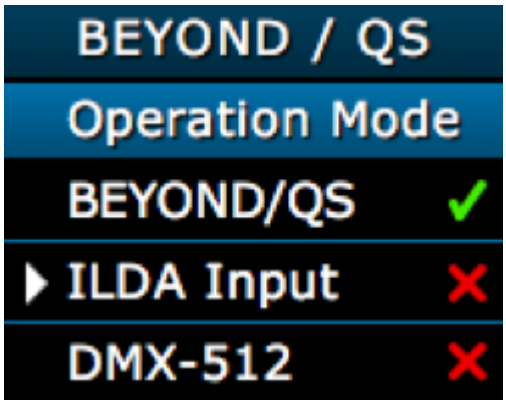
After activating the display, turn the knob until the arrow points at the menu item “Operation Mode”.



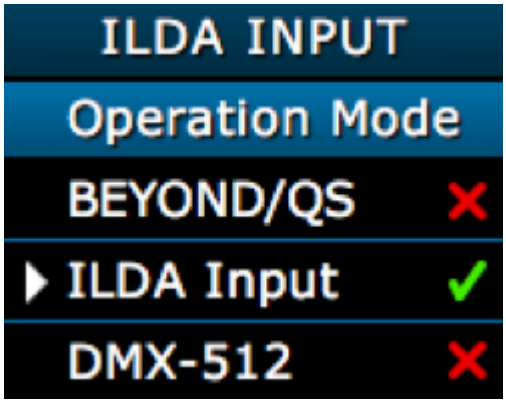
Click the knob once to expand the menu item



Turn the knob until the arrow is pointing at the desired operating mode (ILDA Input)

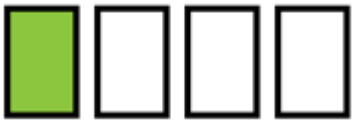


Push the button once. The new operation mode (ILDA input) is now active.



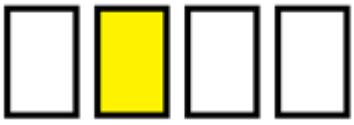
Status LEDs

Green LED (SD card status)



	SD card not present
	SD card present

Yellow LED (Network status)



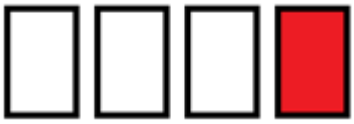
	Network cable not connected
	Acquiring IP address
	IP address acquired but not connected to QS/Beyond
	Connected to QS/Beyond

Orange LED (DMX/ArtNET status)



	No DMX/ArtNET signal
	DMX/ArtNET signal detected

Red LED (Emission status)



	No emission
	Building file index (only in Timecode mode)
	Device primed, no emission
	Emission active

Legend

	LED is permanently off
	LED is permanently on
	LED Blinks every second (blinking)
	LED flashes once a second (flash)
	LED flashes twice every second (double flash)
	LED fades from off to on and back to off every second

Troubleshooting

Laser Show Designer Quickshow or Beyond is not connecting to my laser

- Verify that FB4 is properly connected to the network and has acquired an IP address. Under “Network settings” in the user interface, try turning on AutoIP.

One or more colors is not turning on

- Check under “Color” settings in the user interface and make sure all the color channels are turned to 100%.

I hear the scanners running, but there is no light coming out of the laser projector

- The “Scan Guard” feature should only be turned on when the feedback signals from the scanner amplifier are connected to FB4.

If you are not getting any light out, please verify “Scan Guard” is turned off in the user interface.

Downloads

- FB4 Quickstart guide

From:
https://wiki.pangolin.com/ - **Complete Help Docs**

Permanent link:
https://wiki.pangolin.com/doku.php?id=hardware:fb4:quickstart

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