SECTION 11: UPGRADING FIRMWARE

How to Upgrade Your Firmware

Your laser system is capable of having its operational firmware upgraded. The firmware is the command software in your laser system that controls how your laser system operates. A firmware upgrade reprograms your laser system to take advantage of new capabilities or enhancements to the system. The steps for upgrading the Fusion Edge firmware are explained below.

Note: Choose a time that's convenient for you to update the firmware, updates can take up to 10 minutes depending on the size of the update file.

Upgrading your laser is a two-step process:

1. Download the new firmware to your computer and unzip it.

2. Transfer the new firmware from your computer to your laser.

Downloading New Firmware onto Your Computer

Start by checking your current firmware version by powering on the laser. The current version is displayed on the **Settings** menu, which is accessible by pressing the **gear icon** in the upper right corner of the screen. Then click on **"Version"** to view the current Firmware version number.

Downloading: From the Epilog website download the new firmware under **Support + Service > Driver and Firmware Downloads** and save the Fusion Edge firmware file.

You can also join our Driver Notification mailing list on the download page to be automatically notified when new versions of firmware or the driver become available.

When you download the firmware it comes as a compressed file in the following format: **X.X.X.X.zip**. The X's designate the actual version of the firmware. Once downloaded, unzip the file by right-clicking on the file and selecting **"Unzip To"** or **"Extract To"**.

You will need to pay attention to the folder it is extracted to:

Important! Keep track of the folder where you saved the extracted **.swu update file**. You will need to access this file again in the next step.

Transferring New Firmware from Your Computer to Your Laser

When transferring the updated firmware file to your laser you have two options:

1. Transfer by USB

2. Transfer by Ethernet Cable

USB Transfer

1. Load the .swu update file onto a USB drive from your computer. **We recommend using an empty USB drive** to find the update file easily.

Note: It's easiest if you put the update file in the root directory of your USB drive. If the update file is not located in the root directory of the USB drive, the machine may not detect the update file automatically. If you decide to put the update file into its own folder, make sure the folder name contains no spaces.

2. Eject the USB Drive with the update file from your computer.

3. Plug the USB drive into the Fusion Edge and it will detect the drive as it powers on. The machine will ask if you would like to update. Press **"Yes"**.

Update Media Detected.
Would you like to update?

●Yes ●No
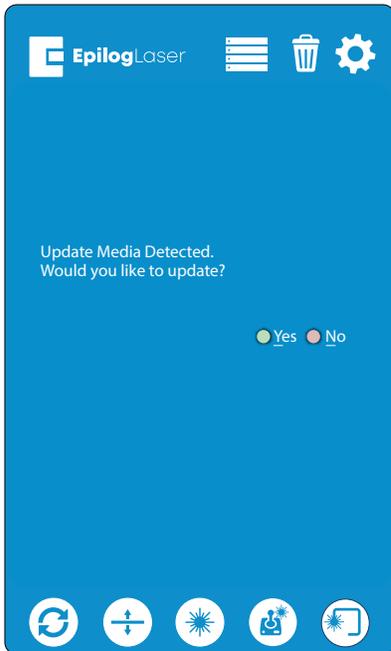
Note: If this screen does not appear after plugging in your USB drive, the update file is not being automatically detected by the machine. You may reboot the machine while pressing down on both the **joystick** and **Go/Stop** button until the screen goes blank. This will cause the machine to boot into **Update Mode.**

4. The machine will need to reboot to run in **Update Mode.** Turn the machine off and then back on again.

Reboot now to begin update.
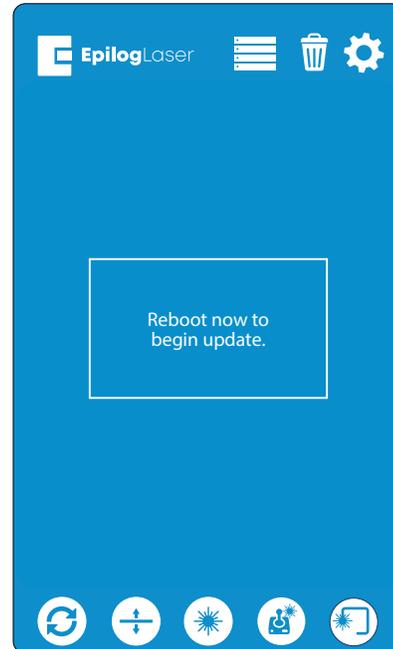
5. Once the machine has booted back up, you will see a screen with two options: USB Update, or Cancel.

Fusion Update v1.2

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USB Update

Cancel

Update Network

eth0:
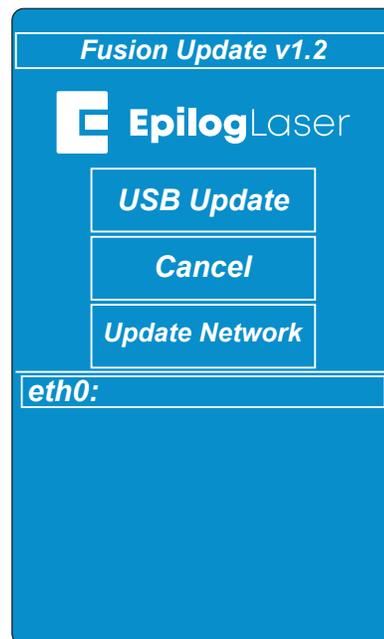
Note: Canceling will prompt you to power cycle the machine to reboot into the current firmware version you have loaded on the machine.

6. Select **"USB Update"** and a directory folder should appear showing your .swu update file. Select the file **fpvX.X.X.X.update.swu** and then select **"Open"**.

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| Directory | /media/update-dev/ | Parent |

| System Volume Information | [Dir] |
| fpvX.X.X.X update.swu | 28806144 |

| Location | /media/update-dev/ | Open |
| Refresh | 1/2 selected | Cancel |
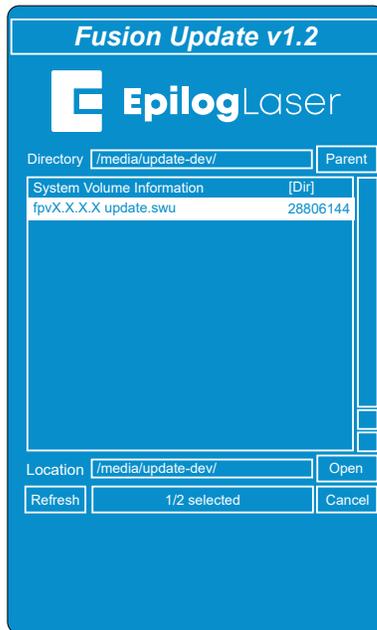
7. The update should begin and may take up to 10 minutes, depending on the size of the update file. Keep track of the time the update begins.

Important: The screen may turn off temporarily while updating, sometimes for several minutes. Please **DO NOT** turn off the machine in the middle of an update! The update is still active if the **LED light number 4** is flashing on the system status light panel located on the right side of the machine.

8. Once the update has completed you will see "Success" on the screen. Click **"Ok"**.

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Success

Number of Steps

Current Step

m4stopper.ko

Update has succeeded!

OK
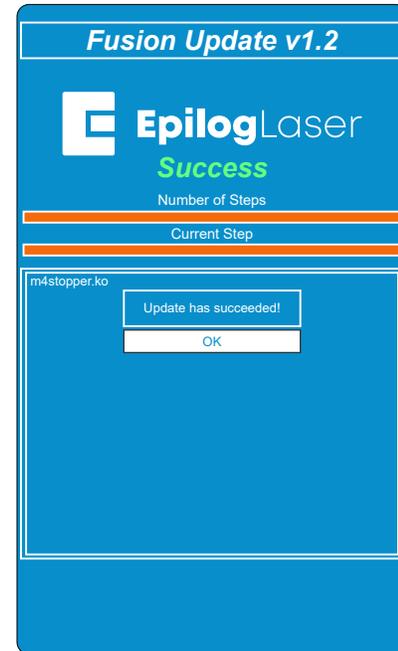
9. The next screen will prompt you to power cycle in order to boot into the new firmware. Turn the machine off, unplug the USB drive, and then turn the machine back on again.

Fusion Update v1.2

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Power Cycle Now
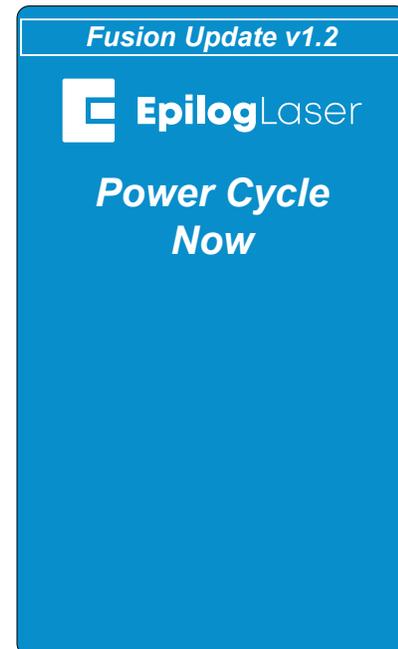
10. Your firmware update should now be complete once the machine boots up.

Ethernet Transfer

1. With an Ethernet cable you may transfer the firmware update file (.swu) directly from your computer to the machine. Please make sure the Ethernet cable is plugged in completely on both ends.

2. Power on the machine and press down both the **joystick** and **Go/Stop** button until the screen goes blank. This will cause the machine to boot into **Update mode**.

Fusion Update v1.2

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USB Update

Cancel

Update Network

eth0:

3. Open your web browser and in the search bar, type **"http://"** followed by the IP address currently displayed on the Fusion Edge's screen next to "eth0:". After the IP address, add **":8080"** and hit **"Enter"**.
Example: http://192.168.3.4:8080

Note: If there is no IP address next to "eth0:", Ethernet transfer will not work.

4. A screen will load on your computer's web browser with a box to drag and drop the update file into.

5. Put the .swu file in the upload box and this will initiate the update.

Fusion Update v1.2

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Update in Progress

Number of Steps

Current Step

m4stopper.ko
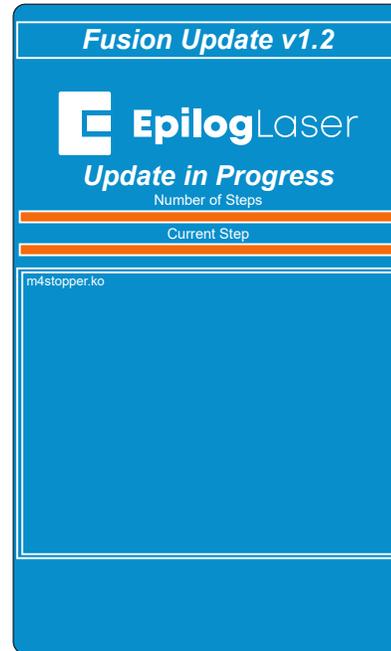
6. Once the update has completed you will see "Success" on the screen. Press **"Ok"**.

Fusion Update v1.2

EpilogLaser

Success

Number of Steps

Current Step

m4stopper.ko

Update has succeeded!

OK
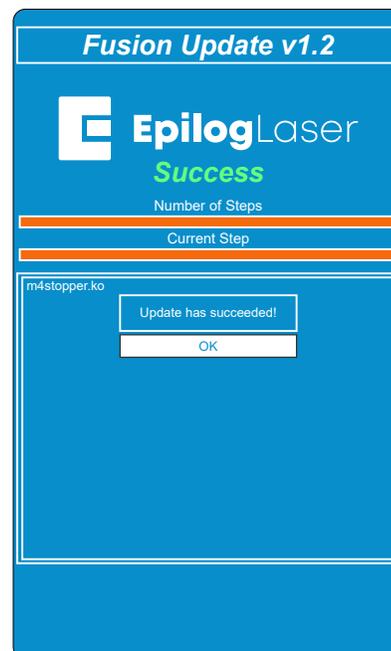
7. The next screen will prompt you to power cycle the machine in order to boot into the new firmware. Turn the machine off and then back on again.
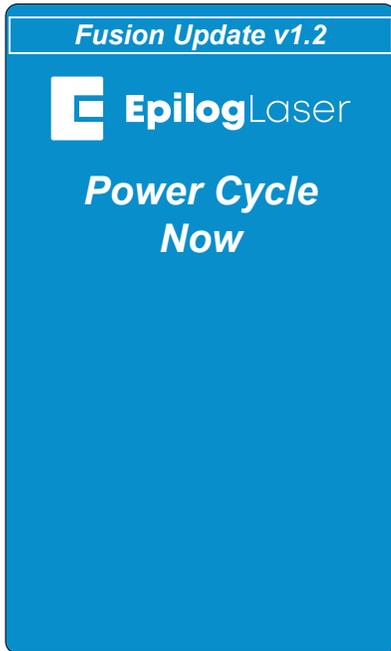
8. Your firmware should now be updated and be ready to use once the machine boots up.