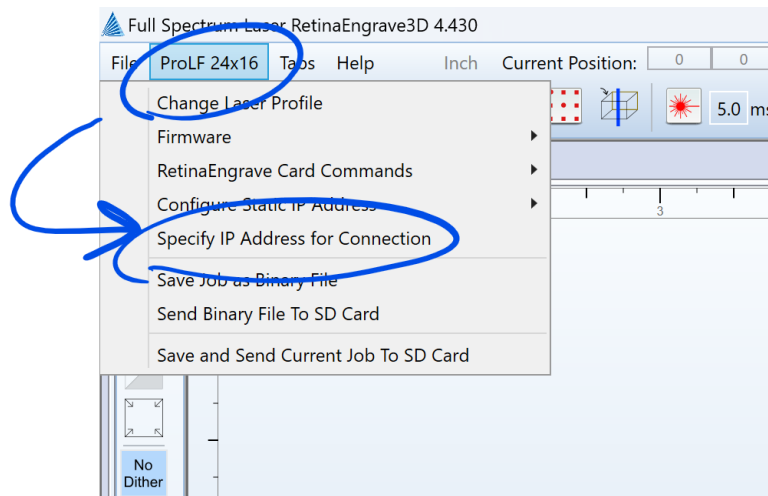


Full Spectrum Laser Engraver

Hockaday Engineering Lab

How to connect over the network

1. The laser engraver ethernet cable must be plugged into a good network wall port on **VLAN 178** and powered ON.
2. Install software and drivers here: <https://laser101.fslaser.com/RetinaEngrave>
 - Click the **Download RE1 for Windows** link to download the software
3. Make sure the laptop or desktop is connected to the **HockadayNet network**
4. Open the **RetnaEngrave3D software**
5. Choose the **ProLF 24x16 menu**, then select **Specify IP Address for Connection**



6. Enter the IP Address displayed on the Laser Engraver screen (It should be **172.16.178.210**), then click **connect**



If you cannot connect on the network:

In the event the IP Address of the laser engraver gets reset or changed and you can no longer connect to it over the network, then you can try connecting to it directly from your computer.

How to connect directly:

1. Plug the ethernet cable of the laser engraver directly into your computer's ethernet port
 - If your computer does not have an ethernet port, you will need an **ethernet to USB adapter** – you can borrow one from the Helpdesk on the 3rd floor of the LLARC



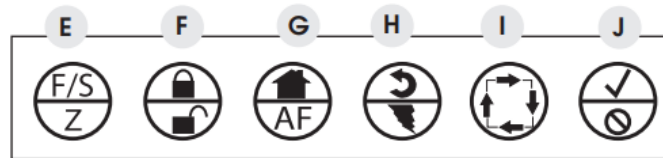
2. Make sure the Laser Engraver is power ON, and the green and orange/yellow indicator lights of the ethernet adapter are ON.
3. Open the **RetnaEngrave3D** software
4. Repeat steps 5 & 6 to **Specify IP Address for Connection**

If you still cannot connect:

You may have to factory reset the Laser Engraver to be able to connect directly and then re-configure the network settings to connect to it over the network again.

Factory Reset the Laser Engraver:

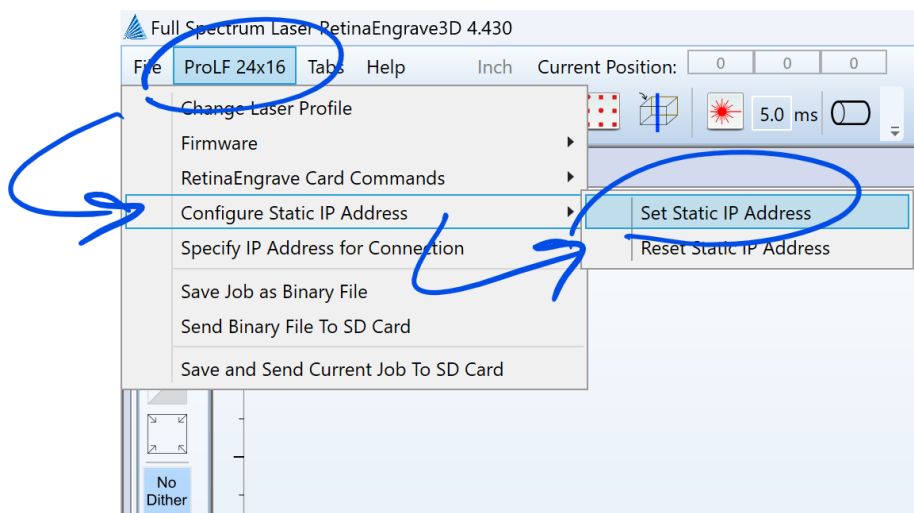
1. On the Laser Engraver display screen - Press the **F/S Z button (E)** multiple times until it displays the **Reset menu**. Press the **check mark button (J)** to confirm reset



2. Turn off the Laser Engraver and turn it back on. The laser engraver will display a default IP of **169.254.239.1** or something similar.
3. Follow the instructions to **connect directly** using the default IP address displayed

Re-Configure Network Settings:

1. Follow the instructions to **factory reset the laser engraver**
2. Once you are **connected directly** to the laser engraver, open the **RetnaEngrave3D software**
3. Choose the **ProLF 24x16** menu, then click **Configure Static IP Address**, then choose **Set Static IP Address**



4. Enter the following network addresses in each field, then click **OK**

IP Address: 172.16.178.210

Subnet Mask: 255.255.255.0

Gateway: 172.16.178.1

Set Static IP Suggest

IP Address:

Subnet Mask:

Gateway:

Retina Engrave: Force IP
(Note: When connecting, no search for networked-lasers will be performed if a value is entered below. In most cases, set this to the static IP Address selected above to increase speed when finding a connection or when broadcasting causes local network issues.)

No IP Defined

OK Cancel

5. Turn the laser engraver OFF, then turn it back ON.

You should see the new IP Address displayed on the laser engraver screen. Then plug the laser engraver network cable back into the wall port. As long as the wall port is good and on VLAN 178, the laser engraver will connect over the network.