



Safety Warning:

Do not leave your machine unattended.

Avoid using machines made of carbon or that contain carbon components.



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Always keep a fire extinguisher and first aid kit nearby.

Do not attempt to access any electrical areas while the machine is on. Unplug the machine and wait for an hour before accessing panels.

Never stare directly into the laser when running a project. Always wear the provided safety goggles.

Inspect your machine before each use. Do not use if the machine or its accessories are damaged in any way.

Always maintain a clean work area.

Looking for financing or eager to buy, contact Sales:



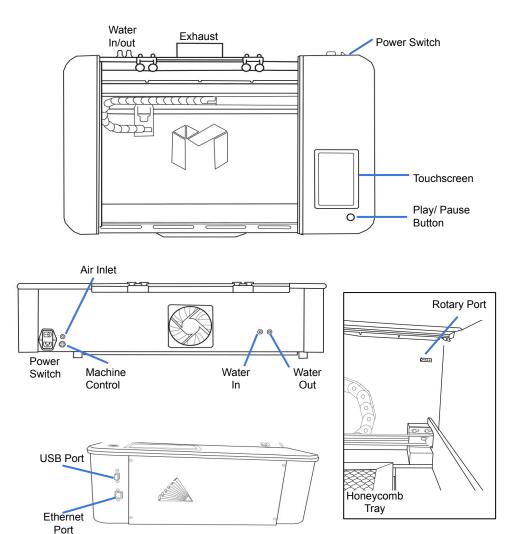
M-F 8AM-5PM PST sales@fslaser.com 702-802-3101

Need help, visit us at our Help Center or contact Support:



M-F 8AM-5PM PST support@fslaser.com 702-802-3103

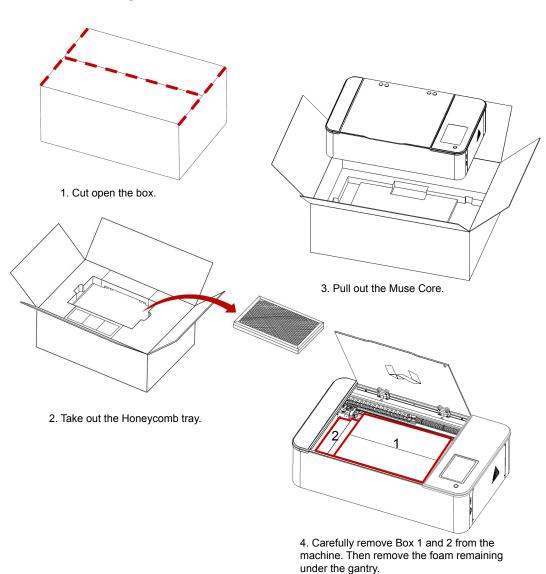
Diagrams:





Unboxing:

Full Spectrum

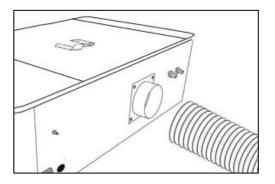


Setting up your Muse:

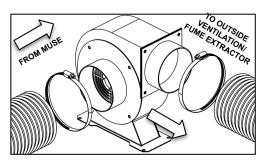
1. Remove Zip Ties.



2. Connect the exhaust ducting to the exhaust.

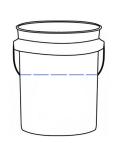


3. Connect to the exhaust fan.

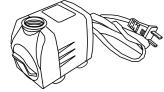


Hobby Kit Only

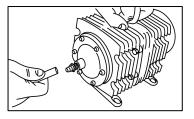
4. Get a bucket and fill it with two and a half gallons of distilled water.



5. Pull out the water pump and place its plastic fitting on.

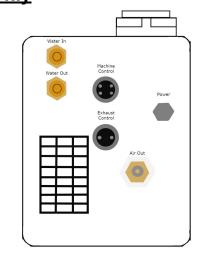


- 6. Get the two water tubes. Connect the first one to the Water Out fitting on your machine and place the other end inside the bucket. Connect the second one to the plastic fitting on the pump and the Water In fitting on your machine.
- 7. Once connected, place the water pump in the water bucket. Cover the bucket in some way to prevent debris from falling in.
- 8. Connect one end of the air tube into the air fitting on your machine and the other to the air compressor.



9. Connect the power cables into a power outlet. Your machine is ready for use.

<u>Coolbox Only</u>



4. Retrieving the provided water tubes. Connect the first tube to the Water Out fitting on your machine, ensuring that the other end is securely connected to the Water In of the Coolbox. Connect the second tube to the Water In of the machine and the Water Out of the Coolbox. Verifying that the connections are secure before continuing.

5. Next, connect the air hose to the air fitting on both the machine and the Coolbox, ensuring that it is firmly attached.

6. Proceed to connect the machine control cable to the Coolbox and the machine, double-checking that the connection is secure.

7. Finally, connect the power source to both machines, and verify that they are receiving power. Your machine is now ready for use.



Connecting to Internet:

Connect Via Router (Recommended):

To establish a reliable link to RE3, it is recommended to connect the Fiber Galvo to the router. The Fiber Galvo is equipped with an ethernet cable that should be plugged into the ethernet ports of both devices

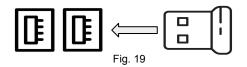
Note: Ethernet port looks the same on all devices



Fig. 18

Connect to Wi-Fi:

Make sure that the dongle, a device attached to the USB port of your machine, is present and connected as it enables your machine to connect to the WiFi network.



- 1. To connect to the WiFi network, select the Network button located on the top right of the Touchscreen.
- Then, choose the WiFi option and search for your network. Once you have located your network, select it and enter your password.

Connecting Directly Using Computer:

This option is only advisable when the other two methods are not possible. The Fiber Galvo can connect to the computer through Ethernet, but an adapter might be required for your computer.

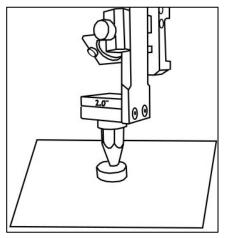
Focusing:

To begin, choose your desired material and retrieve the provided billet.



Next, either access RE3 or use the Touchscreen to maneuver the laser head into position directly above the material.

Position the billet beneath the laser head and use the adjustment knob to set the appropriate height.



Once in place, lower the laser head onto the billet and secure it before removing the billet.

Congratulations, your machine is now properly focused! It is important to note that you should refocus your machine each time you switch to a new material.



Touchscreen Interface:



Movement Controls:

The laser hade can be moved up and down according to three speed settings. The settings can be changed by selecting the prism icon.



<u>Home</u>

The Home screen displays important information such as the device's IP address, the QR Code for RE3, and controls for the laser head.

<u>Job History</u>

The Job History icon provides easy access to previous projects. Users can select the file and view its contents, or choose to re-run the job. Note that an internet connection is not required to use files saved in this section.

HOME		TOOLS	
Ethernet: 172.20.234.1	er desktop-41162-p4.k	incali/ vMc	ckContainer
NAME		RUNTIME	
Project 1		0:00:01	

Machine Indicators:



The IP indicator shows if the machine is connected to an ethernet cable.





Not Connected

Connected

Wi-Fi Indicator:

The Wi-Fi indicator will indicate if the machine is connected to the Wi-Fi.





Run Job Icon:

Selecting the icon will run the job.



Network ⇒ Wi-Fi

Enables users to connect to a Wi-Fi network.

Mobile Version

A mobile version of the device is accessible by either scanning the QR Code or entering the device's IP address into the web browser of a mobile device.

<u>Tools</u>

The Tools icon enables the user to verify and modify the machine settings, activate rotary attachments, home the laser, and retrieve relevant information regarding the device.

Reference Markers Icon:

Selecting the icon will place a reference point that can be seen on RE3.



Test Fire Icon:

Selecting the test fire icon will fire the laser.



Run Perimeter Icon: Selecting the icon will make the machine outline the area of your project on your workspace.

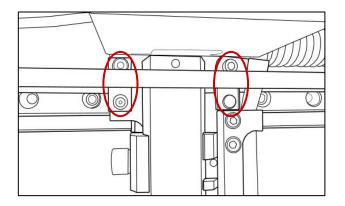




Belt Replacement:

X-Belt Replacement:

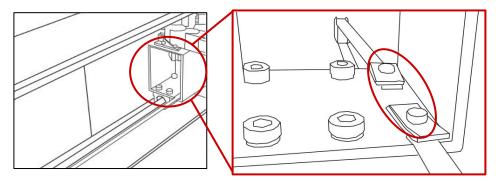
- 1. Power Off and Unplug Machine.
- 2. Locate the Belt Screws. The belt can be found above the adjustment knob. Adjust the gantry as necessary to access the screws.



- Loosen Retaining Screws: Loosen or remove the M4 retaining screws to remove and discard the old belt.
- 4. Remove the Belt: Remove one end of the belt, then remove the other.
- 5. Mount New Belt: To mount the first end of the new belt, thread it through the mounting slot with the folded part facing up. Secure the belt by tightening the M4 screws, you hands can be used to start the threading.Run the belt along the pulley, making sure that the belt as straight.Mount the second end of the belt into the mounting slot.
- 6. **Adjust Belt:** Check the tension of the belt by moving the gantry up and down. Adjust the tension as needed.

Y-Belt Replacement:

- 1. Power Off and Unplug Machine.
- 2. Locate the Belt Screws. The belt is under the gantry (see below). Adjust the gantry as necessary to access the screws.



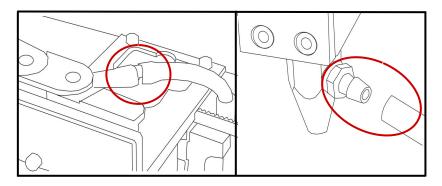
- 3. Loosen Retaining Screws: Loosen or remove the M4 retaining screws to remove and discard the old belt.
- 4. **Remove the Belt:** Remove one end of the belt, then remove the other.
- 5. Mount New Belt: To mount the first end of the new belt, thread it through the mounting slot with the folded part facing up. Secure the belt by tightening the M4 screws, you hands can be used to start the threading.Run the belt along the pulley, making sure that the belt as straight.Mount the second end of the belt into the mounting slot.
- 6. **Adjust Belt:** Check the tension of the belt by moving the gantry up and down. Adjust the tension as needed.



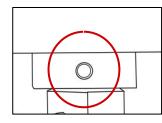
Air Assist Cone Replacement:

Please Note: The Air Assist Cone must be replaced when the lens is switched.

1. Disconnect the air hose by gently removing each end.



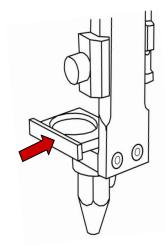
2. Using a 1.5 hex wrench (not included) to loosen the "set" screw on the cone. Remove the Air Assist Cone.



3. Place the new air assist cone under the focus lens and into the slot. Tighten "set" screw with a 1.5hex wrench. Reattach air hose.

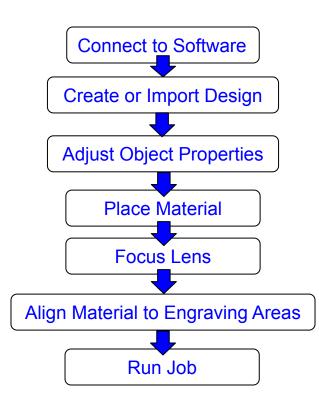
Lens Replacement:

- 1. Remove the lens by push the back of the lens until you hear a click. Then, simply slide out the old lens.
- 2. After that, clean the new lens and slide it in.
- 3. Finally, go to the settings in RE3 to change the lens in use.





Project Procedure:



For more information on your machine refer to your user manual. For information on RE3, refer to the RE3 Guide found in our <u>website</u>.

Troubleshooting:

Q: What could be causing my laser to not mark?

A: It is possible that your laser is out of focus. If the height of the machine is off by a few millimeters, it may not engrave properly. Make sure to refocus the laser head after changing to a new material. Additionally, it is important to ensure that the material is compatible with your laser engraver.

Q: Why are the marks in my engravings incorrect?

A: We recommend experimenting with different settings to find the best fit for your specific needs. Here are a few general guidelines to help you get started:

- For lighter/darker engravings, try adjusting the power or speed.
- For deeper engravings, consider decreasing the speed or increasing the number of passes.
- For clearer engravings, try using a higher-resolution image.

Q: What can I do if my engraving appears shallow?

A: Increasing the power and/or decreasing the speed may help to create deeper engravings. It may also be helpful to perform multiple passes. A smaller lens can be used to achieve more detail. Be sure to perform a laser focus test each time you switch to a new material.

Q: I'm having trouble focusing my laser. What should I do?

A: Make sure your laser head touches the material and retracts to the focus distance before running a job.

Q: Why do my engravings appear uneven and wobbly?

A: Make sure the material you are using is lying flat during the engraving. We recommend using something to flatten and/or weigh down the material before engraving.

If your having an issue not listed here, visit our <u>Help Center</u>. We provides comprehensive videos, and useful resources for troubleshooting to helping you get the most out of your investment in our products.

