

MUSE 3D

USER MANUAL



Full Spectrum
L A S E R

Safety Warning:



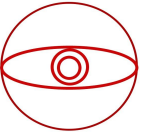
Do not leave your machine unattended.

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



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:



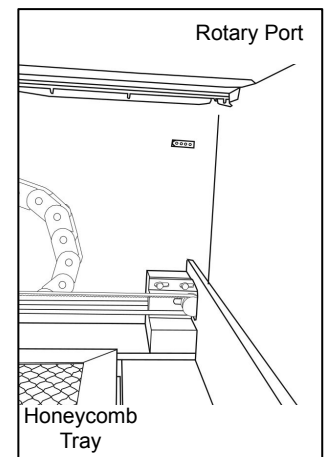
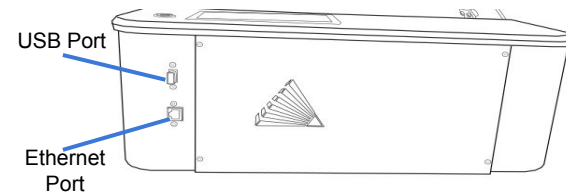
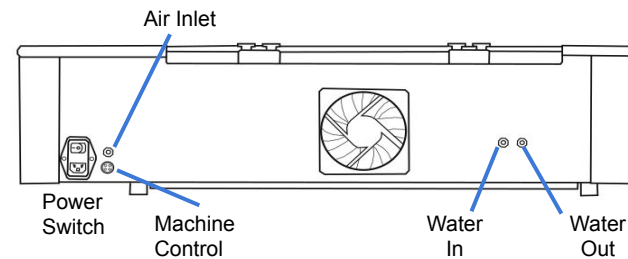
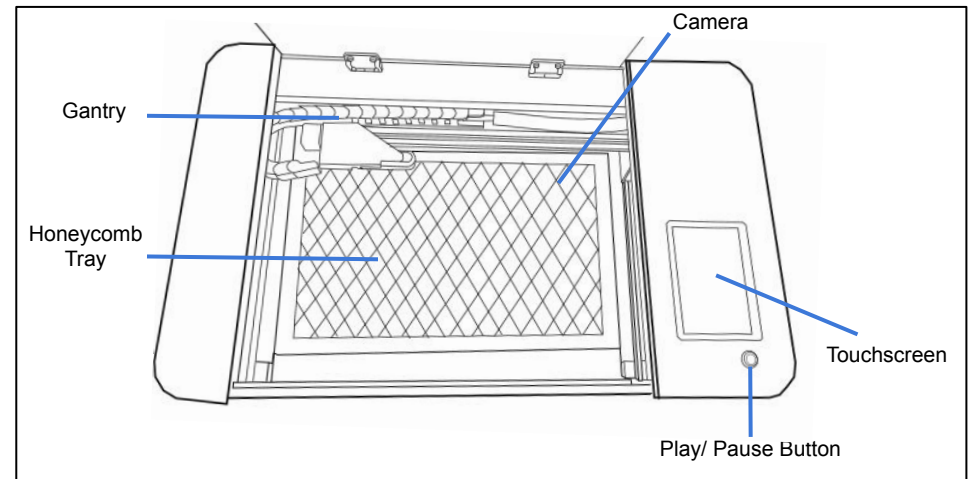
M-F 8AM-5PM PST
sales@fslaser.com
702-802-3101

Need help, visit us at our [Help Center](#) or contact Support:

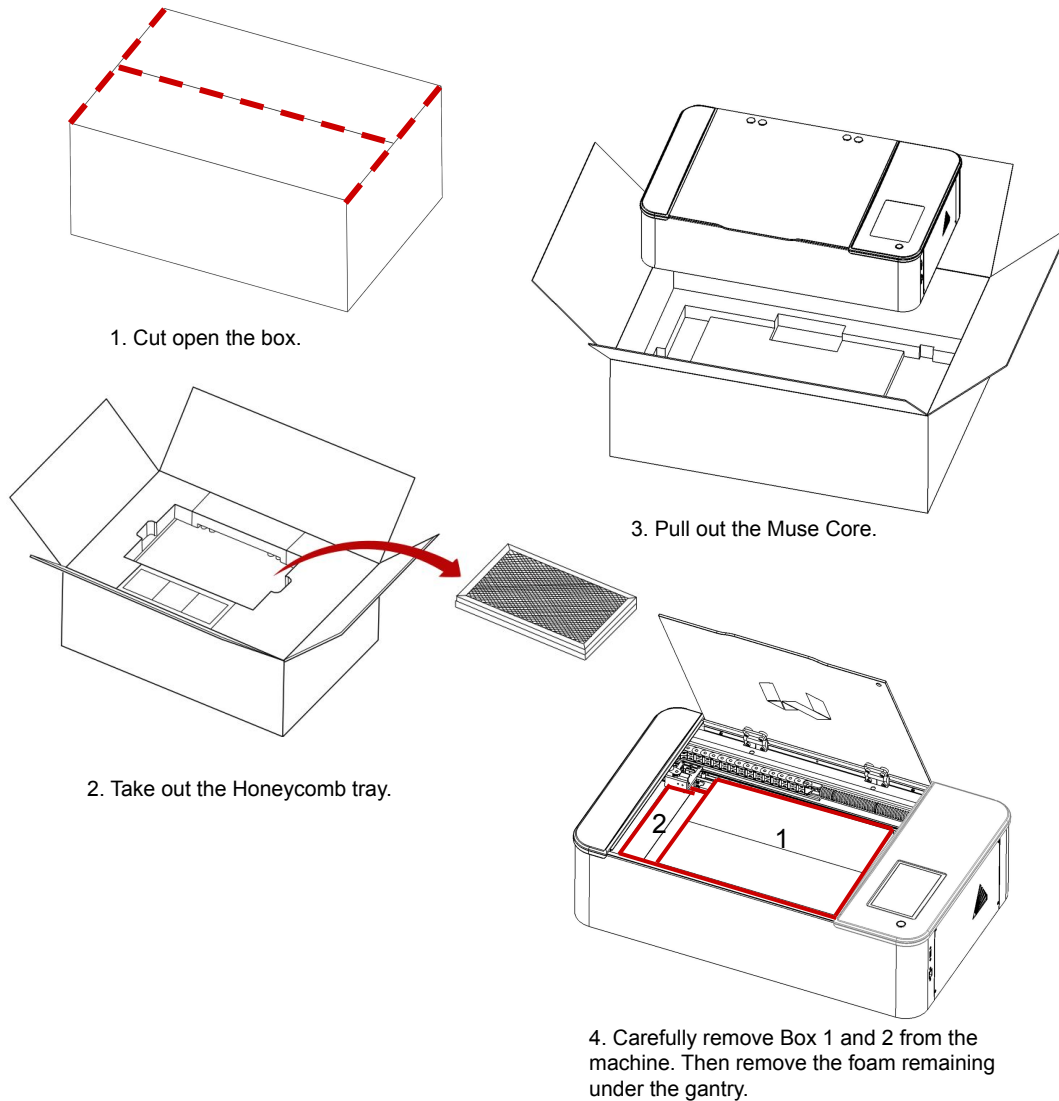


M-F 8AM-5PM PST
support@fslaser.com
702-802-3103

Diagrams:

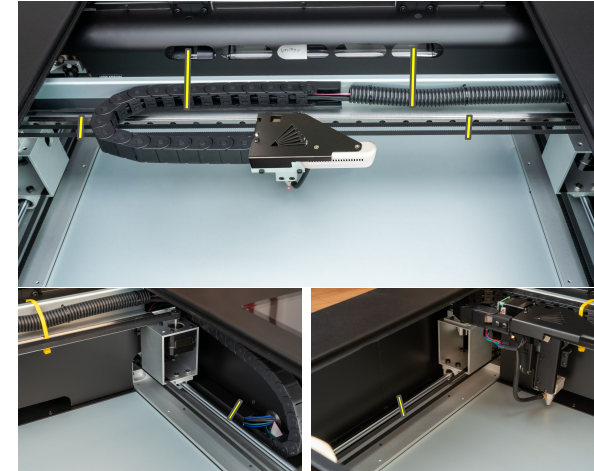


Unboxing:

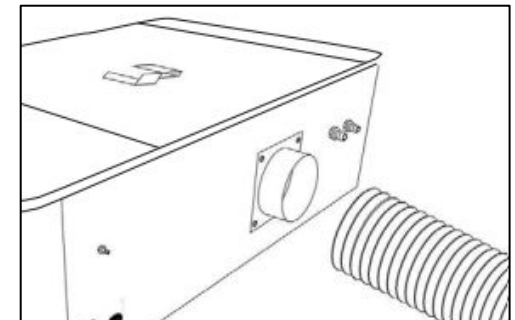


Setting up your Muse:

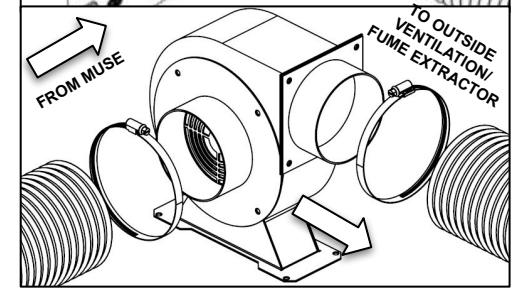
1. Remove Zip Ties.

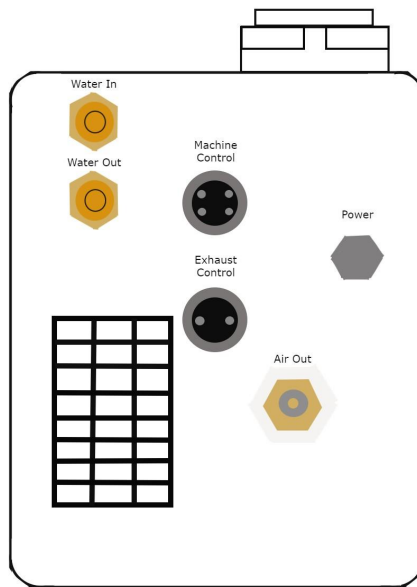


2. Connect the exhaust ducting to the exhaust..



3. Connect to the exhaust fan.





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

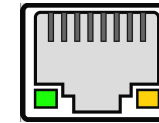


Fig. 18

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.

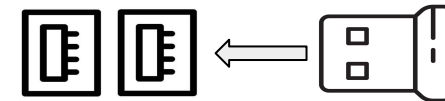


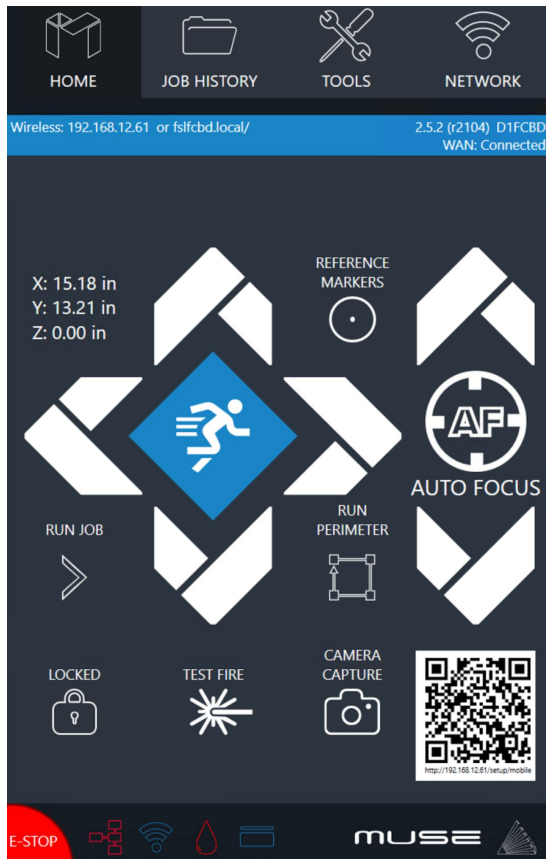
Fig. 19

1. To connect to the WiFi network, select the Network button located on the top right of the Touchscreen.
2. 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.

Touchscreen Interface:



Run Perimeter Icon:

Selecting the icon will make the machine outline the area of your project on your workspace.

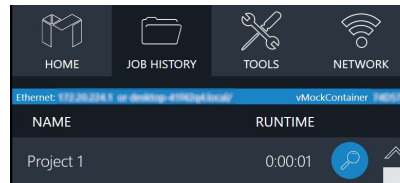


Home

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

Job History

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.



Machine Indicators:

Wired IP Indicator:

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



Connected



Not Connected

Wi-Fi Indicator:

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



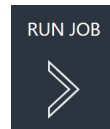
Connected



Not Connected

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.

Tools

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.

AutoFocus Icon:

The Autofocus icon automatically moves your machines Z-stage to the height needed to perform an engraving. (Needs QR card to work.)



Camera Capture Icon:

The Camera Capture icon takes images of the workspace.



Movement Controls:

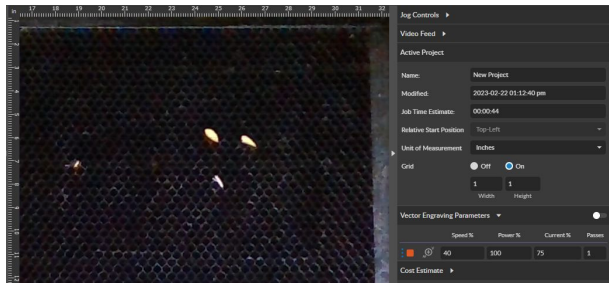
The left icon governs the movement of the gantry along the X and Y axes. Three different speed settings can be chosen by selecting the prism icon. The right icon is used to control the height of the laser head.



Camera Functions:

Camera Capture:

In order to capture the workspace, access the top toolbar in RE3 and locate the camera capture icon. Upon selecting this option, the machine's gantry will move along its axis, and once the movement is complete, the captured workspace will be displayed.



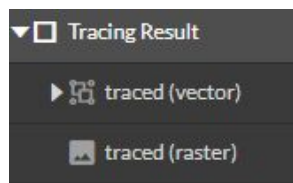
Vector Tracing:

To begin, prepare a design on white paper with a design that you wish to trace.

1. Enter RE3, perform a camera capture by locating and selecting the appropriate icon in the top toolbar.
2. Next, find the "Vectorize" icon and create a box around the object you want to trace. This will allow RE3 to create both vector and raster data.



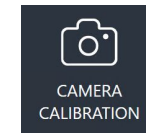
3. Once the object is traced, delete any unnecessary data. Keep in mind that the traced object cannot be moved from the vectorized box, so ensure that the material is positioned directly below it.



Camera Calibration:

Before beginning the camera calibration process, remove the Honeycomb trays from the workspace and place the calibration paper in the center of the workspace.

1. Using the touchscreen, navigate to the Tools tab and locate the **Camera Calibration** icon. Select it to access the camera calibration options.



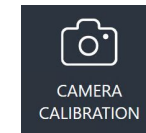
2. Next, choose the **Reset Calibration** option to initiate the camera calibration process.

Once the calibration is complete, check the accuracy of the camera by performing a camera capture on several objects. If necessary, repeat the calibration process to ensure optimal results.

Camera Offset:

In the event that the red diode of your machine appears to be off center while engraving, it indicates the need to adjust the camera offset.

1. In order to adjusting the camera offset, access the Tools tabs and select the Camera Calibration icon.

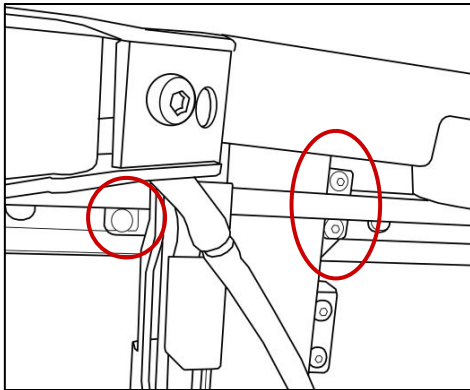


2. Then, utilize the jog controls on the touchscreen to position the red diode to its correct location, followed by selecting the "Set Offset" function.

Belt Replacement:

X-Belt Replacement:

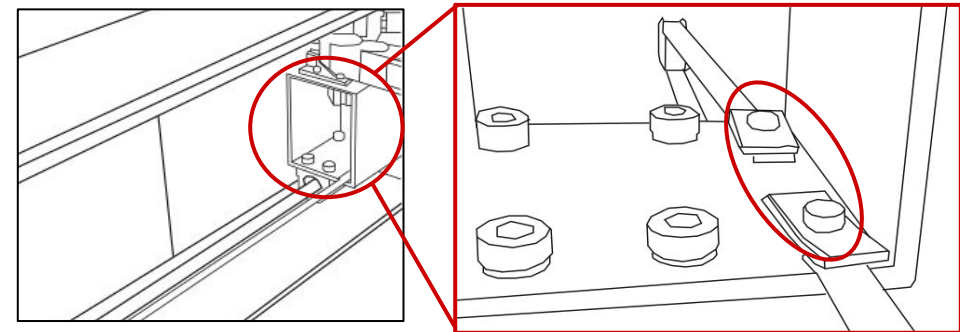
1. **Power Off and Unplug Machine.**
2. **Locate the Belt Screws.** The belt can be found above the adjustment knob. Adjust the gantry as necessary to access the screws.



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.

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.

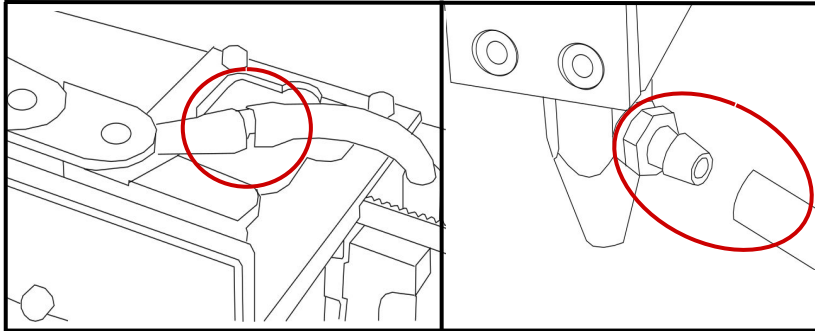


3. **Loosen Retaining Screws:** Loosen or remove the M4 retaining screws to remove and discard the old belt.
4. **Remove the Belt:** Remove one end of the belt, then remove the other.
5. **Mount New Belt:** To mount the first end of the new belt, thread it through the mounting slot with the folded part 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.

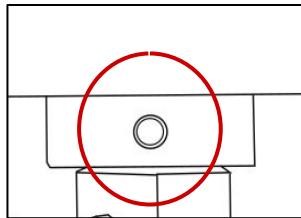
Air Assist Cone Replacement:

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

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

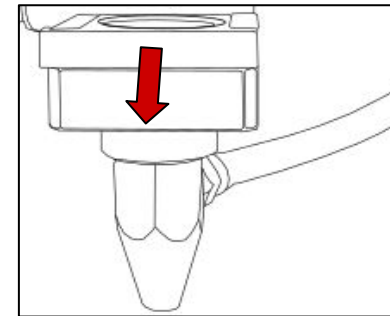


2. Using a 1.5 hex wrench (not included) to loosen the “set” screw on the cone. Remove the Air Assist Cone.

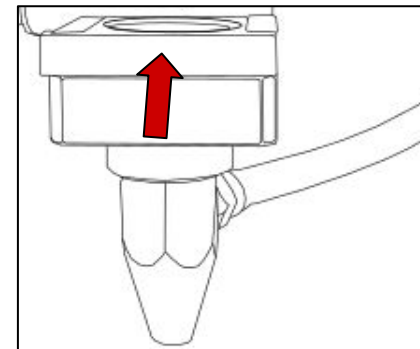


3. Place the new air assist cone under the focus lens and into the slot. Tighten “set” screw with a 1.5hex wrench. Reattach air hose.

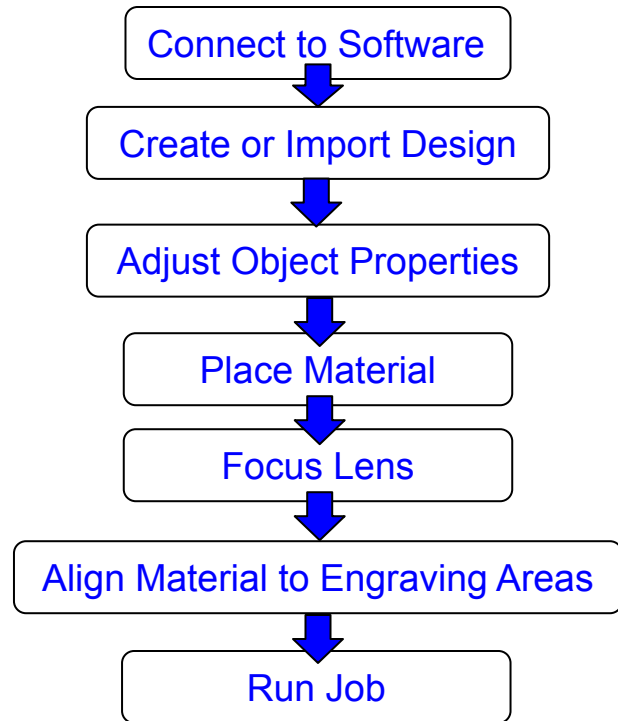
Lens Replacement:



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 [website](#).

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 you're having an issue not listed here, visit our [Help Center](#). We provide comprehensive videos, and useful resources for troubleshooting to help you get the most out of your investment in our products.