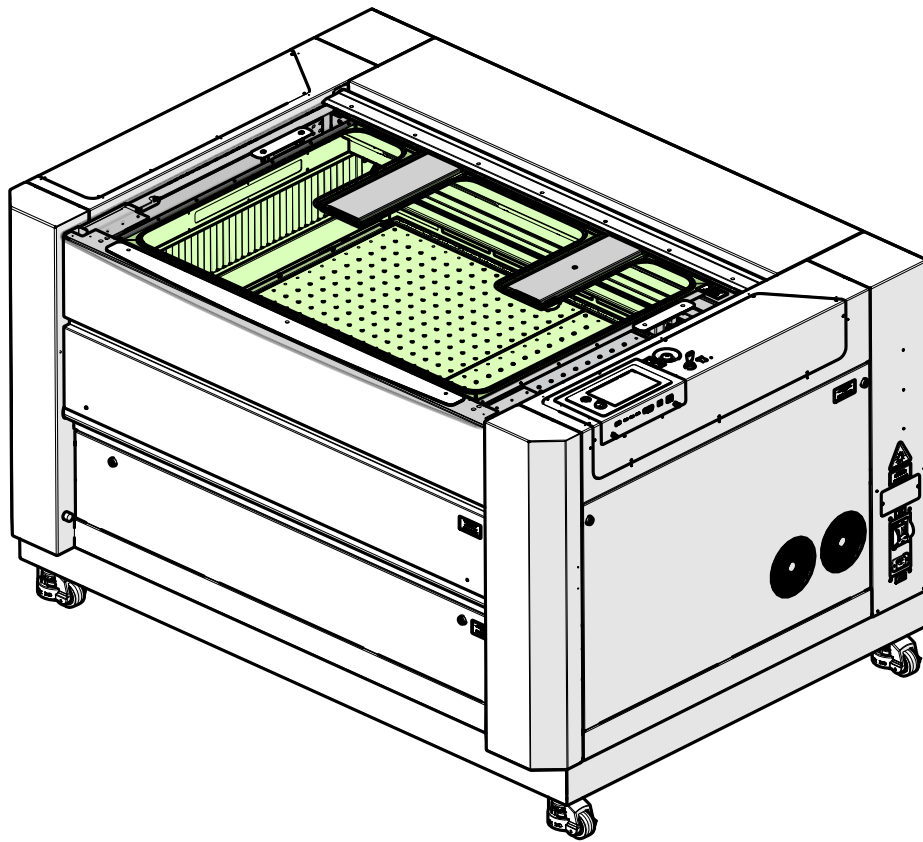


## CO2 Laser Tube & RF Unit Replacement Fusion Pro 32 & 48



Contents
Repair Service Precautions
CO2 Laser Tube Replacement
120-Watt Laser Tube Replacement
RF Unit Replacement

Tools/Materials Required
2 . 5/32" Allen Wrench
2 . Phillips Head Screwdriver
5
8

## Repair Service Precautions



### CO2 Laser Safety

Firing the CO2 laser without all engraver panels installed can result in serious and or permanent injury.

The use of safety eye wear is required when aligning the CO2 laser tube.

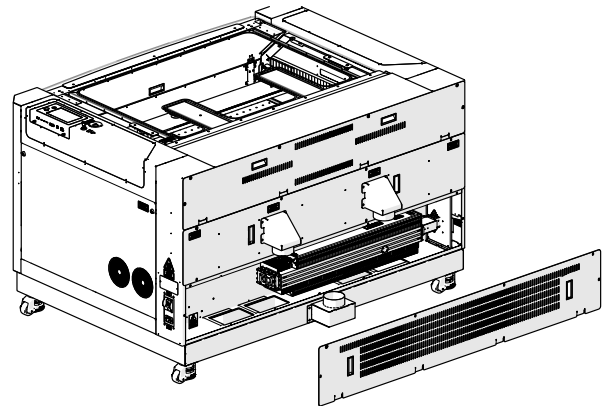
Do not place any part of your body in the laser beam path while the laser is in operation.

Lexan, polycarbonate, and or standard prescription eye wear are all effective at protecting the eyes from the CO2 laser beam.

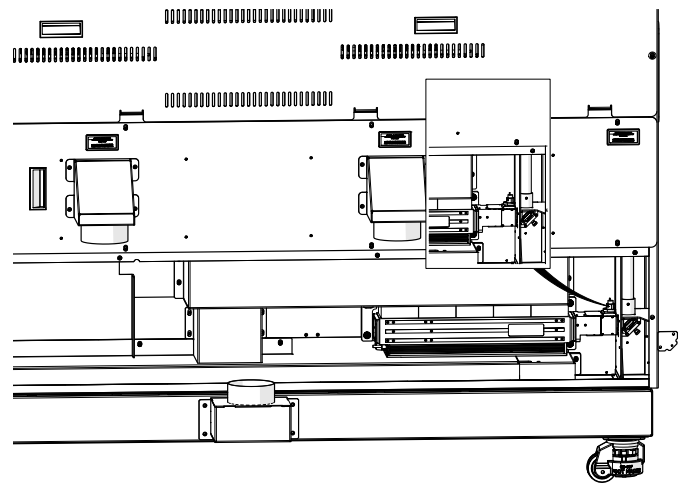
## CO2 Laser Tube Replacement

### CO2 Laser Tube Removal

1. Turn off the engraver.
2. Disconnect engraver from power.
3. Remove the laser bay access panel:

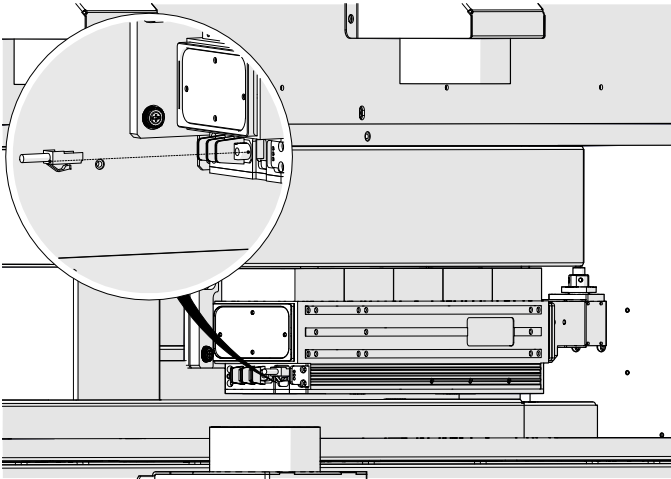


4. Disconnect the red dot pointer harness on the right side of the laser tube:

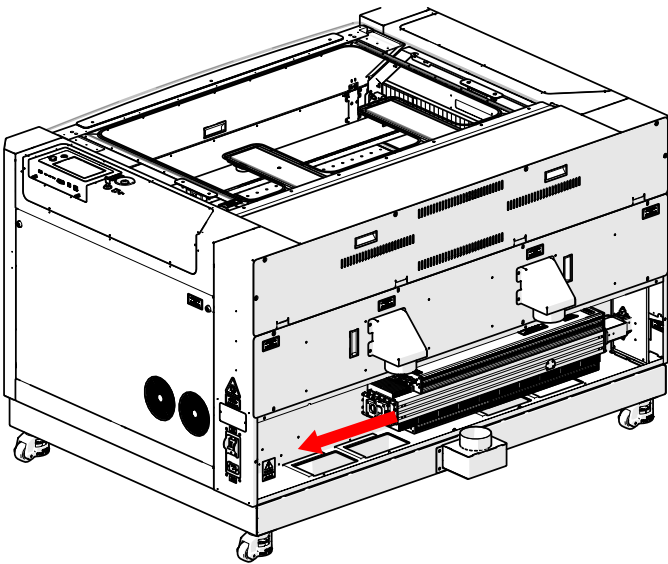


## 16000 - CO2 Laser Replacement

5. Disconnect the data cable on the left side of the laser tube:

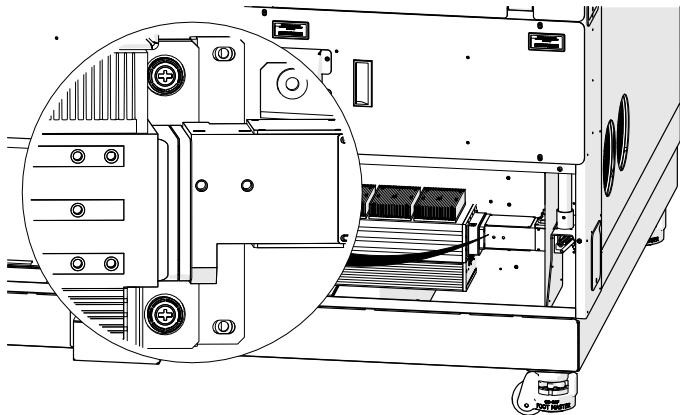
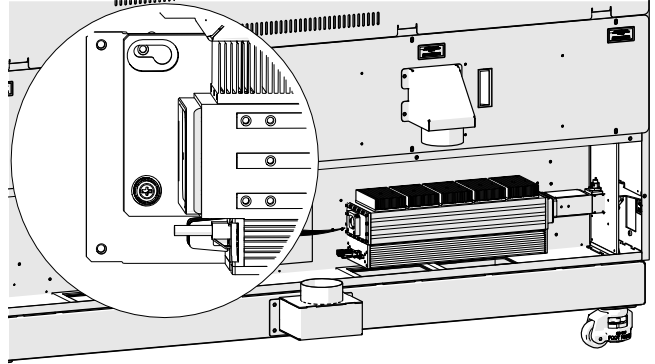


6. Follow the electrical harness from the laser and disconnect from the main electrical harness of the engraver:



Do not unscrew the electrical harness from the laser tube. This should remain connected to the laser tube when being sent back to the factory. The replacement laser tube will arrive with a replacement power harness attached.

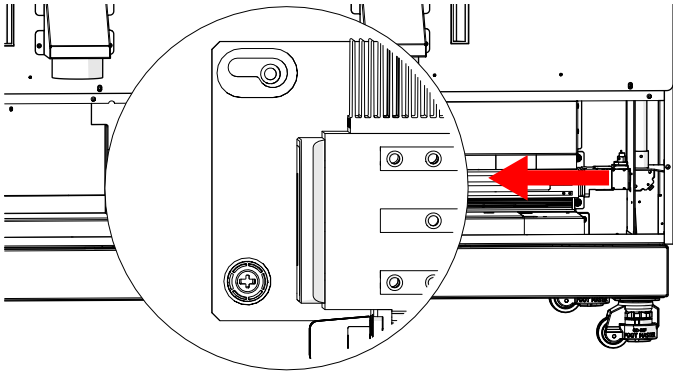
7. Loosen the three (3) green-capped Phillips captive screws on the laser tube mounting brackets. There is one (1) on the left bracket and two (2) on the right bracket:



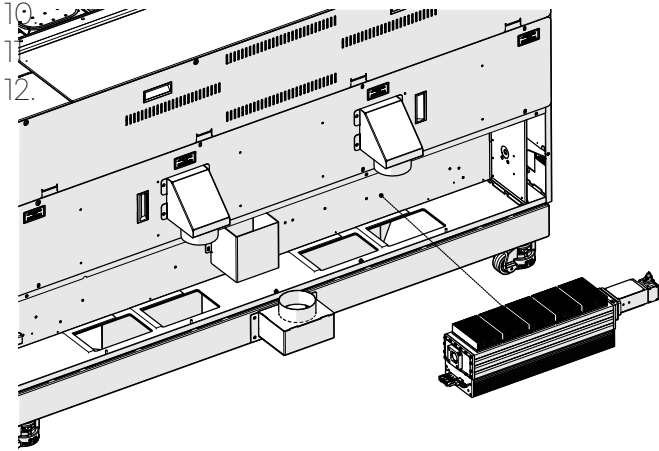
The green-capped screws are captive screws and cannot be fully removed from the laser tube mounting brackets. When the screws have been fully loosened, they will pop away from the laser tube mounting bracket.

## 16000 - CO2 Laser Replacement

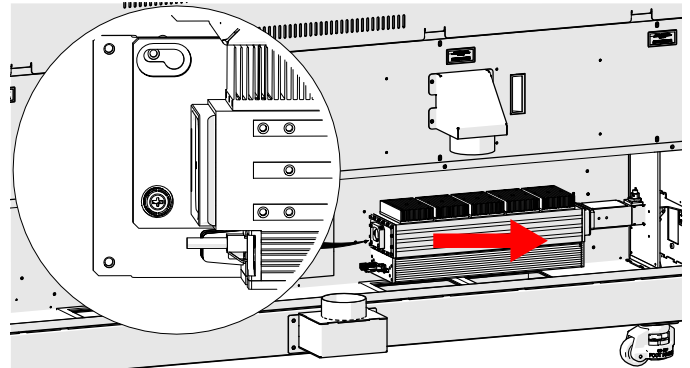
- Slide the laser tube towards the left to clear the guide pin that holds the laser tube in place:



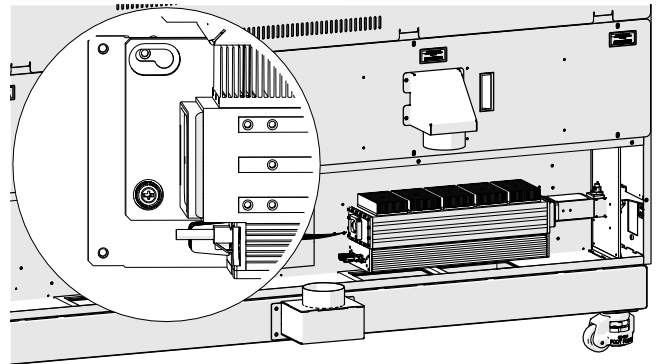
- Remove the laser tube from the engraver:



- Slide the laser tube towards the right to engage the guide pin that holds the laser tube in place:

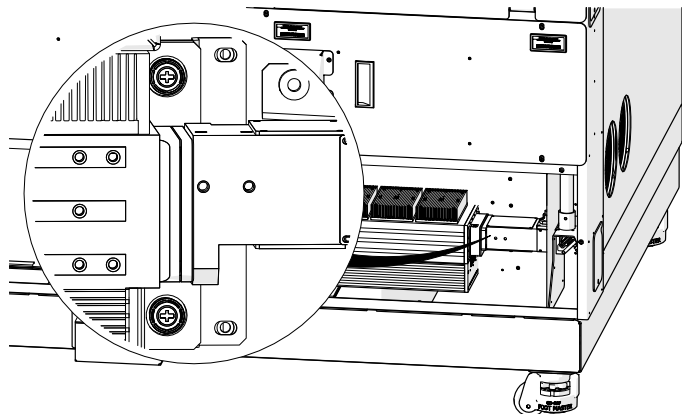
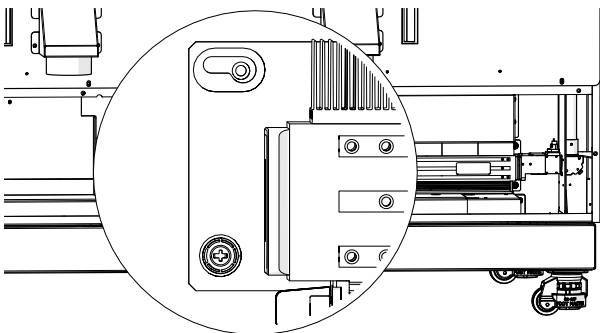


- Tighten the three (3) green-capped Phillips captive screws on the laser tube mounting brackets. There is one (1) on the left bracket and two (2) on the right bracket:



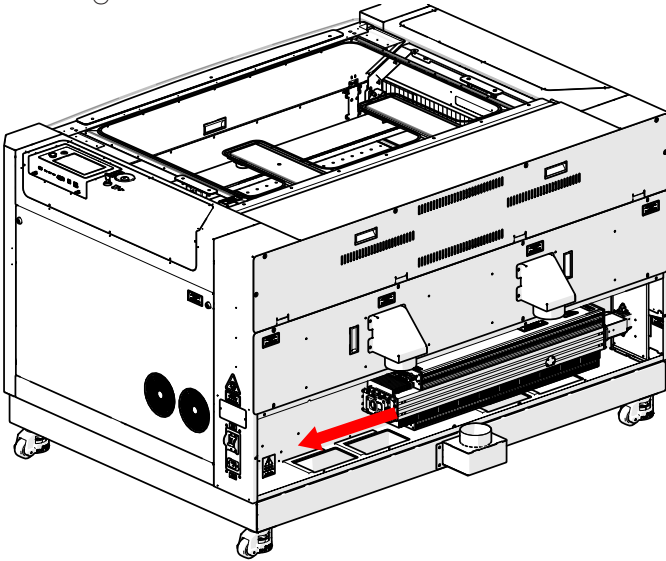
## CO2 Laser Tube Installation

- Install the laser tube into the laser bay, ensuring that the guide pin on the engraver chassis enters the opening on the left bracket:

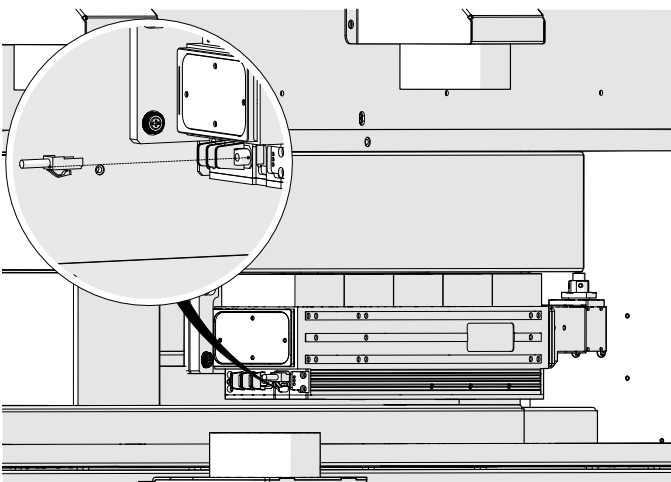


## 16000 - CO2 Laser Replacement

4. Connect the laser tube power harness to the main electrical harness of the engraver:



5. Connect the data cable on the left side of the laser tube:



6. Reconnect to power and turn on the engraver.

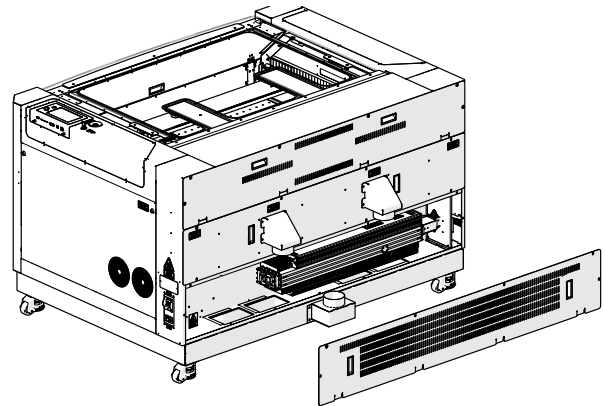
After installing a replacement laser tube, complete the laser alignment and focus calibration procedures.

If further assistance is required, contact Epilog Laser Technical Support by phone at 303-215-9171, or by email at [tech@epiloglaser.com](mailto:tech@epiloglaser.com).

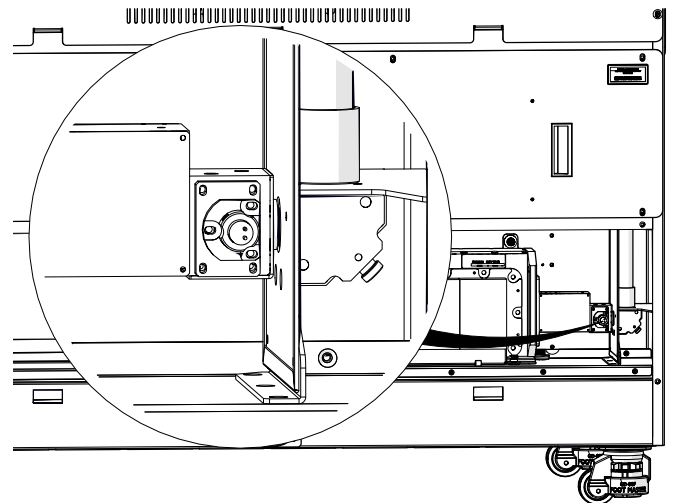
## 120-Watt Laser Tube Replacement

### 120- Watt Laser Removal

1. Turn off the engraver.
2. Disconnect engraver from power.
3. Remove the laser bay access panel:

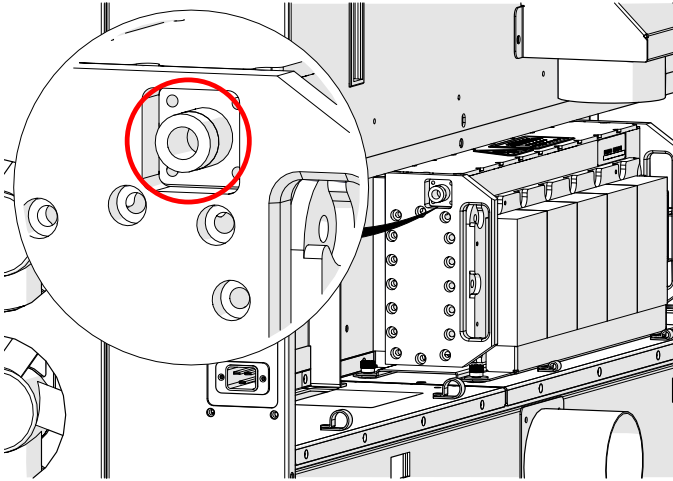


4. Disconnect the red dot harness on the right side of the laser tube:

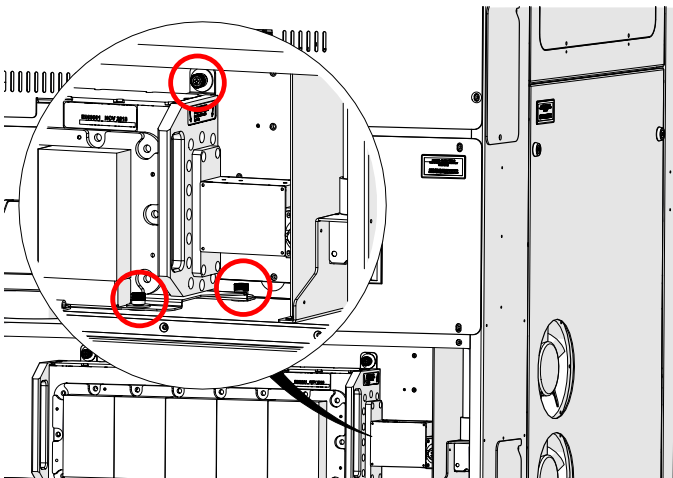
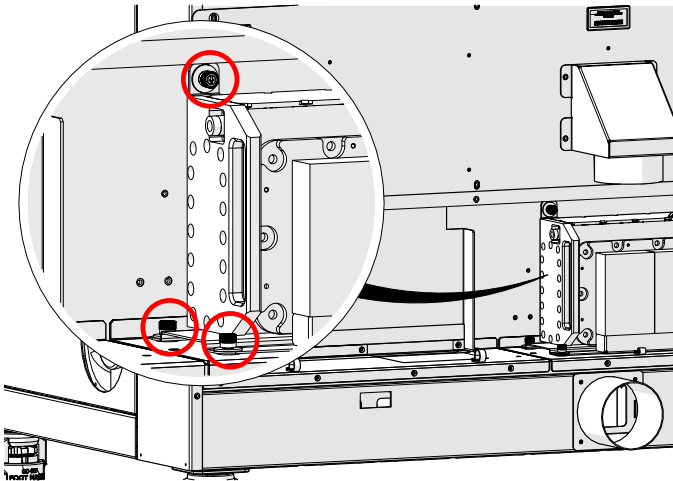


## 16000 - CO2 Laser Replacement

5. Loosen and remove the coaxial cable on the left side of the laser tube:



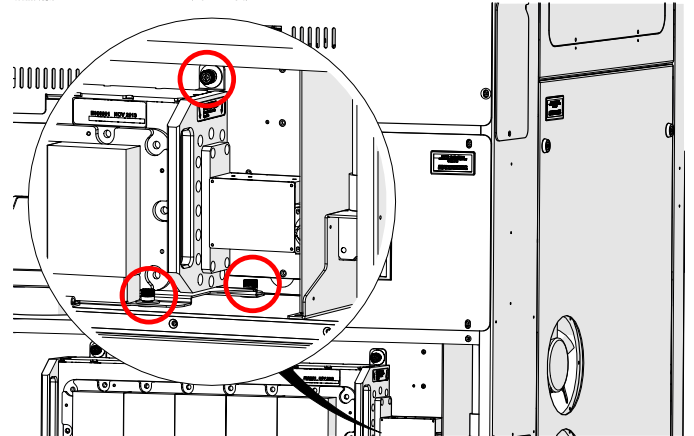
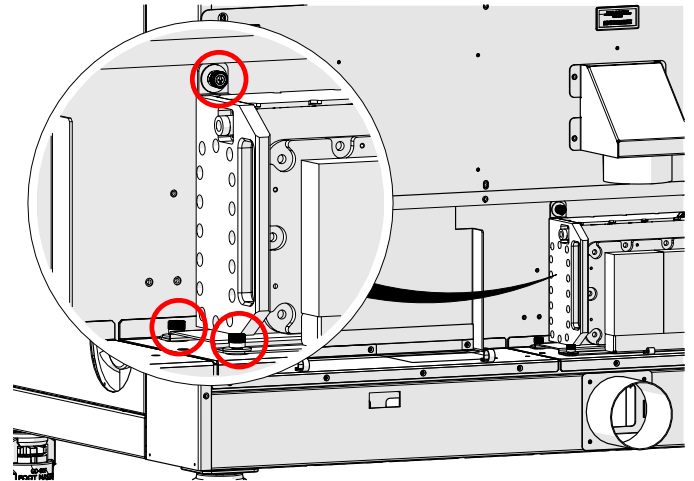
6. Loosen the six (6) green-capped Phillips captive screws on the laser tube mounting brackets. There are three (3) on the left bracket and three (3) on the right bracket:



7. Remove the laser tube from the engraver.

## 120- Watt Tube Installation

1. Place the laser tube in the engraver. Ensure that the green-capped captive screws sit over the screw openings in the engraver chassis.
2. Tighten the six (6) green-capped Phillips captive screws on the laser tube mounting brackets. There are three (3) on the left bracket and three (3) on the right bracket:



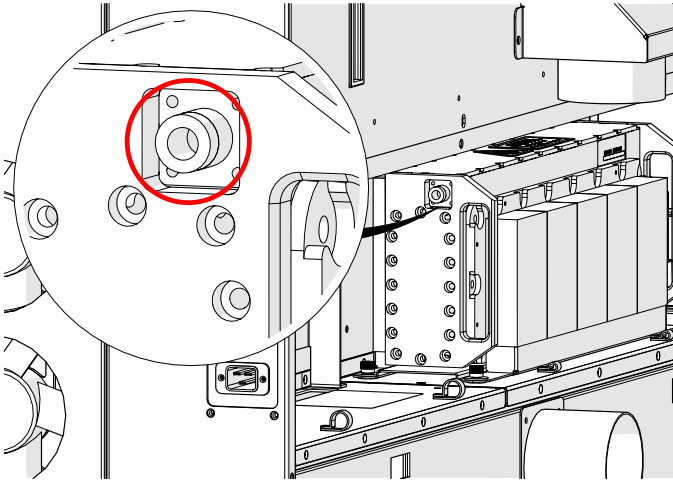


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**Do not use a wrench or pliers to tighten the coaxial cable. Tighten the coaxial cable by hand.**

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3. Connect and tighten the coaxial cable on the left side of the laser tube:

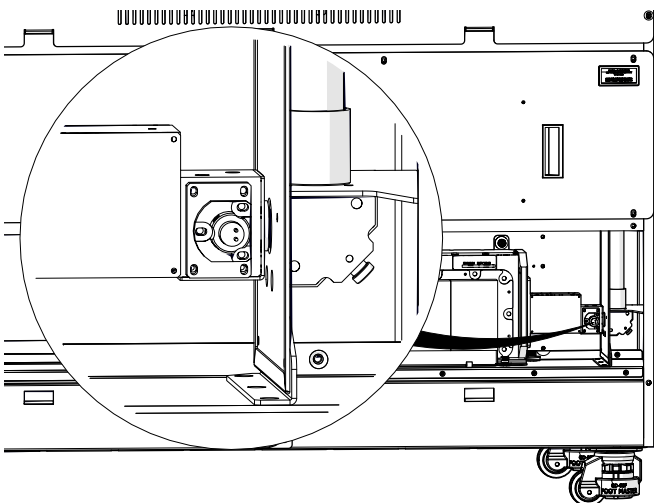


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Once the coaxial cable is finger tight, gently rock the cable head side to side and continue to tighten by hand to ensure that the coaxial cable is securely connected.

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4. Connect the red dot harness on the right side of the laser tube:



5. Reconnect to power and turn on the engraver.

After installing a replacement laser tube, complete the laser alignment and focus calibration procedures.

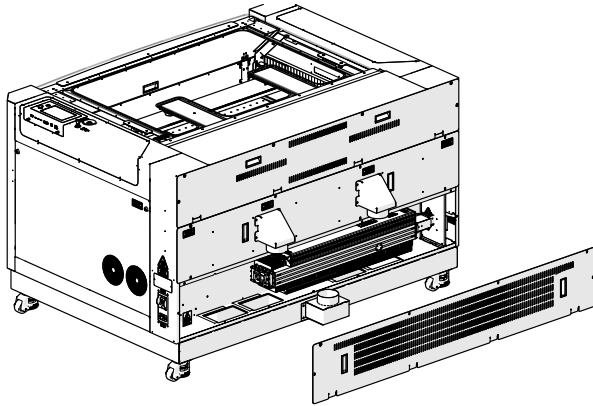
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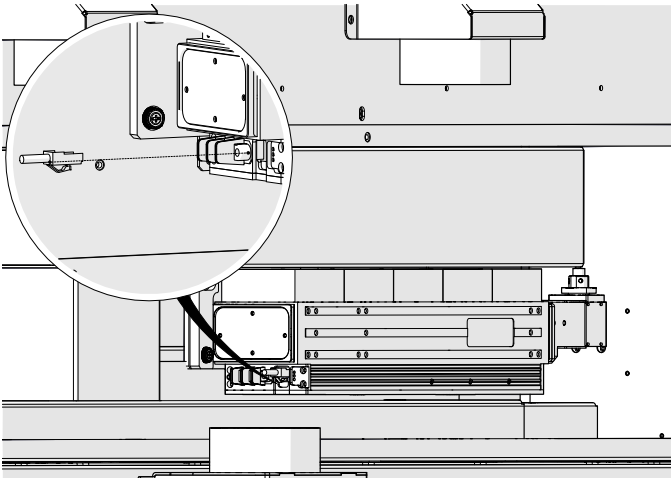
## RF Unit Replacement

### RF Unit Removal

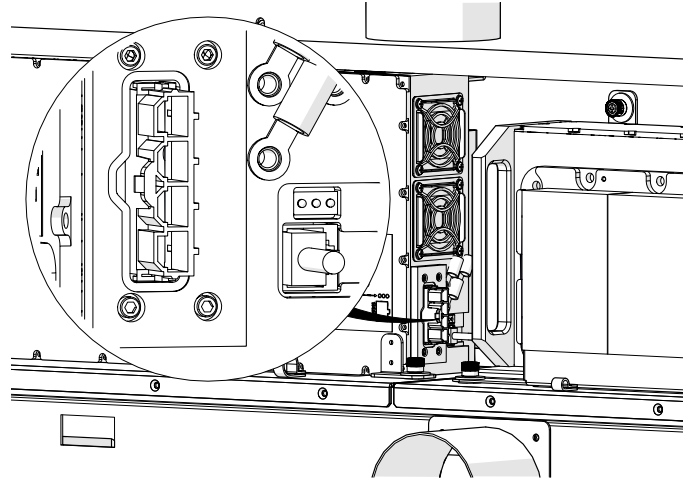
1. Turn off the engraver.
2. Disconnect engraver from power.
3. Remove the laser bay access panel:



4. Disconnect the data cable on the left side of the RF unit:

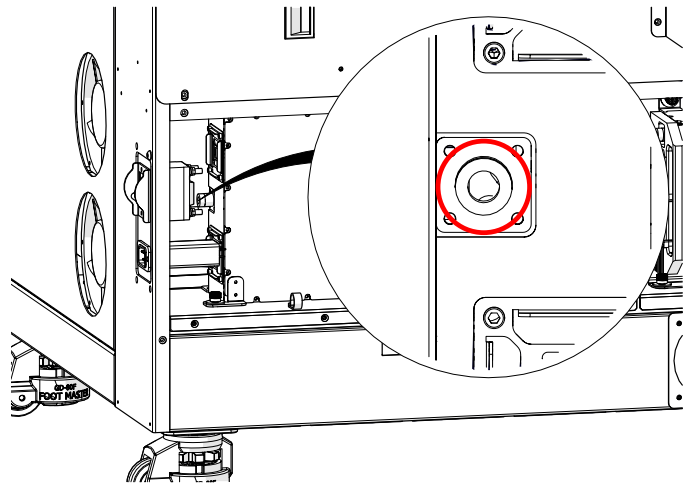


5. Disconnect the power harness.  
Loosen and remove the three (3) Allen screws that secure the grounding wires on the right side of the RF unit:



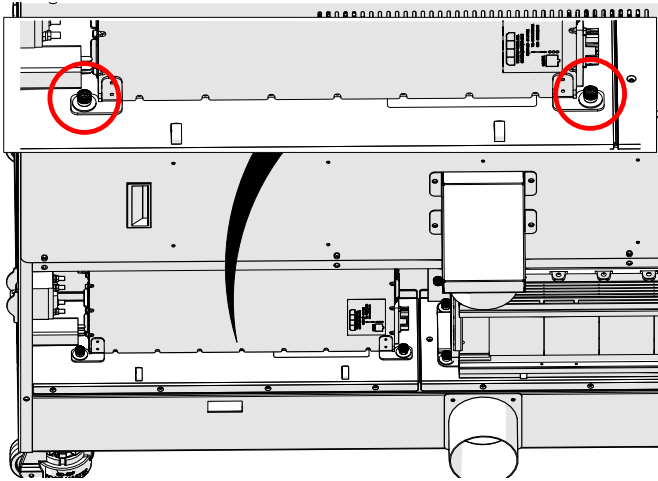
The position of the three (3) black grounding wires on the RF unit are interchangeable. You do not need to mark their positions for the installation.

6. Loosen and remove the coaxial cable on the left side of the RF unit:

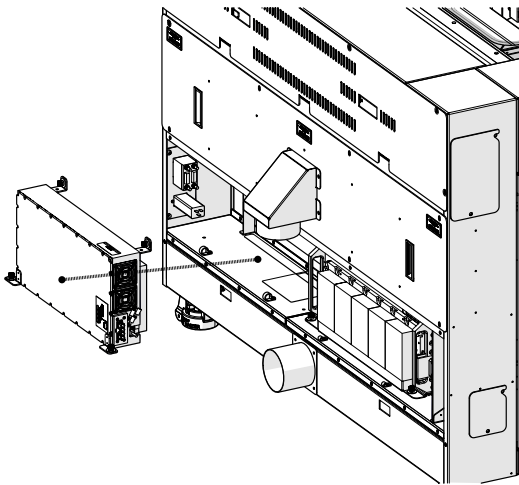




7. Loosen the two (2) green-capped Phillips captive screws on the RF mounting brackets:

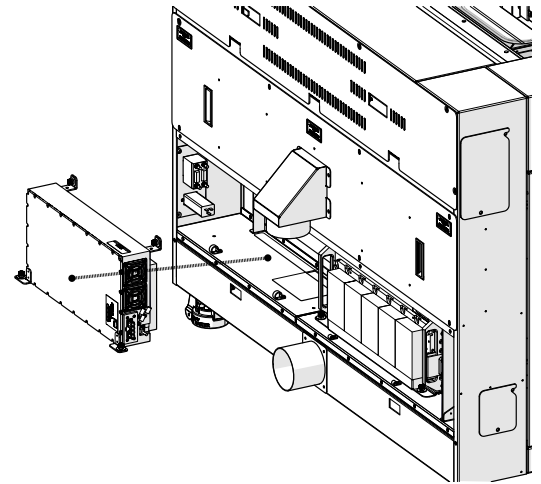


8. Remove the RF unit from the engraver:

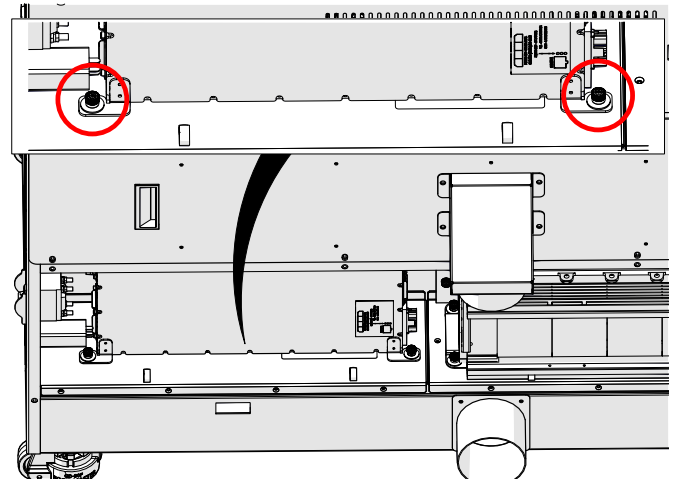


## RF Unit Installation

1. Place the RF unit in the engraver. Ensure that the green-capped captive screws sit over the screw openings in the engraver chassis:



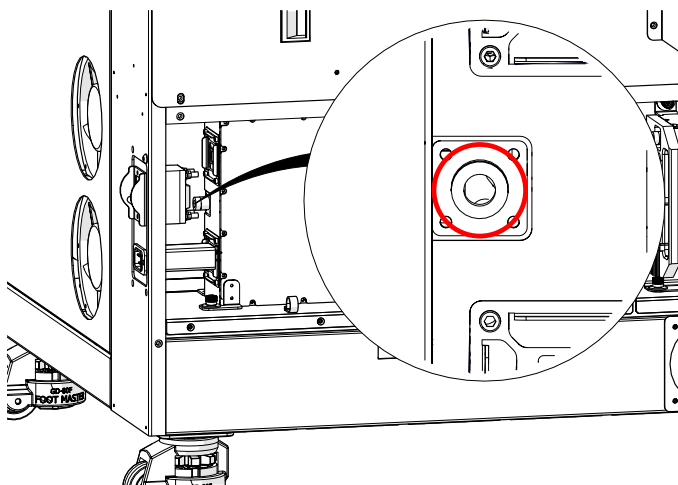
2. Tighten the two (2) green-capped Phillips captive screws on the RF mounting brackets:





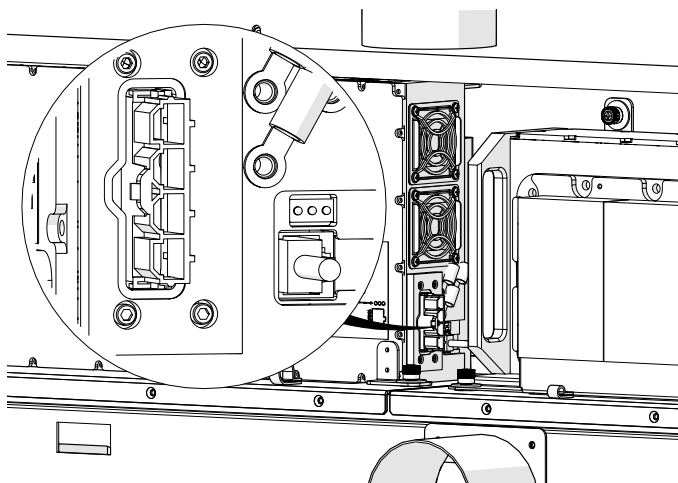
**Do not use a wrench or pliers to tighten the coaxial cable. Tighten the coaxial cable by hand.**

3. Connect and tighten the coaxial cable on the left side of the RF unit:



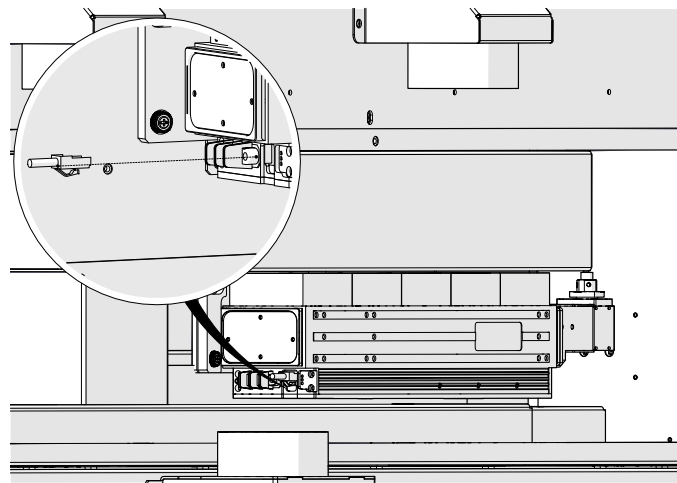
Once the coaxial cable is finger tight, gently rock the cable head side to side and continue to tighten by hand to ensure that the coaxial cable is securely connected.

4. Connect the power harness. Install and tighten the three (3) Allen screws that secure the grounding wires on the right side of the RF unit:

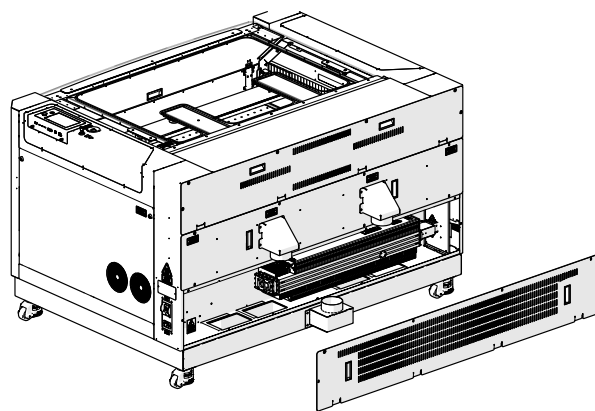


The position of the three (3) black grounding wires on the RF unit are interchangeable.

5. Connect the data cable on the left side of the RF unit:



6. Install the laser bay access panel:



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