

Questions to ask before replacing the laser tube.

Low Power, No Beam, Intermittent, Poor Engraving Quality

If the symptom is no lasering at all, Ask the customer if they have a red dot on the table - and if so, is it small & bright (In Focus) or wide & dull (out of focus). Should be small and bright. If not have the customer focus using the focus tool.

Next, have them run a job and ask the status of the front panel LEDs - If the red LED is blinking on keypad / front panel the customer has a interlock issue. Need to address the interlock before continuing.

If no lasering but the red dot pointer is good and no interlock open - Have them remove the lens kit from the focus carriage and see if a spot can be burnt on the tape in beam alignment mode.

If the red dot pointer is centered on the tape and is small in size but still no lasering then at that point, recommend a tube exchange.

Questions that should be asked before exchanging a laser.

- 1: Why do you think the laser needs replacing?
- 2: Do you see the RED pointer when opening the Top Door?
- 3: Can you see the red power light on the back of the laser tube looking through the cooling fan on right side rear of the machine.
- 4: Do you hear the cooling fans running on the laser cartridge?
- 5: Is the lens in focus? Are you using the correct focus tool?
- 6: Do you use auto Z, if so is it calibrated correctly?
- 7: Are the lens and mirrors / optics clean?
- 8: Have you done a beam alignment?
- 9: Is the X-axis arm square to the Y-axis rails?
- 10: Is the table level?
- 11: Any error messages? Ex: Is the door open? Current machine check with ALT -E for error messages from Diagnostics Tab.
- 12: Is the laser installed correctly? (Rubber seal burnt on back of machine where laser mounts?)
- 13: Is the laser getting power from the power supply? (If customer has a meter can check for 48 volts across the big RED and BLACK wires on laser plug)
- 14: Have we check and/or replaced the x-axis bearings, belt, idler, and drive gear?
If so the beam maybe out of alignment,

15: Did the customer send us the file he is running from and have we reviewed it?

16: If the customer is seeing low power or higher than normal have the customer check Diagnostics Tab in the UCP to make sure the right laser wattage is displayed. The laser wattage can be changed using the Hot Keys. (SHIFT + INSERT) and password vienna. Than set to correct laser wattage.