

Section 4

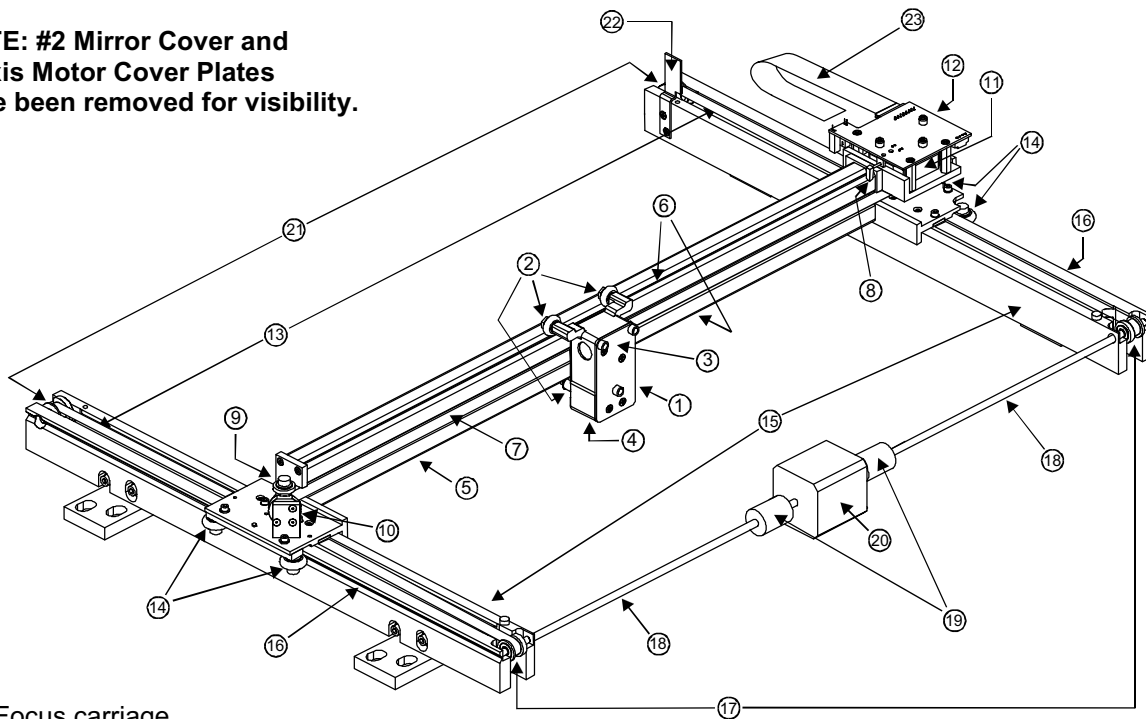
4

Basic Maintenance

Keeping the laser system clean will ensure the highest quality engraving. The frequency of cleaning will depend entirely on the type of material being engraved, the performance of your exhaust system, the operating environment, and the amount of laser system usage over a given period of time. Dirt or debris that is allowed to build up on the motion system components will cause uneven or rough engraving, or loss of engraving position as well as premature component failure. Smoke or dirt buildup on the optics can cause damage to them, loss of laser power, or premature failure of these components. Use good judgment and keep in mind that a clean machine is the best performing machine. Always turn the laser engraving system OFF and unplug it before performing any cleaning procedures.

Motion System Components Diagram

NOTE: #2 Mirror Cover and X-axis Motor Cover Plates have been removed for visibility.



- 1) Focus carriage
- 2) X-axis bearing (3)
- 3) #3 mirror (inside cover plate)
- 4) Focus lens (inside cover plate)
- 5) X-axis rail (arm)
- 6) X-axis bearing track (2)
- 7) X-axis belt
- 8) X-axis home sensor flag
- 9) X-axis idler pulley
- 10) #2 mirror and holder
- 11) X-axis motor and drive gear
- 12) X-Y home sensor board (upper flex board)
- 13) Y-axis belt (2)
- 14) Y-axis bearing (4) (2 on right side Y-axis rail, 2 on left side Y-axis rail)
- 15) Y-axis rail (2)(one right side and one left side)
- 16) Y-axis rail bearing track (2) (one on right side, one on left side)

- 17) Y-axis drive gear (2) (one on right side, one on left side)
- 18) Y-axis shaft (2) (one on right side, one on left side)
- 19) Y-axis shaft flex coupler (one on right side, one on left side)
- 20) Y-axis motor
- 21) Y-axis idler pulley (2) (one on right side, one on left side)
- 22) Y-axis home sensor flag
- 23) Flex cable