

CDCM (MRSEC) facilities laser safety standard operating procedure

Cobolt Samba (power: 400 mW, wavelength: 532 nm, pulse duration: continuous wave)

- A. Initial preparation of the lab environment for normal operation
 - a. Turn on the laser sign outside the lab.
 - b. Write/read the operating wavelength on the LED board near the entrance door.
 - c. Wear appropriate laser safety goggles for the laser wavelength.
 - d. Enter the laser-exposure area enclosed by the curtain and make sure the curtain is closed.
 - e. Verify only authorized users are inside the area and all wear appropriate eyewear.

- B. Operation procedures for CW lasers are as follows:
 - a. Verify the beam blocks A and any necessary optics are in place (or shutter B is closed).
 - b. Check the flip mirrors are in the right position (see picture).
 - c. Turn the key switch to start the laser. LED status: POW (green)-> ON (orange).
 - d. Wait 60s for the laser to lock to pre-set output power. LED status: ON->LOCK.
 - e. Open the manual shutter and move the corresponding beam block. Do not misplace the beam block.
 - f. Adjust the laser power using the half-wave plate (see picture).
 - g. Trace the beam propagation using an extra beam block or barrier. Block the beam to the upstream of the nearest optics as needed.

- C. Shutdown procedures for CW lasers are as follows:
 - a. Turn the key switch to OFF.
 - b. Close the manual shutter and return the beam block to the original place (see section B).
 - c. Clear up all clutter, samples, and tools.
 - d. Wipe off the laser wavelength (532 nm) on the LED board.
 - e. Turn off the laser sign (leave the sign on if other lasers are still being used).

- D. Emergency shutdown procedures:
 - a. Close the manual shutter.
 - b. Turn the key switch to OFF.

Violations of the operating procedure will result in suspension of the access to the facility. The PI will be noticed, and the duration of the suspension will be determined by MRSEC management and the PI.

I have read and understand these instructions and procedures:

Print Name

UT EID

Signature

Date

