
Opening Matisse S-Refcell

Symptomatics

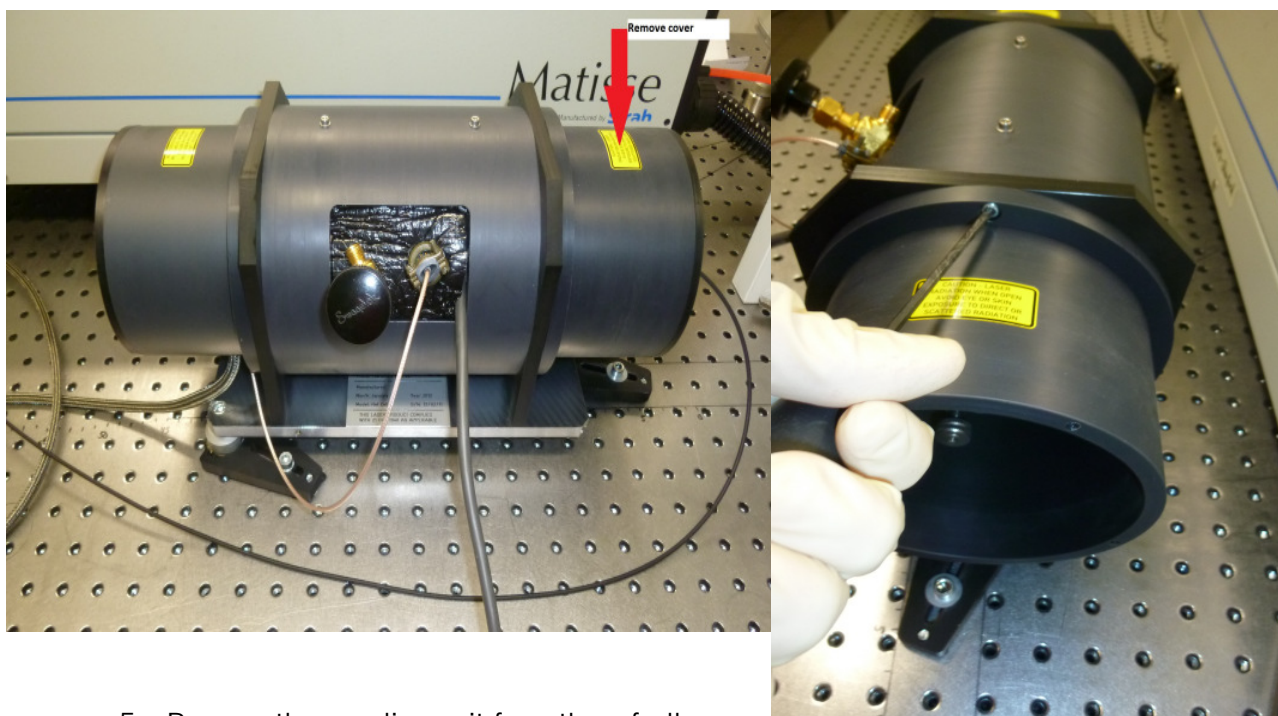
- Locking not possible
- All electronic tests results confirm error free electronics
- Good optical alignment of fiber coupling unit--> enough transmission through the fiber
- Alignment on Refcell transmission diode not possible due to missing flickering of the spots (for this alignment "Refcell Waveform" window in the software must be open)

Requirements

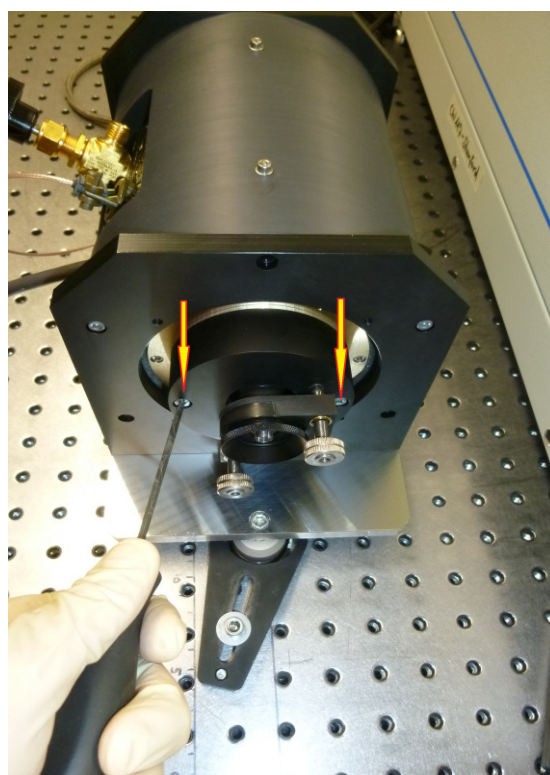
- Set of metric Allen head keys (provided with the laser, to be found in the blue utility box)

Procedure

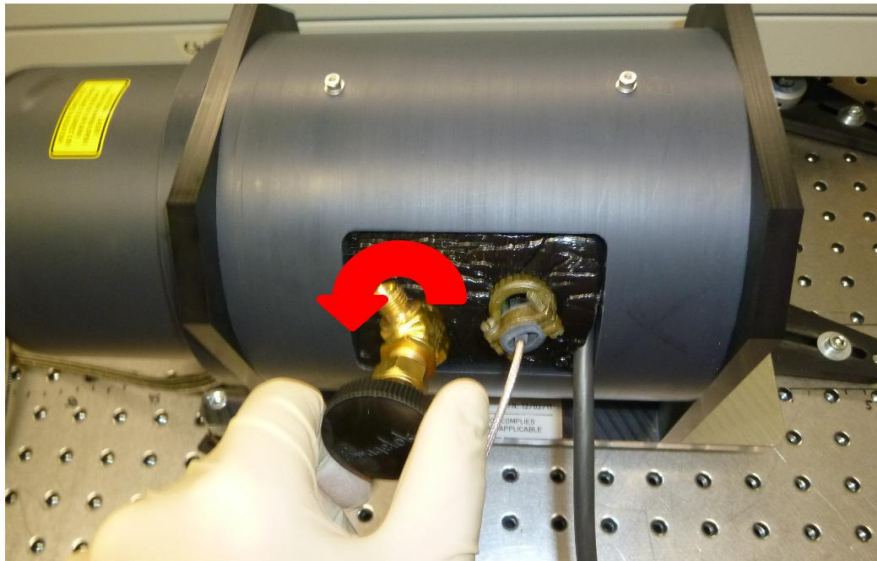
1. Switch off Matisse electronic box.
2. Disconnet the Refcell from the Matisse laser head.
3. Remove fiber from the refcell
4. Open right cover from the refcell (input side)



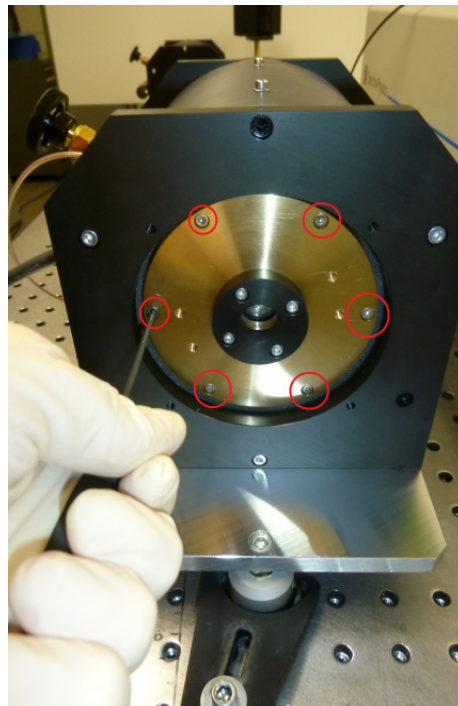
5. Remove the coupling unit from the refcell unscrewing two M4 screws.



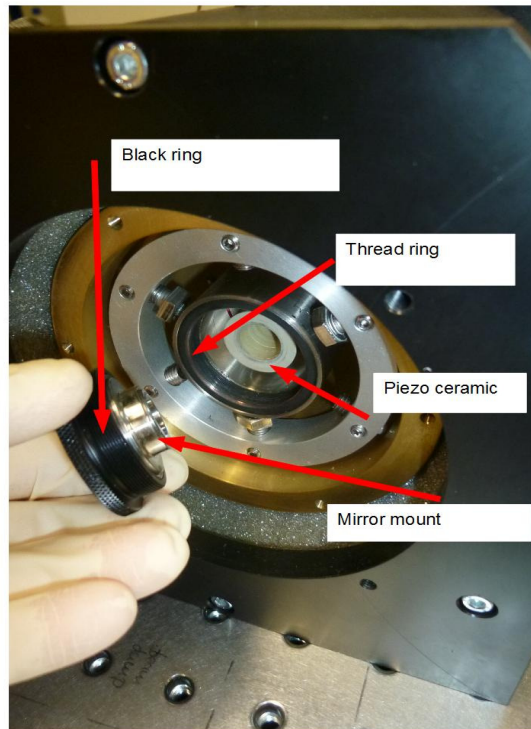
6. Open the valve to fill the cell with air to be able to remove input window



7. Unscrew 6 M3 screws and remove the brass window to get access to the refcell mirror and refcell piezo



8. Before remove the Refcell mirror, check if the mirror is fixed, for this gently turn on the black ring. Now you know if this was fixed or not. Remove the black ring together with the mirror inside. Be careful because the mirror is fixed only by O-Rings inside the black ring.
9. After you removed the black ring with the mirror, you see the Piezo element in the refcell. Check this also for tightness, gently pushing with a finger on it.



10. Check the thread ring if it is still glued to the steel part of the refcell.
11. If the piezo and the thread ring are fixed, put the ring with the mirror back and fix it against the piezo. Do not use too much torque but still enough so that the mirror is under pressure when touching the piezo.

Contact Sirah with the results of this procedure