

APPENDIX A

Upgrades to the system and further specifications

V2:

1. The **emission filter wheel** can accept filters up to 5mm thick. **It is important to note that for filter with a thickness < 5mm, the effects given by the back-reflection from the chip of the camera cannot be excluded**
2. Dichroic mirror holder (see picture below) and dichroic wheel have been optimized to avoid tilting in angle between filters and to reduce deformations of the mirror in VCS application



N.B.

1. The mirror is inserted and removed from its holder without removing the 4 screws of the holder
2. For the correct VCS pattern imaging, ultra-flat dichroic mirrors are necessary. We do suggest UF1-ultraflat or UF2-ultraflat mirrors from Chroma

VCS upgrades:

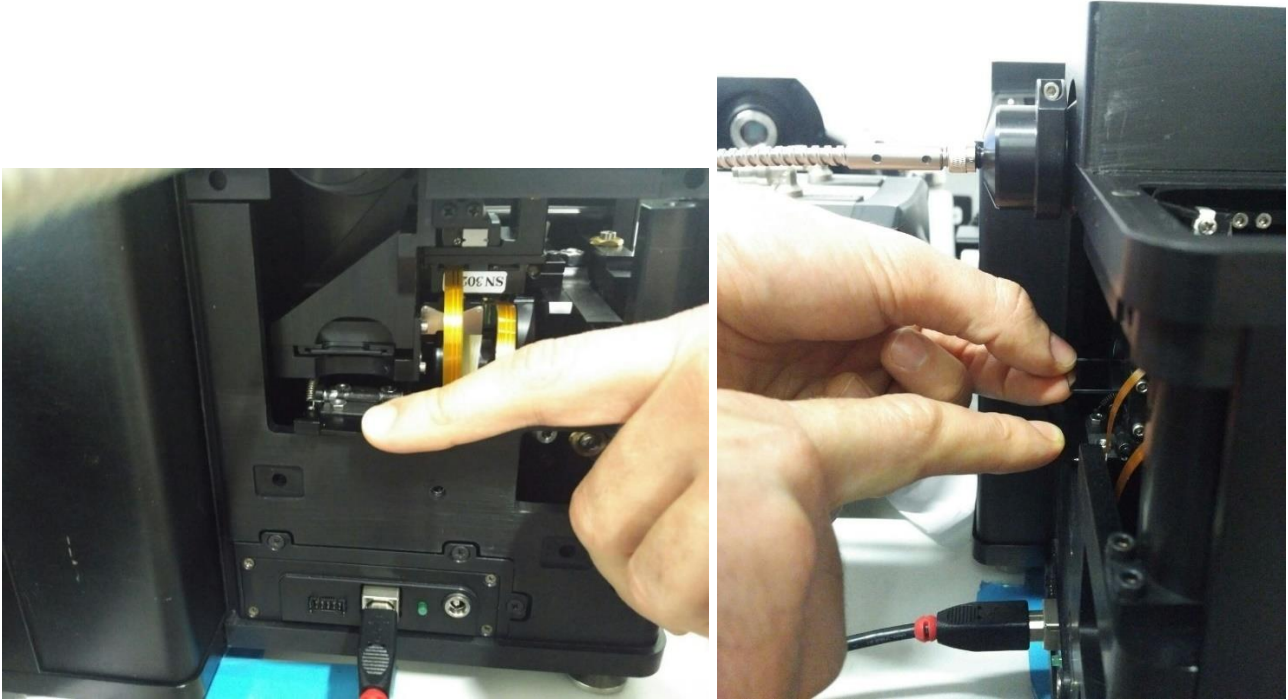
1. The main body of the VCS has been upgraded with an adjustable foot to make the whole system more stable
2. The lateral panels have been upgraded with captive screws that keep them more stable in position
3. A new pattern has been introduced with the following characteristics:
 - a. 13um square apertures – 78um pitch
 - b. 13um slit apertures – 78um pitch

4. **VCS piezo motor protection tool for shipment and mask insertion**



1. To insert the mask be sure that the VCS mask holder is in maintenance position
2. Be sure to power off the unit once in position. If necessary, close the software you are using

3. Lower the protection tool door all the way down (more than 90°) and insert the mask (see picture below)



4. Power on the unit again.

N.B.

Before shipping the system be sure that the mask holder is in maintenance position

N.B.

Alignment grub screws have been added. Refer to VCS alignment procedure in the User Manual ver. 1.9 before beginning the alignment procedure