

NOU_T ECHELLE
HOW YOU BE ABLE TO MOUNT THE OPTICAL COMPONENTS.

NOU_T, OPTICAL ELEMENTS LIST. 2020 10 27

GUIDE BOX

1 .- FOCAL REDUCER OR NEGATIVE BARLOW LENS

FOCAL REDUCER (it depends of each telescope). Alan Gee Telecompressor MarkII. [https://www.baader-planetarium.com/en/alan-gee-telecompressor-mark-ii-\(t-2-part-20\).html](https://www.baader-planetarium.com/en/alan-gee-telecompressor-mark-ii-(t-2-part-20).html)

NEGATIVE BARLOW LENS (it depends of each t Telescope Focal Relation)

<https://farpointastro.com/shop/apm-2-inch-coma-corrector-telecentric-1-5x-barlow-lens/>

L-AON012 D 31.50 F-100.00 BF-103.80 7.8 10.70

<http://catalog.rossoptical.com/catalog/doublets-and-triplets/negative-achromats/>

<https://www.edmundoptics.com.sg/p/40.4mm-dia-x137mm-fl-grade-1-negative-achromatic-lens/25567/>

2 .- One Pinhole. 50 microns with mount M25 mm. Standar Round Apertures (unblackened).
<http://www.nationalaperture.com/pinhole.htm>

3 .- One Flat mirror for guide.

<https://www.edmundoptics.com/p/20mm-dia-enhanced-aluminum-lambda4-mirror/17777/>

4 .- Two Achromatic doublets 12.7 mm diameter and 75 mm. focal.

<https://www.thorlabs.com/thorproduct.cfm?partnumber=AC127-075-A>

5 .- One Flat mirror for tungsten light, 15x21x3. Reference # 89-477
<https://www.edmundoptics.eu/p/15-x-21mm-silver-4-6lambda-mirror/31982/>

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MAIN BOX

6 .- One Concave Mirror, UV Enhanced Aluminium, Diameter 25.4 mm. $f = 100$ mm. (see the reflection graphic),very good transmission in 3700 Angs. and between 8000 at 9000.
<https://www.thorlabs.com/thorproduct.cfm?partnumber=CM254-100-F01>

7 .- One Flat mirror, UV Enhanced Aluminium square 25.4 x 25.4 x 6.0 mm., we need make a hole in it afterwards.

<https://www.thorlabs.com/thorproduct.cfm?partnumber=PFSQ10-03-F01>

8 .- One Richardson Echelle grating 25x50x6 mm. 79 l/mm. Blaze 63°

<https://www.edmundoptics.eu/p/79-grooves-25x50mm-63-echelle-grating/43670/>

9 .- One Equilateral prism F2 size = 40x40x40 mm. Without AR coating Ref. 04 JE 40

comaroptics.com/components/plano-optics/prisms/inverting-and-dispersing-prisms

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MAIN CCD CAMERA

10 .- Fotografic Objective Nikon Nikkor 85mm. F1.8 AF. Metal version.

<https://www.ebay.fr/sch/i.html? sacat=0& nkw=nikon+85mm+1.8d& frs=1>

LAMPS AND BULBS.

11.- Calibration light, box of 25 RELCO SC 480 S53993 80W 225V – for reservation.

<https://www.krealo.es/a/arrancador-cebador-sc480-s53993>

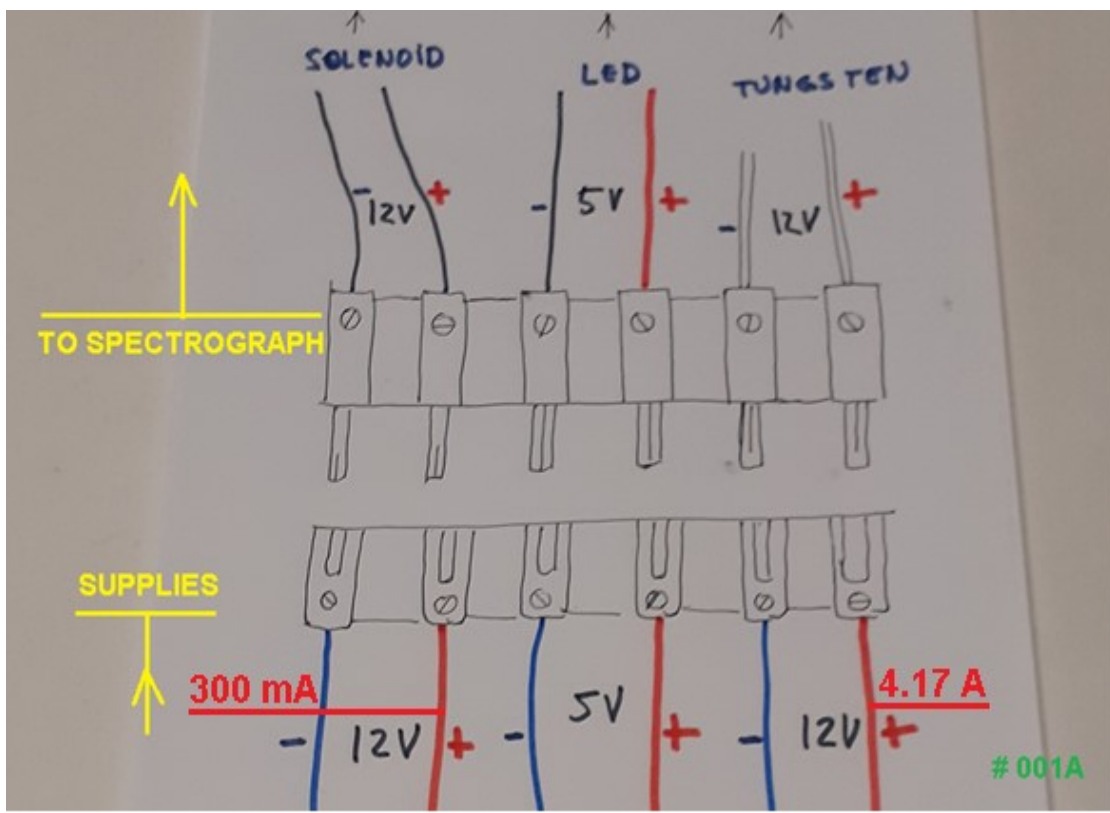
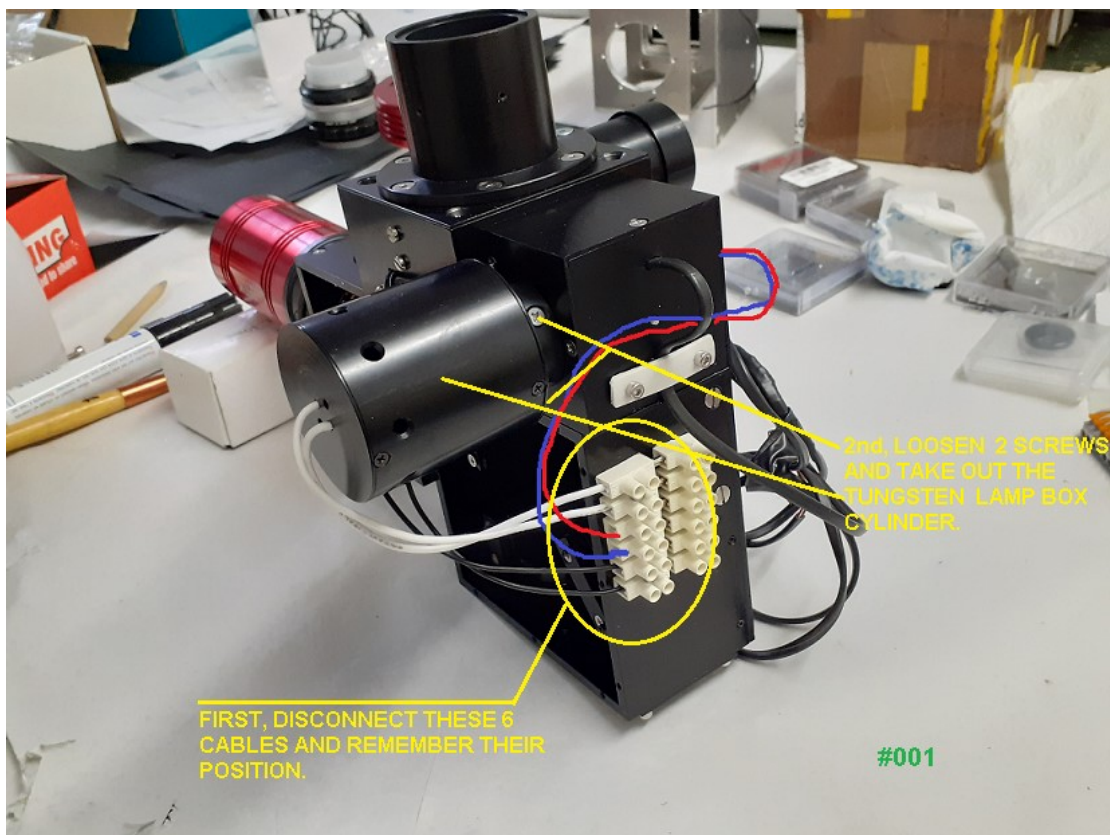
12 .- Two – one for reservation - Tungstene Lamp. Lamp SOLUX 35004 MR16 12V 35W 4700K 24º (or 36º)

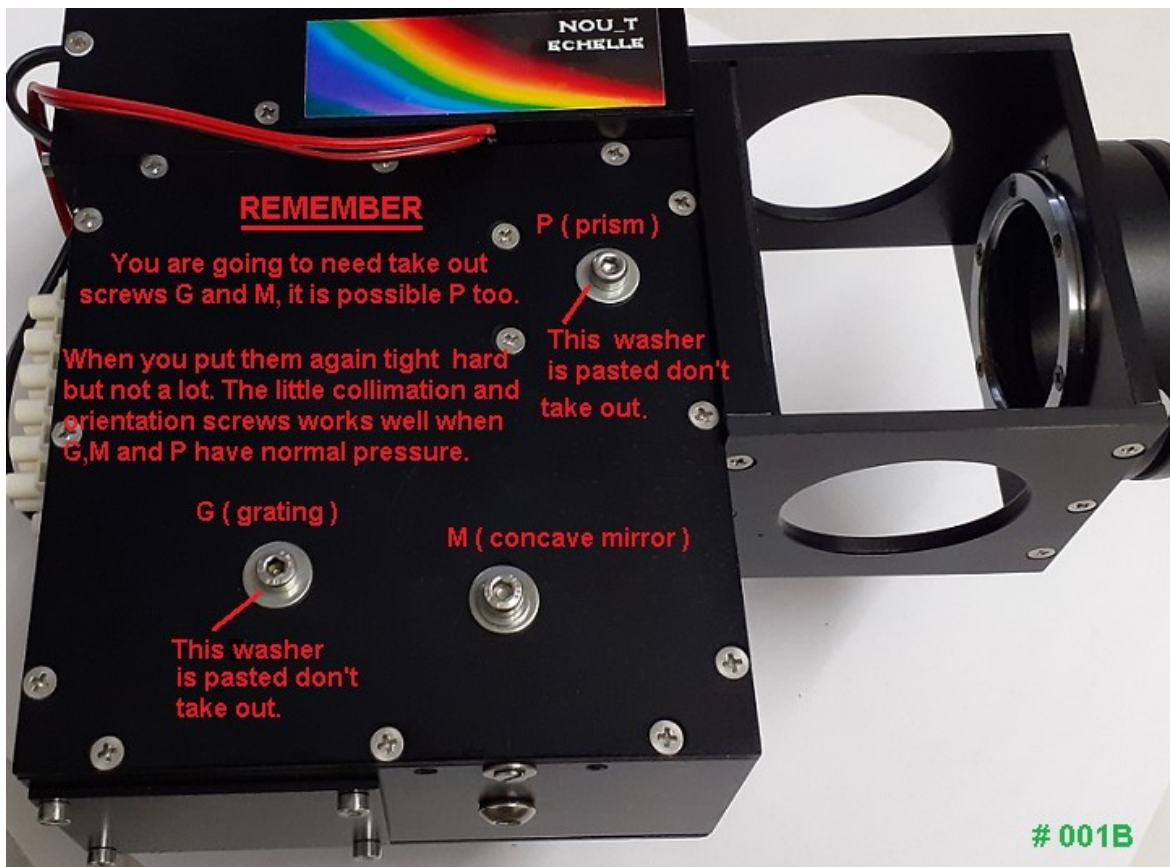
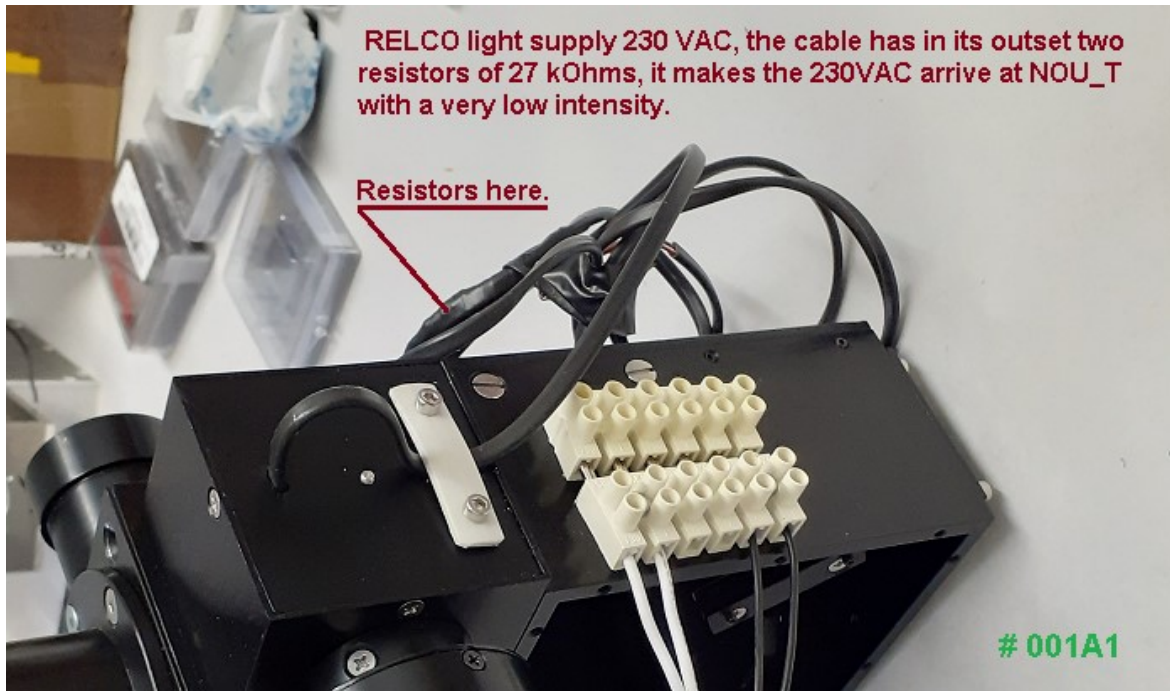
https://www.prozic.com/www2/info_promo_SOLUX35004_Lampes%20solux.html

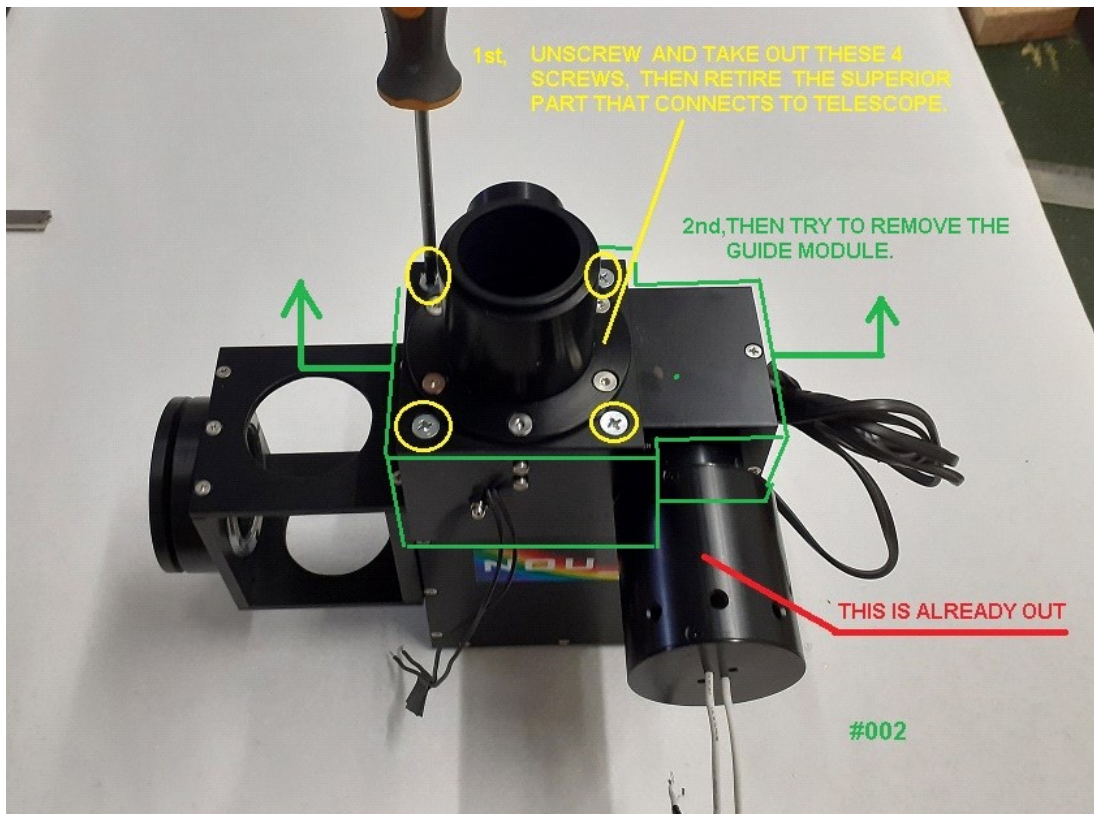
13 .- It is already assembled in the NOU_T, but you need to know it exists.
One LED diameter 4 mm. 5v DC . For pinhole retroillumination .

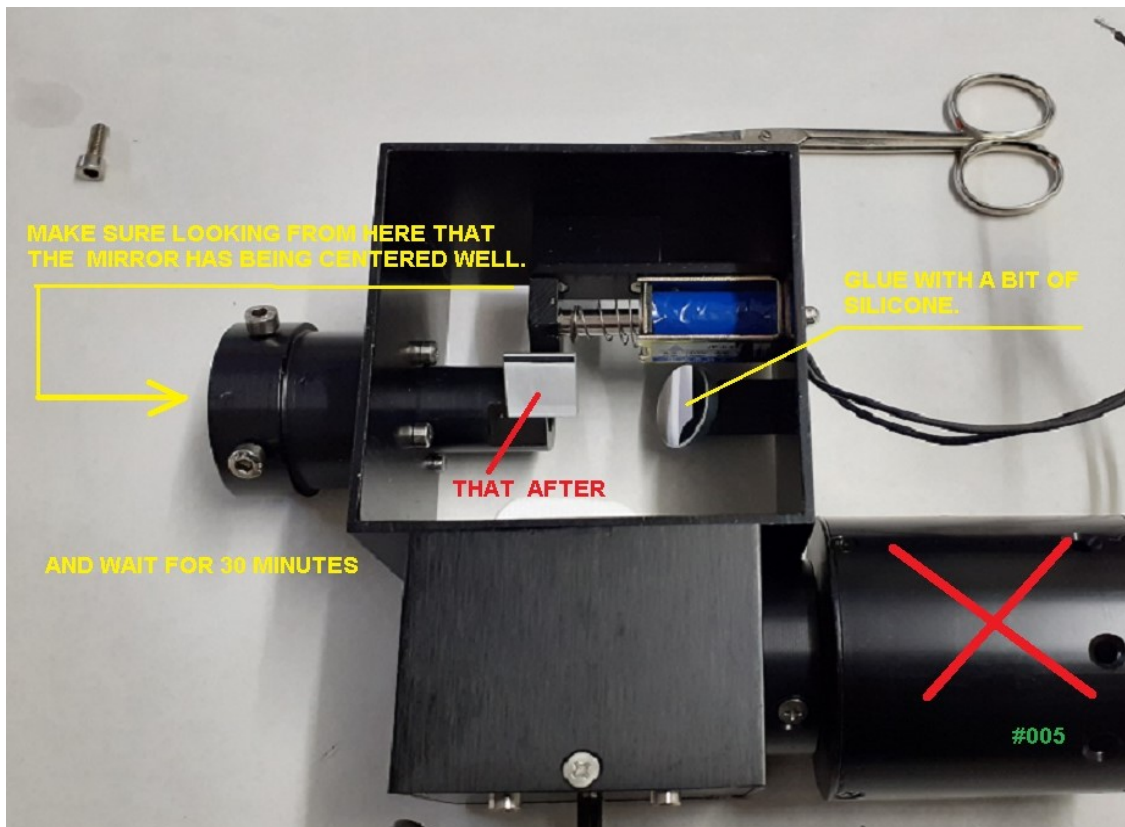
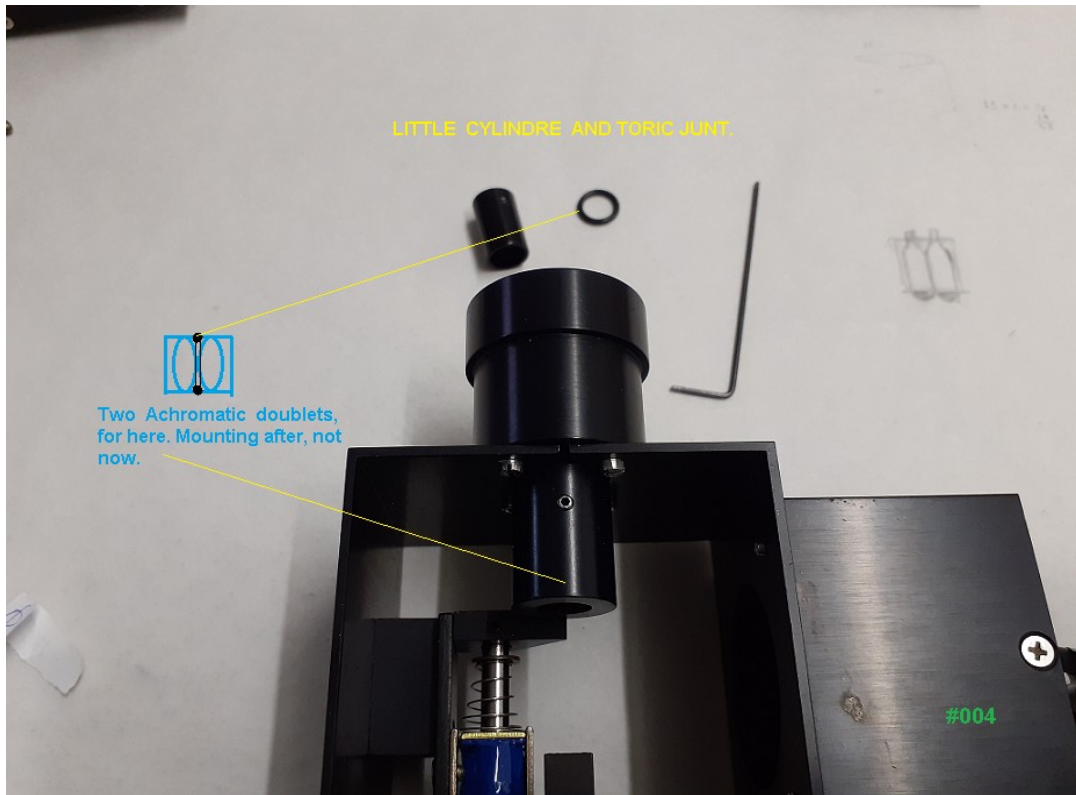
VERY IMPORTANT.- Before of all you need make same who an experienced mechanic, catch the NOU_T in your hands and see it very attently, try to guess how it is made, every part, every screw, one, twice, three or more times.. The same with every piece that you take out. You do not want run, keep calm and essay every movement once or twice.

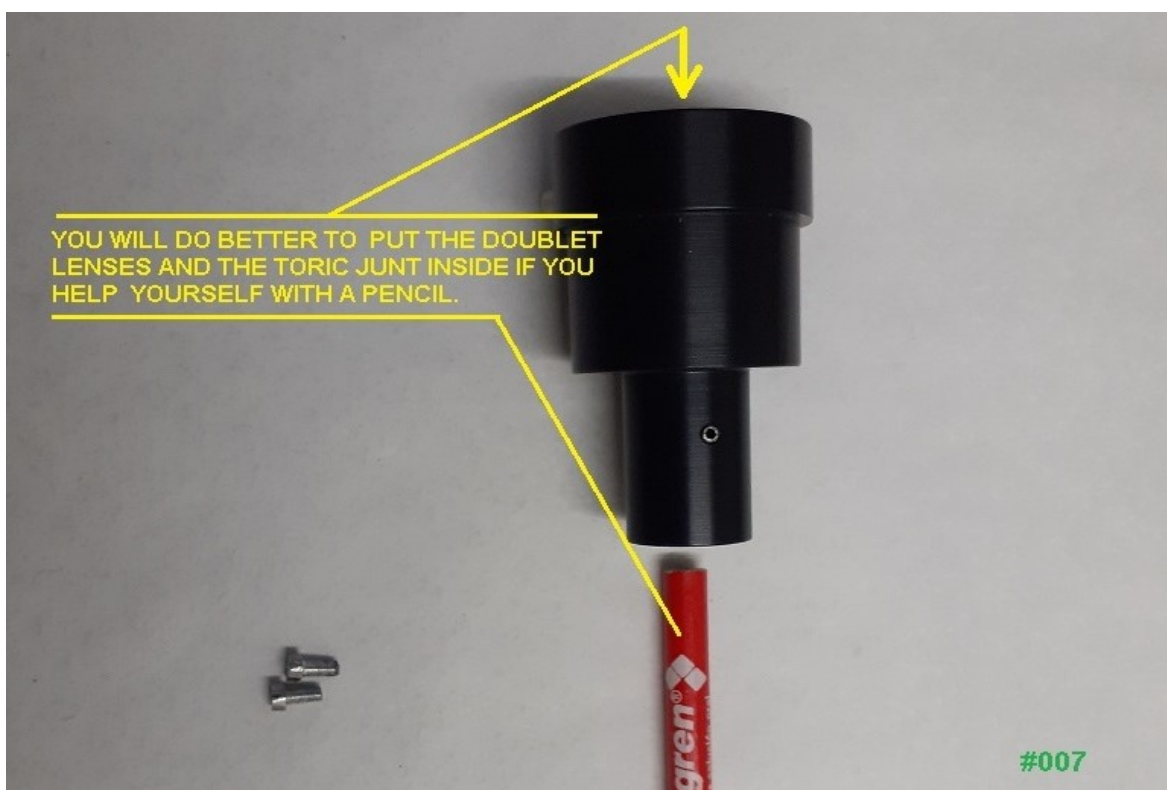
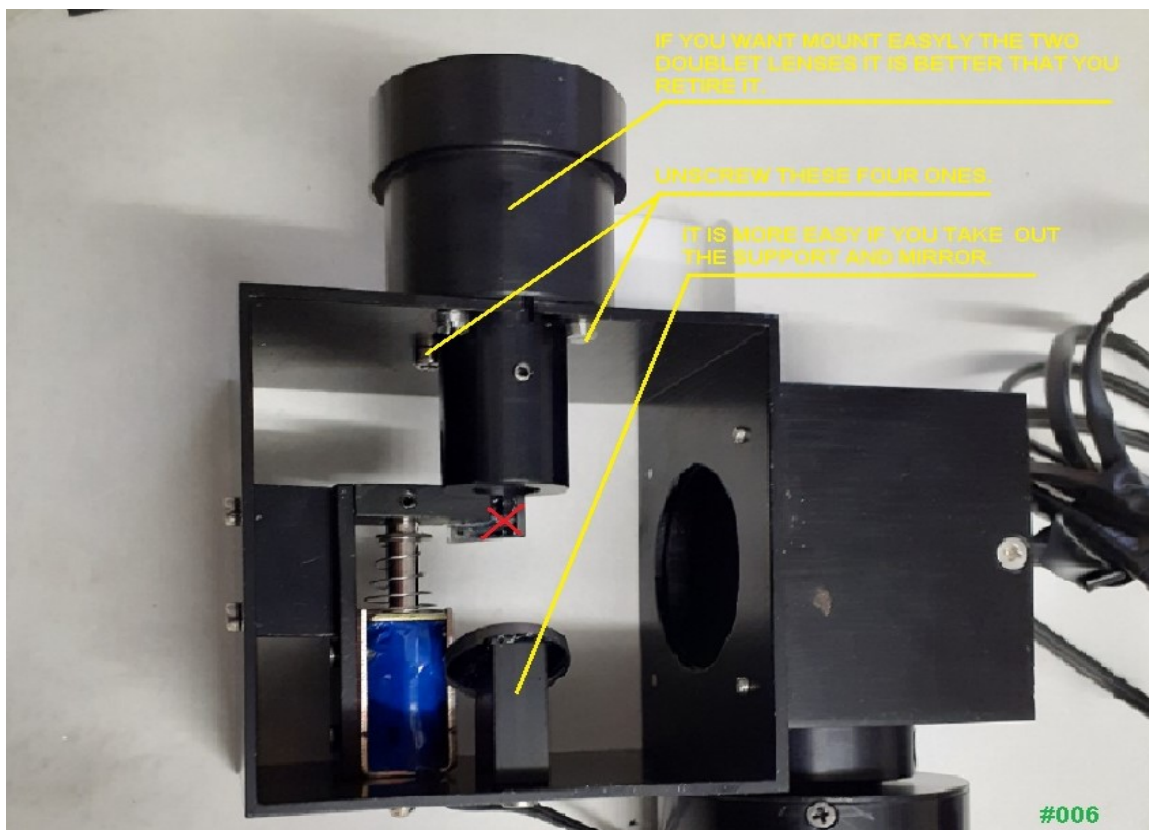


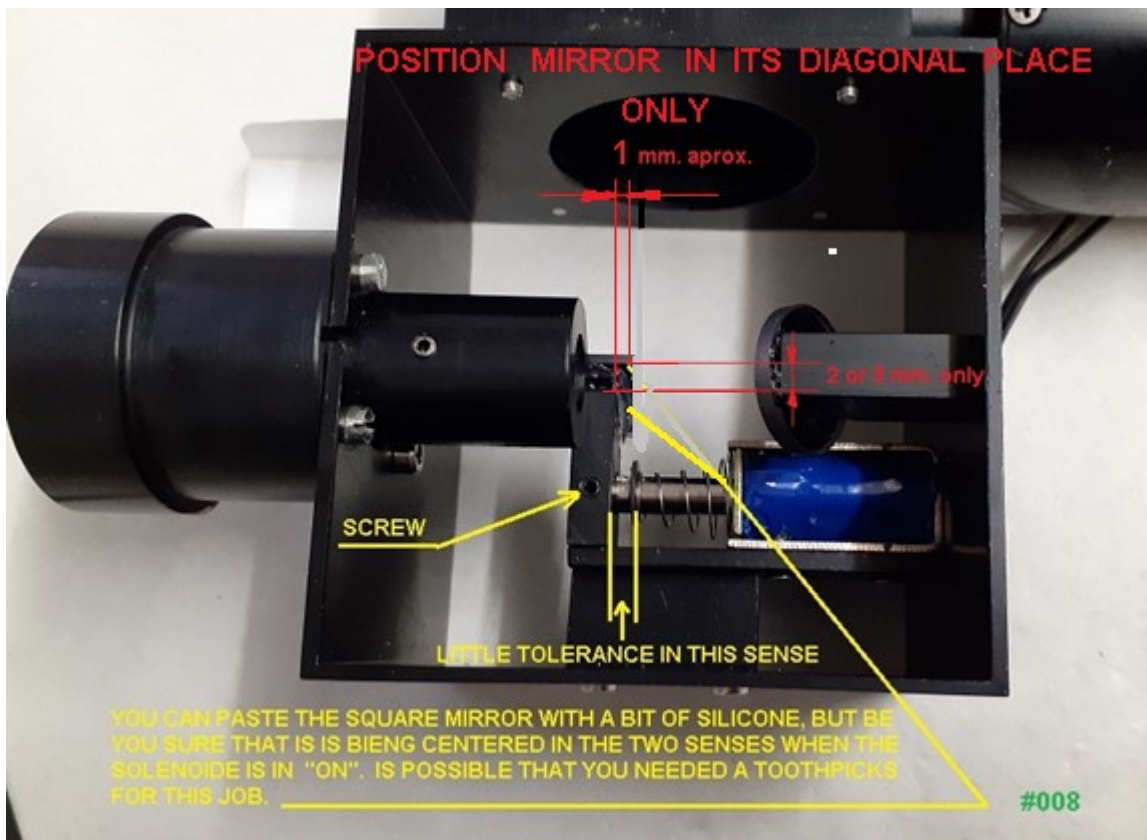
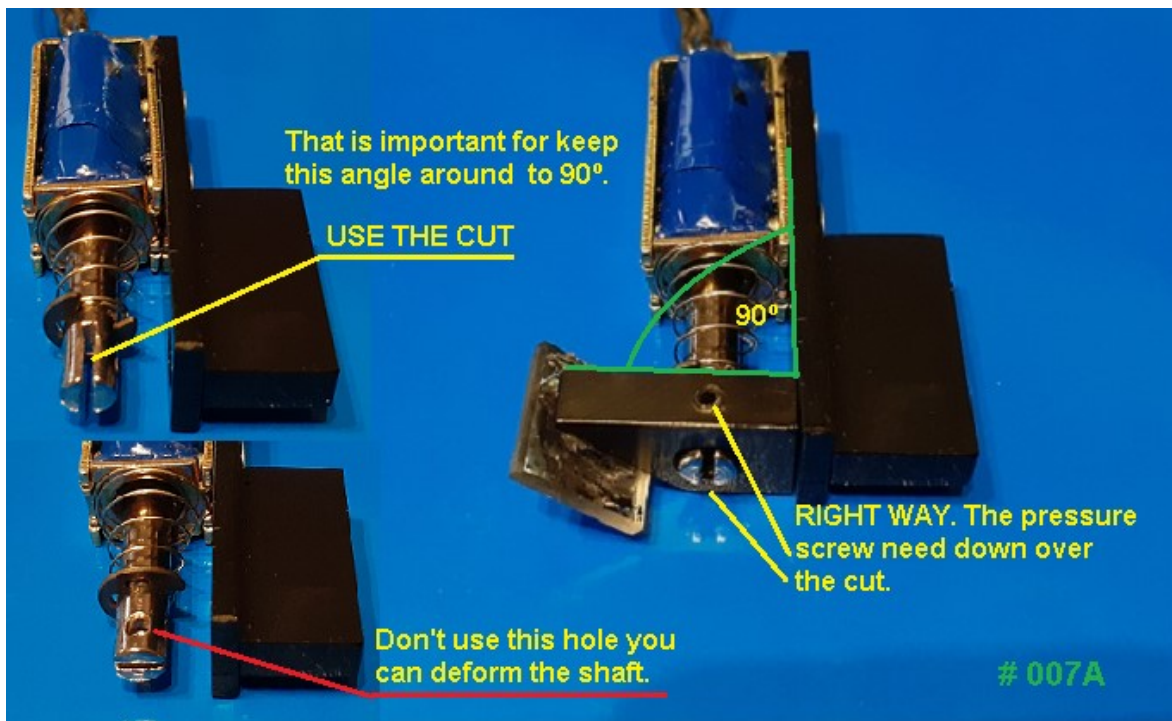


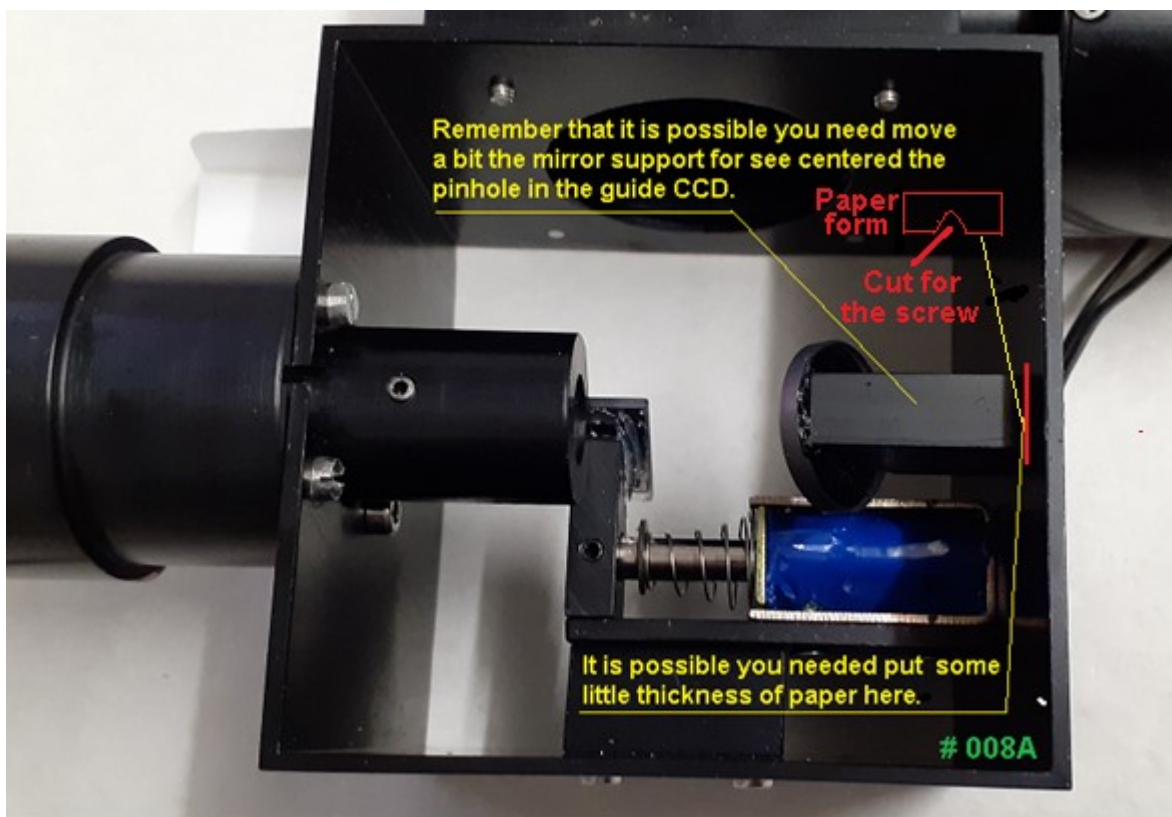
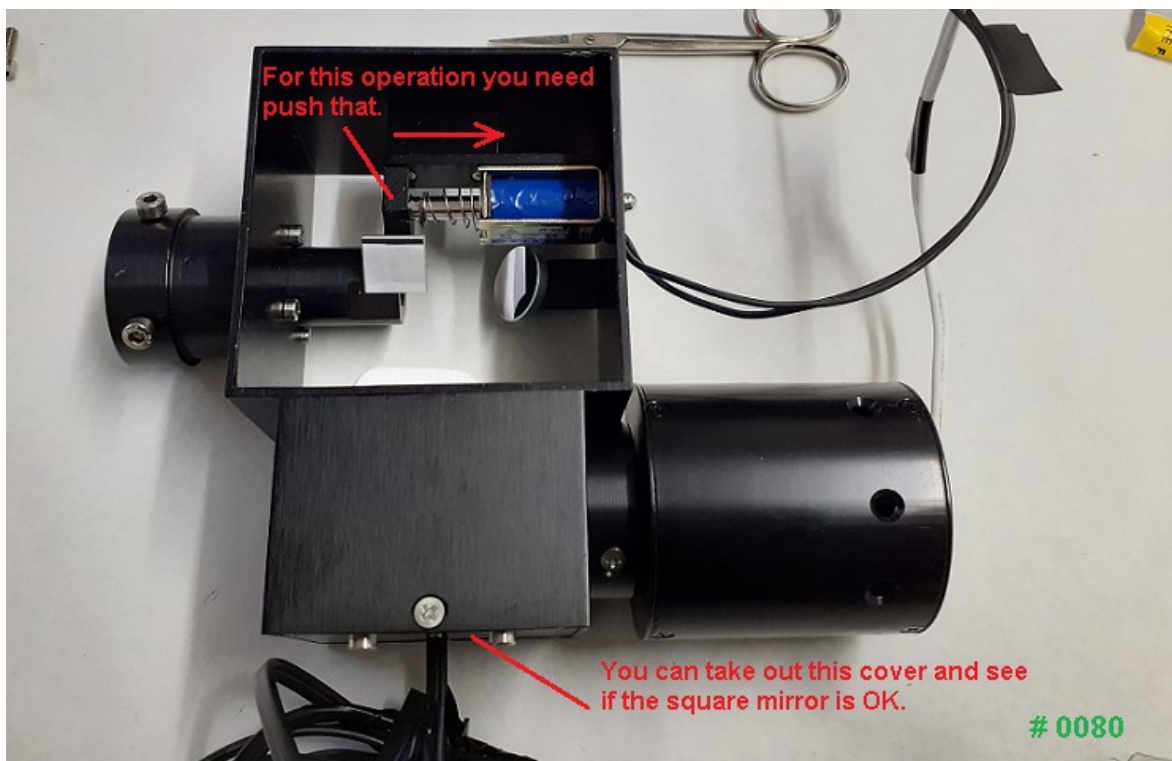




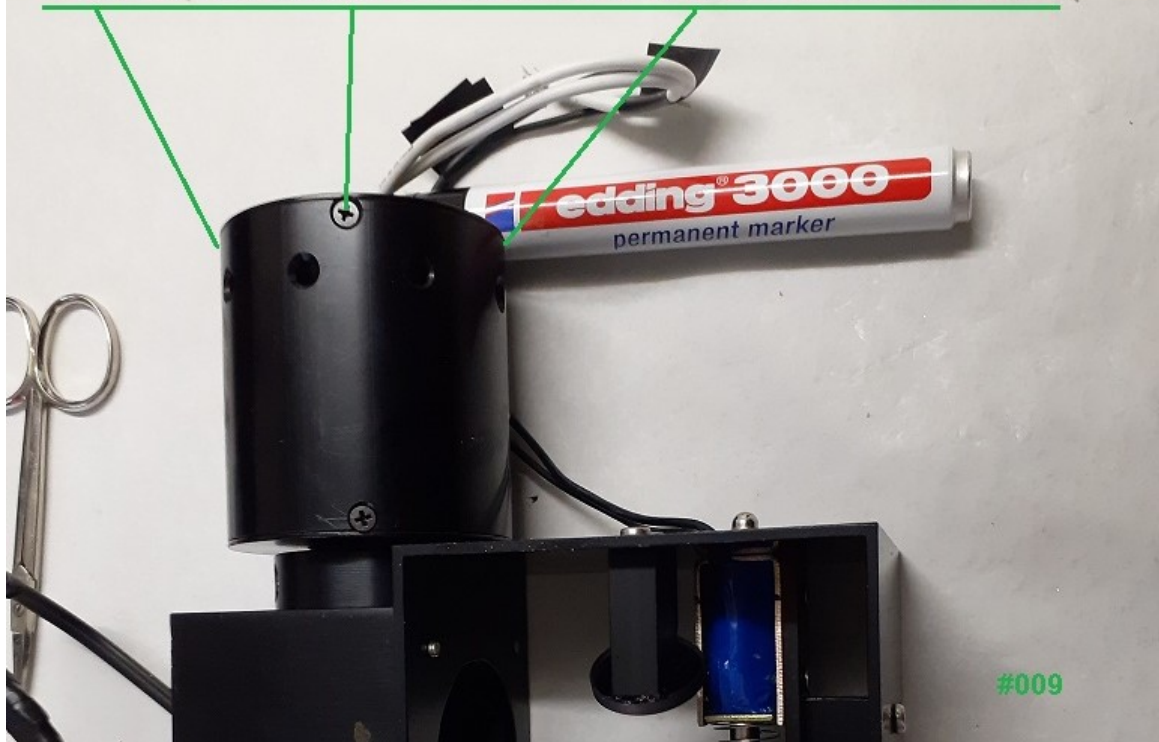




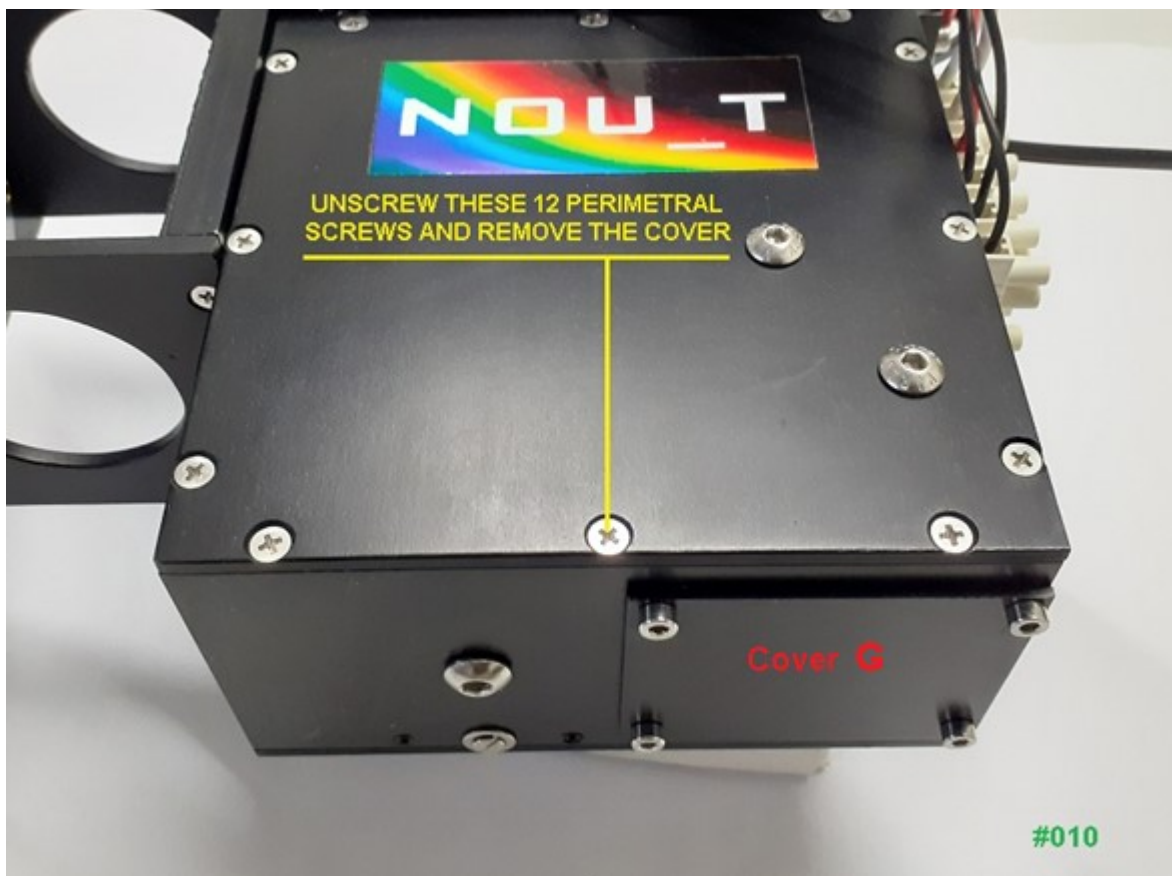


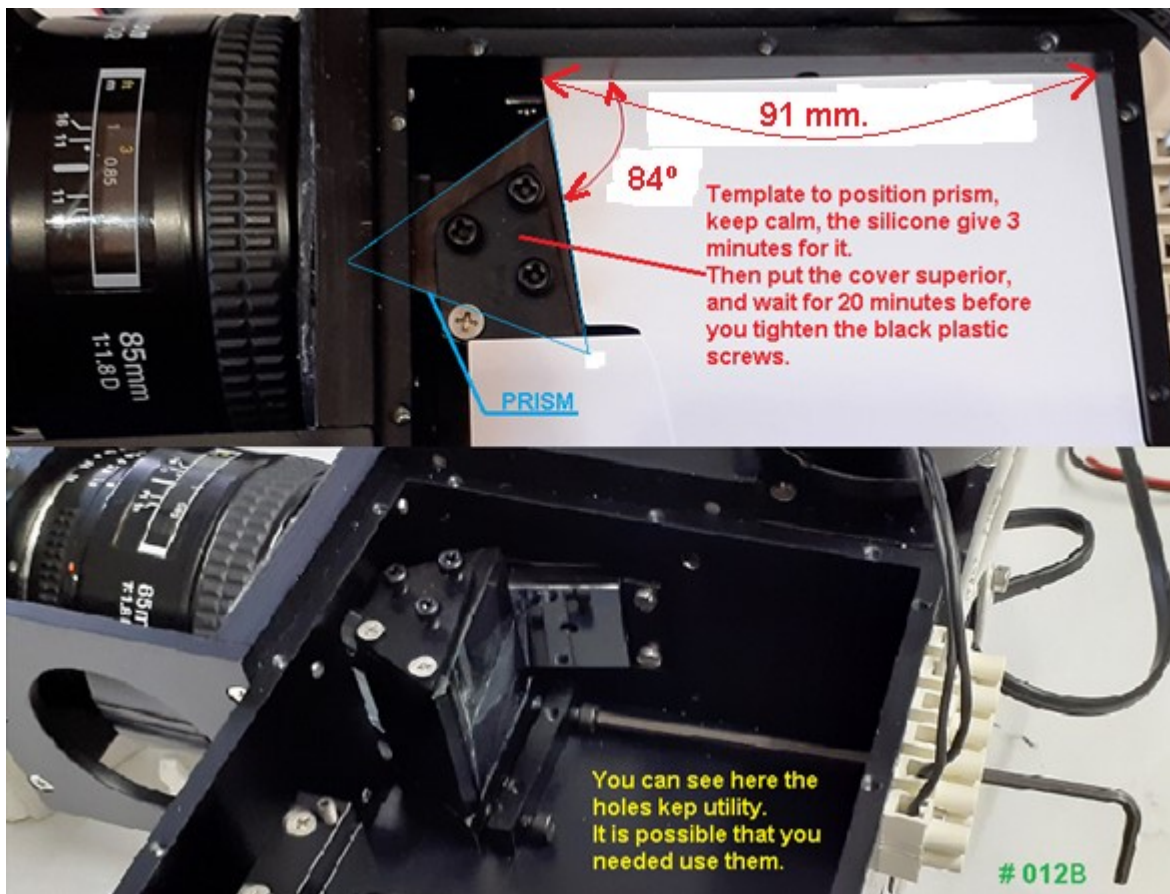
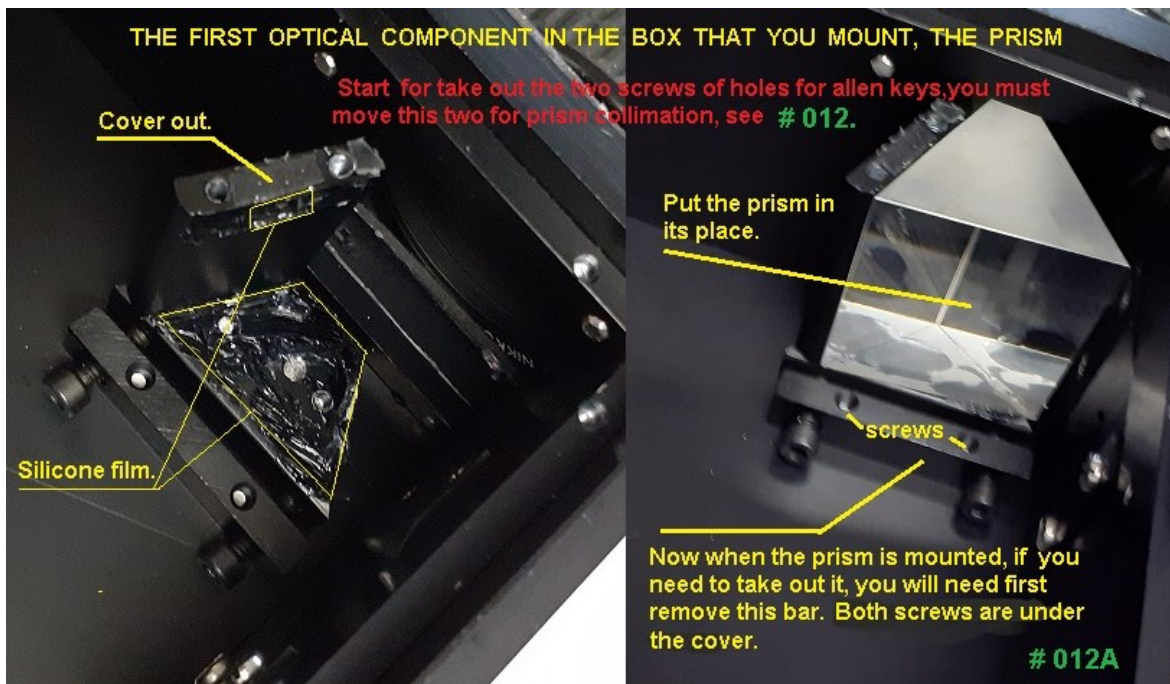


THEN YOU CAN TAKE OUT THESE 3 SCREWS AND CONNECT THE SOLUX LAMP 4700K.



UNSCREW THESE 12 PERIMETRAL
SCREWS AND REMOVE THE COVER





YOU NEED KNOW

If you need remove the prism from its support, first you have to disassemble all his pieces and take out all its screws, then you carefully you can remove the prism slowly with a cutter.



012C

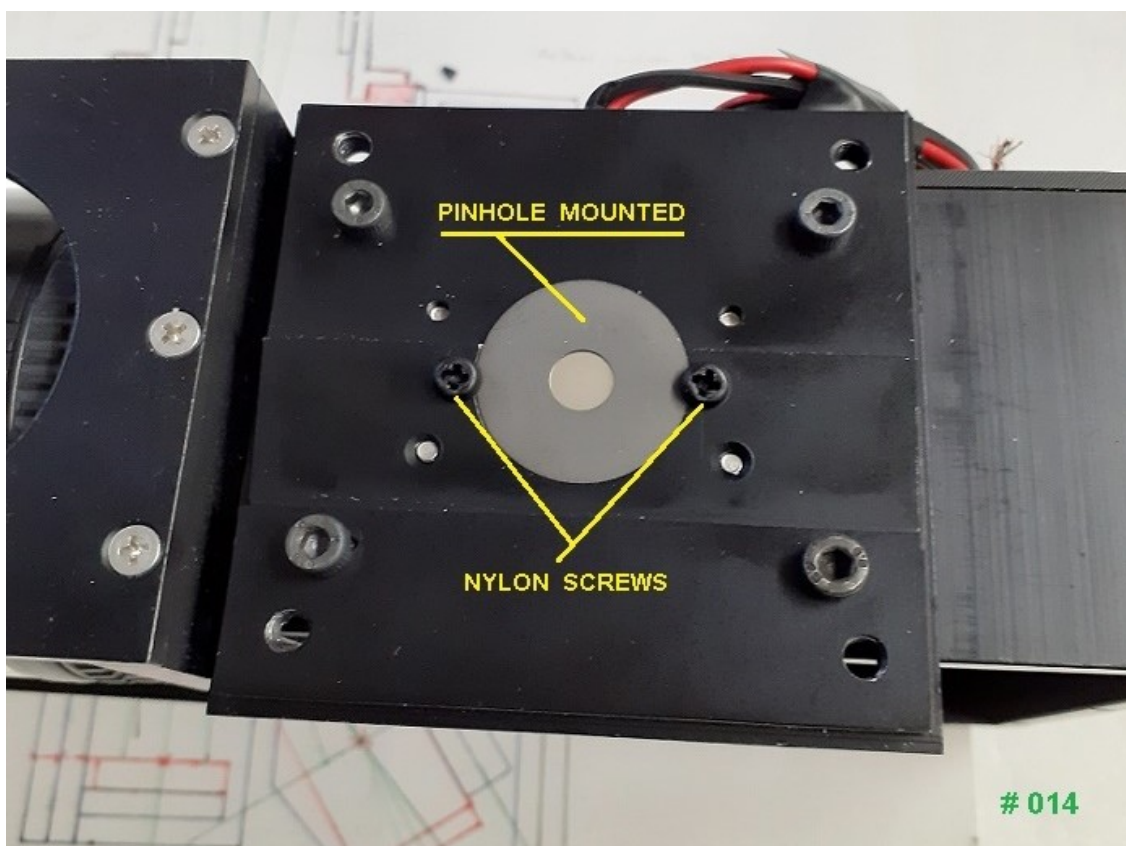
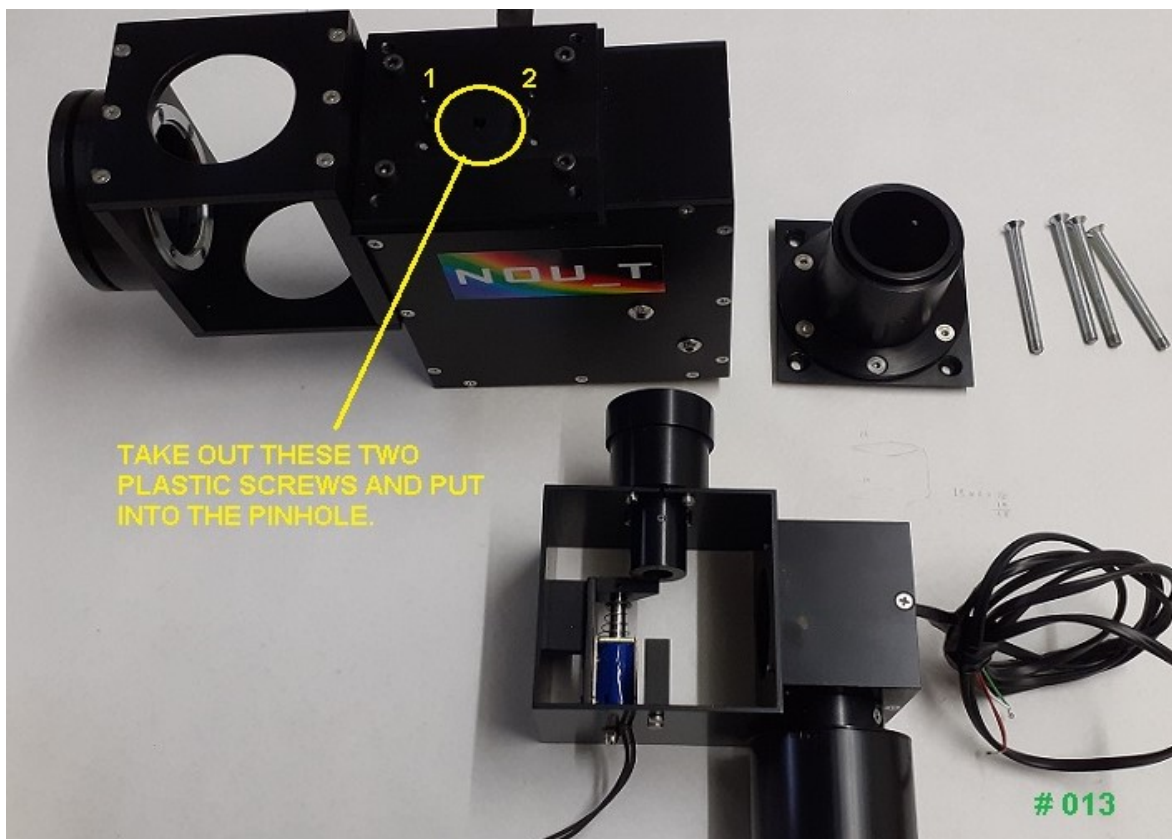


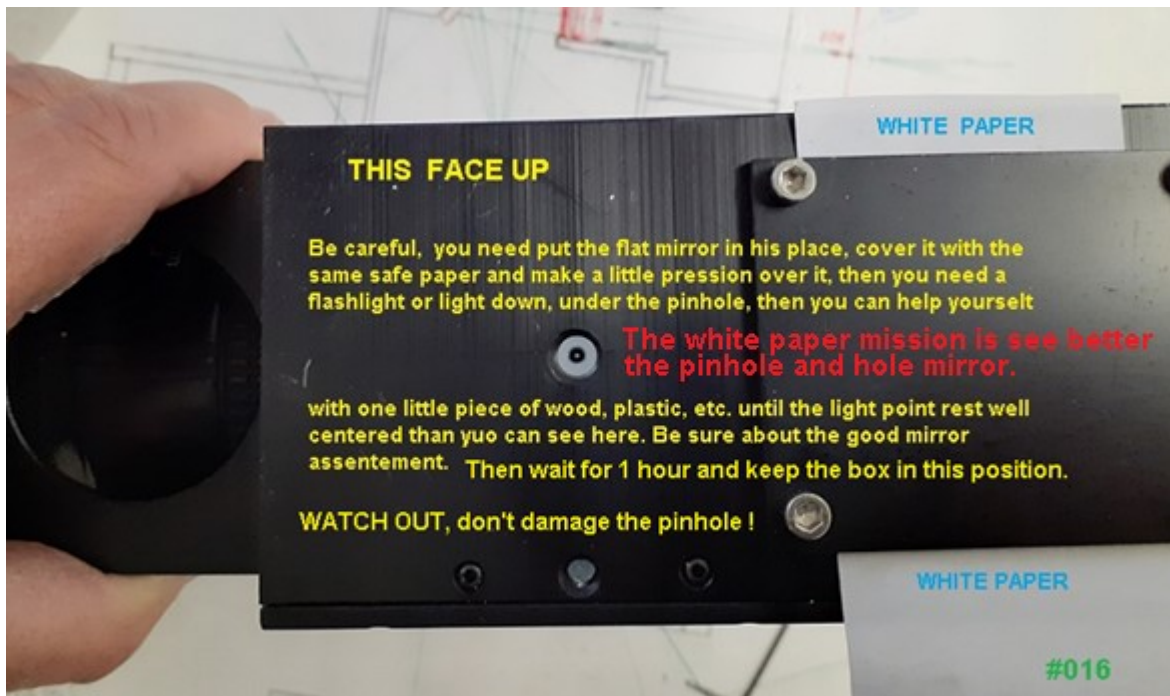
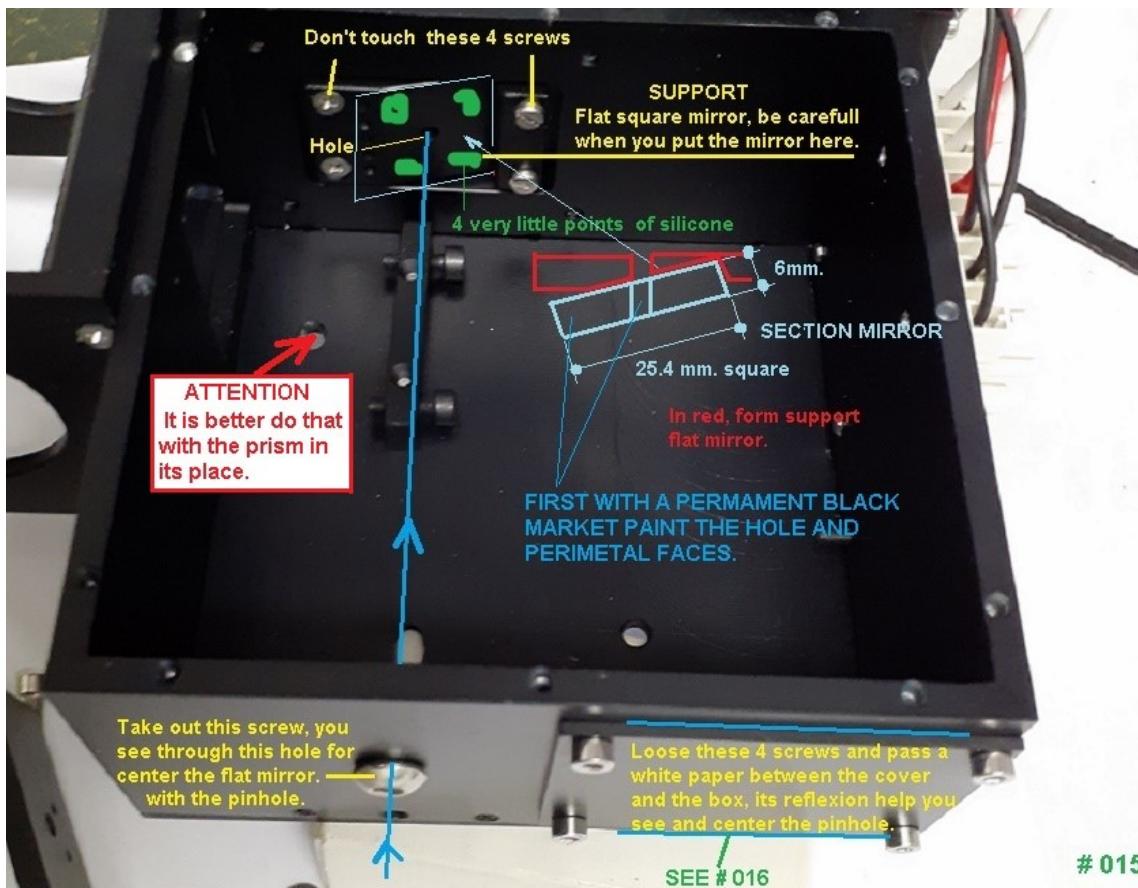
You need avoid possibles tangentials movements in the optic part mobil, you can put three pieces of black cardboard, between the mobile and the fixed part. On the photo the objective is focused at infinite, is better put the cardboards when objective focused in 85 cm.

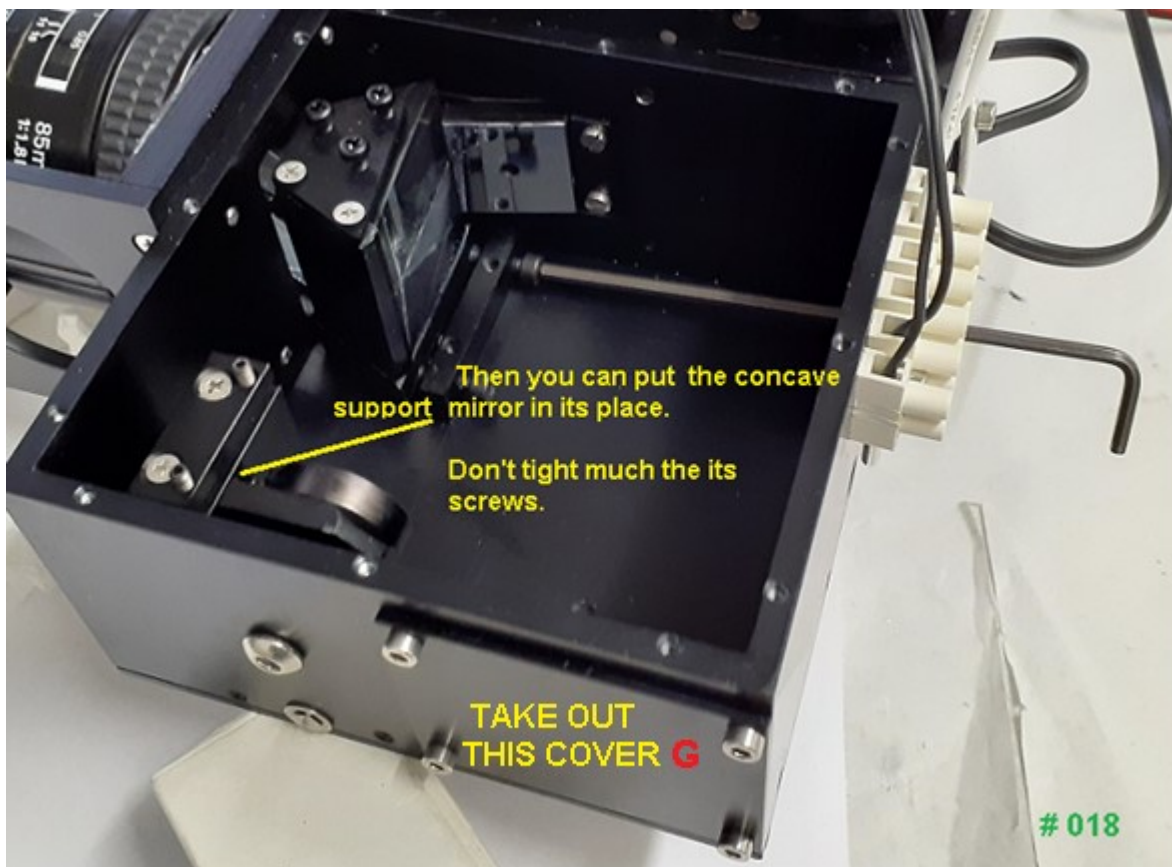
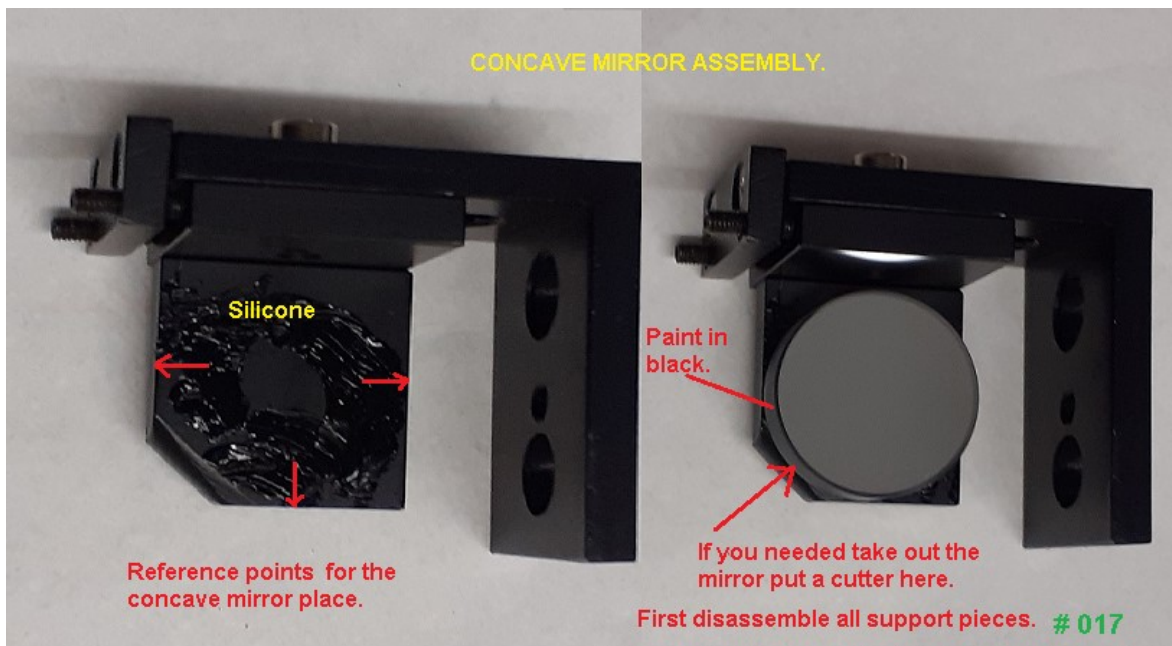


012D







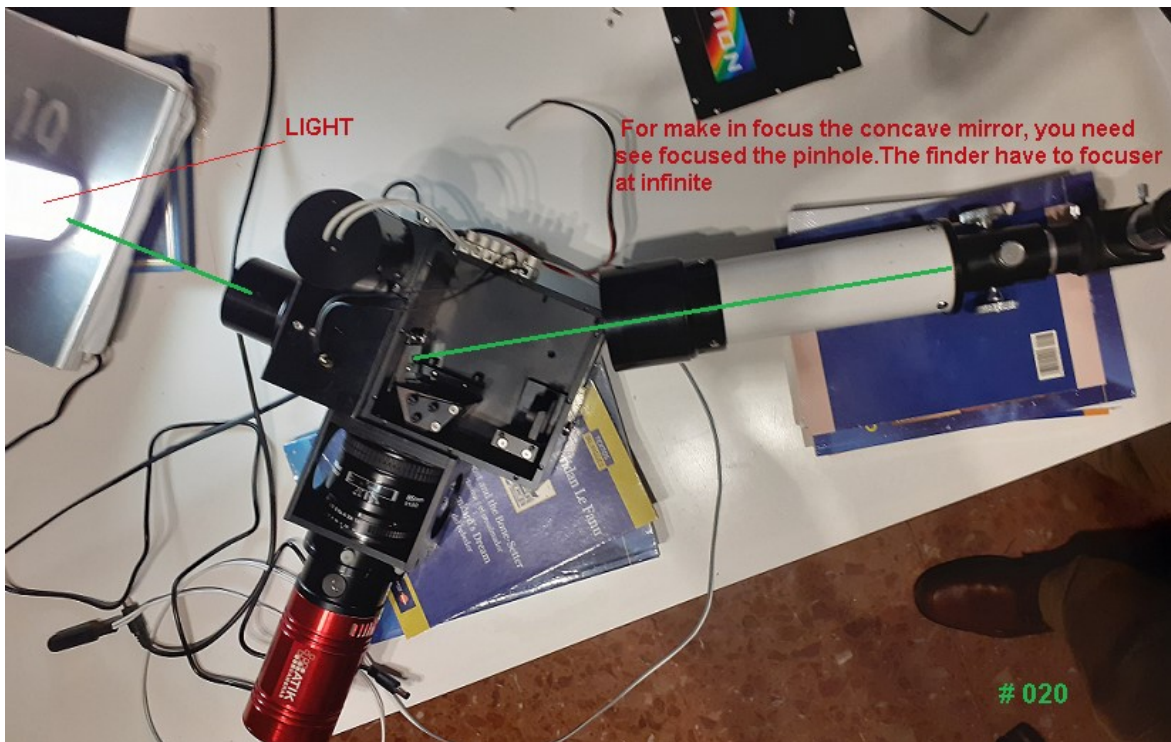


Meanwhile you can paste and put the echelle grating in its place with four or five silicone points.

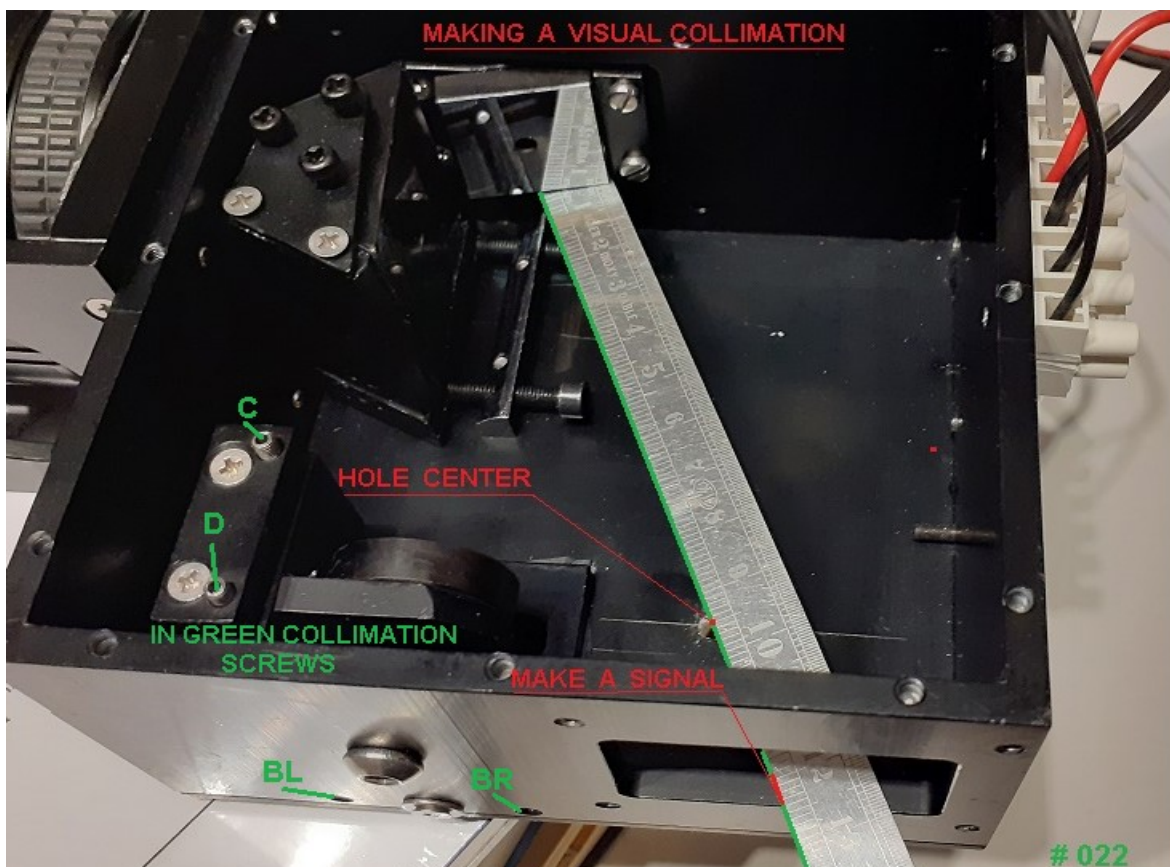
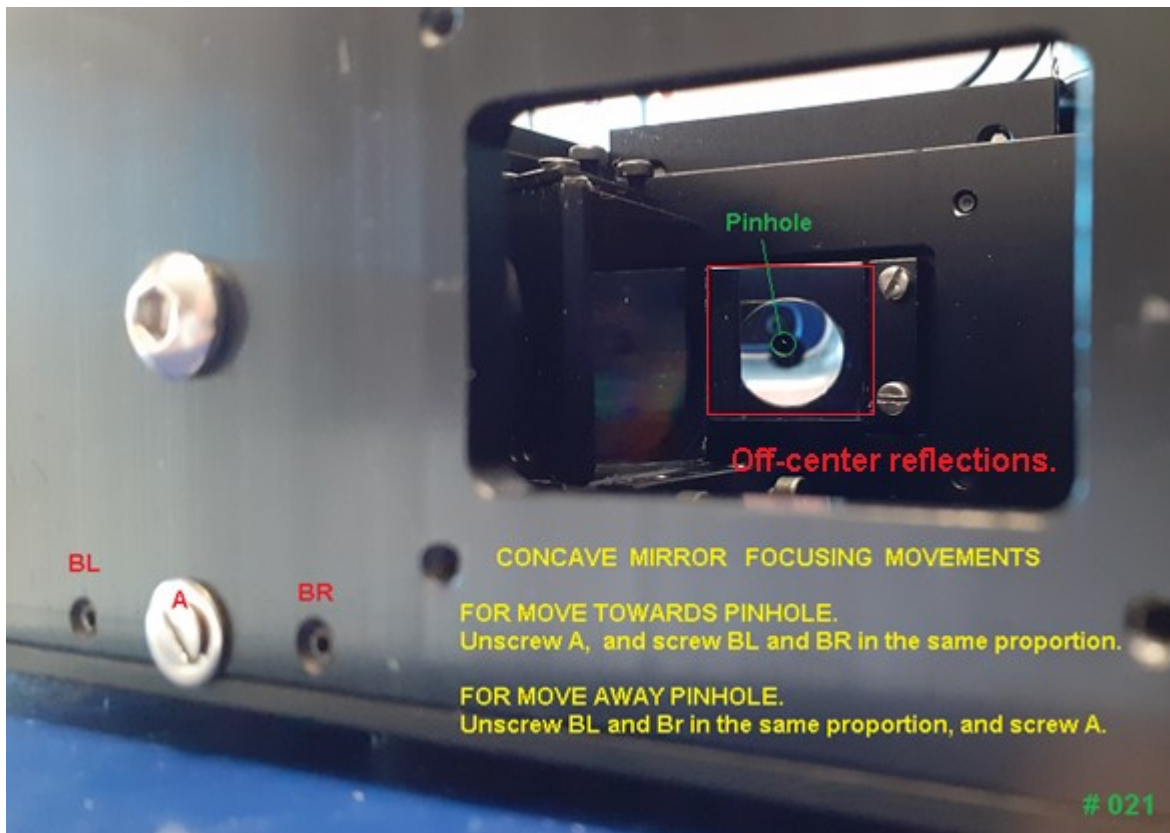


Remember the arrow that is drew by pencil in the thickness, it is going to put in this way.

019

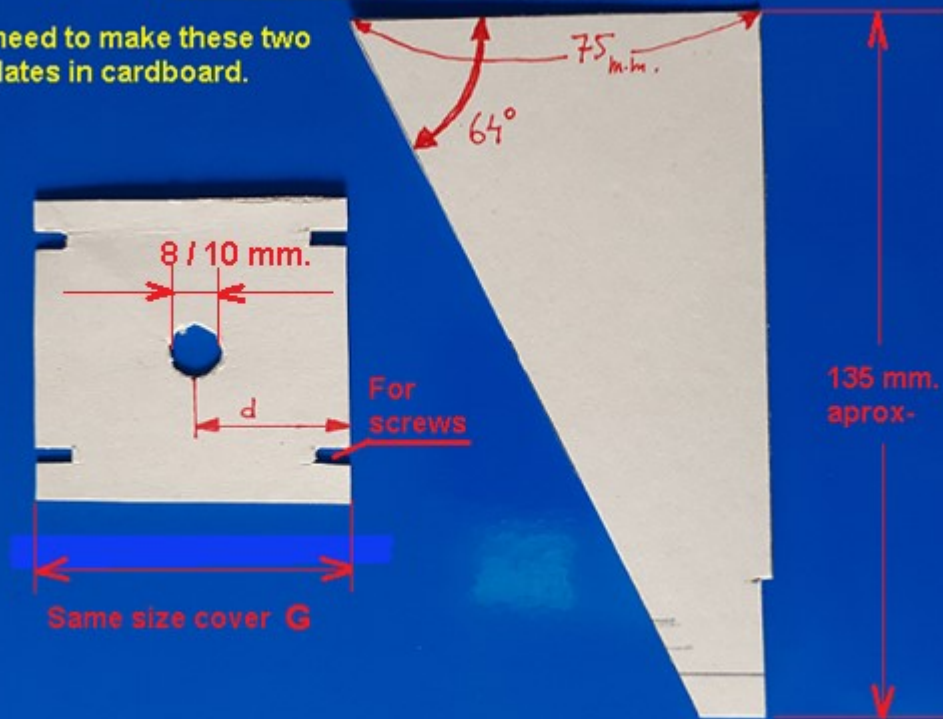


020



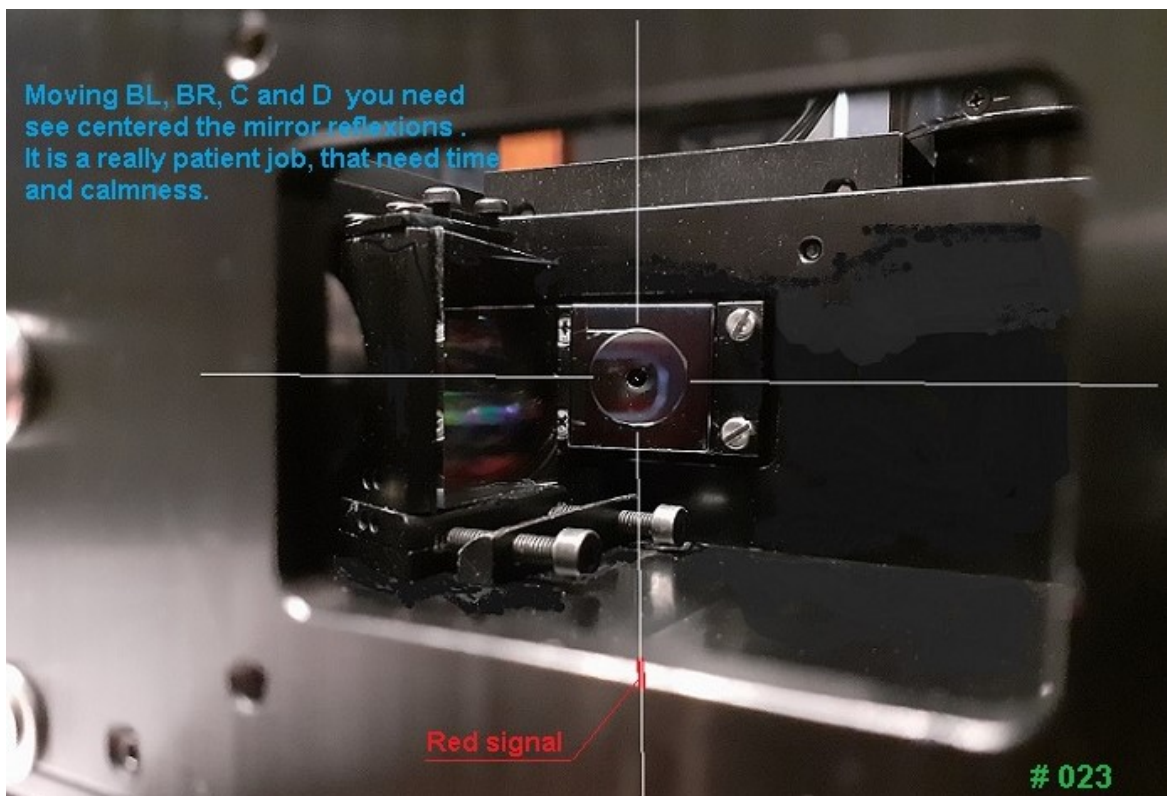
THE COLLIMATION OF THE OPTICS

You need to make these two templates in cardboard.



022A

Moving BL, BR, C and D you need see centered the mirror reflexions . It is a really patient job, that need time and calmness.



023

