

H201-LG

Compatible with the following Z-Piezo stages

- LEICA super Z Galvo stage (SP5/SP8)

Compatible with the following Okolab Controllers

- H201-T-UNIT-BL

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1. Components and dimensions

H201-LG includes the following components:

- Chamber Frame and Sample Holder.
- Glass lid
- Total weight on Galvo Stage: about 100 g with standard sample holder; about 20 g with MW plate holder. For details, see the table at page 4.

Configuration1. H201-LG with standard sample holder

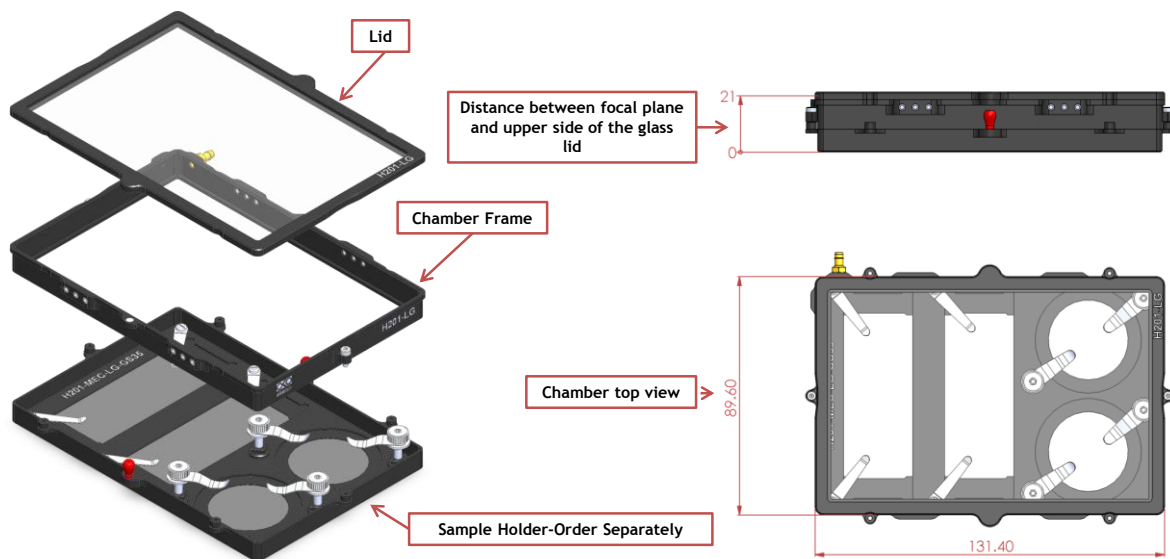


Figure 1. H201-LG - Configuration1. Components and Dimensions

Note: The sample holder acts as chamber base and it changes completely according to the needs of the end user.

Configuration2. H201-LG with MW Plates

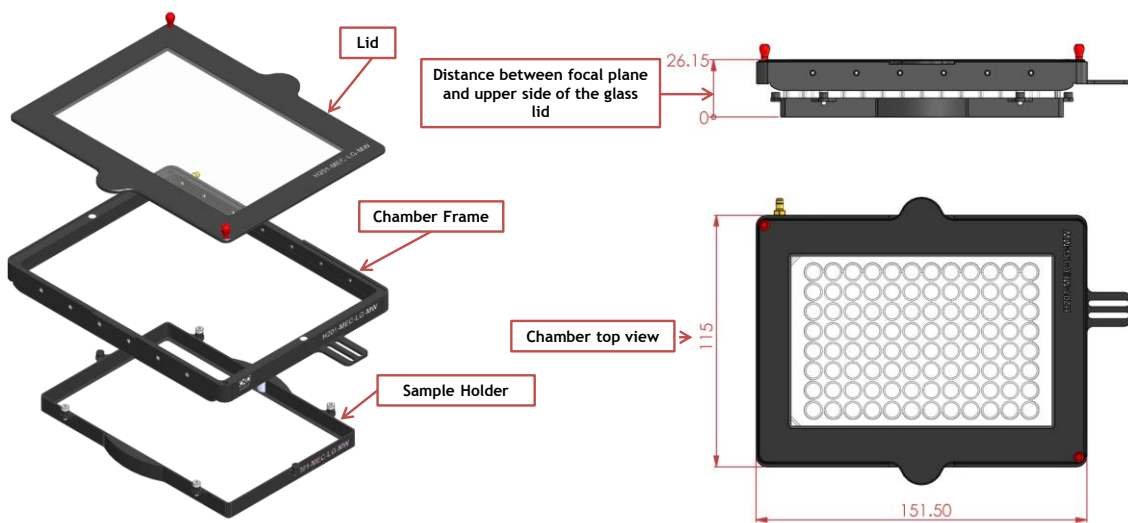


Figure 2. H201-LG - Configuration2. Components and Dimensions

Note: In this configuration the Lid and the Frame may be screwed on the fixed part of the piezo stage.

2. Sample Holders

2.1 Available Sample Holders

The following sample holders are available.

NOTE: Please contact info@oko-lab.com if you cannot find the sample holder you are looking for. We are constantly adding new inserts to the list.

H201-MEC-LG-GS35	#2 1"x3" chamber slides and #2 35mm Petri-dish holder
H201-MEC-LG-LABTEK-35	#2 Lab-Tek 1"x2" chambered cover glass and #2 35mm Petri-dish holder
H201-MEC-LG-LABTEK-II-35	#2 Lab-Tek II 1"x2" chambered cover glass and #2 35mm Petri-dish holder
H201-MEC-LG-4x35	#4 35mm Petri-dish holder
H201-MEC-LG-3xGS	#3 1"x3" chamber slides holder
H201-MEC-LG-2xLABTEK	#2 Lab-Tek 1"x2" chambered cover glass holder
H201-MEC-LG-2xLABTEK II	#2 Lab-Tek II 1"x2" chambered cover glass holder
H201-MEC-LG-2x35	#2 35mm Petri-dish holder
H201-MEC-LG-1x35	#1 35mm Petri-dish holder
H201-MEC-LG-1x60	#1 60mm Petri-dish holder
H201-MEC-LG-MW	Multiwell plates holder



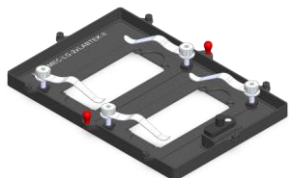
H201-MEC-LG-1x35
For #1 35mm Petri-dish holder



H201-MEC-LG-1x60
For #1 60mm Petri-dish holder



H201-MEC-LG-2x35
For #2 35mm Petri-dish holder



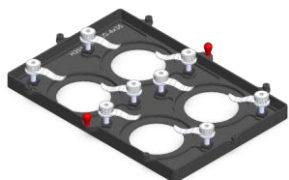
H201-MEC-LG-2xLABTEK II
For #2 Lab-Tek 1"x2" chambered coverglass holder



H201-MEC-LG-2xLABTEK
For #2 Lab-Tek II 1"x2" chambered coverglass holder



H201-MEC-LG-3xGS
For #3 1"x3" chamber slides holder



H201-MEC-LG-4x35
For #4 35mm Petri-dish holder



H201-MEC-LG-GS35
For #2 1"x3" chamber slides and #2 35mm Petri-dish holder



H201-MEC-LG-LABTEK-35
For #2 Lab-Tek 1"x2" chambered cover glass and #2 35mm Petri-dish holder



H201-MEC-LG-LABTEK-II-35
For #2 Lab-Tek II 1"x2" chambered cover glass and #2 35mm Petri-dish holder



H201-MEC-LG-MW
For Multiwell plates holder

Figure 3. Available sample holders.

H201-LG has a different weight in relation to sample holder used. The following table shows the weight of all possible configurations.

H201-LG+SAMPLE HOLDER	WEIGHT (g)
H201-MEC-LG-GS35	99.1
H201-MEC-LG-LABTEK-35	101.7
H201-MEC-LG-LABTEK-II-35	108.6
H201-MEC-LG-4x35	111.8
H201-MEC-LG-3xGS	91.8
H201-MEC-LG-2xLABTEK	100.7
H201-MEC-LG-2xLABTEK II	108.6
H201-MEC-LG-2x35	116
H201-MEC-LG-1x35	112.3
H201-MEC-LG-1x60	111.1
H201-MEC-LG-MW	21.7

3. Insertion of the Sample Feedback Temperature Sensor

Insert the Sample Feedback Temperature Sensor through the dedicated opening on the short side of the chamber (see Figure 4). Alternatively use one of the 12 perfusion holes located in the H201-LG frame (see Figure 4, Front and 3D views). Small screws plug the perfusion holes when not in use. (Grub screws M3x6). Remove small screw as needed before introducing the sample Feedback Temperature Sensor.

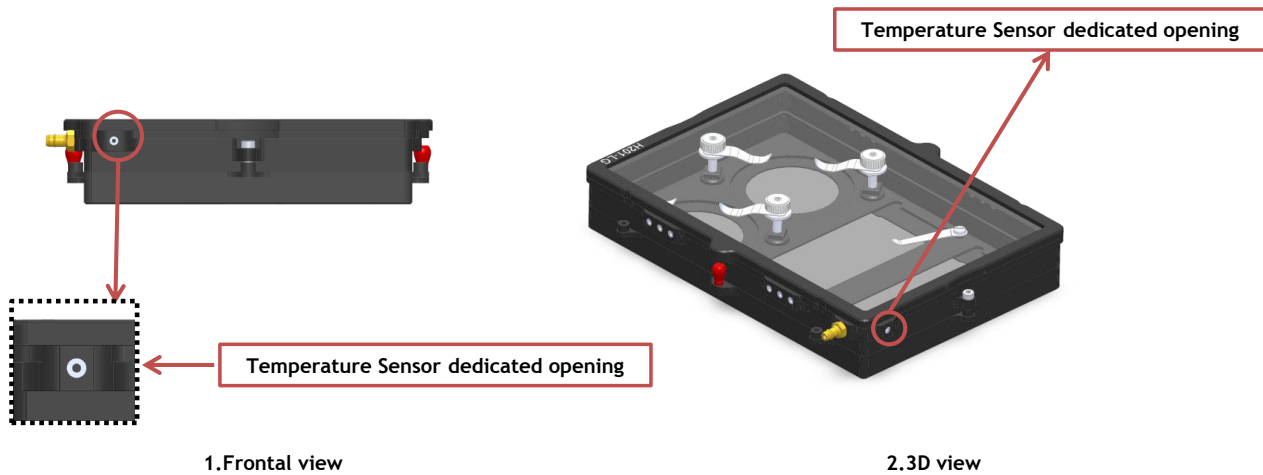


Figure 4. Insertion of the temperature sensor inside the chamber.

4. Assembly of the sample holders with chamber frame

The standard sample holder and chamber frame are assembled with 2 screws (Captive Screws) as shown in Figure 5.

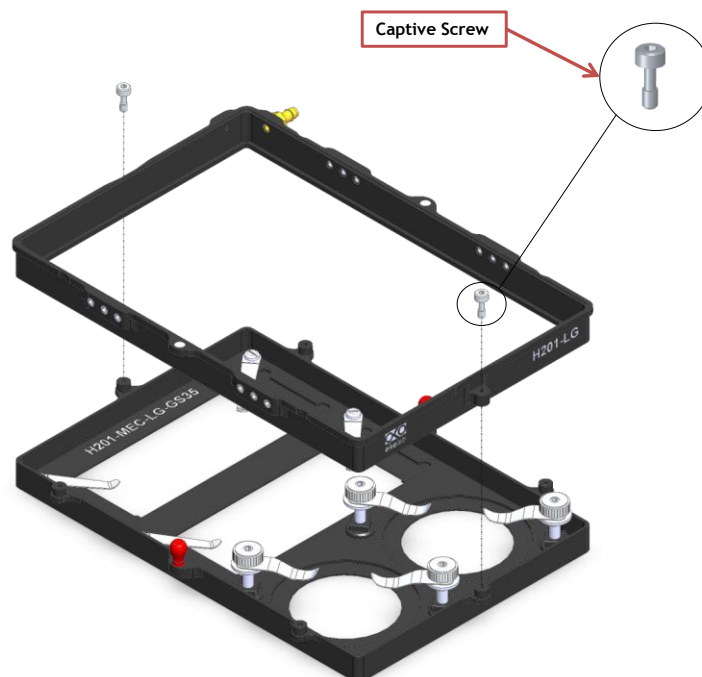


Figure 5. Introduction of the Specimen Holder inside the Chamber Base.

5. Working with 35 or 60 mm Petri Dish

Flat springs prevent movement of 35 and 60 mm dishes inside of the sample holder (See Figure 6 and Figure 7).

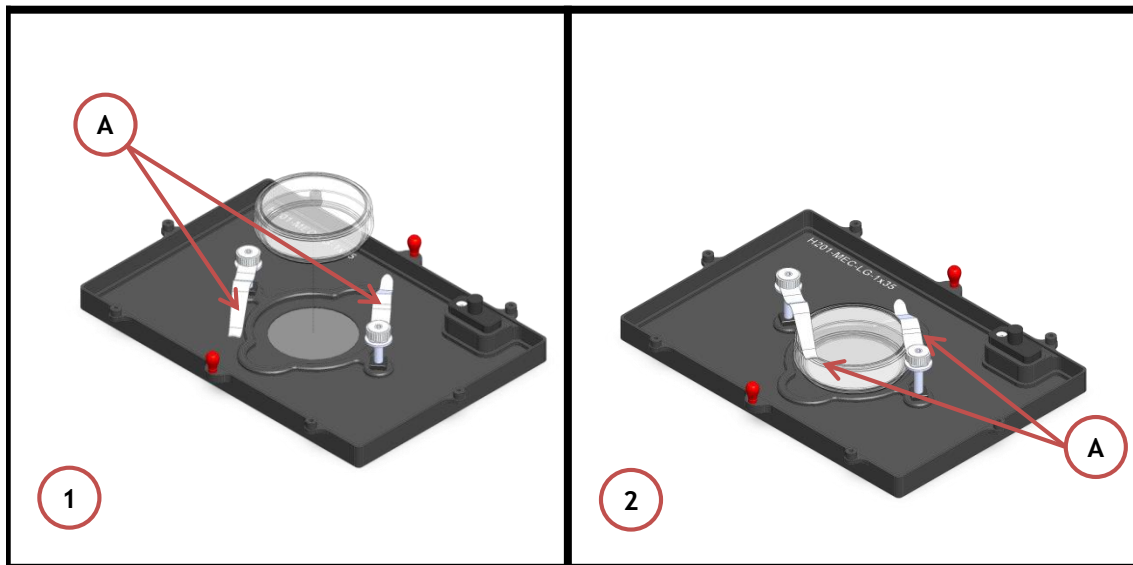


Figure 6. Plate adapter for 35mm Petri-dish holder.

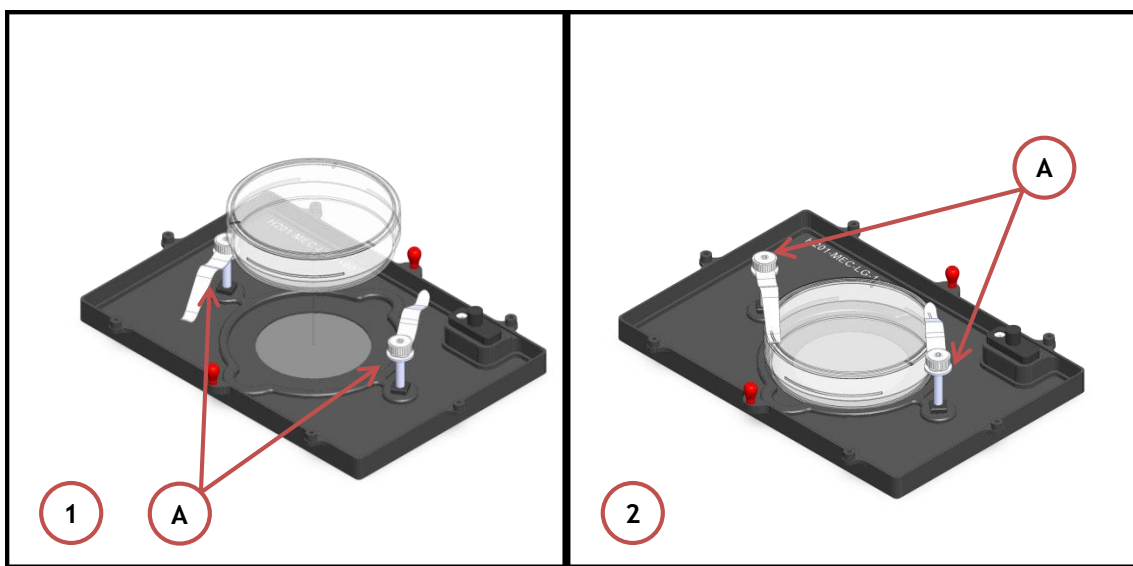


Figure 7. Plate adapter for 60 mm Petri-dish holder.

Spacing rings accounting for variability in dish diameter from one manufacturer to another are also included. The provided spacing rings can be used to center the 35 and 60 mm dishes inside the circular opening. Figure 8 and Figure 9 show how to position the ring. Ring selection guide diagrams: rings for 35 and 60 mm dish -Figure 10 and Figure 11, respectively.

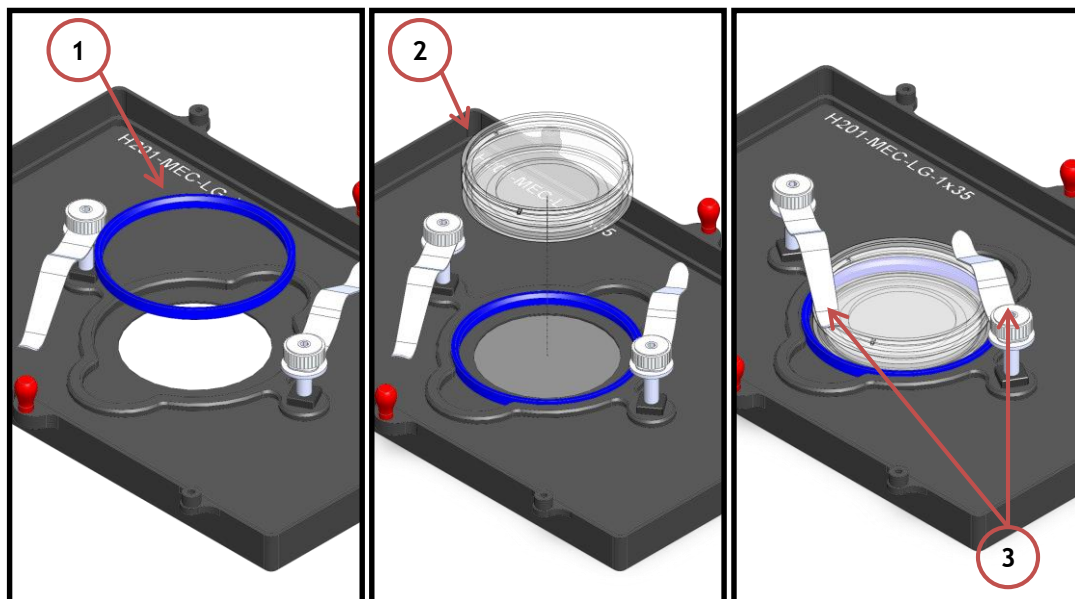


Figure 8. 1) Insertion of the ring, 2) insertion of the 35 mm dish, 3) springs closure

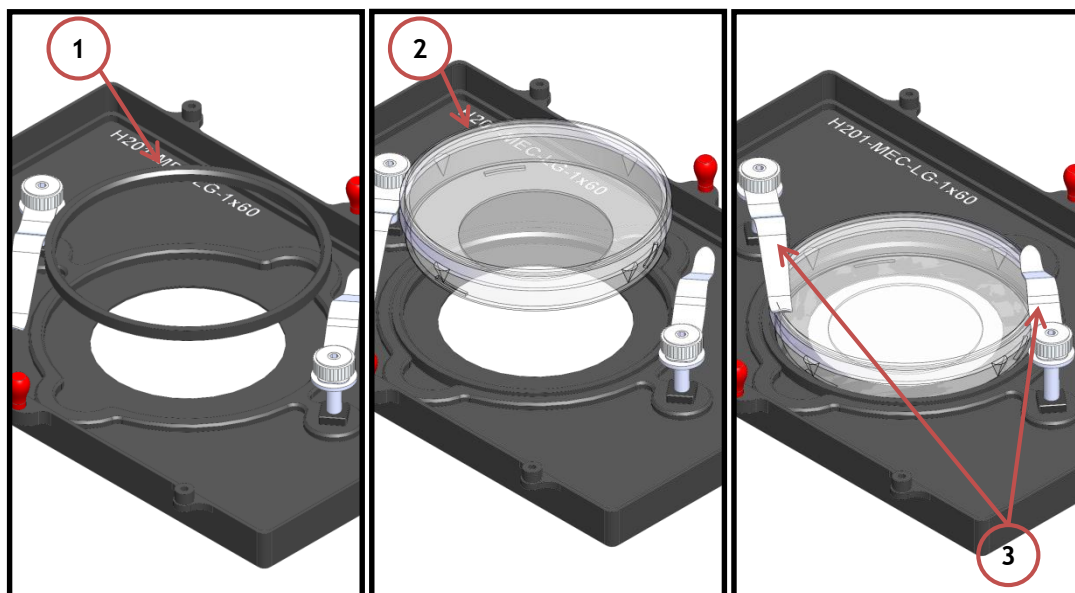


Figure 9. 1) Insertion of the ring, 2) insertion of the 60 mm dish, 3) springs closure

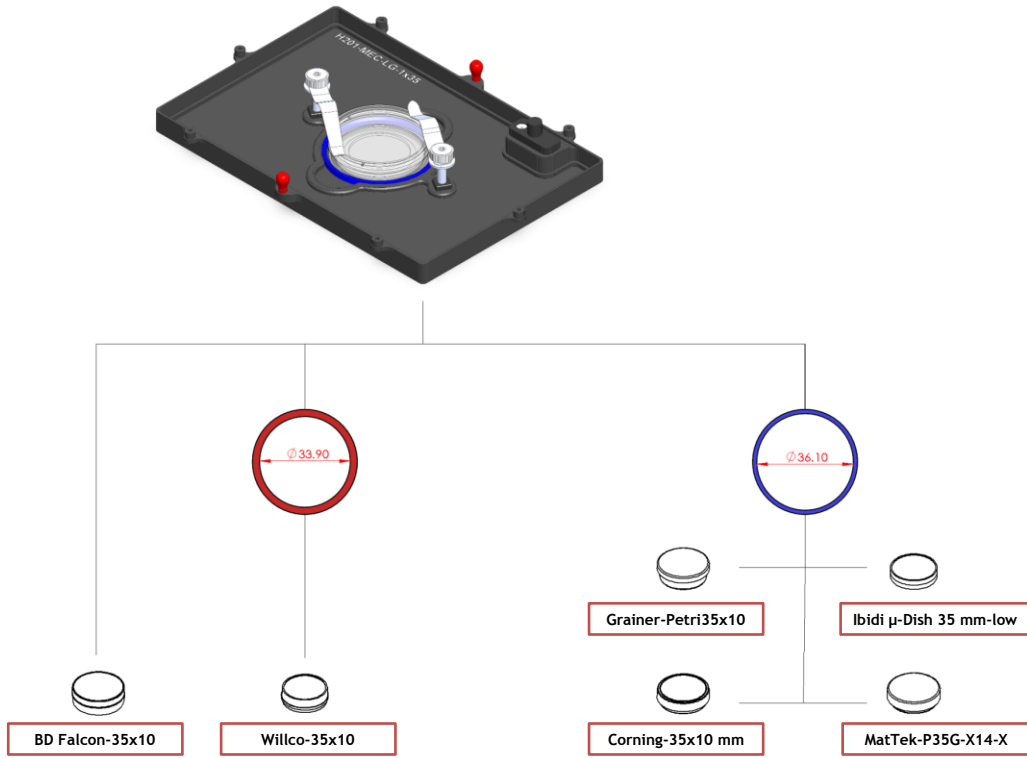


Figure 10. Ring selection scheme for 35 mm dish.

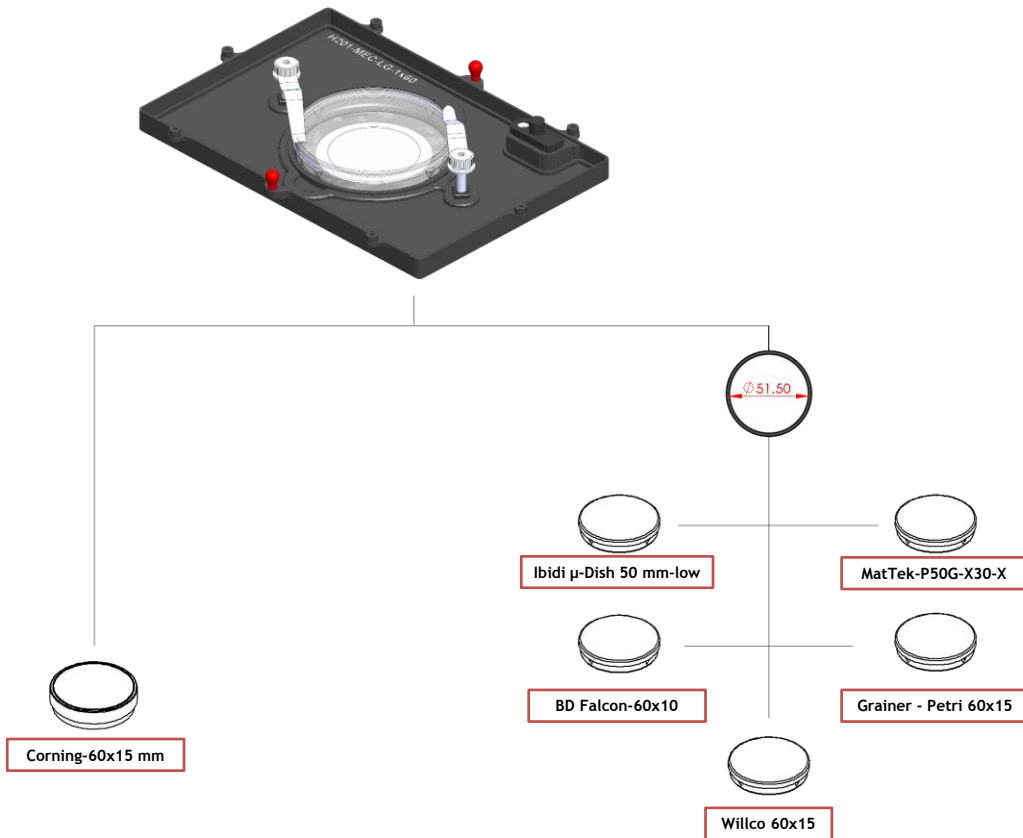


Figure 11. Ring selection scheme for 60 mm dish.

6. Working with 1x3'' and 1x2'' chamber slides

Flat springs prevent movement of 1''x 3'' and 1''x 2'' chamber slides inside of the sample holder.

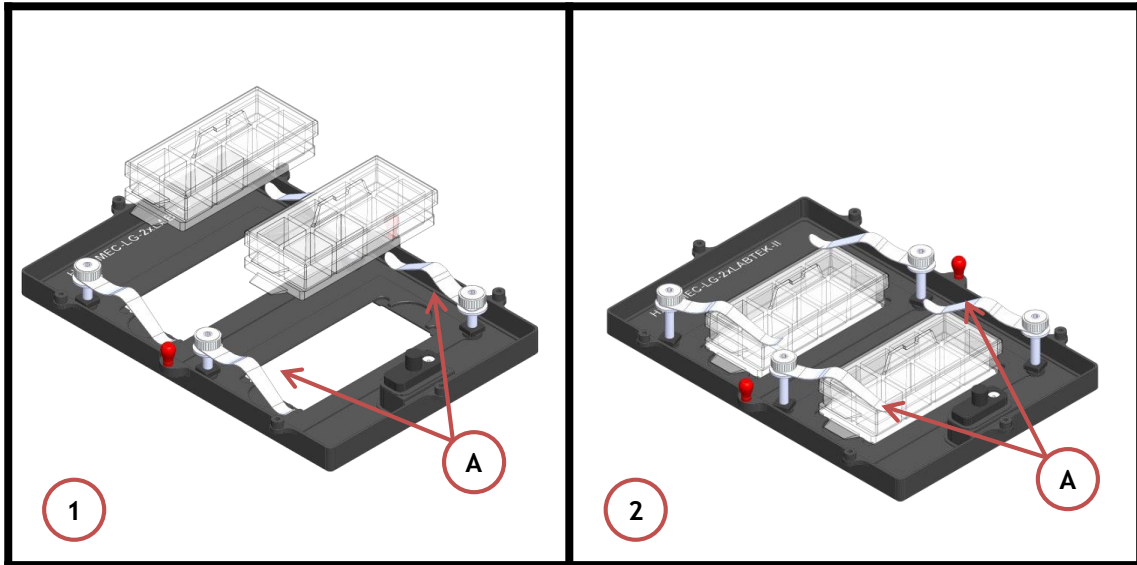


Figure 12. Plate adapter for Lab-Tek 1''x2'' chambered cover glass holder.

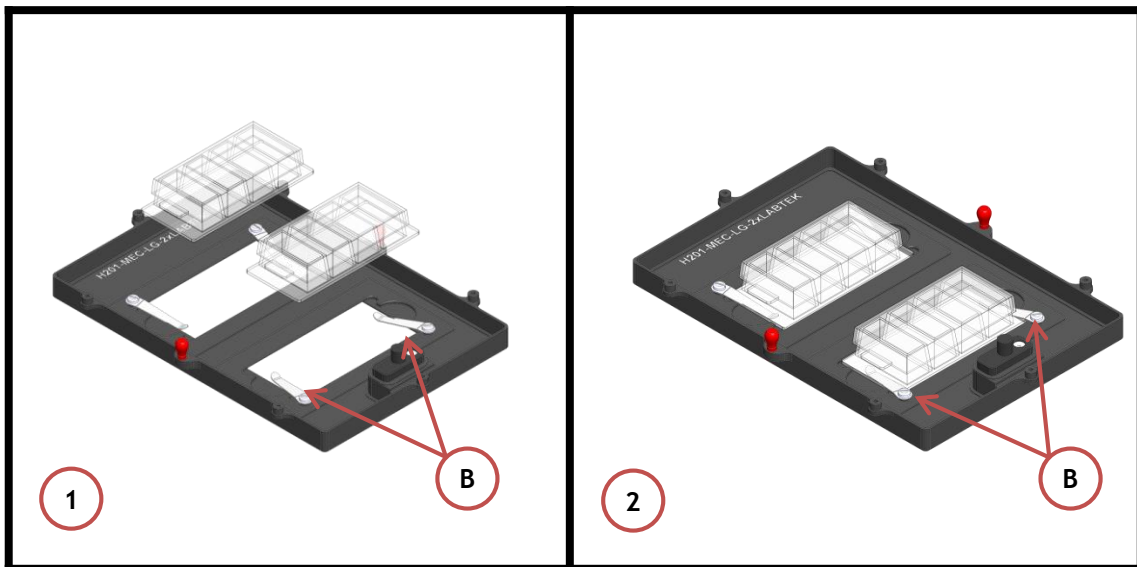


Figure 13. Plate adapter for Lab-Tek II 1''x2'' chambered cover glass holder

Note: slight differences in size exist between Lab-Tek and Lab-Tek II plate adapters. Please specify the one needed at the time of purchase.

7. Working with MW Plates

For the Users that work with the MW Plates, H201-LG is equipped with a specific MW plate holder. To see how to use the MW holder see Figure 14. A small rubber spacer prevents MW Plates from moving inside of the multiwell plates holder. See Figure 14, Image 1 and Image 2.

Note: The Lid and Frame of the H201-LG for MW Plates are different from the Lid and Frame of the H201-LG for standard sample holders

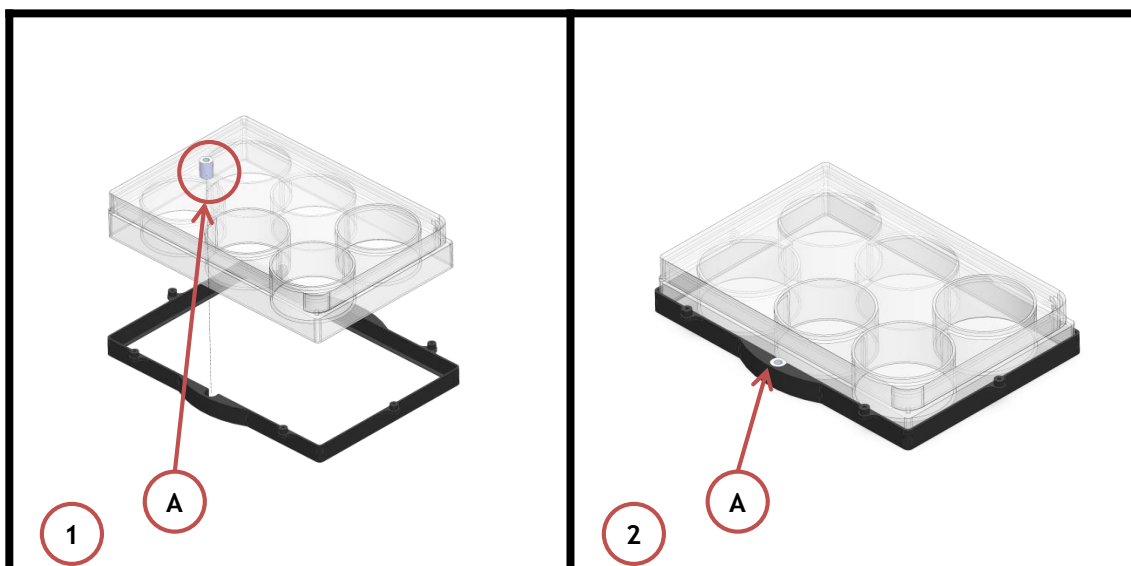


Figure 14. Multiwell Plate insertion

8. Connecting the Gas Supply

A single silicon tubing carries output gas from the Okolab Gas Controller to the H201-LG. Silicon tubing connects to a gas input - brass opening - located on a corner of the H201-LG-BL. See Figure 15. Connect by gently pushing silicon tubing onto brass opening.

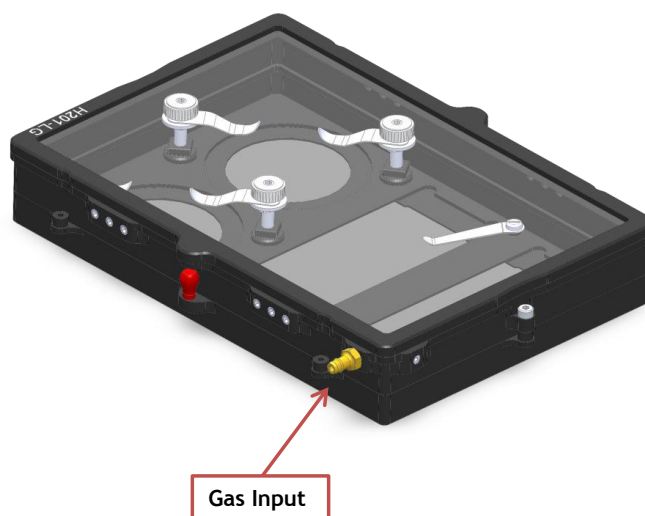


Figure 15. Connection with gas supply.

9. Working with Perfusion

The H201-LG features 12 perfusion holes for the insertion of perfusion tubing up to 2.5 mm in outer diameter. Small screws plug the perfusion holes when not in use. (Grub screws M3x6). Remove small screws as needed before introducing perfusion tubing.

Figure 16 shows the location of perfusion holes.

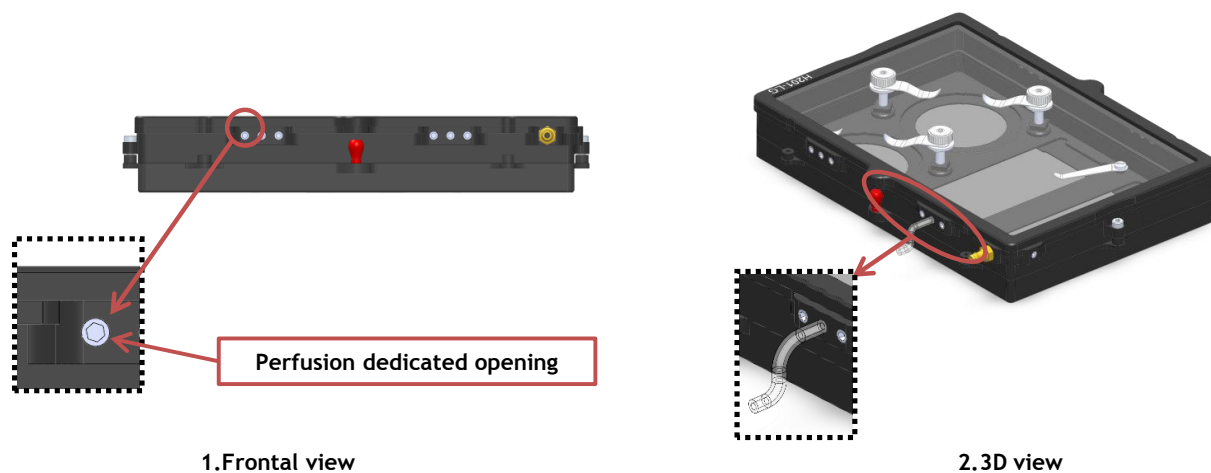


Figure 16. Perfusion

10. Installing the Chamber on the Galvo stage

When using H201-LG with sample holders, it fastens on the Galvo stage as shown in Figure 17; place the chamber on the stage and tighten the four captive screws (See Figure 17, Image 1 and Image 2).

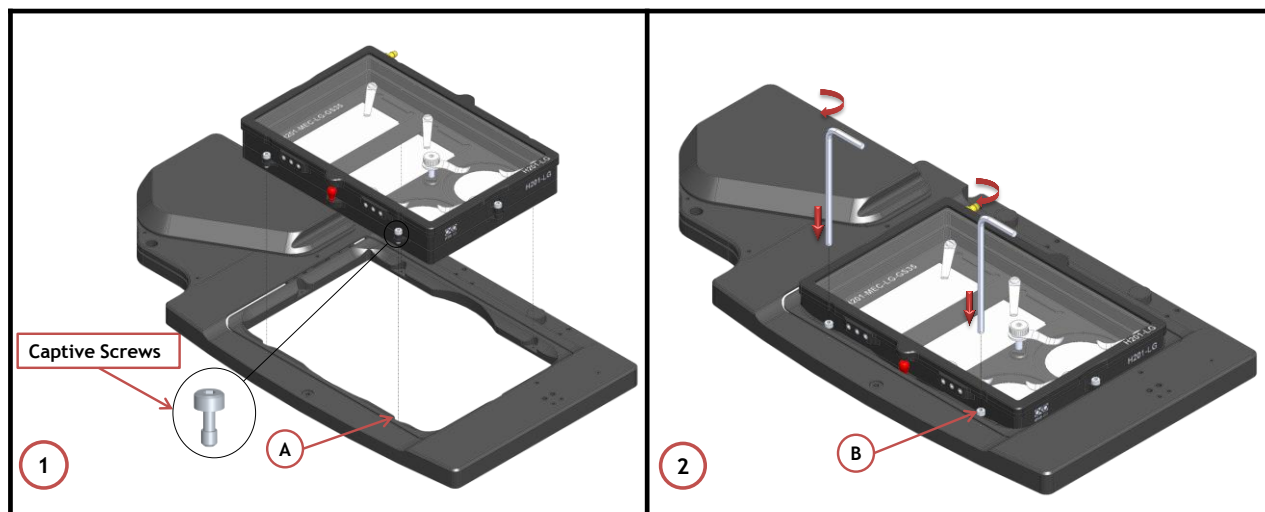


Figure 17. How to install the H201-LG on the Galvo stage-with sample holder

When using H201-LG with MW plates, install it on the Galvo stage as shown in Figure 18:

1. Place the MW plate holder on the stage and tighten the four captive screws (See Figure 18, Image 1 and Image 2)
2. Place the chamber frame on the stage and tighten the two screws M2.5x3 (See Figure 18, Image 3 and Image 4)
3. Place the lid on the chamber as shown in Figure 18, Image 5
4. Figure 18, Image 6 shows H201-LG with MW plate holder on the Galvo stage

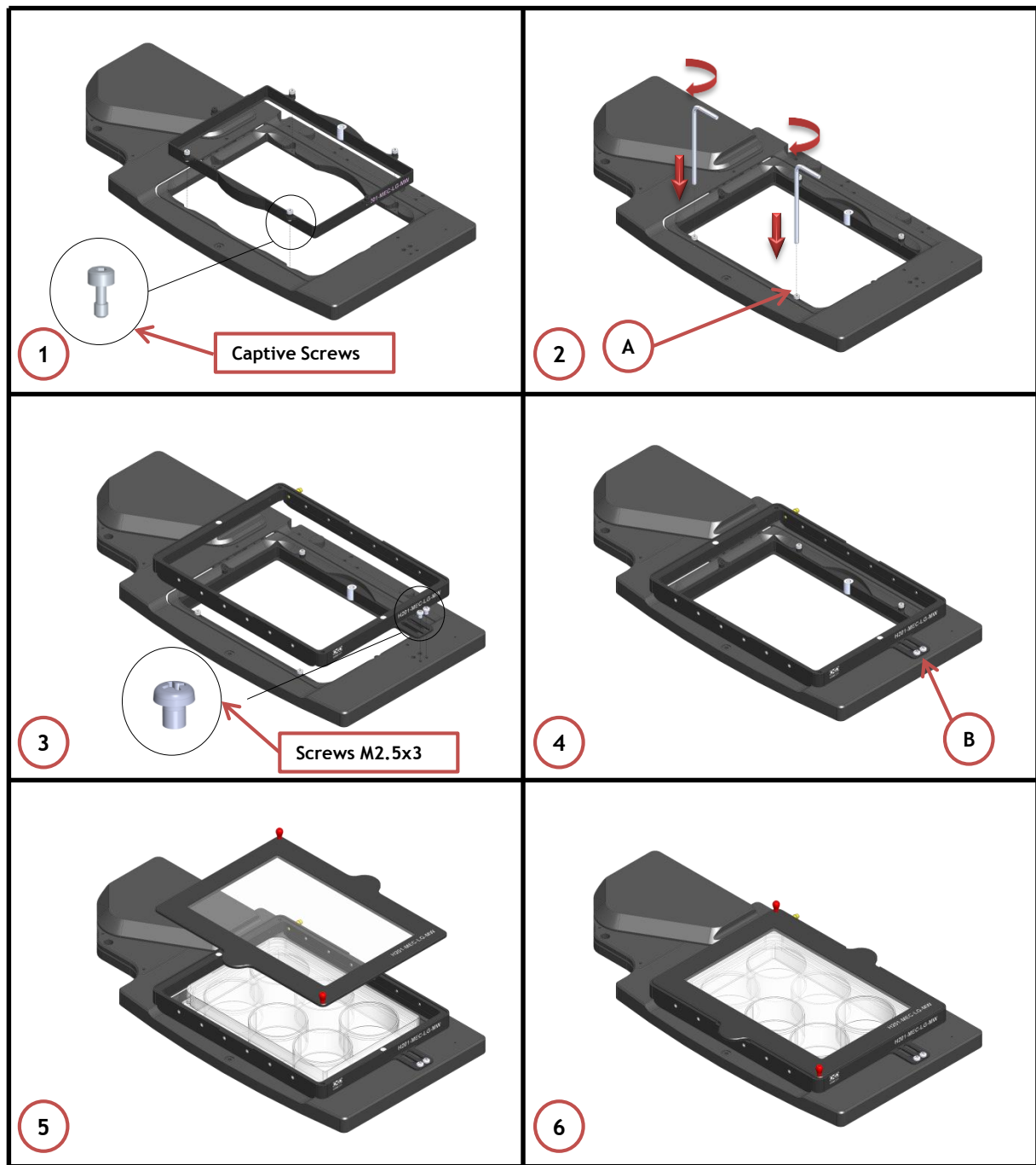


Figure 18. How to install the H201-LG on the Galvo stage-with MW plate