DanioVision
Observation Chamber
Conversion Manual

1 Introduction

This Conversion Manual describes how to convert your current DanioVision Observation Chamber to work with the new Temperature Control Unit.

Please make sure to carefully follow the steps described below.

The conversion of the DanioVision Observation Chamber must be carried out by a technically skilled person. If, during the conversion, you have any questions, please contact the Noldus Help desk (www.noldus.com/help-desk).

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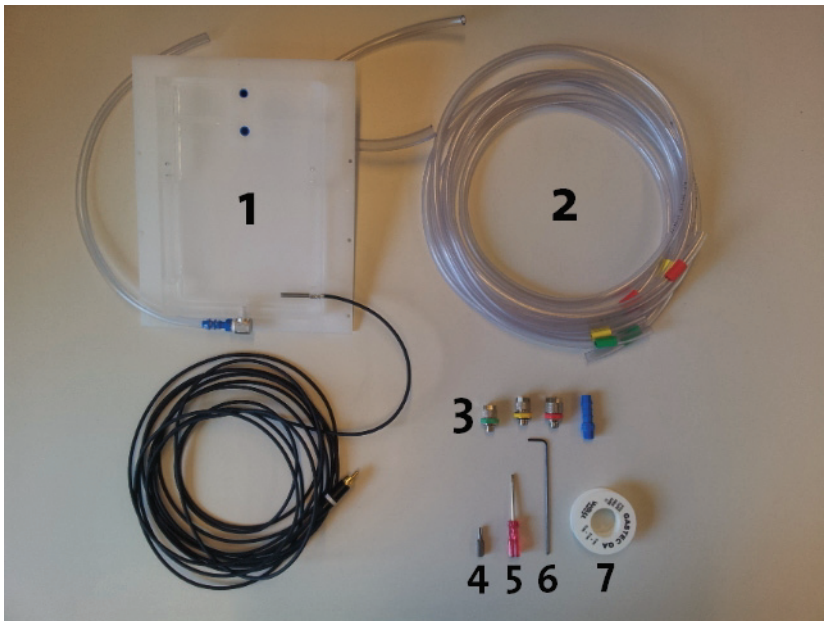
2 Converting the DanioVision Observation Chamber

WHAT DO I NEED?

To carry out the conversion, the conversion kit comes with the following parts and tools:

1. New basin with temperature sensor.
2. Three color-coded tubes.
3. Tube connectors.
4. Torx bit.
5. Small Philips head screwdriver.
6. Hexagonal key (2 mm).
7. PTFR tape (0.1 mm, pressure class 0.2).



Additionally, you need the following tools and parts:

8. Large Philips head screw driver (**not** shown in the figure below).
9. Pliers.

10. Grip for torx bit.

11. Socket wrenches (no. 14, 11, 10).

12. Vaseline.

CARRYING OUT THE CONVERSION

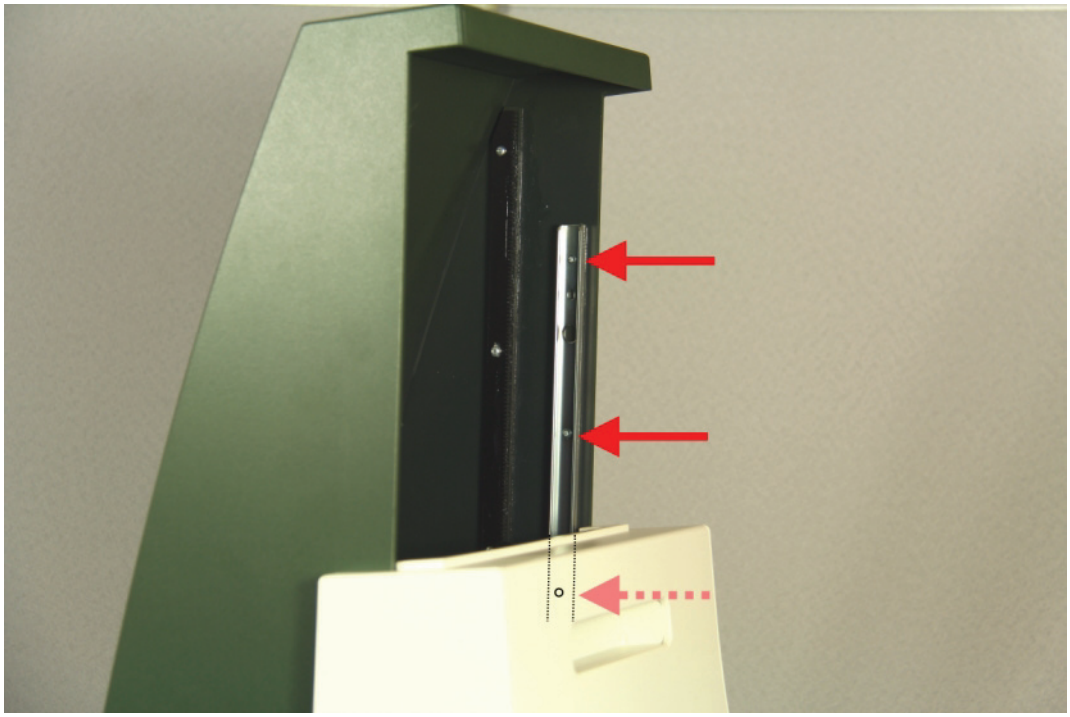
1. Place the DanioVision Observation Chamber on a flat, stable table with enough space to move it around or for yourself to move around the table.

Steps 2 to 4 describe how to remove the green lid

2. Raise the lid to the upper position.

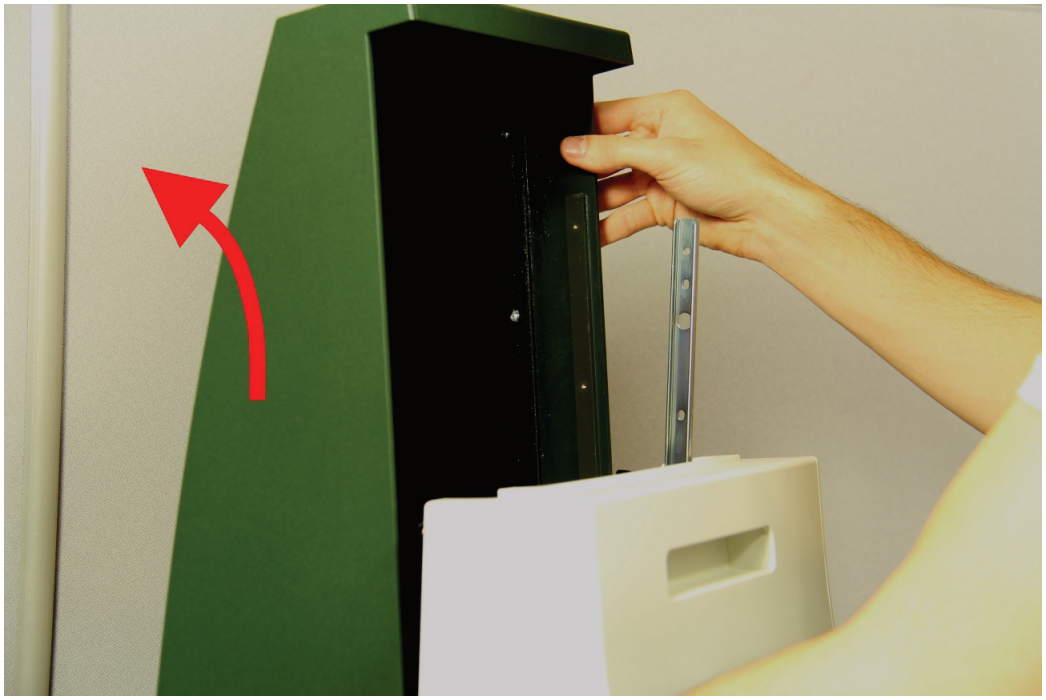
3. Remove the 6 screws (3 screws on each side) in the rail (as indicated in the figure below) with the small Philips head screwdriver.

It might be easier to put the Observation Chamber on its side to reach the bottom screws.

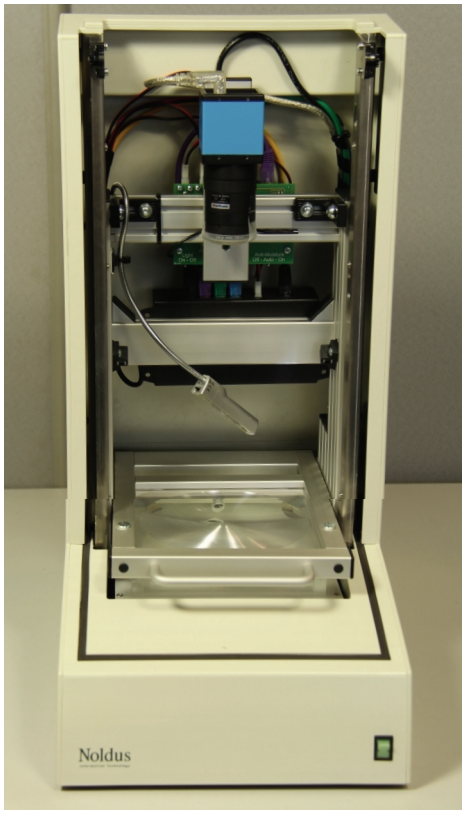


Make sure not to lose the screws because you need them to re-assemble the chamber.

4. Lift the lid and slightly tilt if forwards to remove it from the Observation Chamber.

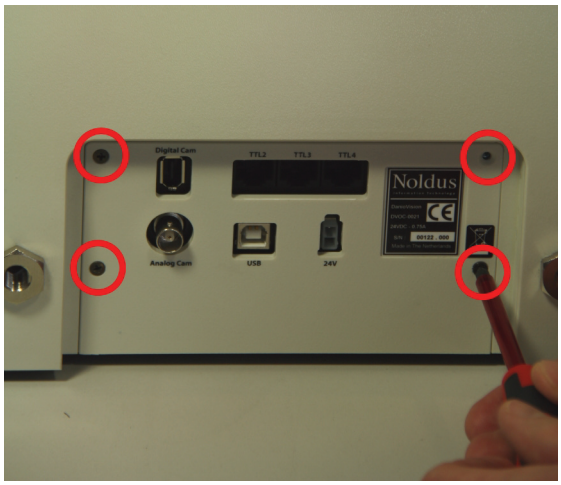


You can now see the inside of the DanioVision Observation Chamber.

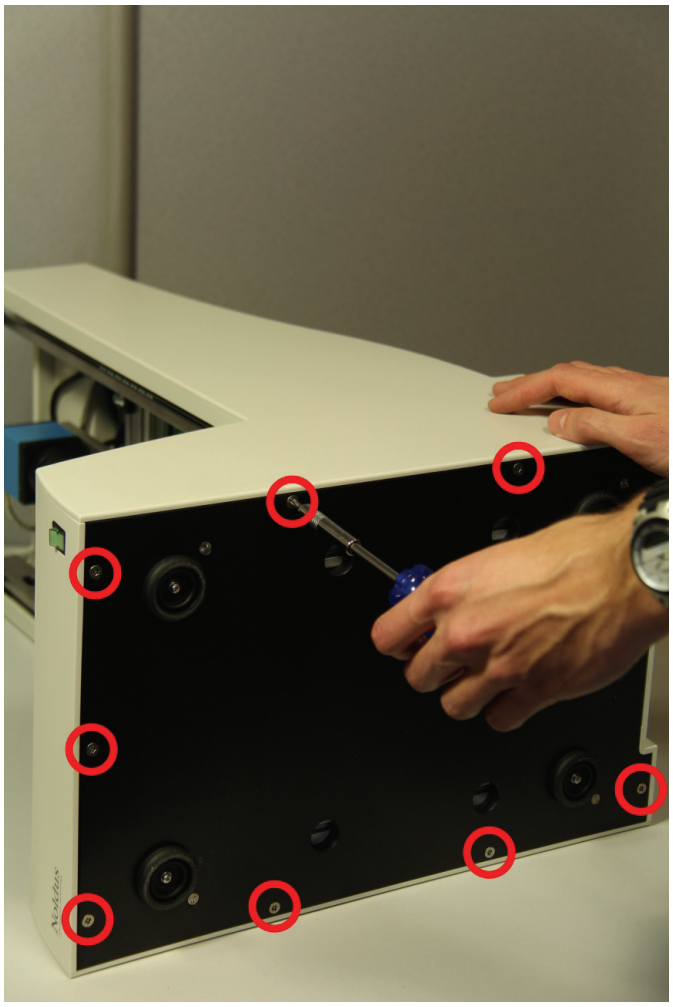


Steps 5 to 12 describe how to remove the white casing

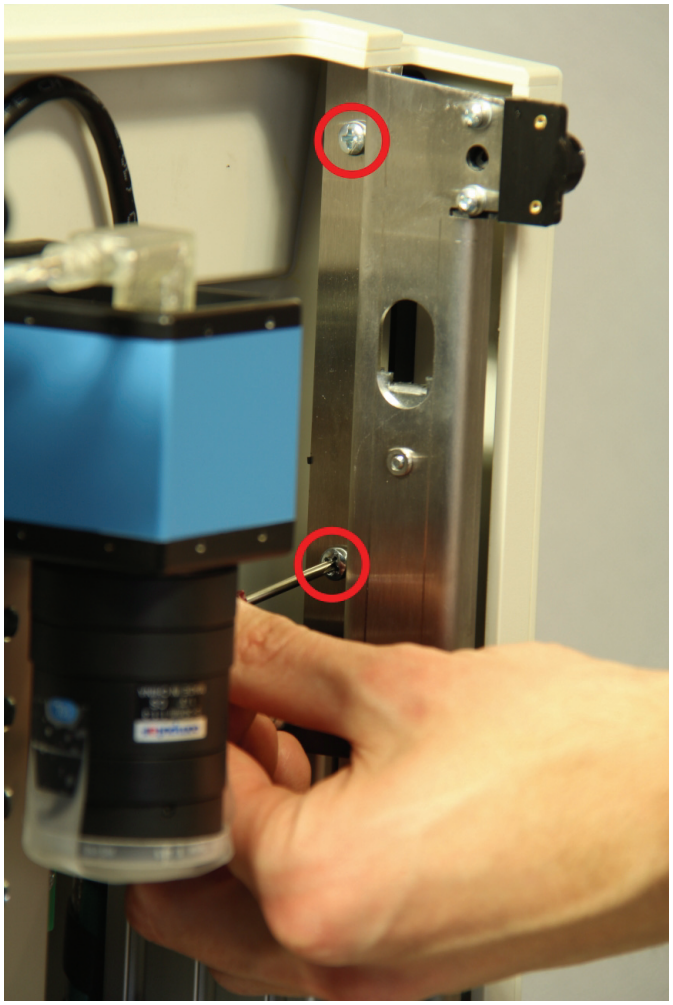
5. Remove the plastic cover from the back panel by unscrewing the 4 screws (indicated by the red circles in the figure below) with the small Philips head screwdriver.



6. Gently and carefully put the DanioVision Observation Chamber on its side. Unscrew the 9 torx screws (of which 8 are indicated by the red circles in the figure below) using the torx screwdriver.

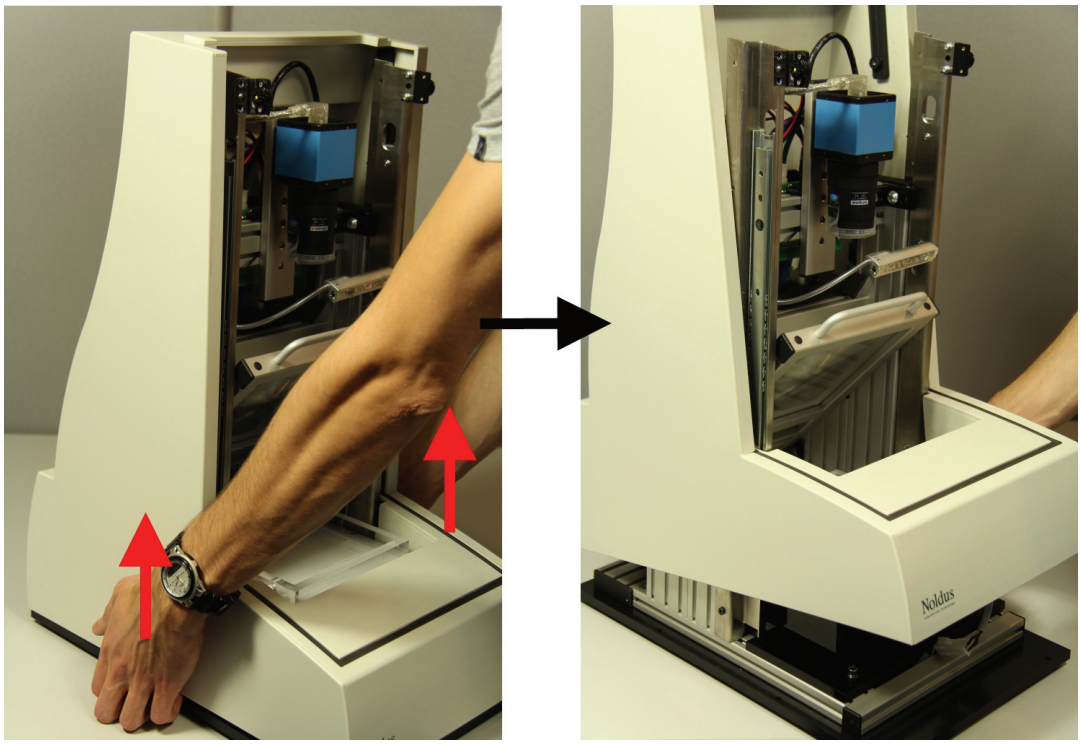


7. Put the DanioVision Observation Chamber upright or keep it on its side. Remove 4 screws (with the small Philips head screwdriver) from the inside frame: there are 2 screws (indicated by the red circles in the figure below) on either side.

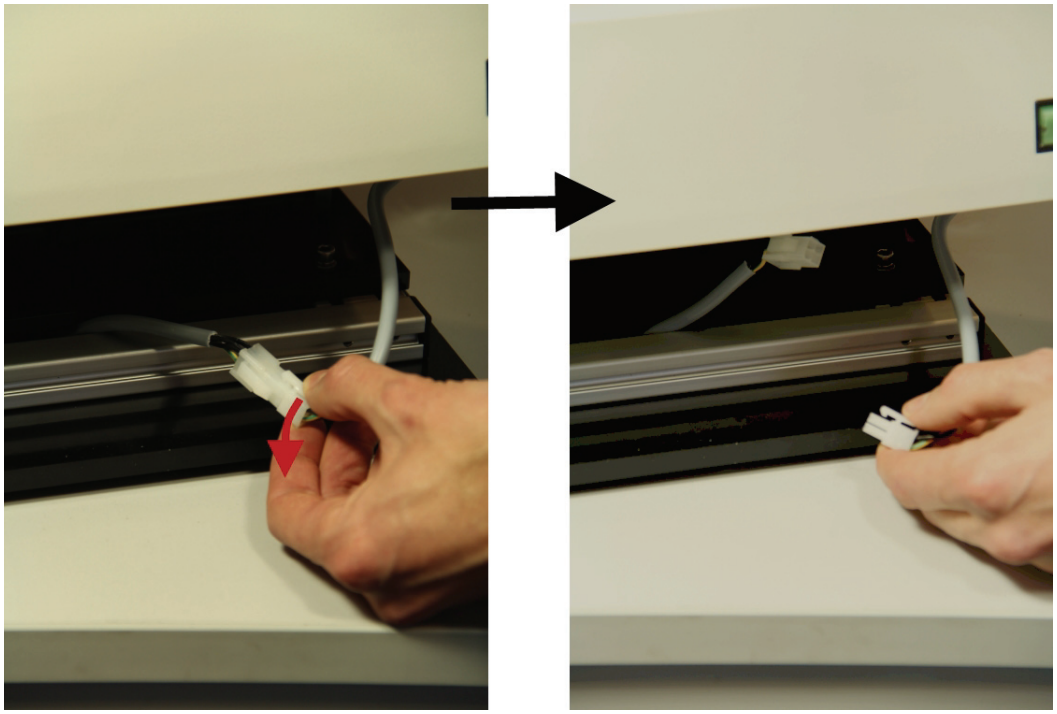


8. Before removing the white casing, lift the lens to the up position as indicated in the figure below.

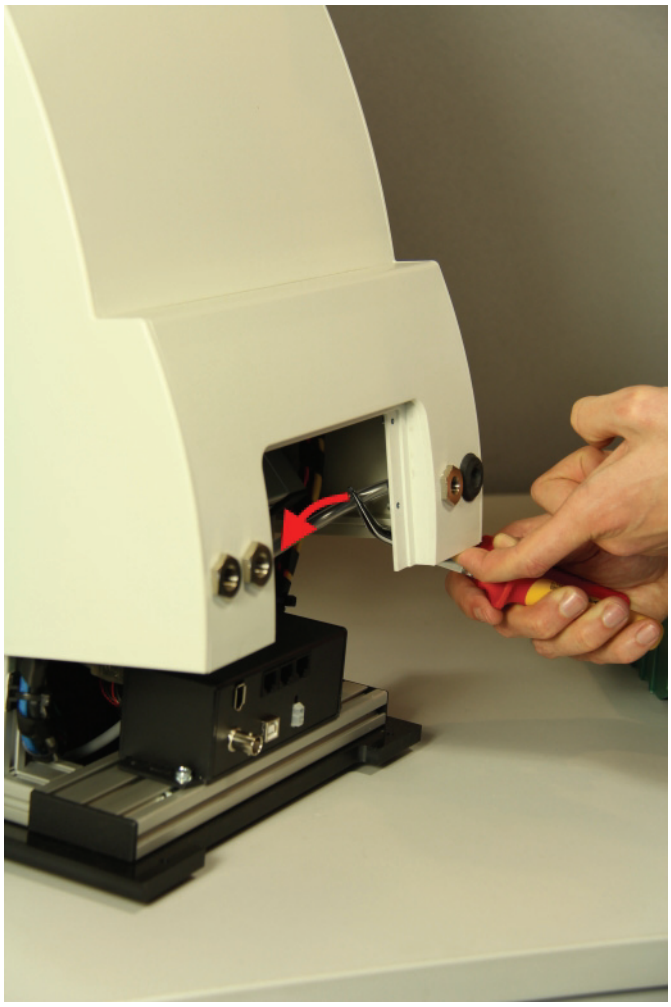
9. Do not yet completely remove the white casing, but lift it (slightly pull apart both sides) on both sides until it is about 20 centimeters off the bottom.



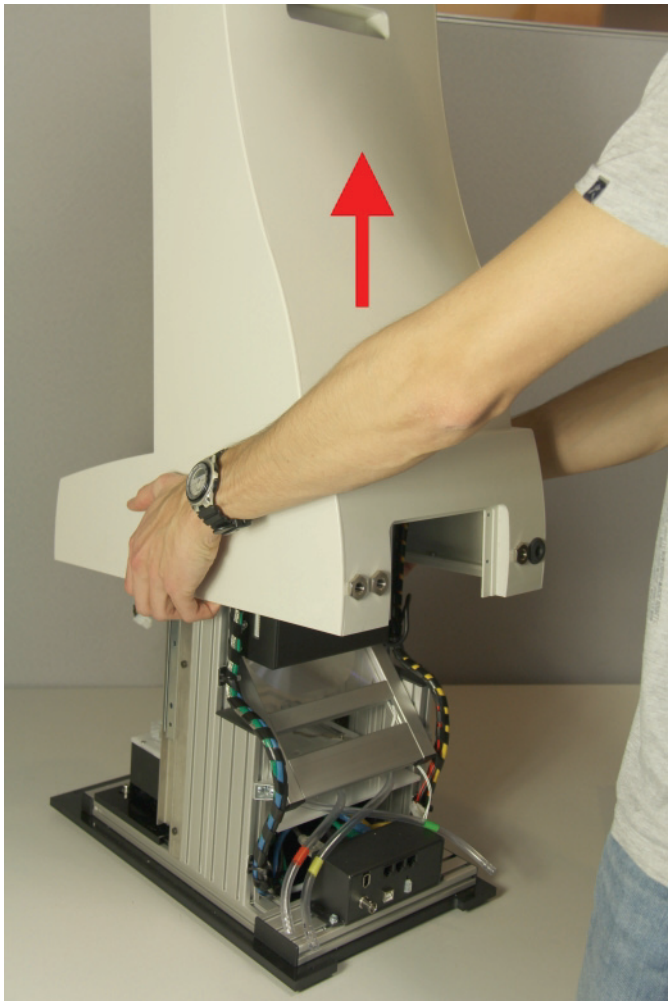
10. Disconnect the molex connector at the front.



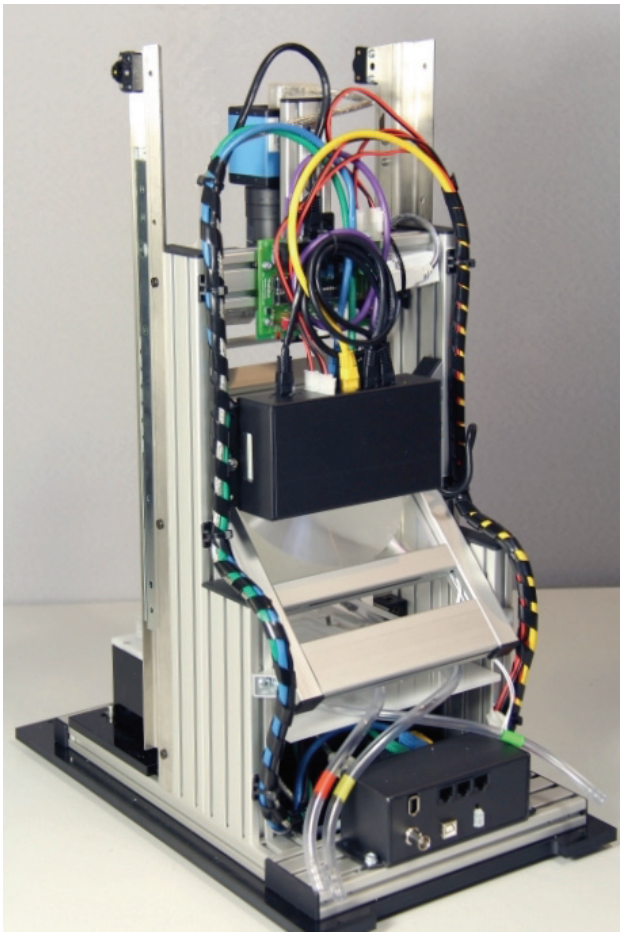
11. Lift the back of the DanioVision Observation Chamber, and disconnect the 3 tubes on the inside with the pliers from the connectors.



12. Lift the white casing to remove it from the system.



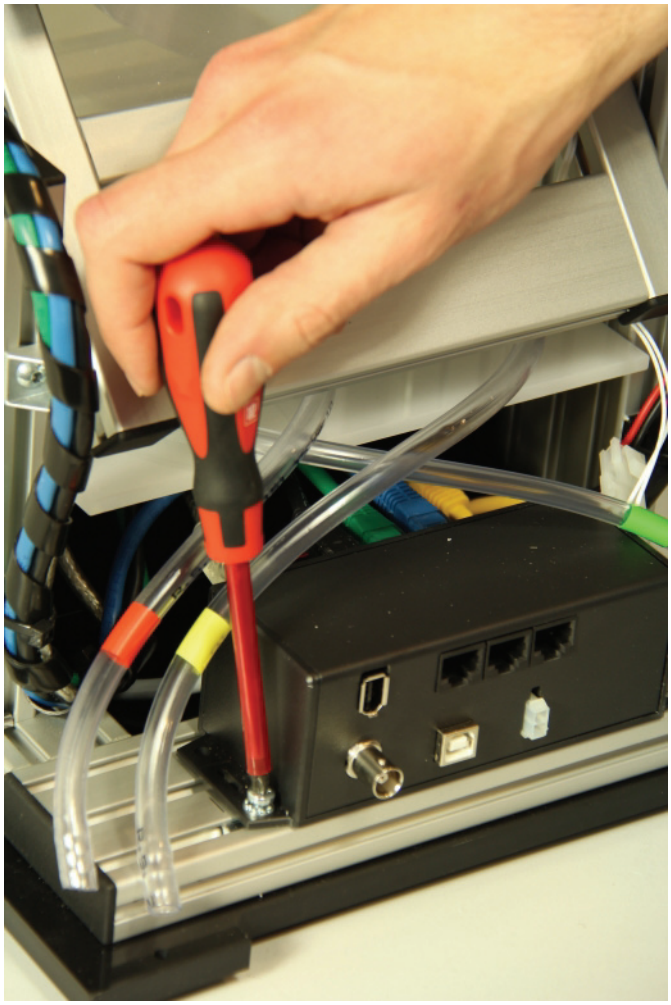
The DanioVision Observation Chamber now looks like this.



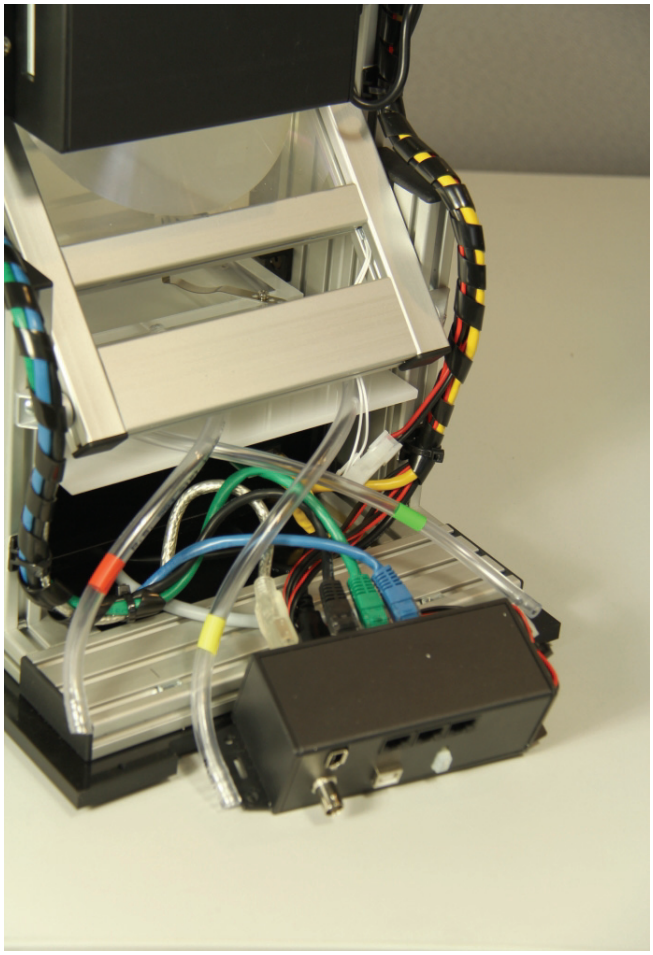
The steps below describes how to disconnect the interface box; this is necessary for the placement of the new basin

13. At the back of the DanioVision Observation Chamber, mark the position of the interface box.

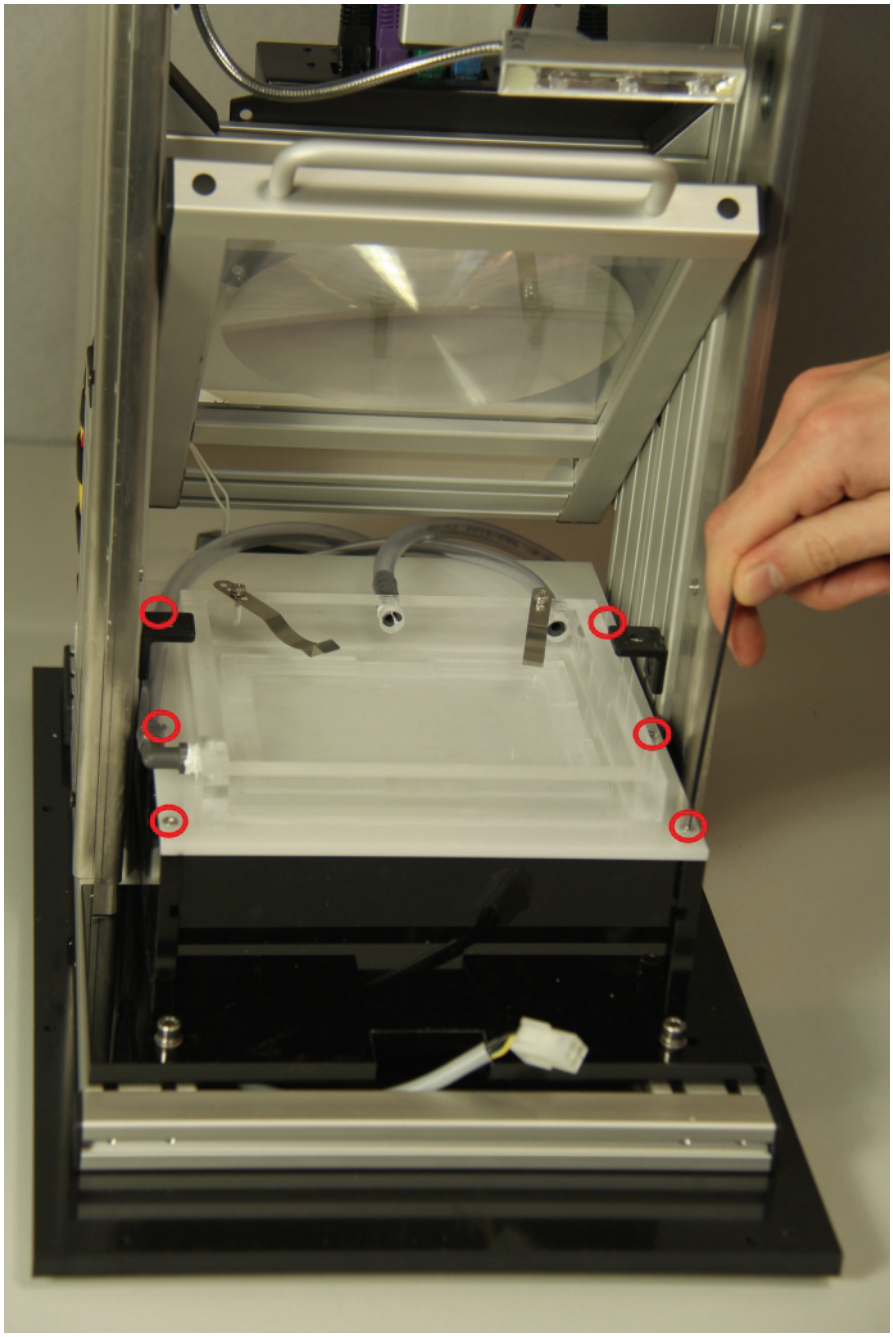
14. Unscrew the 2 screws (one on each side) of the interface box.



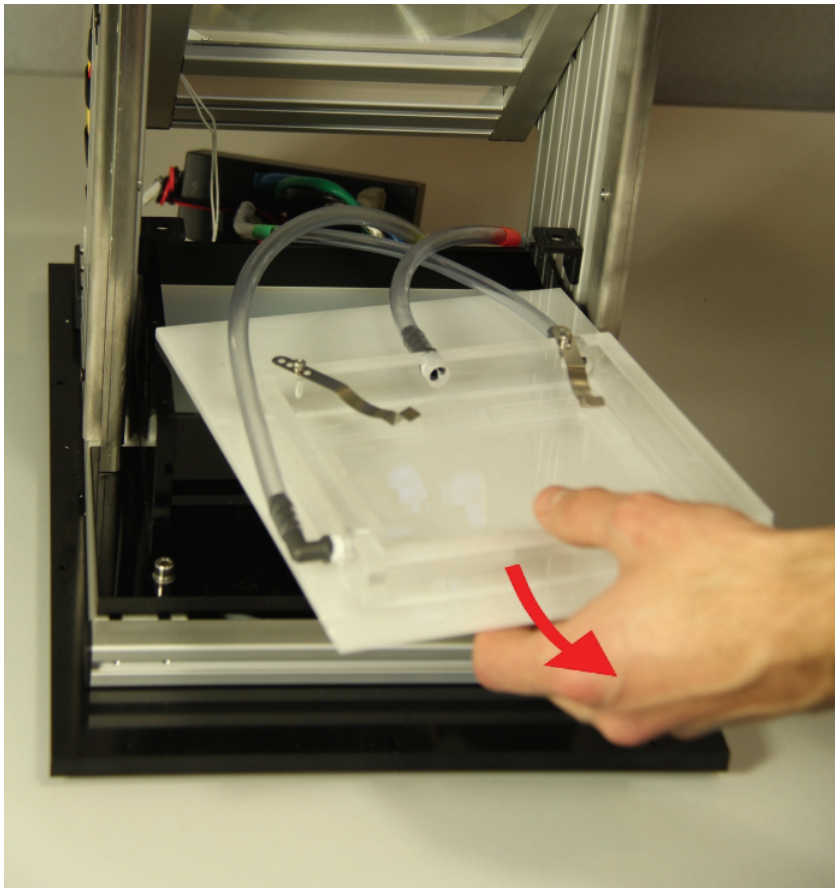
15. Remove the interface box from the base of the Observation Chamber.



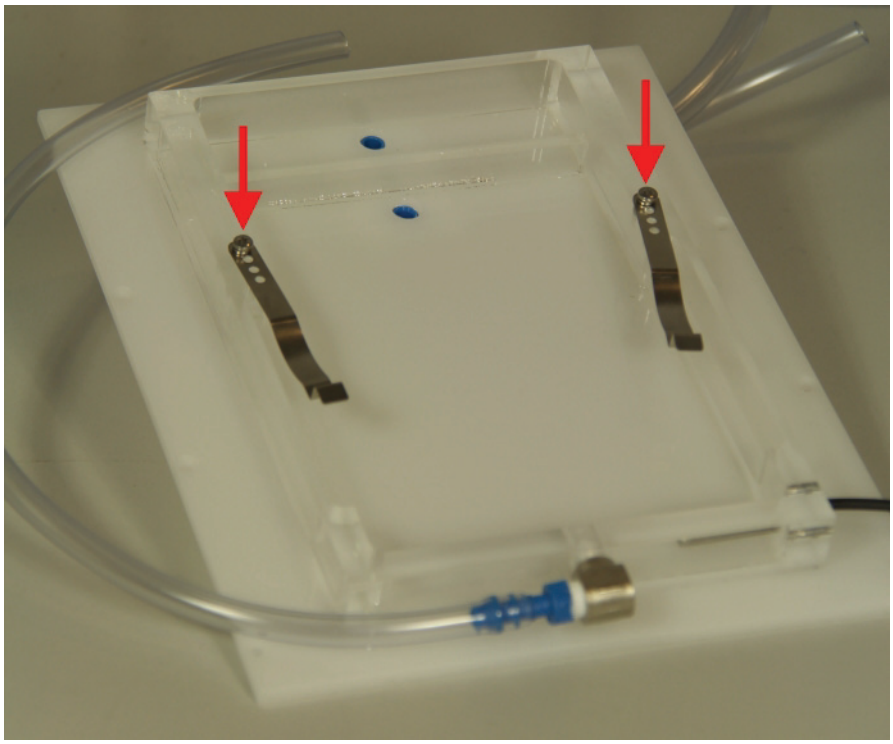
16. Unscrew the 6 hexagonal screws (3 on each side) from the basin.



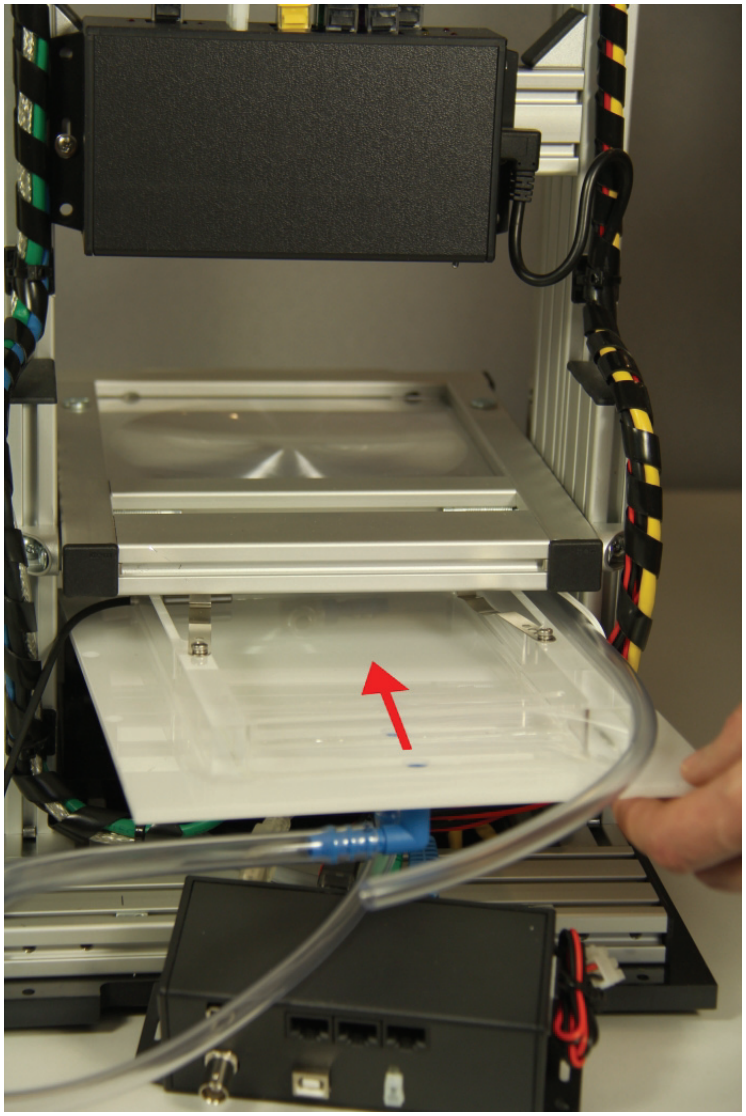
17. Remove the basin from the chamber.



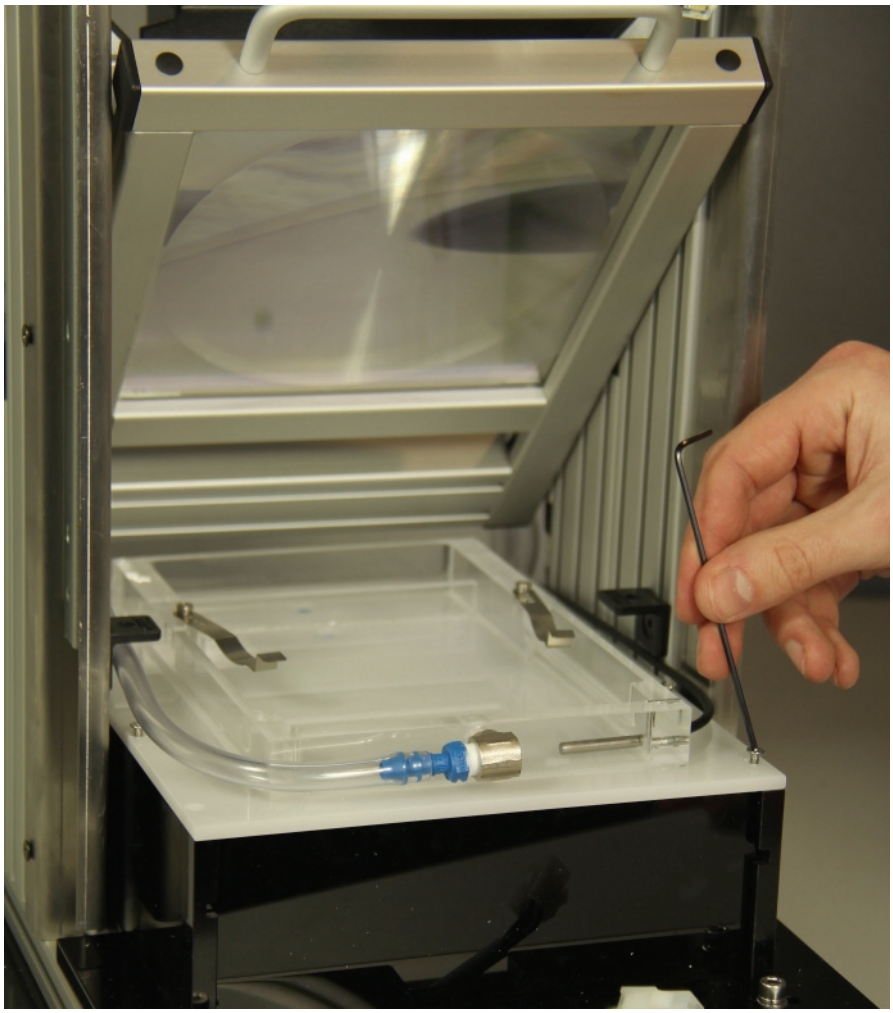
18. Remove the two clamps from the old basin and install them on the new basin (indicated by the arrows in the figure below) with the large Philips head screwdriver.



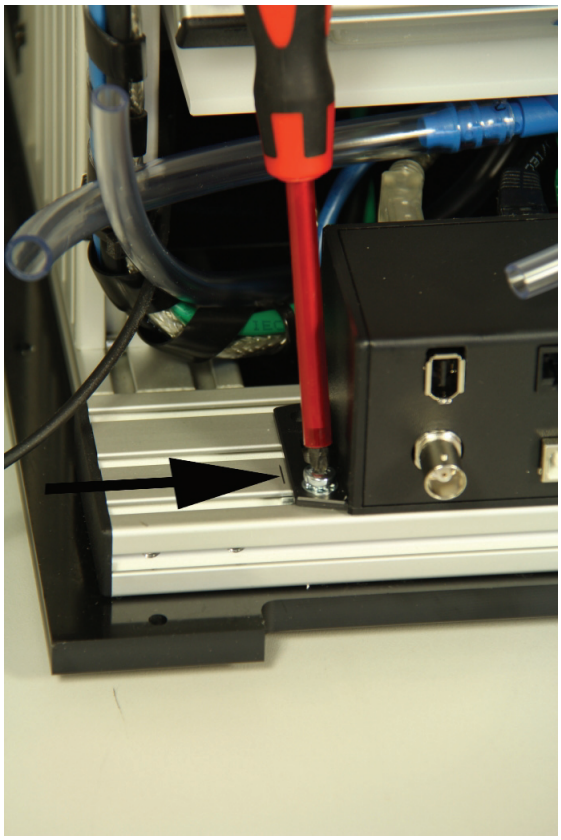
19. Insert the new basin into the Observation Chamber from the back side.



20. Use the 6 hexagonal screws from the old basin (see step 16 above) to fix the new basin to the base of the DanioVision Observation Chamber.

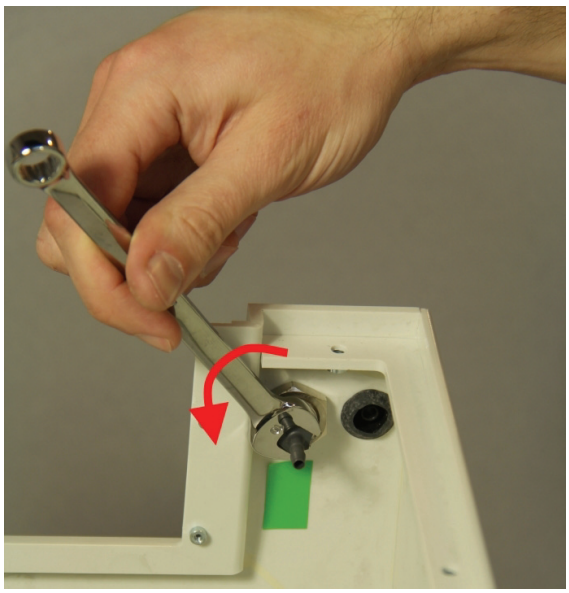


21. Put the interface box back in place (use the marking from step 13, indicated by the arrow in the figure below) and fix it to the bottom plate with the two screws.

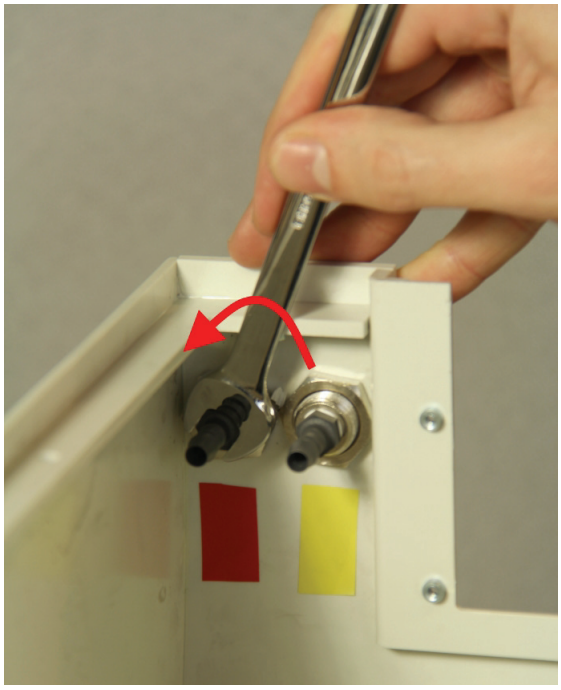


22. Put the white casing up side down.

23. Remove the tube connector (with the green sticker) from the inside of the casing with a socket wrench.

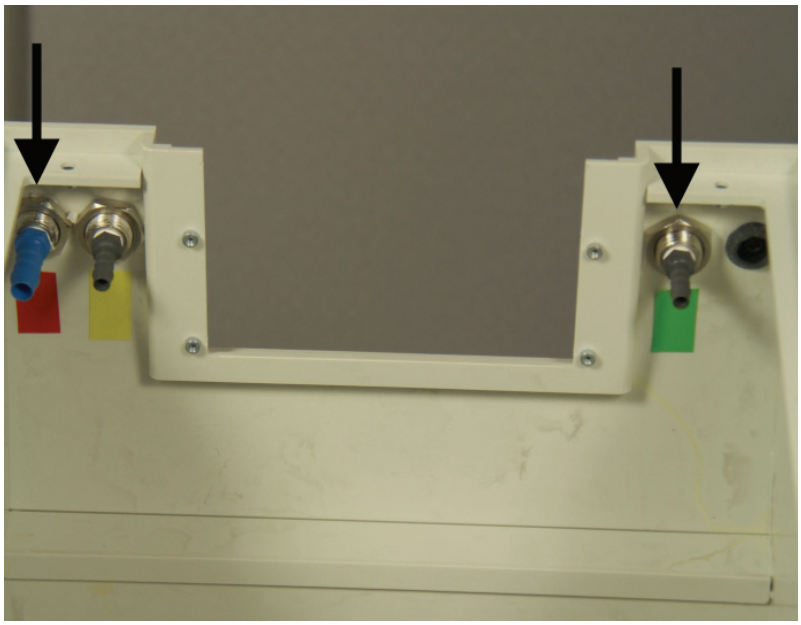


24. Remove the tube connector (with the red sticker).

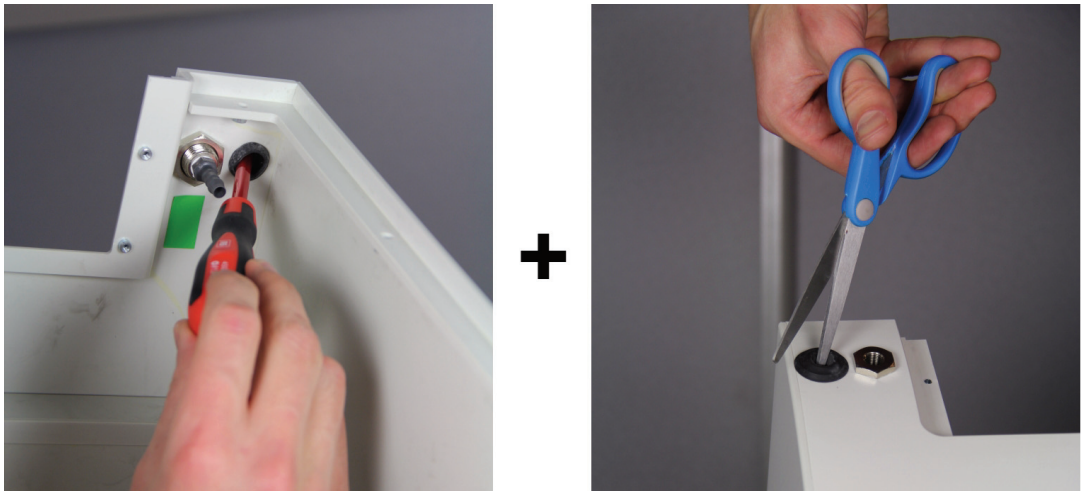


25. Remove the old teflon tape and put new teflon tape on the thread of the biggest connector (the smaller connector is not re-used). Do the same for the new, blue connector.

26. Screw the blue connector into the hole with the red sticker and the grey connector into the hole with the green sticker (indicated by the arrows in the figure below).



27. Punch out the rubber of the hole next to the connector with the green sticker. If necessary, use scissors or a sharp knife to remove the rubber.

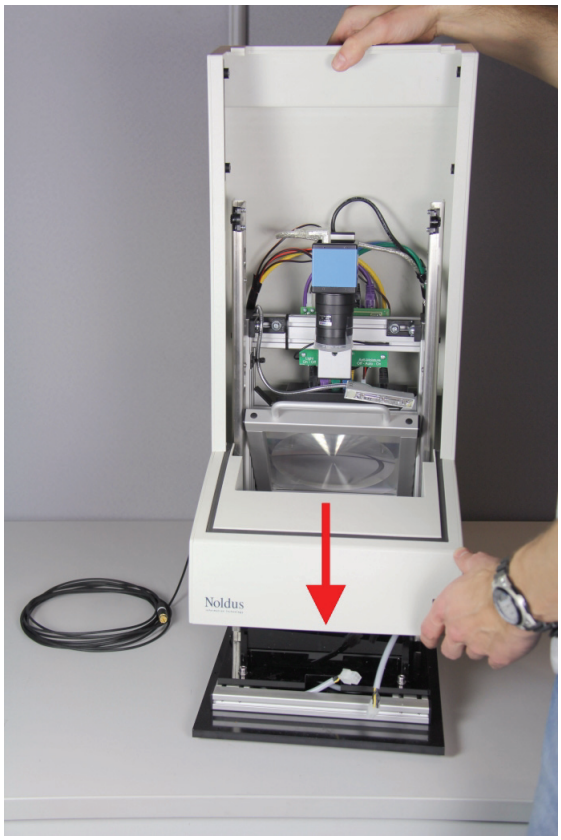


28. Put the white casing on the table surface. Take the plug that is connected to the temperature sensor of the new basin and lead it from underneath the casing to the hole you made in the previous step.

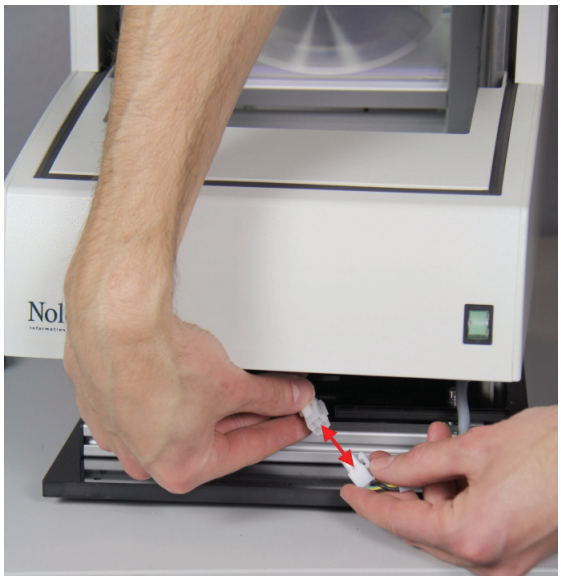
Firmly push the plug through the hole.

The plug of the temperature sensor and the wire should come out on the other side of the casing.

29. Slide the white casing back onto the Observation Chamber frame. Make sure not to slide it all the way to the bottom of the frame.

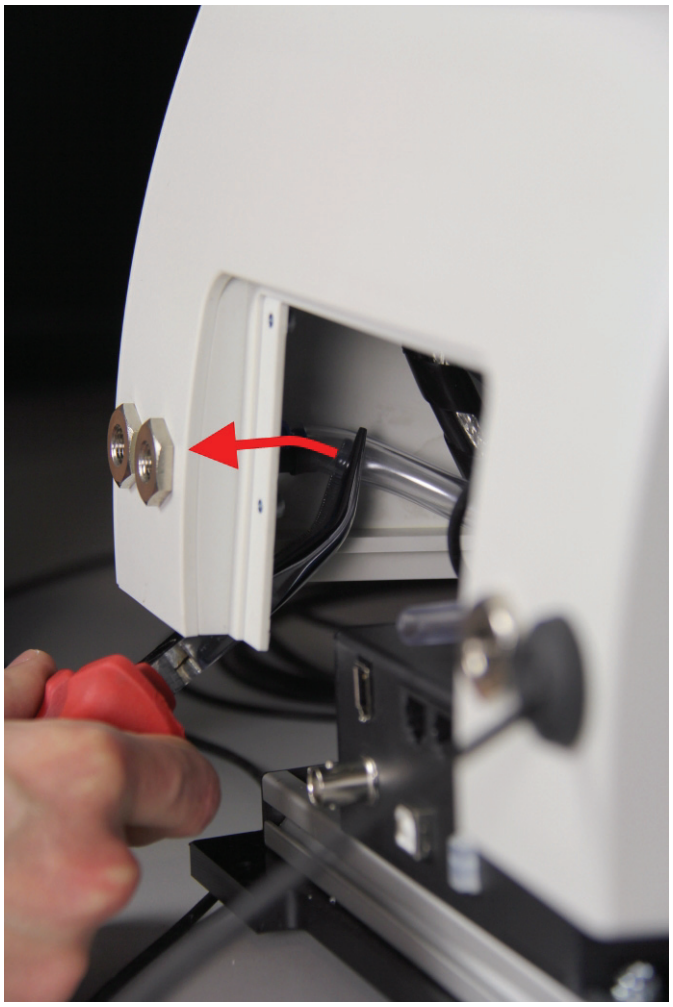


30. Reconnect the molex connector at the front.

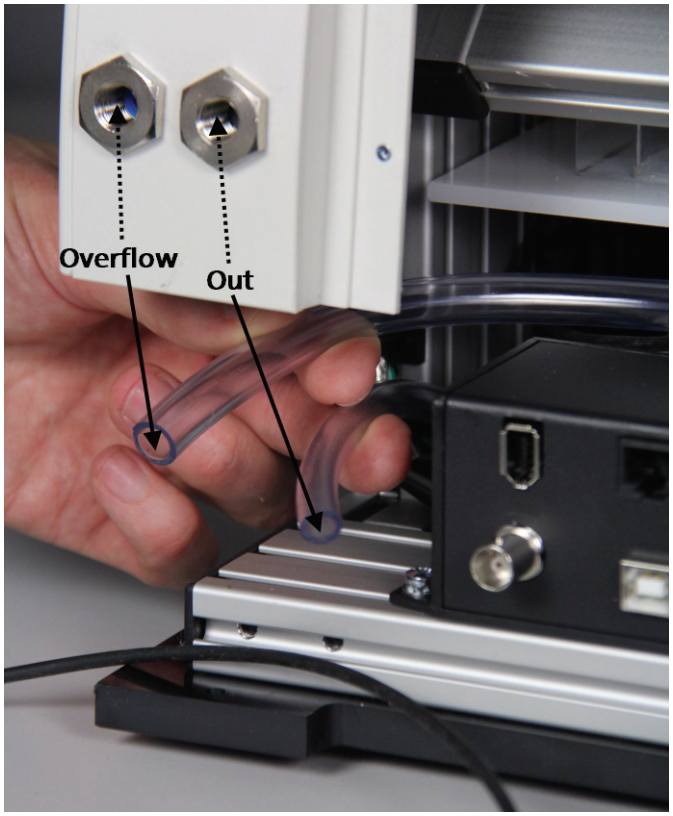


31. At the back of the chamber:

- Connect the large tube (10 mm) to the left connector on the inside with the pliers. Before you connect the tube, lubricate the connector with some vaseline. This connector is for the water overflow.



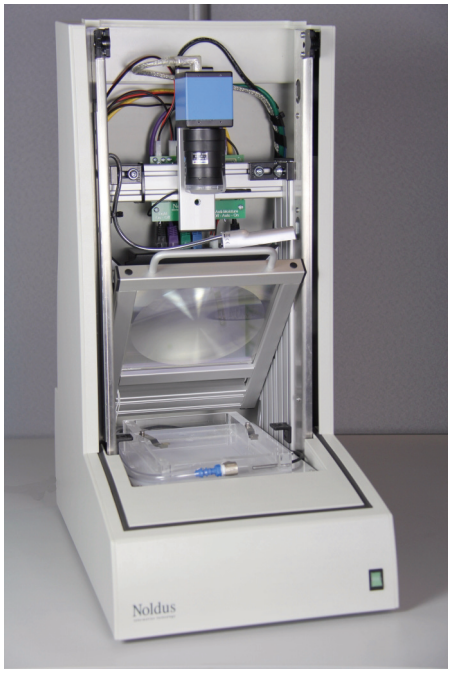
- With the pliers, connect the small tube (8 mm) to the connector next to the one you connected in the previous step. Before you connect the tube, lubricate the connector with some Vaseline. This connector is for the water outlet.



- Connect the other small tube (8 mm) to the remaining connector on the right. Before you connect the tube, lubricate the connector with some Vaseline. This connector is for the water inlet.

Make sure to slide the tube far enough onto the connector (see the figure below).

32. Lower the casing onto the bottom of the frame.

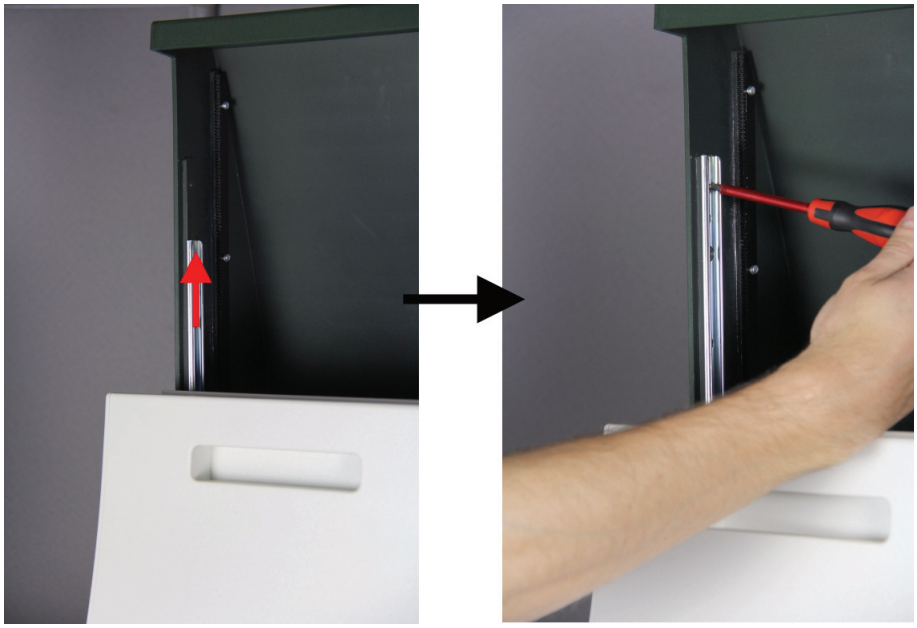


33. Attach the white casing to the frame with the 4 screws from step 7 (on page 7).

34. Attach the bottom plate to the frame with the 9 torx screws from step 6 (on page 7).

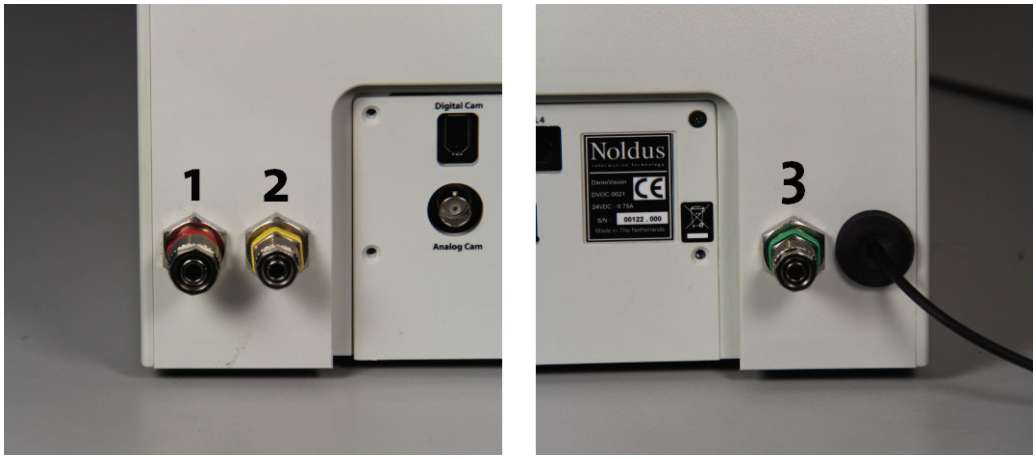
35. Slide back the green lid onto the frame (see also step 4 on page 5).

Make sure the outer rail on both sides is sticking out of the white casing to be able to attach the green lid to the rails (if the rails have slid down, use a small screwdriver to push them up). For this step, it might be helpful to put the chamber on its side and then place and tighten the screws.



36. Attach the plastic cover to the back panel (see also step 5 on page page 6).

37. At the back of the chamber, screw the new outer connectors to the inputs/outputs as depicted in the figure below. Connector 1 (red) is the water overflow, connector 2 (yellow) is the water output and connector 3 (green) is the water input.



You can now connect the DanioVision Temperature Control Unit to the Observation Chamber. See the Temperature Control Unit - DanioVision User Manual how to do this.