Inserting the locking clip
Multi-channel lower part

Instructions for use
### Inserting the locking clip — Instructions for use

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Inserting the locking clip — Instructions for use

1 Product description

Applies to multi-channel lower parts with the following nominal volumes:

- 10 μL
- 100 μL
- 300 μL

Applies to the following pipettes:

- Research® plus
- Xplorer®
- Xplorer® plus

With spring-loaded tip cones the movement can be blocked with a locking clip. To do this, all springs are replaced by locking clips.

Insert the locking clips, if you are:

- using pipette tips over an extended period.
- using pipette tips by other manufacturers and the tips bend during dispensing.

2 Installation

2.1 Releasing the multi-channel lower part

- Push the lever to the left or to the right and pull the lower part off.

Fig. 1: Release the lever for the lower part

2.2 Opening the multi-channel lower part

- Push both side latches downwards.
- Carefully remove the cover plate.
- Put down the lower part with the lever facing downwards.

Fig. 2: Open / close cover plate latch
2.3 Removing the channel

A channel consists of a piston, a cylinder and a tip cone. To insert the locking clips, all channels must be removed.

- Release the piston from the upper rail, using a pointed object.
- Carefully remove the piston. Do not bend the piston.

Fig. 3: Release the piston

- Push the tip cone in.

Fig. 4: Compress the spring.

- Hold the tip cone, lift and release it from the lower rail.

Fig. 5: Lift the tip cone

- Carefully untension the spring.
- Remove the tip cone and the spring from the lower rail.

Fig. 6: Remove the tip cone
2.4 Fitting the channel

- Remove the spring.
- Insert the piston into the tip cone.

**Fig. 7:** Remove the spring and insert the piston

Keep the springs so that you can re-use them.

- Insert the channels one by one, without the springs.
- Carefully insert the pistons into the upper rail.

**Fig. 8:** Insert the piston into the tip cone.

**Fig. 9:** Insert the pistons

- Insert the locking clip.

**Fig. 10:** Insert the locking clip
2.5 Closing the multi-channel lower part

- Attach the cover plate.
- Push both side latches upwards.

![Fig. 11: Attach the cover plate](image1)

2.6 Checking the function

Please ensure that all parts are assembled correctly.
- Carry out a gravimetric test of the systematic and random errors.

2.7 Removing the locking clip

Prerequisites
Pin from the delivery package of the pipette.

- Remove the locking clip.
- The springs can now be re-inserted.

![Fig. 12: Lift the locking clip using the pin](image2)

### 3 Ordering Information

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<th>Order no. (international)</th>
<th>Description</th>
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<tr>
<td>3122 612.006</td>
<td>Locking clip to prevent spring loading of multi-channel lower parts (10 μL, 100 μL, 300 μL)</td>
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<tr>
<td>3122 613.002</td>
<td>2 pieces for 8-channel lower parts</td>
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<td></td>
<td>3 pieces for 12-channel lower parts</td>
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</tbody>
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