

Using Your Chip Priming Station

The Chip Priming Station (5065-4401), is for use with the Agilent 2100 Bioanalyzer Analysis Kits. Refer to [Figure 1](#) on page 2 for a picture of the Chip Priming Station.

A complete Chip Priming Station shipment contains:

- priming station
- syringe adapter kit
- adjustable clip

The Analysis Kits include:

- reagents and supplies
- microfluidic chips
- syringe kit (not kit specific)
- Quick Start Guide

Before loading samples on the chip completely fill all channels of the chip with gel or a gel/dye mixture.

One well of the chip is filled with gel or gel/dye mixture (see Quick Start Guides included in the Analysis Kit). Apply appropriate pressure by means of a syringe, in order to press the gel or gel/dye mixture into the channels of the chip.

The Chip Priming Station allows making a tight and reliable seal between the syringe and one well of the chip, supporting the user to

- apply appropriate pressure,
- avoid bubble formation due to air leaks,
- completely fill the chip with gel or gel/dye mixture.



For a completely assembled Chip Priming Station, i.e. Chip Priming Station with syringe and clip attached, refer to [Figure 1](#) on page 2.

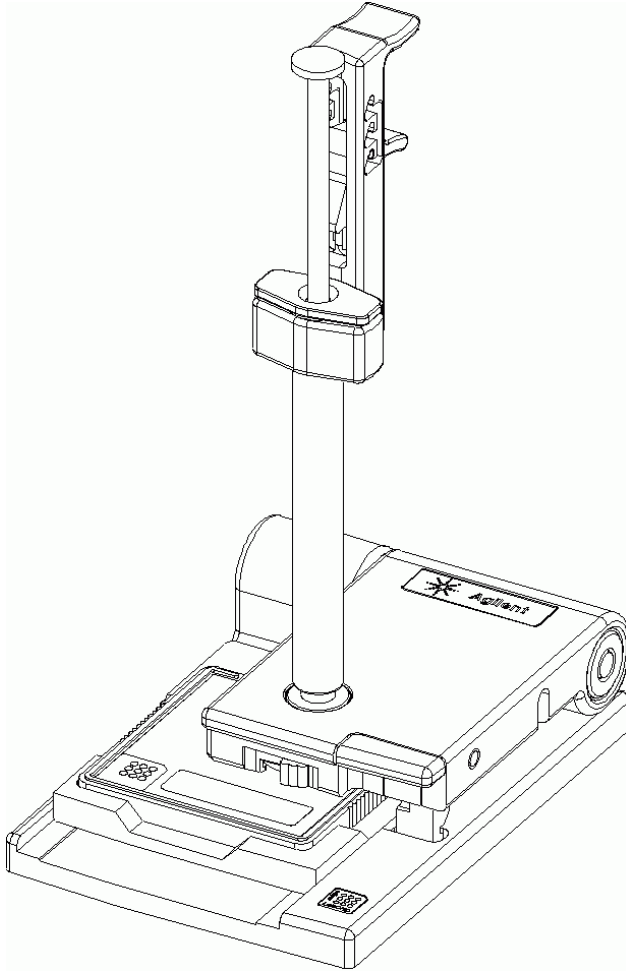
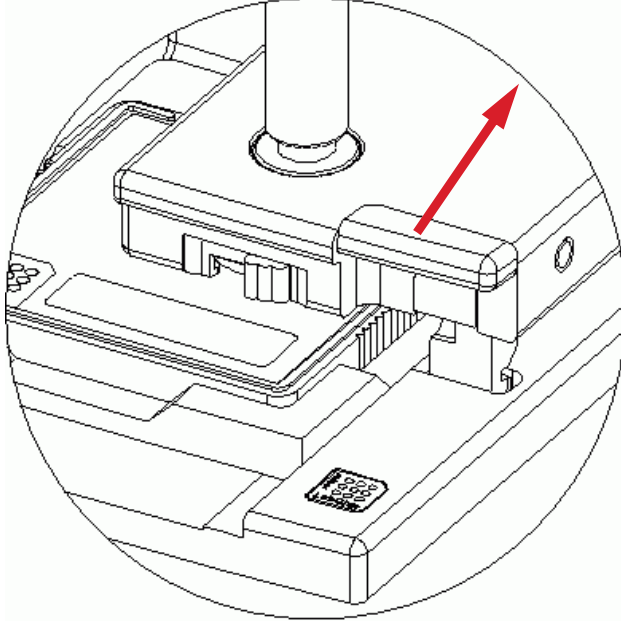
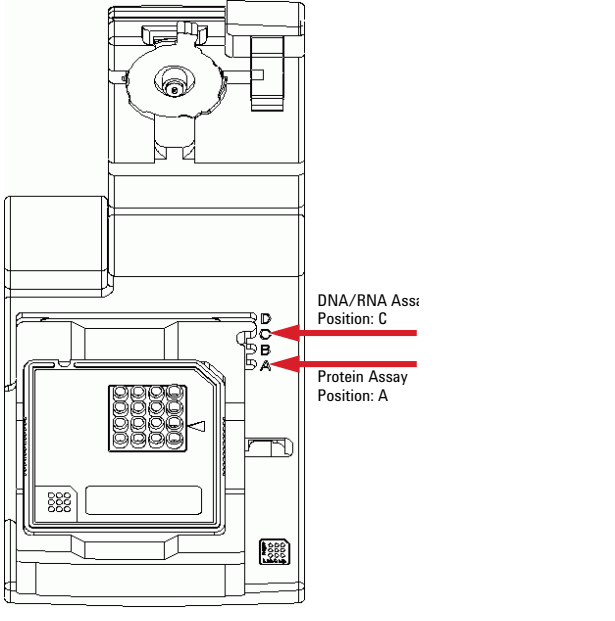
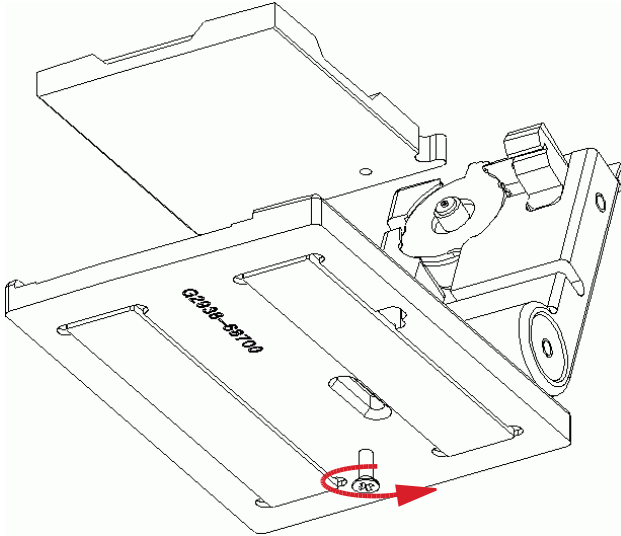


Figure 1 Chip Priming Station with syringe attached

NOTE

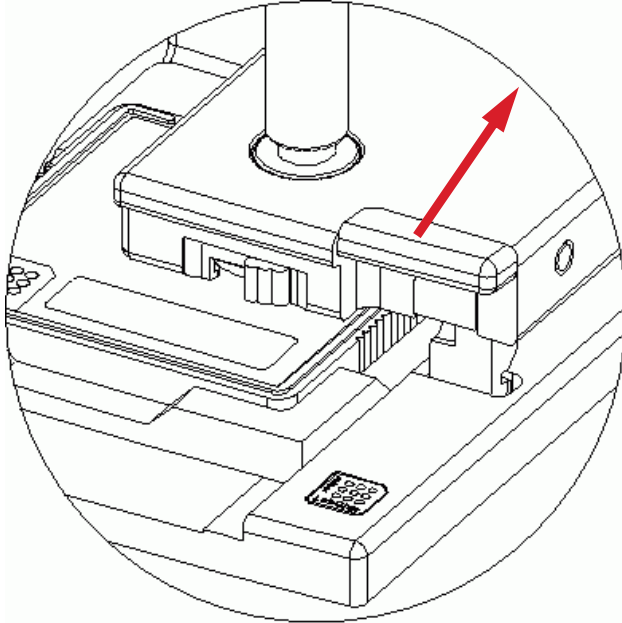
Refer to the document in the Syringe Kit on how to assemble the Chip Priming Station.

Adjusting Base Plate of Priming Station

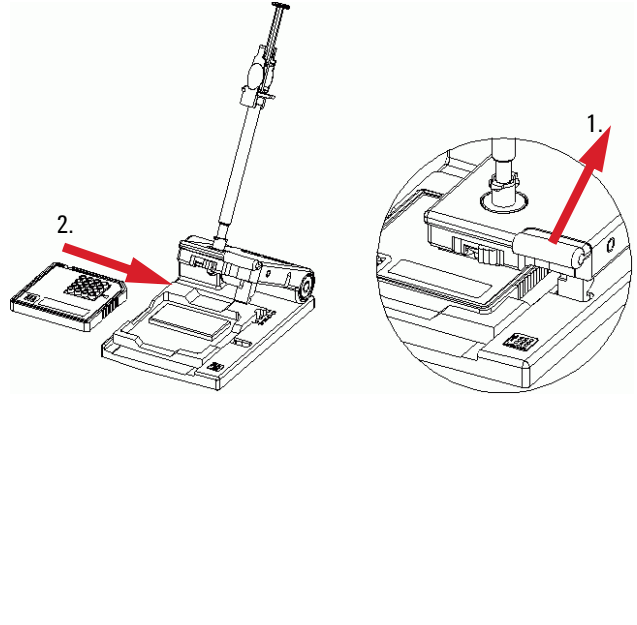
<p>1 Open the Chip Priming Station by pulling the latch.</p> 	<p>2 Verify the notch of the base is in the correct position.</p> 
<p>3 If the base of the Chip Priming Station is not in the correct position, loosen the screw of the base plate.</p> 	<p>4 Lift the base plate. Position it according to your assay and retighten the screw.</p>

Placing Chip into the Chip Priming Station

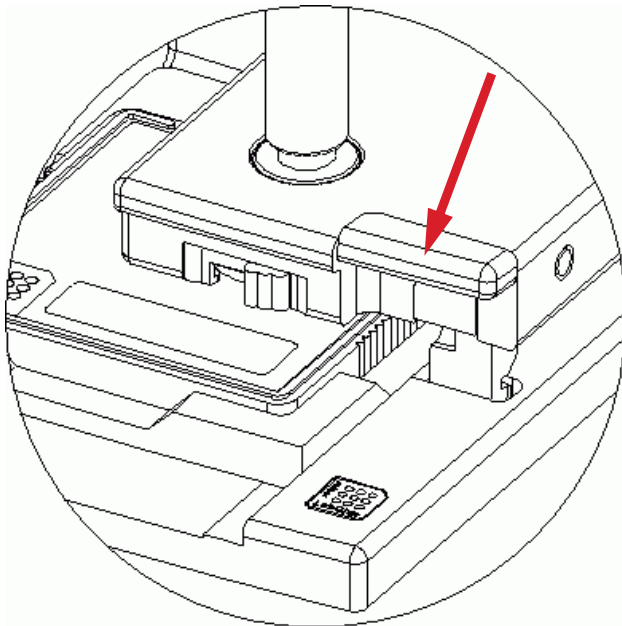
1 Open the Chip Priming Station by pulling the latch.



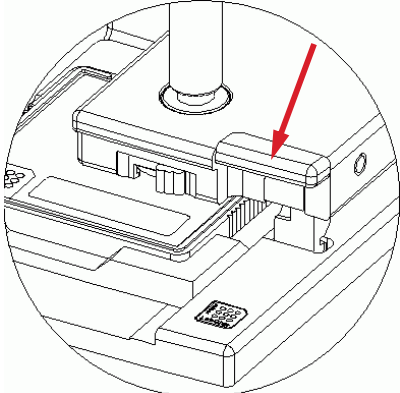
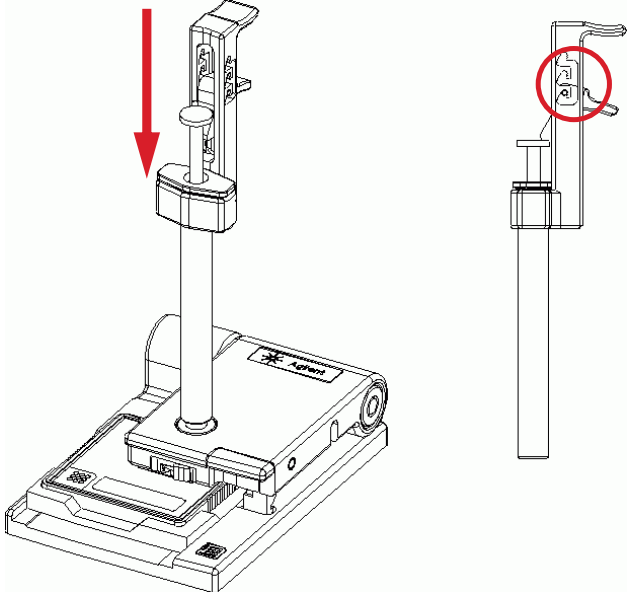
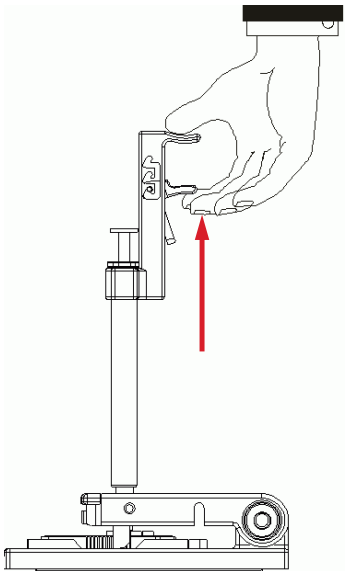
2 Put the chip in.



3 Close the Chip Priming Station and make sure to lock it by pressing the cover. The lock of the latch will click audibly when it closes!

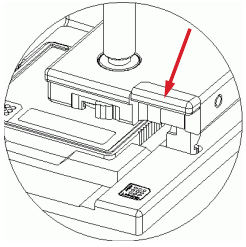
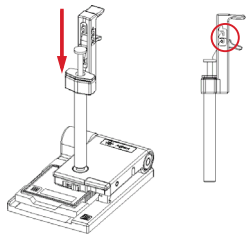
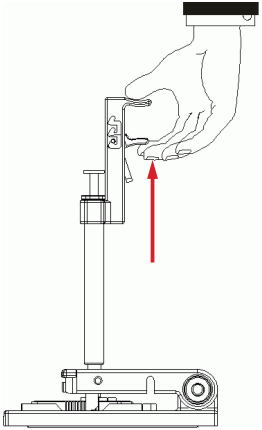
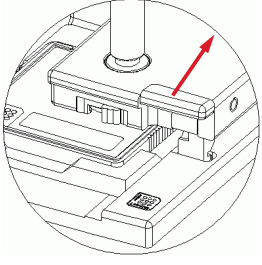


Checking the Chip Priming Station for Good Seal

<p>1 Make sure the syringe is tightly connected to the Chip Priming Station as described in the document of the Syringe Kit.</p> <p>2 Pull the plunger of the syringe to the 1.0 mL position (plunger pulled back).</p> <p>3 Place an empty chip in the Chip Priming Station.</p>	<p>4 Close the Chip Priming Station and make sure to lock it by pressing the cover. The lock of the latch will click audibly when it closes!</p> 
<p>5 Press the plunger down until it is locked by the clip.</p> 	<p>6 Wait for 5 s and press the side of the clip to release the plunger.</p> 
<p>Next Steps:</p> <p>7 Appropriate sealing is verified, if the plunger moves back up to the 0.3 mL mark within less than 1 s.</p> <p>NOTE</p> <p>If the plunger doesn't move up to the 0.3 mL mark within a second, the syringe-chip connection is probably not tight enough. Re-tighten the syringe and/or replace the syringe adapter to fix the problem.</p>	

See also the maintenance chapter of this document for more details.

Using the Chip Priming Station

<p>1 Pipette the appropriate amount of gel/dye in the well as given by the Quick Start Guide of the Analysis Kit.</p> <p>2 Make sure to have the plunger of the syringe in the 1.0 mL position (plunger pulled back).</p>	<p>3 Place the chip in the Chip Priming Station and close it by pressing the cover.</p> <p>NOTE</p> <p>The lock of the latch will audibly click when it closes!</p> 
<p>4 Press the plunger down until it is locked by the clip. The plunger will be held at the appropriate position and the chip is loaded with gel/dye mixture. See the Syringe Kit Note (G2938-90123)'Adjusting the Clip' for details.</p> <p>NOTE</p> <p>The time the plunger must stay in the lock position depends on your Analysis Kit. Refer to the Quick Start Guide for details.</p> 	<p>5 After the appropriate amount of time (refer to the Quick Start Guide of the Analysis Kit for details), release the plunger of the syringe.</p> 
<p>6 Let the plunger recover untouched without pulling or pressing it!</p> <p>NOTE</p> <p>Proper loading of the chip is verified, if the plunger moves back to the 0.3 mL mark within less than 1 s.</p>	<p>7 Open the Chip Priming Station by pulling the latch.</p> 
<p>Next Steps:</p> <p>8 Remove the chip from the Chip Priming Station.</p> <p>9 The chip is now ready to be loaded with reagents.</p> <p>NOTE</p> <p>Use up the chip within 5 min after having loaded the gel/dye mixture.</p>	

Maintaining the Chip Priming Station

Perform the following two steps on a regular 6 months basis, after heavy use, or after

- Scratching the tip of syringe
- Bending the syringe or the plunger
- Breaking the silicone gasket of the syringe.

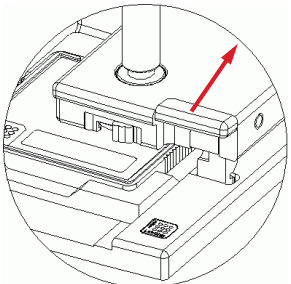
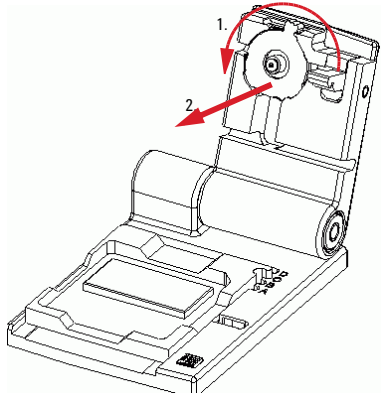
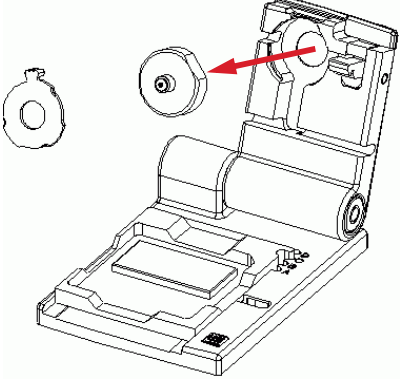
- 1 Replace syringe and syringe adapter in order to ensure for proper sealing.
- 2 Apply the seal test “[Checking the Chip Priming Station for Good Seal](#)” on page 5, in order to check if a replacement-gasket and syringe are needed.

1. Replacing the Syringe Adapter (Part No. G2938-68716)

Prerequisites

The Kit includes

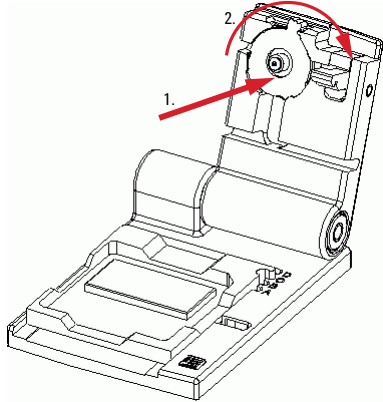
- 1 plastic adapter
- 10 silicon gaskets

<p>1 Remove the syringe by gently pulling it out of the adapter.</p>	<p>2 Open the Chip Priming Station by pulling the latch.</p> 
<p>3 Move the ring holding the adapter in place to the left. The ring will come off.</p> 	<p>4 Press the syringe adapter out of its mount, and replace it.</p> 

Maintaining the Chip Priming Station

2. Seal Test - (see page 5) - If Seal Test fails

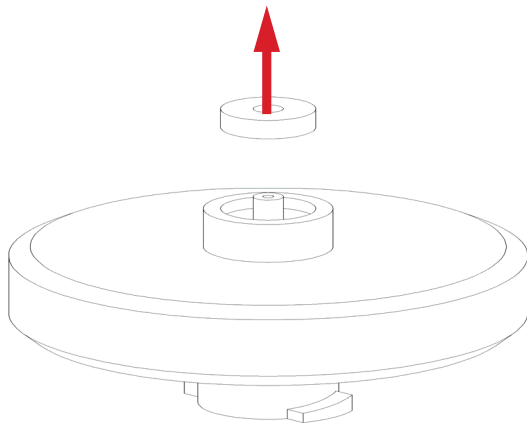
- 5** Put the mounting ring and the syringe adapter back in. Move the ring to the right in order to fix the syringe adapter.



2. Seal Test - (see page 5) - If Seal Test fails

A failed seal test indicates the gasket must be replaced

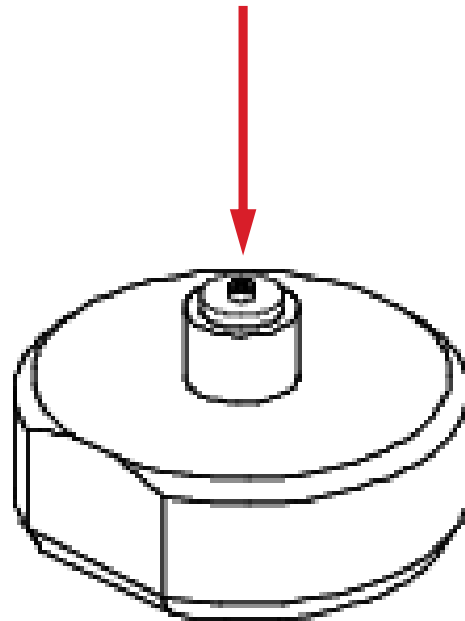
- 1** Use a needle to pull out the silicon gasket.



NOTE

Avoid scratching the plastic adapter when removing the silicon gasket.

- 2** Insert new gasket and gently push into place.



- 3** Apply the seal test as described in "Checking the Chip Priming Station for Good Seal" on page 5.



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