

Control Line Fluid Loading Procedure

IMPORTANT Read and understand the safety data sheet (PN 100-7227) before using this quick reference.

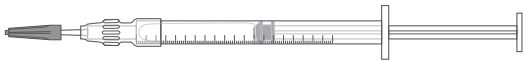
Control Line Fluid syringes are prefilled according to a specific IFC (integrated fluidic circuit) type.

IFC Types	Number of Syringes	Volume per Syringe (µL)
<ul style="list-style-type: none"> 48.48 Dynamic Array™ (GE or GT) LP 48.48 Access Array™ 48.48 12.675 Digital Array™ 48.770 Digital Array qdPCR 37K™ 	2	300
<ul style="list-style-type: none"> 96.96 Dynamic Array Flex Six™ (GE or GT) Juno™ LP 192.24 	2	150
<ul style="list-style-type: none"> Juno 96.96 (GT)* 	4	150
<ul style="list-style-type: none"> 192.24 Dynamic Array (GE or GT) 24.192 Dynamic Array (GE) 	1	150

* Two syringes are needed to fill the accumulators; the other two syringes are for filling reservoirs (see the Genotyping with Juno Getting Started Guide [PN 100-7074] for instructions).

- 1 Remove syringes from packaging.

IMPORTANT Do not evacuate air from the syringes prior to injecting Control Line Fluid (Step 4).



- 2 Actuate the check valves:

- Place the IFC on a flat surface.
- Use the syringe with the shipping cap in place to actuate both check valves of the IFC with gentle pressure. Ensure that the poppets can move freely up and down (Figure 1).

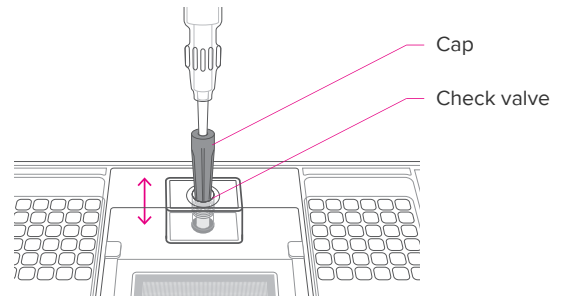


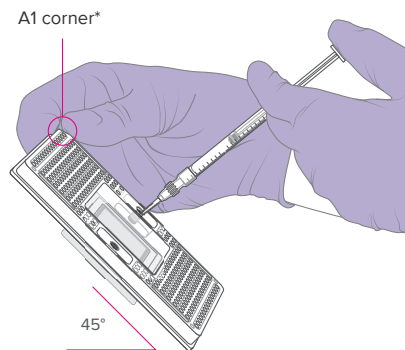
Figure 1. Actuating the check valve (96.96 IFC shown)

- Hold the syringe firmly in one hand with tip facing up and away from the IFC and remove the shipping cap with the other hand.
- Holding the IFC at a 45° angle, insert the syringe tip into an accumulator (Figure 2).

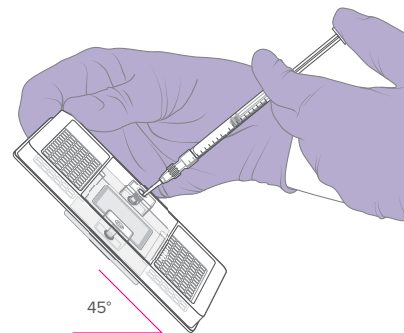
IMPORTANT

- Avoid bending the syringe tip. Be careful when removing the syringe cap to prevent drips.
- Avoid getting Control Line Fluid on the exterior of the IFC or in the inlets because this makes the IFC unusable. If this occurs, use a new IFC.

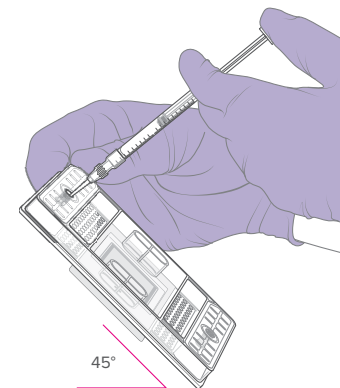
2A. 192.24 and 24.192 IFCs



2B. 96.96 and Flex Six IFCs



2C. 48.48, qdPCR 37K, and Digital Array IFCs



* Note the orientation of the A1 corner for the 192.24 and 24.192 Dynamic Array IFCs.

LP 48.48 IFC shown

Figure 2. Inserting the syringe into the accumulator

- **5** For **192.24** and **24.192 IFCs**: Use the syringe tip to press down gently on the black O-ring to move it (Figure 3A).
For all other IFCs: Insert the syringe tip into one of the holes in the “X” at the top of the valve and then press down gently to move the black O-ring to the side (Figures 3B and 3C).
 Visually confirm that the O-ring has moved.
- **6** Release the Control Line Fluid:
 - a Press the syringe plunger to release the Control Line Fluid into the accumulator while maintaining the 45° angle to allow the fluid to flow away from the O-ring.
 - b Slowly inject the Control Line Fluid by pushing down on the syringe plunger. The Control Line Fluid will flow into the accumulator through the open check valve.
 - c After fully depressing the plunger, wait approximately 5 sec before withdrawing the syringe.
- **7** Check to ensure the O-ring returns to its normal position after the syringe is removed.
- **8** Follow the instructions in the protocol to either prime the IFC on the IFC controller or Juno, or pipet additional reagents into the IFC reservoirs.

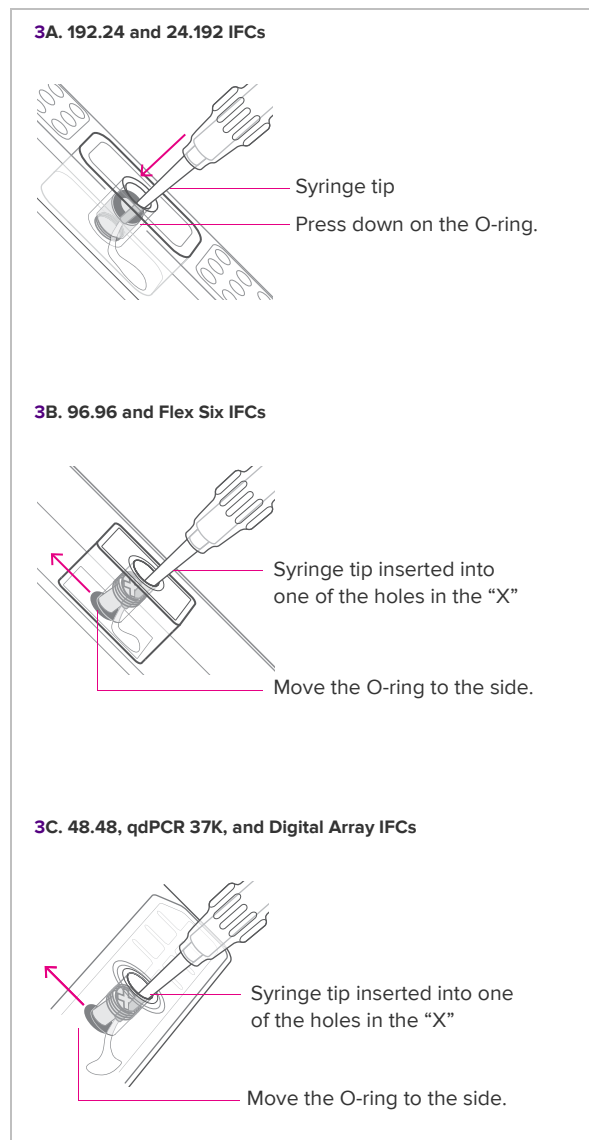


Figure 3. Injecting Control Line Fluid into the IFC

For technical support visit fluidigm.com/support.

North America +1 650 266 6100 | Toll-free: 866 358 4354 in the US | techsupport@fluidigm.com Latin America +1 650 266 6100 | techsupportlatam@fluidigm.com
 Europe/Middle East/Africa/Russia +44 1223 598100 | techsupporteurope@fluidigm.com China (excluding Hong Kong) +86 21 3255 8368 | techsupportchina@fluidigm.com
 Japan +81 3 3662 2150 | techsupportjapan@fluidigm.com All other Asian countries/India/Australia +1 650 266 6100 | techsupportasia@fluidigm.com

For Research Use Only. Not for use in diagnostic procedures.

Information in this publication is subject to change without notice. Patent and license information: fluidigm.com/legalnotices. Trademarks: Fluidigm, the Fluidigm logo, Access Array, Digital Array, Dynamic Array, Flex Six, Juno, and qdPCR 37K are trademarks or registered trademarks of Fluidigm Corporation in the United States and/or other countries. © 2018 Fluidigm Corporation. All rights reserved. 06/2018