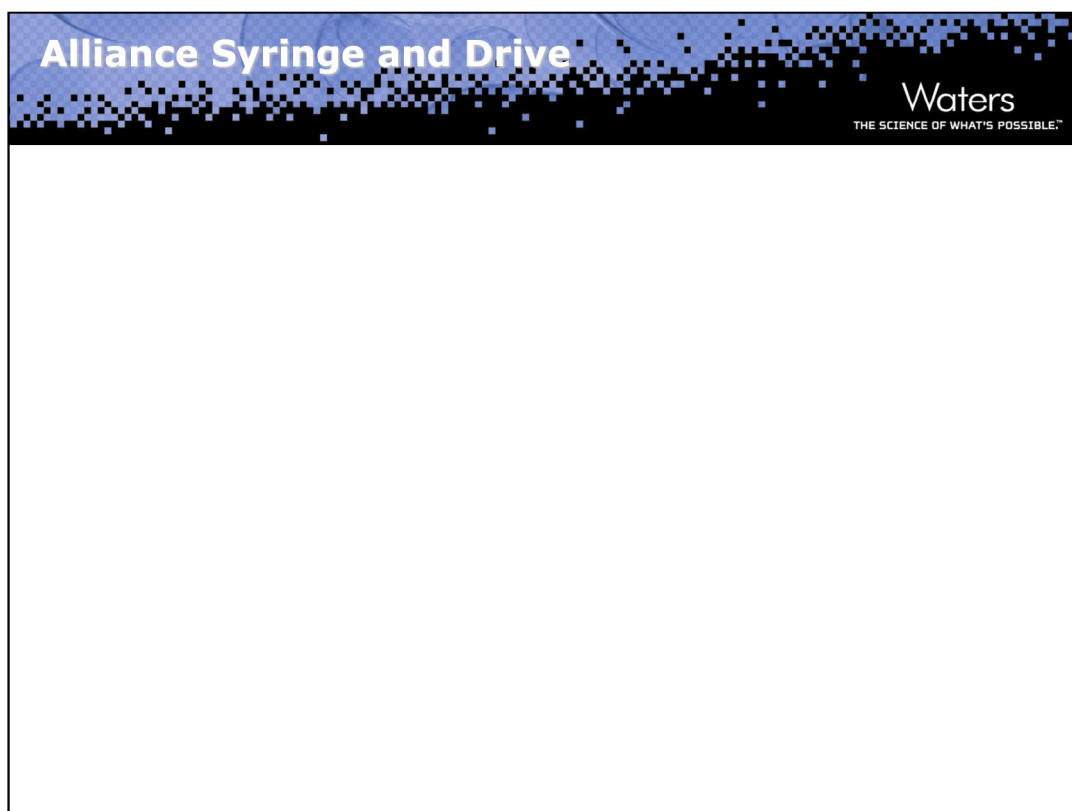




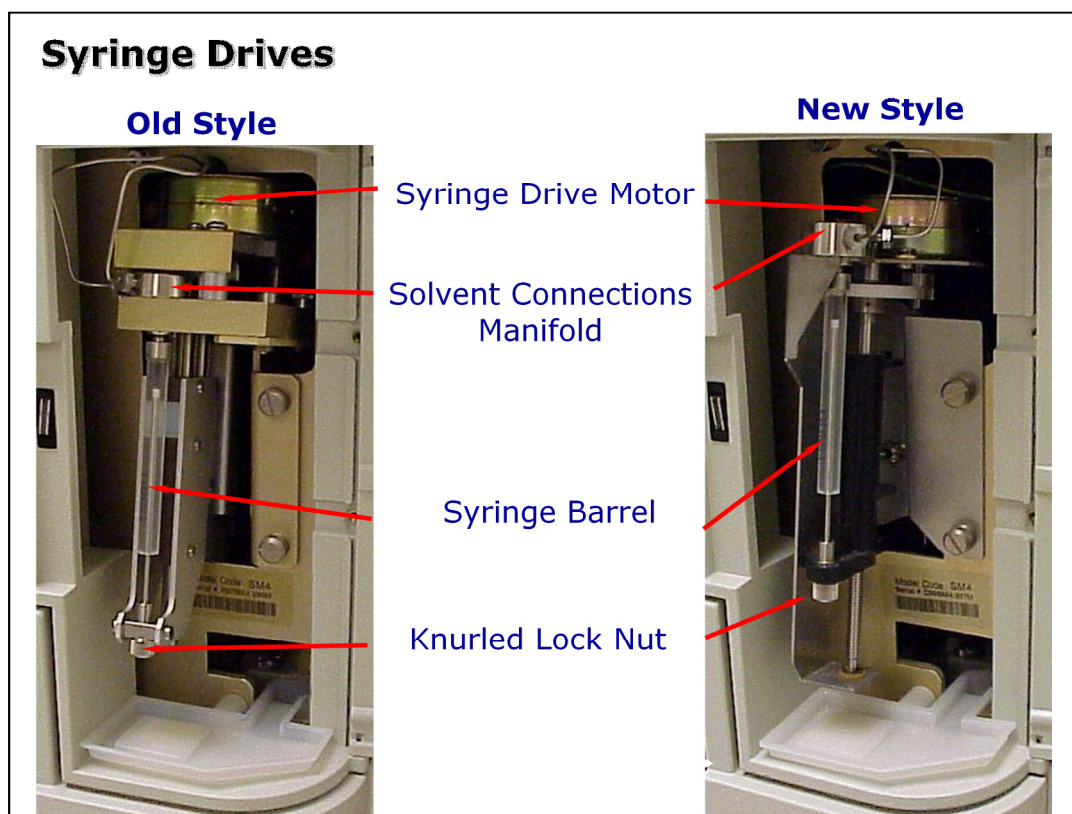
Syringe & Drive

- This section covers:
 - Syringe sizes
 - Old vs. new syringe drive assemblies
 - How to replace the syringe

Syringes**Syringe size options and specifications**

Syringe Size (μL)	No. Steps per μL	Minimum Sample Size (μL)	Minimum Draw Rate (μL/sec)	Nominal Draw Rate (μL/sec)	Maximum Draw Rate (μL/sec)
25	270	0.1	0.1	0.25	0.5
250	27	1.0	1.0	2.5	5
2500	2.7	10.0	10.0	25.0	50.0

- Syringe size is set on the CONFIG page.
- Draw rate is set on page 2 of the Separations Method editor on the 2690/5 or in the Instrument Method editor in Millennium32 or Empower.



- There are two versions of the syringe drive. They are interchangeable.

Replacing the Syringe



- Set the flow to 0 ml/min
- Remove the knurled lock nut that holds the plunger to the syringe guide mounting bracket.

"Fill" the Syringe**Motors and Valves**

<Default>

Diag:Start Diagnostic

Flow: 0.000 mL/min	System: 0 psi	Sample: -1 psi
Needle Position: Stream 0	Valves: V1 ☐ ☐ V2 ☐ ☐ V3 ☐ ☐ V4 ☐ ☐	Needle Wash Pump: ☐
Empty 0		
Home 0		
Full 0		
Solvent A 0		
		Normal States Pulse SealWsh

- From the Main Menu:
- Press the Diag key,
- Press the Other Tests key,
- Press the Motors and Valves key
 - Open Valve 3
 - Select Syringe Position: Full
- The syringe guide bracket will move down, the plunger will not move since the knurled knob has been removed.

Remove the Old Syringe



- Unscrew the syringe from the mounting block.

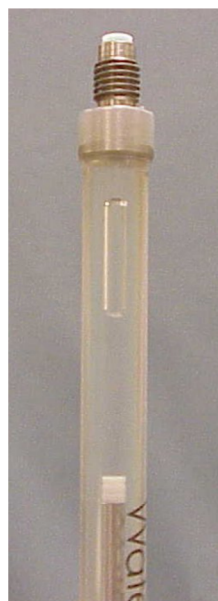
Install the New Plunger



- Wet the plunger tip in mobile phase.
- Insert the plunger into the barrel of the syringe.

Note: Do not push the plunger all the way into the syringe body. Doing so may push the end seal out of the syringe, damaging the device.

Prime the Syringe



- Draw some mobile phase into the syringe.
- Remove the air from the syringe so the plunger tip is wet and any air bubbles are at least 1/2 inch (1cm) above the plunger tip.

Install the New Syringe



- Screw the syringe into the mounting block, but do not tighten it yet.
- Slide the plunger down until the threaded end is through the guide bracket.
- Tighten the syringe finger tight.

Move the Syringe to EMPTY

Motors and Valves

<Default>

Diag:Start Diagnostics

Flow:	System:	Sample:
0.000 mL/min	0 psi	-1 psi
Needle Position:	Valves:	Needle Wash Pump:
Stream 0	V1	☐
Empty 0	V2	
Home 0	V3	
Full 0	V4	
Solvent A 0		
	Normal States	Pulse Seal/Wash

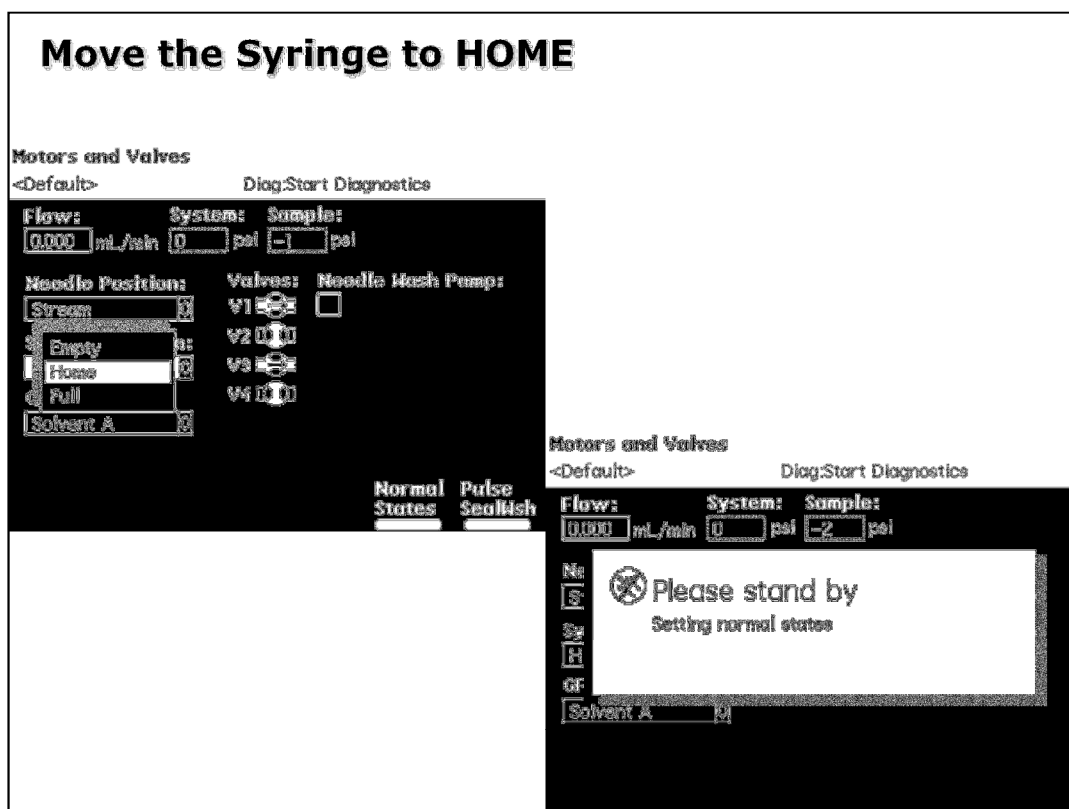
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- Select Syringe Position: Empty.
- The syringe will move to the top position expelling the air from the top of the syringe.

Install the Knurled Knob



- Place and tighten the knurled knob on the threaded end of the plunger.



- Select Syringe Position: HOME
- The syringe will move down to its home position.
- Press Normal States, the instrument will re-initialize all the valves.
- Go to the Status page, press Direct Function.
- Run a purge with compression check to verify the syringe has been installed properly.