Instructions
High Mount
GX-271 Prep Fraction Collection Package
(Part Number 26047004)

The GX-271 Prep Fraction Collection Package includes items needed to install and plumb the high mount prep fraction collection valve on the GX-271 Liquid Handler. Refer to the following pages for information about how to install the valve, make the connections, and use Tasks in TRILUTION® LC Software v2.1 or higher with the valve.

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Components of the Package

Refer to the table below for a listing of parts supplied in the package.

Part Number	Description		
26047004	High Mount GX-271 Prep Fraction Collection Package		
	Part Number	**Description**	
	54097100	SPRING CLIP 1"DIA ¾" LONG	
	260461130	VALVE ASSY, 3-WAY GX271 HI MNT 200 ML/MIN Maximum flow rate when using this package is 150 mL/min.	
	4013534059	SCR, SHC M3x5MM SST	
	4214530313	M3 X 8MM X .8MM SS FLAT WASHER	
	4320252	ALLEN WRENCH, 2.5MM	
	26047210	PLUMBING PKG, FC VALVE GX271 HI MNT PREP	
		Part Number	**Description**
		26047025	TUBING, TEE-PROBE 1/8" GX-27X HI MNT FC
		26047028	PEEK TEE, .050" ID GX-271 HI MNT FC
		490032	TUBING, PTFE, .063 ID x .125 OD
		49041011	FERRULE, 1/16", RED (P-200R)
		49041012	NUT, 1/16", BLACK (P-201)
		49041015	FERRULE, FLANGELESS, 1/8", TEFZEL(P-300)
		49041016	NUT, ¼-28 X 1/8, DELRIN (P-304)
		49934059	.040" SS TUBE 5CM/NO FITTINGS
		470504001	TEFLON TUBING .040" ID X .062" OD NATURAL
		54118025	SPIRAL WRAP, ¼"
		F1410050	COUPLINGS, 200-16, 5/EA

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Installation

Refer to the following procedures and diagram below when installing the valve.

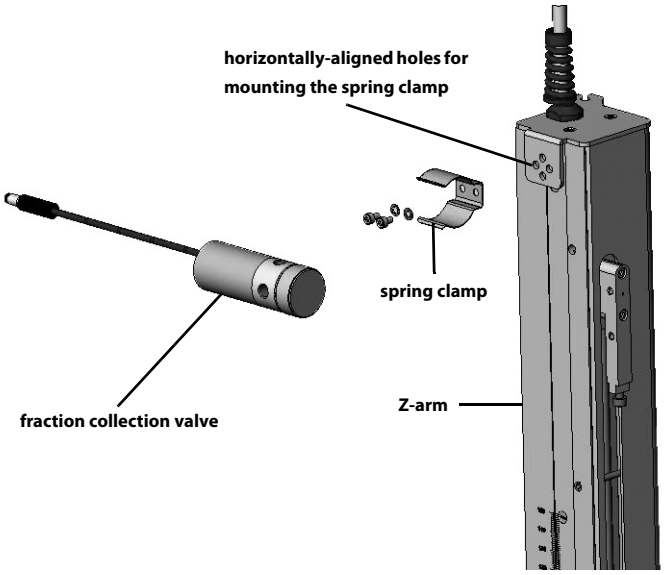
1 Locate the valve, spring clamp, screws, and washers in the package.

2 Place one washer on each screw and each screw into the spring clamp.

3 Screw the spring clamp into the mounting plate on the Z-arm using the horizontally-aligned holes.

4 Snap the valve into the spring clamp with the ports to the front.

5 Connect the cable from the valve to the FC VALVE port on the side of the Z-arm.

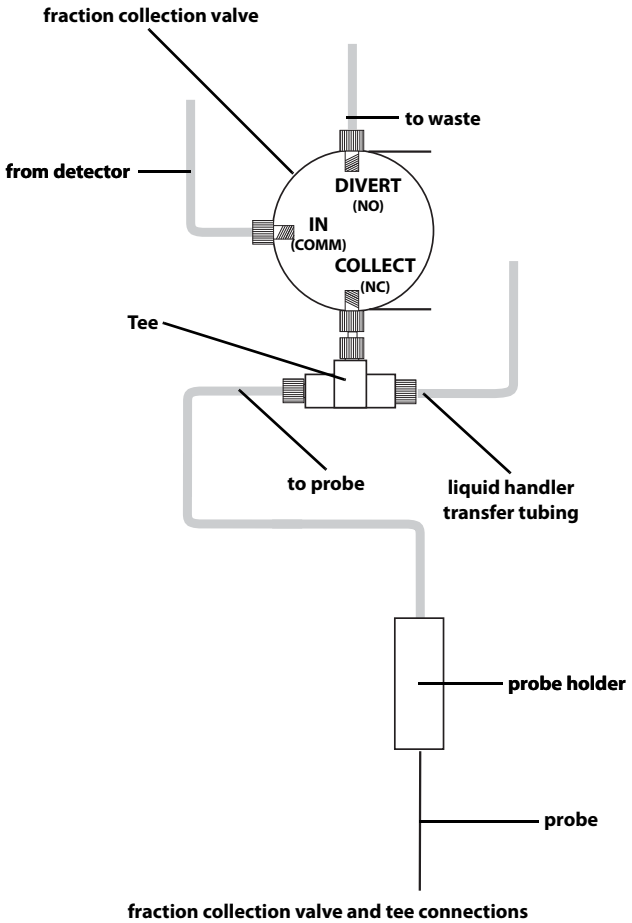


orientation of spring clamp and fraction collection valve on Z-arm

Plumbing Connections

Plumb the system by referring to the table and diagram below.

FC Valve/Tee	Tubing	Connections	Diagram
INLET COMM (Common) port from detector	0.040" ID Teflon tubing (part number 470505001), 10 FT	Use an Upchurch P-201 nut (black, 1/16", part number 49041012) and P-200R ferrule (red, 1/16", part number 49041011) to connect the tubing to the IN port.	
DIVERT NO (Normally Open) port to waste	1.5 mm ID TFE tubing (part number 490032), 15 FT	Use an Upchurch P-304 nut (1/8", 1/4-28, part number 49041016) and P-300 ferrule (1/8", part number 49041015) to connect the tubing to the NO port.	
COLLECT NC (Normally Closed) port to tee	0.040" ID stainless steel tubing (part number 49934059), 5 cm	Use an Upchurch P-201 nut (black, 1/16", part number 49041012) and P-200R ferrule (red, 1/16", part number 49041011) to connect the tubing to the NC port. On the tee end, use the fitting supplied with the tee. When you install the fittings on the tubing, the fittings touch each other, and it appears that the piece of tubing is too short. However, once each fitting is tightened into the tee or valve, the fittings no longer touch.	
One side of tee to probe	TUBING, TEE-PROBE 1/8" GX-27X HI MNT FC (part number 26047025)	Connect one end to the TEE and the other end to the probe.	
One side of tee to transfer tubing	Transfer tubing ordered and supplied with the liquid handler	Connect one end to the TEE and the other end to port B on the GX Solvent System or the outlet on the syringe pump.	



fraction collection valve and tee connections

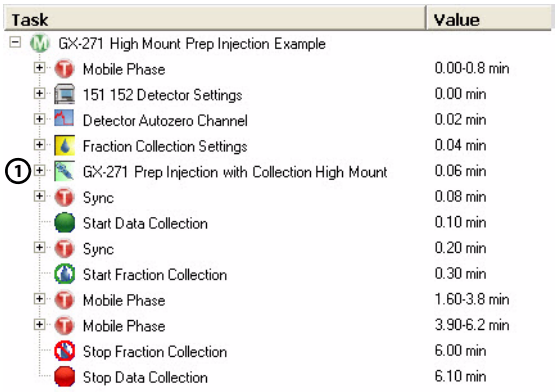
Injection and High Mount Fraction Collection Methods for TRILUTION® LC Software

The following tasks for prep applications using the high mount prep fraction collection valve were introduced in TRILUTION® LC Software v2.1:

	Gilson Task Name and Description
	GX-271 Prep Injection with Collection High Mount This Task is used when doing injection and fraction collection on the same bed when the Pump is a GX Solvent System. It rinses the probe and then it performs a partial loop injection using a push volume from the reservoir to push the injection volume into the sample loop. It includes a rinse of the fraction collection valve for a user-defined duration after the injection.
	High Mount Fraction Collection Valve Flush This Task rinses the fraction collection valve and probe for a user-specified duration.
	Prep Injection with Collection High Mount This Task is used when doing injection and fraction collection on the same bed when the Pump is a 402 Syringe Pump. It rinses the probe and then it performs a partial loop injection using a push volume from the reservoir to push the injection volume into the sample loop. It includes a rinse of the fraction collection valve for a user-defined duration after the injection.

The maximum flow rate when using the GX-271 Prep Fraction Collection Package is 150 mL/min.

The example below illustrates how to set up a method using the supplied prep injection and collection high mount tasks.

①	The GX-271 Prep Injection with Collection High Mount task (GX Solvent System) and the Prep Injection with Collection High Mount (syringe pump) task perform a partial loop injection. These tasks incorporate a probe rinse before injection and a valve flush after the injection. To perform a different type of injection, set up the Method according to the high mount universal injection example on the next page.	**Method** 

The example below illustrates one way to set up a partial or total loop injection method using a high mount fraction collection valve.

①	The GX Inside Rinse (for GX Solvent System) or Inside Rinse (for syringe pump) task moves to the rinse station and then clears the probe of mobile phase after fractions have been collected. Optionally, designate a variable for the Rinse Volume and then use a value of 0 for the first injection step in the run.
②	The first Sync task waits for the GX Inside Rinse or Inside Rinse task to finish before beginning the injection task.
③	The High Mount Fraction Collection Valve Flush task clears the probe of reservoir solvent after the injection.
④	The fourth Sync task waits for the High Mount Fraction Collection Valve Flush task to finish before starting fraction collection.

Method