

Instructions for Shimadzu QP 2010 SilTite FingerTite® kit

Suitable for Shimadzu GCMS - QP2010.

Introduction



The SilTite FingerTite® fittings system will allow you to install and remove a column without using a wrench. The SilTite FingerTite system is designed to be self installed, the instructions below are written in easy to follow steps.

Packing list

- 1 x Injection port adapter assembly
- 1 x MS port adapter assembly
- 5 x SilTite FingerTite nuts female
- 10 x 0.4 mm, SilTite FingerTite ferrules
- 1 x Ferrule install tool

Instructions

Injector adapter installation

This procedure is no different than cleaning the inlet or replacing the seal or base plate. Do not lose any of the items that are replaced.

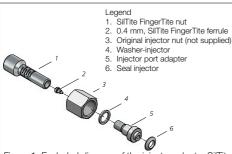


Figure 1. Exploded diagram of the injector adapter SilTite FingerTite assembly.

- 1. Cool the inlet and shutdown the mass spectrometer.
- Remove the column and column nut (if attached). When the inlet is cool remove the septum nut, septum and inlet liner/sealing ring. This is a good time to clean the inlet.

- 3. Remove the thermal insulator from the injector.
- Unscrew the large nut assembly at the base of the injector, turn anticlockwise. Remove capillary adapter assembly. Retain these original parts.

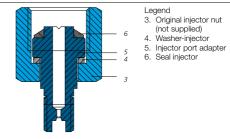


Figure 2. Image of the Injector showing the SilTite FingerTite injector adapter assembly.

- 5. Locate the SilTite FingerTite injection port adapter (5), washer (4) and seal (6) and assemble as displayed in the Figure 2. Insert the Injection port adapter (5) into the base of the injector and tighten the nut (3) clockwise until the fitting is firm.
- 6. Replace the thermal insulator
- 7. We recommend reassembling the inlet with a clean inlet liner, new sealing ring and new septum.

MS adapter installation

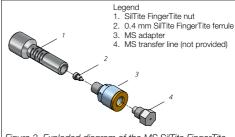
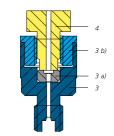


Figure 3. Exploded diagram of the MS SilTite FingerTite assembly.

- Make sure the transfer line temperature is cool before you proceed.
- Locate the adapter MS interface (3) and ensure that the seal (3a) is in place. The seal is pre-assembled but may have come loose during transit.
- 3. Using your fingers, screw the adapter MS interface (3) (brass end – 3b) onto the transfer line until it stops. Using a wrench tighten a further 30° to ensure a good seal. Do not attempt to tighten further as this may damage the mass spectrometer interface.



Legend

- MS adapter
 a) Transfer line seal
 b) Brass insert
- Transfer line connector (not provided)

Figure 4. Image of the MS detector interface showing the SilTite FingerTite adapter assembly.

Column installation





Figure 5. Image of SilTite FingerTite Install tool.

- Slide a SilTite FingerTite nut (1) onto the tubing first, followed by a SilTite FingerTite ferrule (2). The flat base of the ferrule aligns with the nut and the cone points to the MS transfer line or injector.
- 2. Using the SilTite FingerTite ferrule install tool displayed in Figure 5, push approximately 20 mm more tubing than required through the ferrule install tool. Tighten the nut, using your fingers only to seat the ferrule onto the column there is no need to use excessive force, once the seal is made the tubing will be held firm and will not move. The distances for column insertion into the injector are in Table 1 and are calculated from where the cone of the ferrule has collapsed onto the capillary column. For ease of use we recommend using the column fitting jig supplied with the instrument (Shimadzu PN 225-11657-09) to accurately cut the capillary tubing.

- 3. For MS installation screw the additional MS adapter (3) onto the column fitting jig (Shimadzu PN 225-11657-08) supplied with the instrument. With the MS adapter added to the fitting jig it will be the correct length for the modified transfer line. Using the modified column fitting jig, push the tube approximately 10 mm past the end of the tool. Tighten the nut, using your fingers only to seat the ferrule onto the column. Cut the column flush with the end of the column fitting jig. The column can now be inserted into the MS interface.
- 4. Insert the pre-assembled nut and ferrule into the injector/MS interface and screw in the nut using finger force only again, there is no need to use excessive force to make a seal. You cannot break the capillary column if you over tighten the ferrule although an over tightened ferrule may stick to the cone of the adapter. To remove an over tightened ferrule we simply recommend gently levering between the shoulder of the ferrule and the relevant adapter. Under no circumstances are wrenches or pliers to be used on these fittings.

Injector/Detector	Distance (mm)
Split/Splitless QP - 2010	40.0

Table. 1 Column measurements for correct assembly.

Information and support

Visit www.trajanscimed.com or contact techsupport@trajanscimed.com

Specifications are subject to change without notice.