

SHIMADZU GC 2010 SilTite™ FingerTite KIT Installation Instructions - PN 073620

Congratulations you have purchased the latest innovation in GC capillary column connections by SGE Analytical Science. The SilTite™ FingerTite fittings system enables you to install and remove a column without using a wrench and is designed to be self installed using this installation manual.

This kit contains the parts for GC-2010 Gas Chromatograph

KIT CONTENTS

- 1 x Injection Port Adapter assembly
- 1 x FID Port Adapter assembly
- 5 x SilTite™ FingerTite nuts - Female Re-order P/N 073636
- 10 x 0.4 mm, SilTite™ FingerTite ferrules Re-order P/N 073630
(Reorder P/N 073631 pk 10 for 0.5 mm ferrules)
- 1 x Ferrule install tool



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.

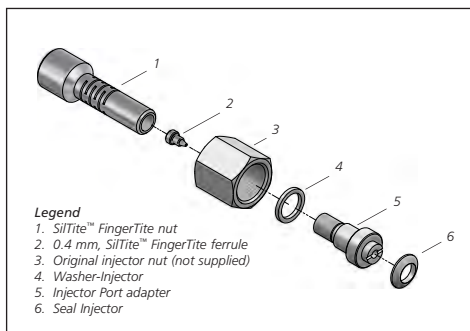


Figure 1. Exploded diagram of the Injector Adapter SilTite™ FingerTite assembly

1. Cool the inlet and FID.
2. 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
4. Unscrew the large nut assembly at the base of the injector, turn anticlockwise. Remove capillary adapter assembly. Retain these original parts.

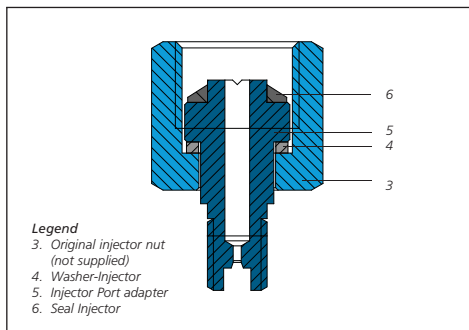


Figure 2. Image of the Injector showing the SilTite™ FingerTite injector adapter assembly

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 (SGE P/N 495105).

Install Detector Adapter

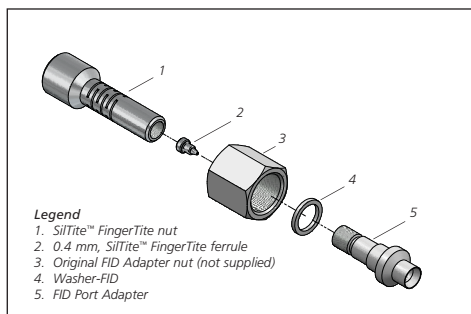


Figure 3. Exploded diagram of the FID detector SilTite™ FingerTite assembly.

1. Ensure the FID nut assembly is cool.
2. Remove the column and column nut (if attached)
3. Unscrew the large nut assembly at the base of the detector, turn anticlockwise. Remove the capillary assembly. Retain these original parts.
4. Locate the Adapter FID (5), washer (4), the original nut (3) and assemble as displayed in Figure 4. Insert the Adapter FID into the base of the detector and tighten the nut clockwise until the fitting is firm.

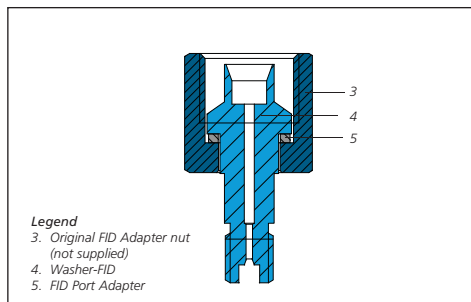


Figure 4. Image of the FID detector showing the SilTite™ FingerTite FID adapter assembly

Column Installation



Figure 5. SilTite™ FingerTite ferrule install tool

1. First, slide a SilTite™ FingerTite nut onto the tubing, followed by a SilTite™ FingerTite ferrule. The flat base of the ferrule aligns with the nut and the cone points to the detector or injector.
2. Using the SilTite™ FingerTite ferrule install tool displayed in Figure 5, push approximately 20 mm more tubing than required through the crimping tool (for the recommended distance see Table 1.). 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. Use a rule to mark the column insertion distance, then cut the column. The distances for column insertion into the injector and detector are in Table 1 and are calculated from where the cone of the ferrule has collapsed onto the capillary column. For ease of installation into the injector we recommend using the column fitting jig supplied with the instrument (Shimadzu PN 225-11657-09) to accurately cut the capillary tubing.
3. Insert the pre assembled nut and ferrule into the injector/detector port 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 (please refer to SGE's web site <http://www.sge.com/siltitefingerite> for the recommended method of removing an over tightened SilTite™ FingerTite ferrule). Under no circumstances are wrenches or pliers to be used on these fittings.

Injector/Detector	Distance mm
Split/Splitless GC - 2010	40.0 mm
FID GC - 2010	70.5 mm

Table 1. Column measurements for correct assembly

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