

# AGILENT MS SilTite™ FingerTite KIT

## Installation Instructions - PN 073612

*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.*

*Suitable for the following Gas Chromatographs: HP5890 Series I and II; Agilent/HP 6890 Agilent 7890; Agilent 6850*

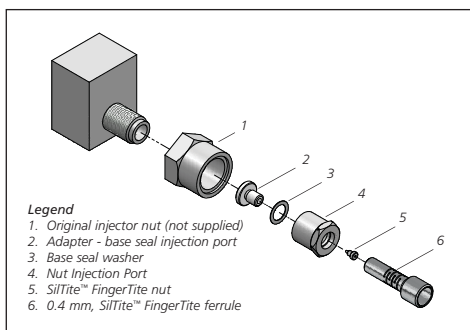
### KIT CONTENTS

- 1 x Adapter Base Seal Injection Port
- 1 x Nut injector port
- 2 x Adapter MS
- 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



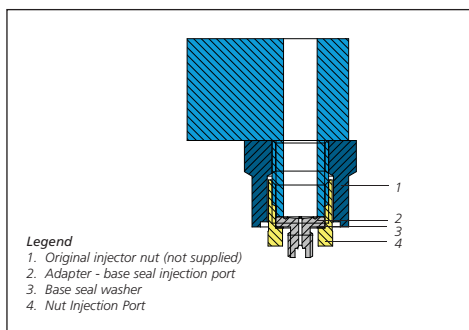
### Injector Adapter Installation

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 SilTite™ FingerTite Injection Port assembly**

1. Cool the inlet and shutdown the mass spectrometer.
2. Remove the column and column nut (if attached). When the inlet is cool remove the septum nut, septum and inlet liner/O-ring. This is a good time to clean the inlet.
3. Remove the thermal insulator from the injector
4. Unscrew the large nut (1) assembly at the base of the injector, turn anticlockwise. Remove the base injector seal and nut assembly. Retain these original parts.
5. From the SilTite™ FingerTite kit, locate the base seal injection



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

- port adapter (2), the base seal washer (3) the injection port nut (4) and assemble as displayed in the Figure 2.
6. Insert the base seal injection port adapter (2) and base seal washer (3) into the base of the injector and tighten with the injection port nut (4) clockwise until firm. Replace the original injector nut (1). Replace the thermal insulator
7. We recommend reassembling the inlet with a clean inlet liner, a deactivated base seal, new O-ring and new septum (SGE P/N 495100).

## Install MS Adapter

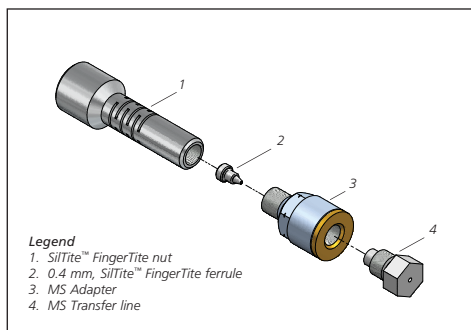


Figure 3. Image of the detector showing the lower nut assembly

1. Make sure the transfer line temperature is cool before you proceed.
2. 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 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.

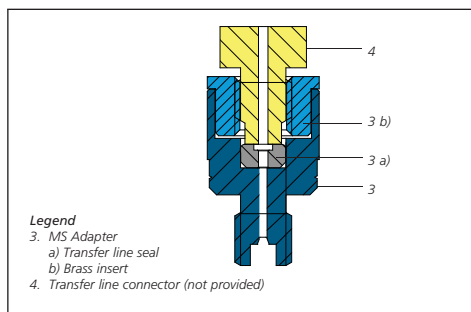


Figure 4. Exploded diagram of the MS SiTite™ FingerTite assembly.

## Column Installation



Figure 5. SiTite™ FingerTite ferrule install tool

1. Slide a SiTite™ FingerTite nut (1) onto the tubing first, followed by a SiTite™ 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 SiTite™ FingerTite ferrule install tool displayed in Figure 5, push approximately 20 mm more tubing than required through the 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. Use a rule to mark the column insertion distance, then cut the column. The distances for column insertion into the Agilent injector are in Table 1 and are calculated from the back of the ferrule.
3. For MS installation screw the additional MS adapter (3) onto the column installation tool (G1099-20030) supplied with the instrument. With the MS Adapter added to the gauge tool it will be the correct length for the modified transfer line. Using the modified column installation tool, push the tube approximately 2 mm past the end of the tool. Tighten the nut, using your fingers only to seat the ferrule onto the column. Alternatively follow the manufactures instructions for column insertion without the column installation tool, found in the MDS hardware guide.
4. Insert the pre assembled nut and ferrule into the injector and mass spectrometer 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/silititefingerferrule> for the recommended method of removing an over tightened SiTite™ FingerTite ferrule). Under no circumstances are wrenches or pliers to be used on these fittings.

Injector/Detector	Distance mm
Split/Splitless Injector	7.5 - 9.5 mm

Table. 1 Column measurements for correct assembly

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