

Instruction Manual

■ Introduction

Shim-pack IC-GC4 is a guard column exclusively used in combination with Shim-pack IC-C4.

Refer to the Instruction Manual of the Shim-pack IC-C4 when you use this guard column.

■ Specifications

Item	Contents
Type	PEEK® cartridge
Packing Material	Cation exchange polymethacrylate gel
Particle size	7 μm
Column dimension	3 mm <i>i.d.</i> × 8 mm
Maximum operating pressure	8 MPa
Maximum operating flow rate	1.2 mL/min (1.0 mL/min recommended)
Maximum operating temperature	40°C

■ Column Installation

The IC-GC4 is a cartridge type column which consists of three parts as shown below.

- 1) Insert Cartridge (1) into Holder (2).
- 2) Attach the Holder (3) to align the cartridge then tighten by hand with a wrench.
- 3) The inlet side of the holder should be connected to the sample injector with PEEK® male nuts.
- 4) Pump 1 mL of mobile phase at 1.0 mL/min through the column to flush fill solvent from the cartridge.
- 5) Connect the outlet side of the holder to the column using a short length of 1/16" low-volume tubing.
- 6) Begin operation and inspect all connections for leaks. If a leak is observed at the IC-GC4, tighten the Holders (2) and (3) about 30° further with two wrenches. If this does not stop the leakage, tighten the holders 30° further again.

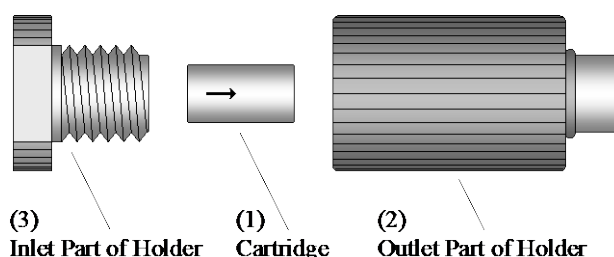


Fig.1 : Guard Column Assembly

- The column is connected with PEEK® male nuts. Ensure that the fittings are connected properly to avoid creating dead volume between the tubing and the column interface. The product name and the part number of the PEEK® male nut is as follows.

Item Name	P/N	Comments
Male Nut PEEK	228-18565-84	5/pkg

- Tubing connections to the guard column must be PEEK®, 0.25 mm *i.d.* and 1.6 mm *o.d.*. Use the shortest possible tubing connection from the injector to the column and from the column to the Shim-pack IC-C4 to minimize peak broadening.

■ Column Storage

When removing the column from the system for long-term storage, take off the cartridge from the holder and store it in the attachment case.

■ Technical Support

It is the customer's responsibility to develop and validate analytical conditions for a particular application. However, Shimadzu offers technical support by e-mail and phone for hardware and column questions.

Write specific questions to analytic@group.shimadzu.co.jp or call your local Shimadzu representative.