

## High Performance Packed Column for HPLC

Shim-pack

# Scepter Guard column

## INSTRUCTION MANUAL

### ■ Introduction

Shim-pack Scepter Guard is cartridge-type guard column filled with high pressure packing materials. Please read the following instructions before use.

### ■ Specifications

The product specifications of this product are as follows.

Products name	Chemical bonding group
Shim-pack Scepter C18 Shim-pack Scepter HD-C18	Octadecyl group (C18)
Shim-pack Scepter C8	Octyl group (C8)
Shim-pack Scepter Phenyl	Phenyl group
Shim-pack Scepter PFPF	Pentafluorophenyl group
Shim-pack Scepter Diol-HILIC	Dihydroxypropyl group

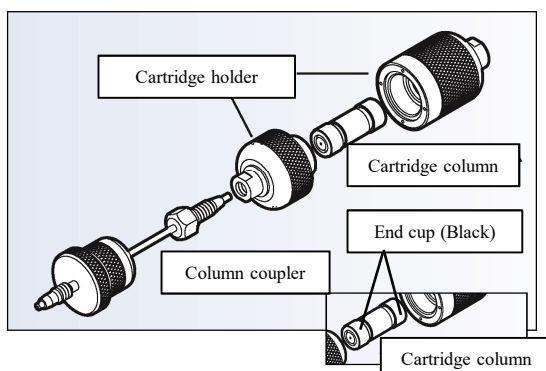
### ■ Operating Precautions

Check if anything is missing or damaged. If there are any signs of damage, notify your local Shimadzu representative at once.

### ■ Installing the column

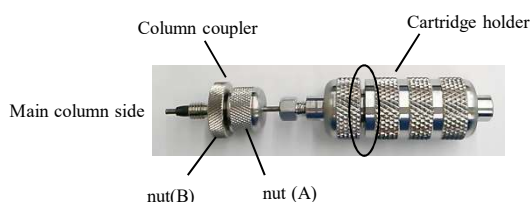
Please take care of the following when installing column.

- The guard column is composed of the cartridge column, the cartridge holder, and the column coupler.
- The cartridge column can be replaced by hand.
- Do not remove the black end caps at both ends of the cartridge column.
- The cartridge holder can be used repeatedly. Replace the cartridge column when the column is degraded.
- The cartridge holder and the column coupler can be removed with a wrench (1/4 inch).



### ■ Use method

- 1) Loosen the cartridge holder by hand and place the cartridge column into the cartridge holder.
- 2) Tighten the cartridge holder by hand. As required, tighten by wrench (1/4 in.) approximately 30° after by hand. At this time, it is normal that there is a little gap between the cartridge holders (figure below). Tightening more than required may cause damage.
- 3) Loosen nut (A) by hand.
- 4) Insert the tip of the column coupler so that there is no gap between the column coupler and the main column, and tighten the adjustment nut (B) by hand.
- 5) Tighten the nut (A) by hand.



### ■ Safety Guideline

Select the cartridge columns whose functional groups are basically the same as those of the main column.

Select the cartridge holder according to the length of the cartridge column. Use cartridge holder Set for Length 10 mm/ 20 mm.

If the cartridge column are attached and detached repeatedly, the airtightness may be lost, and fluid may leak.

The connect direction of the cartridge column is not restricted. But the cartridge column used once does not change the flow direction. If the direction is changed, the insoluble material adsorbed at the inlet of the cartridge column may flow into the main column.

The timing of replacement of the cartridge column should be determined by increase of pressure, change of peak shapes and separations, etc.

If you inject a large amount of sample much repeatedly, it may cause impurities to adsorb to the main column. Therefore, it may cause the main column deterioration. It is recommended to replace the cartridge column soon if it is needed.