

Waters Sentry™ 2.1 x 10 mm Guard Column and Guard Holder Instruction Sheet

1 Introduction

Waters Sentry™ Guard Columns protect your 2.1 mm analytical column or cartridge column from particulate and chemical contamination.

These high efficiency guard columns are slurry packed with the same materials as Waters 2.1 mm columns and cartridges.

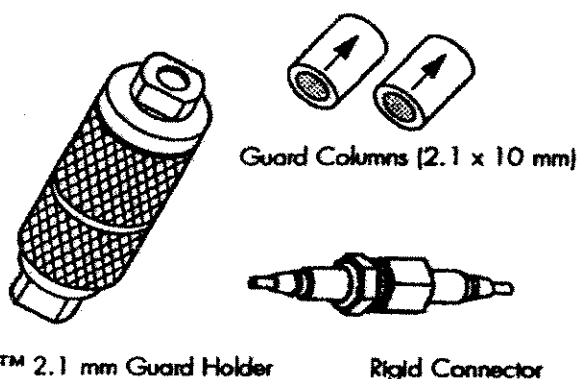


Figure 1: Guard Holder Kit and Guard Column

2 Specifications

Waters Sentry™ 2.1 x10 mm Guard Column Specificati

Pressure limit	40 MPa (400 Atm, 6000 psi)
Temperature limit	80 °C
Dead Volume of Guard Column Holder Assembly	0.35 µl.

3 Installing and Replacing the Guard Column

Install the Sentry™ 2.1 mm Guard Holder onto your HPLC system between the injector and the column using the Rigid Connector. Use 0.005-inch (0.14mm) I.D. tubing for all connections.

Installing and replacing the guard column: (see Figure 2)

1. Unscrew the two halves of the holder.
2. Remove the old guard column, if present.
3. Install the new guard column, noting the flow arrow direction on the guard column. This should match the flow arrow direction on the analytical column.
4. Reassemble the holder. Hand-tighten only.
5. Equilibrate the analytical column and guard column with five column volumes of mobile phase. While equilibrating, check the holder and all connections for leaks.

4 When to Replace the Guard Column

Replace guard columns before contaminants affect the performance of your analytical column.

For best results, replace the guard column when:

- the quality of your separation deteriorates.
- the initial backpressure increases significantly (more than 20 percent).
- contaminant peaks appear in the chromatogram.



Figure 2: Sentry™ 2.1 mm Guard Column, Holder, and Rigid Connector
Expanded View

6 Troubleshooting

Symptom	Cause	Corrective Action
Solvent leak from connector	Cartridge not seated	Disassemble, properly seat cartridge
	Particles on the face of the O-ring	Wipe clean with a cotton applicator
	Worn O-ring	Replace the O-ring
Broad peak/loss of peak resolution	Packing material fouled	Replace with new guard column
High backpressure	Filters in guard column plugged	Replace with new guard column

Y Chemical Hazard

Good Laboratory Practice should be followed when using potentially toxic, biohazardous, caustic, or flammable solvents and analytes.

6 Replacing the O-rings

You will need replacement part number WAT097954, O-ring Kit (2/pkg), a small, flat-blade screwdriver, a sharp needle, and a clear workspace where small parts are easily retrieved if dropped.

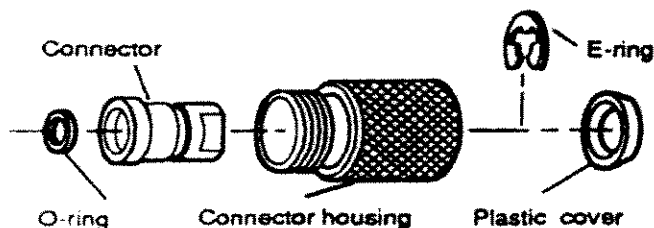
To replace the O-rings:

1. Unscrew the guard column holder and remove the guard column.
2. Pry the clear plastic covers off both ends.
3. Remove the E-rings with the screwdriver. Do not discard.
4. Remove the inside connectors from the housings.
5. Using the needle, pry the O-ring from the connectors.

CAUTION: *Do not scratch the groove in the connectors.
This may damage the sealing surface.*

6. Examine the groove and the new O-ring. Remove any particulate matter.
7. Insert the new O-ring into the groove.
8. Reassemble.

Figure 3: Replacing the O-ring



7 Warranty/Service Information

Waters Corporation warrants its guard columns and guard column holders in accordance with the following terms and conditions:

Waters will replace without cost, any guard column or holder that fails to perform satisfactorily, if notified within 90 days from your receipt. Returned columns and holders must have a Return Authorization Number granted by the Waters Technical Service Department at (800) 252-4752.

Approval is subject to the following exclusions:

- Physical damage to the guard column or holder because of misuse or abuse.
- Damage to the guard column or holder because of use with incompatible solvents or use at incorrect temperatures or pressures.
- Failure or decreased performance as a consequence of normal use.

For service and applications questions, contact your

8 Ordering Information

Sentry Holder and Spare Parts

Description	Part Number
Sentry™ 2.1 mm Guard Holder Kit	WAT097958
O-Ring Kit (2/pkg)	WAT097954
Rigid Connector	WAT022681

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