Waters
THE SCIENCE OF WHAT'S POSSIBLE.™

ALLIANCE HPLC SYSTEM ACCESSORIES

Expand your chromatographic capabilities

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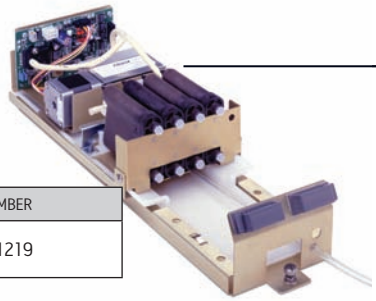
Waters® Alliance® High Performance Liquid Chromatography (HPLC) Systems are recognized as the industry standard in performance and reliability. Whether you are expanding your laboratory capacity, have increasingly challenging assays, or have greater throughput requirements, the Alliance HPLC System has many optional accessories designed to extend the system's capabilities to fit your changing business needs.

The following pages include descriptions of the most popular options and upgrades:

- **GPC Accessories Kit**
  For ambient temperature GPC analyses
- **Bottle Tray Kit**
  For larger solvent reservoirs
- **Column Pre-Heater Tubing**
  To pre-warm LC solvents
- **Column Heater and Column Heater/Cooler**
  For temperature controlled HPLC separations
- **Automated Switching Valves**
  To automate column switching
- **Sample Heater/Cooler**
  Control for sample temperature
- **Post Column Reaction System**
  For methods requiring post column derivatization routines

INTEGRAL FOUR-SOLVENT IN-LINE DEGASSER



PRODUCT	PART NUMBER
PerformancePLUS Degasser (excludes GPC)	700001219

All new Alliance HPLC Systems include the second-generation, ultra-high efficiency vacuum degasser module, which uses advanced polymer technology to remove dissolved gases from HPLC mobile phases.

For older Alliance Systems—with either the original degasser or helium sparge-based degassing—Waters offers the PerformancePLUS™ degasser assembly. This assembly is mounted on a tray (available with or without the gradient proportioning valve) and can be easily installed into the 2695 Separations Module, improving solvent delivery performance and overall system reliability.

GPC ACCESSORIES KIT

PRODUCT	PART NUMBER
GPC Accessories Kit	WAT270943

This kit provides improved functionality when the 2695 Separations Module is running room temperature applications of Gel Permeation Chromatography (GPC). The GPC accessories kit allows the Sample Management system to inject larger volumes of sample and supports the use of strong organic solvents.

DEGASSER CHAMBER FOR ROOM TEMPERATURE GPC

PRODUCT	PART NUMBER
Degasser Chamber for Room Temperature GPC	700000162

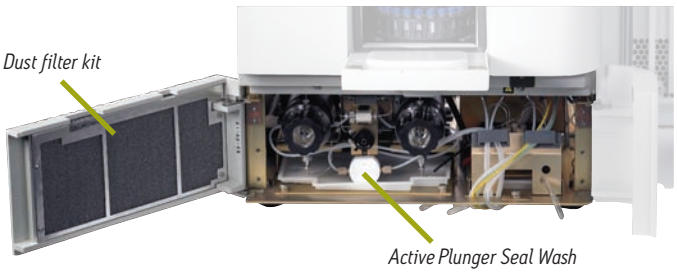
This degasser chamber is reinforced to make it more resilient to solvents such as Hexafluoroisopropanol (HFIP), when an Alliance HPLC System is routinely used for room temperature GPC applications.

DUST FILTER KIT

PRODUCT	PART NUMBER
Dust Filter Kit	700002265

Thanks to a standard removable and washable dust filter, all new Alliance HPLC Systems experience minimal dust intrusion from lab environments.

This dust filter kit option is available for installation on older Alliance Systems. To minimize the ingress of dust, the kit uses a foam dust filter on the lower front door, a floppy drive cover, and a rear panel plug.



ACTIVE PLUNGER SEAL WASH

PRODUCT	PART NUMBER
Active Plunger Seal Wash	WAT270872

An automated continuous plunger seal wash is standard on all new Alliance HPLC Systems. This element optimizes system uptime by extending the life of the plunger seals and the plungers themselves.

Inside, wash solvent lubricates the plunger and flushes away any solvent or precipitated salts that have been forced past the plunger seal from the piston chamber. This extends seal life for applications using buffered mobile phases.

This optional kit, comprised of a pump and all necessary tubing and fittings, is now available and can be easily retrofitted to extend these benefits to older Alliance Systems.

ALLIANCE SERIES BOTTLE TRAY KIT

PRODUCT	PART NUMBER
Alliance Series Bottle Tray Kit	205000329

The one-piece bottle tray and shelf assembly installs securely and safely on top of your Alliance HPLC System—providing expanded storage for larger solvent reservoirs. All chromatographic solvents and system wash solutions can be placed inside this ergonomically designed solvent tray, enhancing the routing of solvent and wash line tubings into the system.

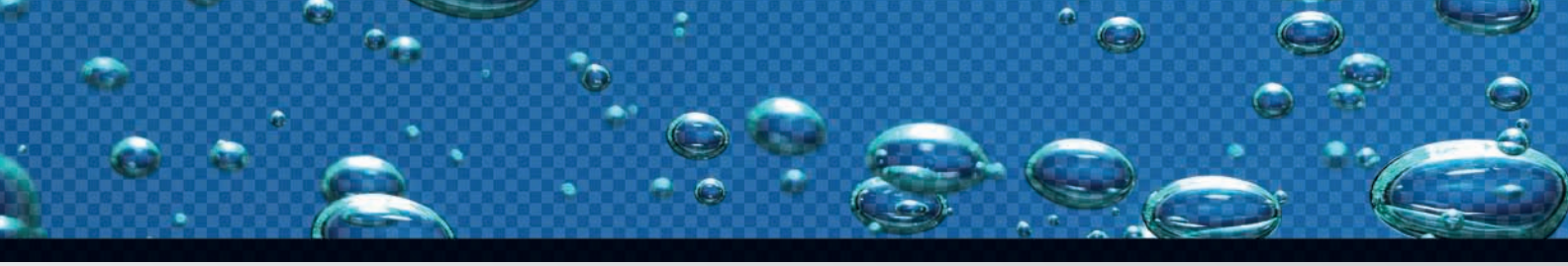
When used with a Waters Column Heater or Heater/Cooler, you can minimize ambient temperature effects between the column outlet and the detector flow cell, producing more consistent chromatography. The bottle tray also includes a removable storage tray for columns, fittings and tools, a removable detector spill tray, and a set of solvent identification labels.

COLUMN PRE-HEATER TUBING

PRODUCT	PART NUMBER
Column Pre-Heater Tubing	205000297

Some HPLC applications (*e.g.*, those based upon ion exchange based chemistries) can benefit from additional pre-column heating volume to improve chromatographic separations.

Waters provides a user-installable option comprised of pre-heater tubing already assembled on a column-mounting plate. This unit is quick and easy to install. It provides increased thermal equilibration of mobile phase and injected sample prior to entering the HPLC column, improving chromatographic efficiency for certain HPLC applications.



ALLIANCE SERIES COLUMN HEATER AND COLUMN HEATER/COOLER

PRODUCT	PART NUMBER
Column Heater	186001863
Column Heater/Cooler	186001791

Control over ambient temperatures can vary between laboratories, leading to inconsistent HPLC results from run-to-run on a single system, system-to-system within the same lab, and between labs in the same building. Column temperature variations may cause your peak retention times to shift and peak shapes to change, increasing the difficulty of achieving precise results.

Waters provides two approaches to accurate, microprocessor-based column temperature control—the Alliance Column Heater and the Alliance Column Heater/Cooler. Both of these devices feature:

- Forced air recirculation—to provide a stable thermal environment for your HPLC columns.
- Simplified column attachments—to accommodate columns as long as 30 cm (with guard columns or inline filters) through a set of sliding clips on dual full-length column-mounting rails.
- Improved tubing management—to control column inlet and outlet tubing. Along with the lower drip tray, it enhances both functionality and safety.
- Easily installed switch valves—to accommodate user-installable switching valves by providing mounting space on the bottom of the module.

Column Heater and Heater/Cooler Differences	
Alliance Column Heater	Alliance Column Heater/Cooler
Column environment controllable from ambient plus 5 °C up to 65 °C	Column environment controllable from 4 °C up to 65 °C
No cooling capabilities	Cooling capability enhances rapid multi-method switching (like those used in the Waters Automated Method Development system)

ALLIANCE SERIES AUTOMATED SWITCHING VALVES

PRODUCT	PART NUMBER
3 Column Section	205000162
6 Column Section	205000164
2 Position Regeneration	205000163

Three internally mounted, automated switching valves are available for the Alliance series Column Heater and Column Heater/Cooler modules. These valves enable the system to automatically switch the solvent flow path among multiple columns, and can be programmed from either the front panel of the instrument, or remotely via Waters Empower™ or MassLynx™ software.

Two valve kits provide automated switching capacity for up to three or up to six columns, either of which allow column/method switching, sequential running of multiple methods, or unattended methods development (*e.g.*, using a Waters AMDS System).

A third two-position valve kit automates off-line alternate column regeneration, which can dramatically increase overall sample throughput.

Each valve kit provides the appropriate switching valve, pre-installed on a mounting plate, that quickly and easily slides onto two mounting pins inside the lower valve compartment of either the Column Heater or Column Heater/Cooler Module. The kit includes tubing and fittings to help you connect the valve to your column(s) and/or other external devices. Choose from:

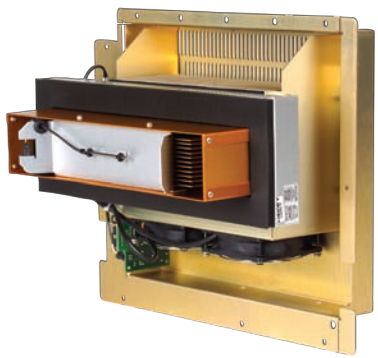
- An eight-port, three-position column selection valve kit for automated switching between (up to) three HPLC columns.
- A fourteen-port, six-position column selection valve kit for automated switching between (up to) six HPLC columns.
- A ten-port, two-position column regeneration valve kit for automated column regeneration. In this case the valve is also connected to an external column regeneration pump.

ALLIANCE SAMPLE HEATER/COOLER

PRODUCT	PART NUMBER
Alliance Sample Heater/Cooler	WAT270802

The Alliance Sample Heater/Cooler option manages labile samples and enhances the stability or solubility of samples. The Sample Heater/Cooler controls sample compartment temperature from 4 to 40 °C using Peltier-based heating and cooling technology.

This compact module, standard on some Alliance HPLC Systems, fits inside the Waters 2695 Separations Module and is easily inserted into the carousel housing area.



INJECTOR ASSEMBLY

PRODUCT	PART NUMBER
Second Generation Injector Assembly	700002789
Second Generation Injector Upgrade Kit (used with new injector when upgrading)	700002790
PEEK Tubing Kit with Fittings	430000922

New Alliance HPLC Systems feature a second generation injector design built in as standard. Upgrade your older Alliance HPLC System with this all-new injector design sporting fewer moving parts to enhance the instrument's reliability and robustness. This may be retrofitted into any 2695 or 2695D Separations Module.

Install or change HPLC columns faster—available PEEK tubing with finger-tight fittings provides fast and easy column connections—recommended for use with the new second generation injector design.

POST COLUMN REACTION SYSTEM

PRODUCT	PART NUMBER
Post Column Reaction System (TCM II and PCRM)	176000170

For HPLC applications that require enhanced compound detection sensitivity and/or selectivity, Waters provides a set of add-on components to provide single- or dual-stage post column reaction capabilities. This is comprised of the Post Column Reaction Module (PCRM), the Temperature Control Module, and one or two Reagent Manager Pumps.

The PCRM is an optimized, two-stage, post-column reactor oven for online derivatization. The oven incorporates a proprietary reaction coil and patented counter-current heat exchanger to minimize band-spreading and increase sensitivity.

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