Install Fraction collector F9-R

Scope

Instructions on how to install one, or for ÄKTA pure two, optional **Fraction collector F9-R** (29-0113-62) modules.

Description

Introduction

Fraction collector F9-R collects fractions from ÄKTA avant and ÄKTA pure purification runs.

Fraction collector F9-R can be used for:

- Time or volume based fractionation
- Peak fractionation
- Combined time or volume based fractionation and peak fractionation

It is possible to install up to two Fraction collector F9-R modules when using ÄKTA pure. ÄKTA avant has a built-in fraction collector, and it is possible to install one Fraction collector F9-R as an extra module.

Note: *If two fraction collectors are to be used, the second one must be configured as Fraction collector F9-R 2nd, independent of the first fraction collector type.*

Location

ÄKTA pure

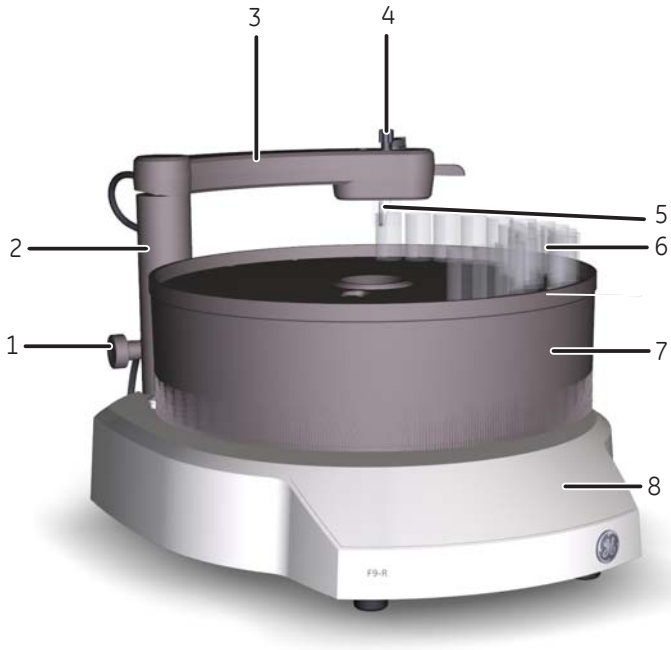
The illustration below shows Fraction collector F9-R together with ÄKTA pure. It is recommended to place Fraction collector F9-R on the left side of the instrument. Fraction collector F9-R can also be placed on a shelf located beneath the system.

ÄKTA avant

In ÄKTA avant it is recommended to place Fraction collector F9-R on the right side of the instrument.

Note: *Consider the tubing going to Fraction collector F9-R if ÄKTA avant is turned on its swivel foot.*

Illustration of Fraction collector F9-R



Part	Function
1	Lock knob
2	Stationary part of delivery arm
3	Delivery arm
4	Tubing connector
5	Tube sensor
6	Collection tubes
7	Tube rack
8	Base unit

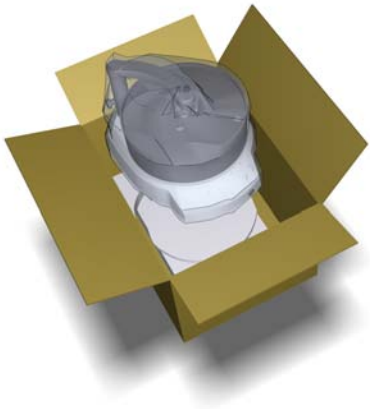
Unpacking

Follow the instruction below to unpack the Fraction collector and to remove the transport fixations.

Step	Action
1	Open the transportation box.

2	Lift off the piece of foam and check the content according to the supplied package list.

Step	Action
3	Lift out Fraction collector F9-R by the Base unit and place it on the bench.

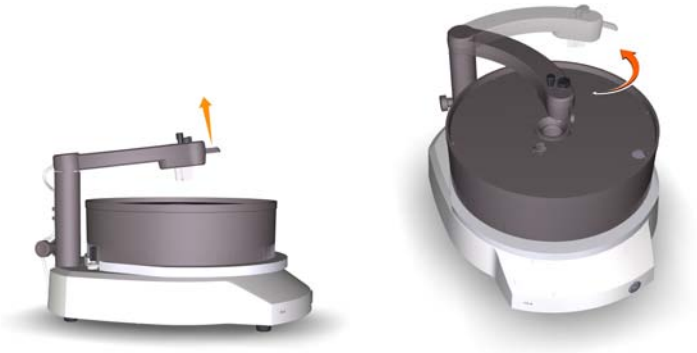


NOTICE

Never lift **Fraction collector F9-R** by the Delivery arm. This may damage the Fraction collector.

4 Remove the plastic bag.

5 Lift the Delivery arm and gently move the Delivery arm to the outer stop.



Step	Action
6	Remove the piece of foam from under the Tube rack.

Installation

For information on how to assemble Fraction collector F9-R, please refer to the respective instrument *User manual* and *Fraction collector F9-C and F9-R Operating instructions*.

Illustration of Fraction collector F9-R connector panel

Part	Function
1	Node ID switch
2	**UniNet-9** communication and power supply

Connect the Fraction collector

Connect the UniNet cable between any of the **UniNet-9** ports on the back of the instrument and on the back of the Fraction collector F9-R or Fraction collector F9-R, 2nd. Make sure that all unused **UniNet-9** ports on the instrument are plugged.

Node ID

Node ID is a unit number designation that is used by the instrument to distinguish between several units of the same type. All standard valves and available optional modules are pre-configured to give the desired function. However, the function of a valve or module can be changed by changing the Node ID.

Also, in a troubleshooting situation it may be useful to check the Node ID of the respective valve or module.

Note: *The function of a valve or module is defined by a combination of the module type and its Node ID, not by its physical position.*

Check/change Node ID

The Node ID is set by positioning the arrow of the rotating switch at the back of the Fraction collector. Use a screwdriver to set the arrow of the switch to the desired number.

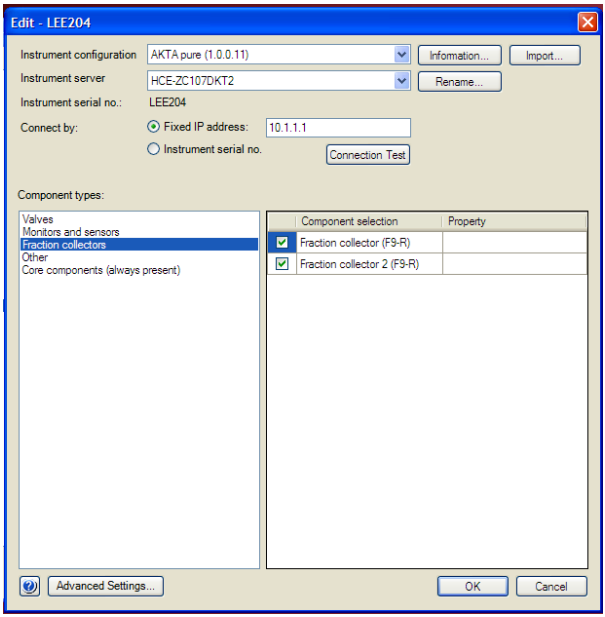
Step	Action
1	Set Node ID to 0 for Fraction collector F9-R and to 1 for Fraction collector F9-R, 2nd.
2	Connect Fraction collector F9-R and/or Fraction collector F9-R, 2nd to the instrument.

Software configuration

When a Fraction collector has been installed, the ***System Properties*** for the system must be updated in UNICORN™. The system will restart automatically when the configuration has been changed and the system can be reconnected.

Follow the instructions below to update the system in UNICORN.

Step	Action
1	• On the ***Tools*** menu in the ***Administration*** module, click ***System Properties*** or click the ***System Properties*** icon to open the dialog. *Result*: The ***System Properties*** dialog is displayed. • Select the system of interest in the ***System Properties*** dialog. • Click ***Edit***. ***Note:*** *Only active systems can be edited.* *Result*: The ***Edit*** dialog is displayed. The ÄKTA pure dialog is shown in the example below.



Step	Action
2	Select ***Fraction collectors*** from the ***Component types*** list. *Result:* All available fraction collectors are shown in the ***Component selection*** list. • Click the checkbox to select the added fraction collector. ***Note:*** *Instrument modules are referred to as* ***Components*** *in UNICORN.*
3	Click ***OK*** to apply the changes.

Check/Set delay volume

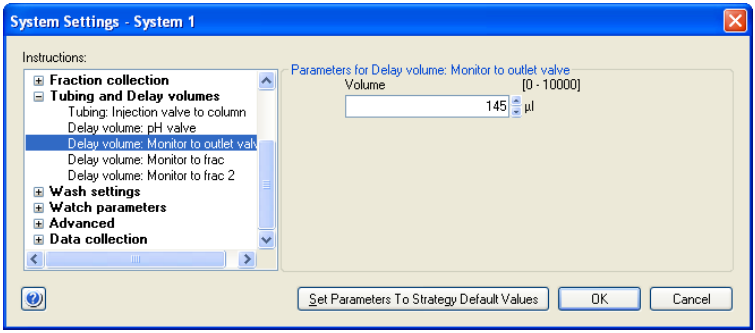
When a module has been installed after the UV monitor in the flow path, the delay volume has to be adjusted in the ***System Settings*** dialog in UNICORN, to make sure that the collected fractions correspond to the fractions indicated in the chromatogram.

Delay volumes can be set for the options ***Monitor to outlet valve***, ***Monitor to frac***, ***Monitor to frac 2***, and ***pH valve***. Depending on the system configuration used, different delay volume options will be available for selection in the ***System Settings*** dialog. The delay volume has to be set for all displayed options.

Delay volumes for ÄKTA avant and ÄKTA pure modules and standard tubing configurations are found in the respective *User Manual*.

Follow the instructions below to check/set the delay volumes:

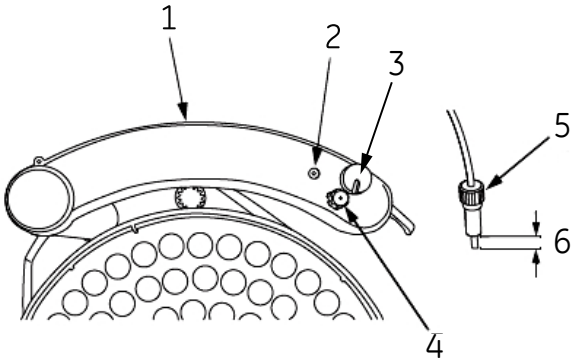
Step	Action
1	On the ***System*** menu in the ***System Control*** module, click ***Connect to Systems*** or click the ***Connect to Systems*** icon. *Result:* The ***Connect to Systems*** dialog opens.
2	• Select a system. • Select ***Control*** mode. • Click ***OK***. *Result:* The selected instrument can now be controlled by the software.

Step	Action
3	On the ***System*** menu, click ***Settings*** when the system is in state ***Ready***. *Result*: The ***System Settings*** dialog is displayed. The ÄKTA pure dialog is shown in the example below. 
4	• Select ***Tubing and Delay Volumes*** and select the delay volume option of interest. ***Note:*** *For ÄKTA avant* ***Delay Volumes*** *are found under* ***Fraction collection***. • Check the delay volume in the ***Volume*** fields and enter a new value if necessary. • Click ***OK***.

Connect tubing

Follow the instructions in the table below to connect the tubing from ÄKTA avant and ÄKTA pure to Fraction collector F9-R, or to both Fraction collector F9-R and Fraction collector F9-R, 2nd.

Step	Action
1	Lift out the Tubing holder (4) from the Delivery arm (1).



Part	Function
1	Delivery arm
2	Tube adjustment cavity
3	Sensor control
4	Tubing holder
5	Tubing holder nut
6	Exposed tubing end

2	Loosen the nut of the Tubing holder. Do not remove the Tubing holder nut (5) from the Tubing holder.
3	Insert the tubing through the Tubing holder.

Step	Action
4	Place the Tubing holder with the tubing over the Tube adjustment cavity (2) of the Delivery arm. Push the tubing down against the bottom of the Tube adjustment cavity, and then fingertighten the Tubing holder nut. This ensures the correct length of the exposed tubing end (6).
5	Re-install the tubing holder in the Delivery arm.
6	Check that the Tube sensor is in the correct position for the tube size. The eluent tubing should be above the center of the collection tube. Use the sensor control to position the Tube holder.
7	**Connection to ÄKTA pure** For **Fraction collector F9-R**: Connect the tubing from the Fraction collector to: • port **Frac** on Outlet valve **V9-O**, **V9H-O**, **V9-Os** or **V9H-Os**. For **Fraction collector F9-R, 2nd**: Connect the tubing from the second Fraction collector to: • port **Out 10** on Outlet valve **V9-O** or **V9H-O**. • port **Out 1** on Outlet valve **V9-Os**. **Connection to ÄKTA avant** For **Fraction collector F9-R, 2nd**: Connect the tubing from the second Fraction collector to: • port **Out 10** on Outlet valve **V9-O** or **V9H-O**.
8	Set the delay volume according to the length of the tubing used, according to the instruction above.

Standard tubing dimensions

The table below shows recommended standard tubing dimensions to connect Fraction collector F9-R.

System	Tubing length (mm)	Tubing diameter (mm)
ÄKTA pure 25	400	0.50
ÄKTA pure 150	400	0.75
ÄKTA avant 25	500	0.50
ÄKTA avant 150	500	1.00

Note: *Precut standard tubing for ÄKTA pure are delivered with the fraction collector. For ÄKTA avant, cut the tubing according to the table above from the spare tubing delivered with the ÄKTA avant system.*

Page intentionally left blank

For local office contact information, visit
www.gelifesciences.com/contact

GE Healthcare Bio-Sciences AB
Björkgatan 30
751 84 Uppsala
Sweden

www.gelifesciences.com/AKTA

GE Healthcare Europe GmbH
Munzinger Strasse 5, D-79111 Freiburg, Germany

GE Healthcare UK Limited
Amersham Place, Little Chalfont, Buckinghamshire, HP7 9NA, UK

GE Healthcare Bio-Sciences Corp.
800 Centennial Avenue, P.O. Box 1327, Piscataway, NJ 08855-1327, USA

GE Healthcare Japan Corporation
Sanken Bldg. 3-25-1, Hyakunincho Shinjuku-ku, Tokyo 169-0073, Japan

29-0214-62 AC 04/2015 a30