

INCEPTUM™

USER MANUAL

VERSION 1.2.4



Q BIOTECH CUSTOMER SUPPORT

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1 OVERVIEW

Inceptum™ is a fully automated personal chromatography system for purification of proteins, RNA, and DNA. The system utilized application specific and open cartridges to ensure that the fluid path is completely separated from the instrument.

The *Inceptum™* system consists of an instrument and two types of disposable cartridges, and a Windows™ computer (not included). Application-specific cartridges contain up to two columns and include all the necessary buffer solutions to perform purification of proteins using specific chromatography.

The application-specific cartridges can be utilized for the following types of purification:

- Affinity purification of antibodies using protein G binding, followed by buffer exchange into a neutral buffer, e.g. PBS.
- Ni-NTA affinity purification of His-tagged proteins.
- Buffer exchange cartridges to replace buffer using desalting columns. The standard buffer is PBS, but this can be customized for each order.
- Affinity purification of GST-tagged proteins.
- Affinity purification of MBP-tagged proteins.
- Ion-exchange cartridges that contain an IEX column and buffers for NaCl gradient elution.
- Custom cartridges with custom configurations of up to two columns and up to three buffer solutions.

The open cartridges provide all the necessary external connections to attach up to two columns and up to three buffer solutions, as well as a sample inlet. The sizes of the columns and volumes of buffer solutions are limited only by the chosen application protocol. *Inceptum™* provides a disposable, easy to change, fluid drive and measurement system for user-defined purification.

2 FEATURES

- Provides easy to use, fully automatic, rapid DNA, RNA, and protein purification.
- Platform provides integrated data capture (UV and conductivity) and complete control of fluidics components.
- Gradient elution and exchange of proteins or nucleic acids into a convenient buffer during the purification process, in the same purification run.
- Utilizes chemistries such as affinity, ion exchange, Ni-NTA, and other water based chemistries.
- Flow rate capabilities range between 1-40 mL/min.
- Isocratic or gradient flow with two inputs
- Design prevents cross-contamination.
- Compatible with external fraction collector
- Two column system
- Minimal setup time
- Low maintenance design with easy setup and minimal maintenance.
- Fully disposable fluidics path. No wetted components are inside of the instrument.

3 INCEPTUM SHIPPING CONTENTS

The shipping box includes the following:

- *Inceptum*[™] Main Instrument
- AC Power Supply and Cable
- USB C cable
- USB Flash Drive with software

4 UNPACKING AND INSTALLATION

4.1. UNPACKING

When opening the box, carefully inspect it for any damage that may have occurred during shipment. Severe damage to the container may indicate that the contents have been damaged during shipping. If you suspect that there are any damaged or missing components, immediately contact Q-Biotech.

After opening the box, carefully remove the shaped foam packaging. The top of the instrument should be visible, along with the bag and box containing the cables and power supply. Remove these and gently lift the instrument from the box. Hold the instrument by the sides when lifting, do not use the slot as a handle to avoid damaging cartridge interface contacts.



Figure 1. Power supply and USB-C cable included in the box.

4.2. INSTALLATION

The *Inceptum*[™] can be installed and used on a benchtop, a mobile cart or other location which provides a stable platform for operation. The instrument can be operated at ambient temperature or in a refrigerated environment meeting specifications (see Section 6. Specifications).

Unpacking and Installation

A computer running Windows™ 10 or later is required to utilize *Inceptum™* software. The software must be preinstalled before use. The software is provided with the instrument as an installable executable on an included USB drive. It can also be downloaded from <https://q-biotech.com/inceptum>.

Installation steps:

- Place instrument on a benchtop, away from direct sunlight or heat sources.
- Connect the power supply to the instrument
- Plug in the power cable to 100-240VAC, 50-60 Hz outlet.
- Connect the provided USB cable from the USB-C port on the instrument to the USB port on the computer.
- Turn on the instrument using the power switch on the back of the instrument.

5 PHYSICAL DESCRIPTION

5.1. FRONT PANEL

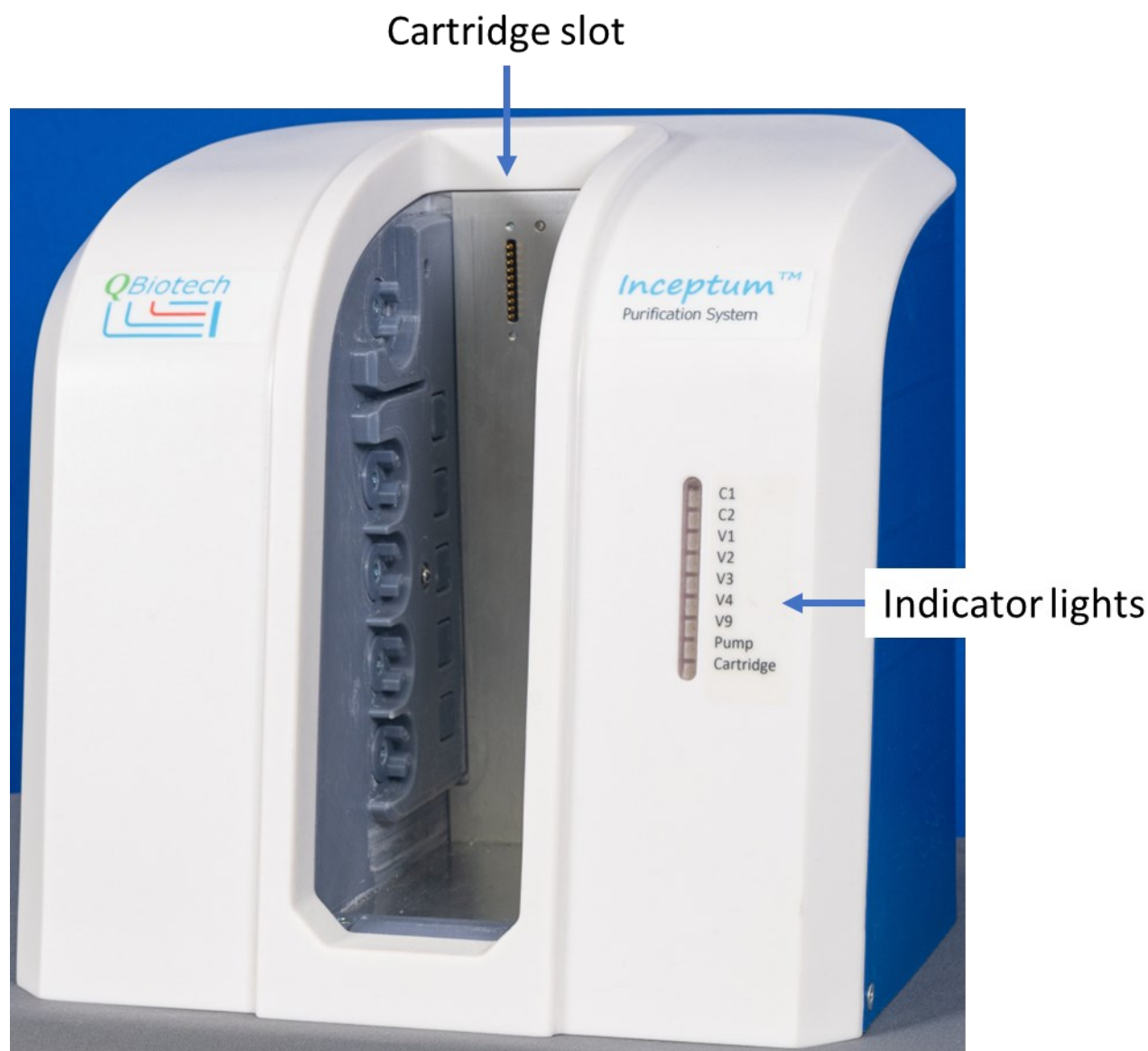


Figure 2. Inceptum, viewed from the front.

Cartridge slot provides a mechanical, optical and electrical interface to a cartridge (Section 5.1.1), the indicator lights reflect the position of valves, status of pump and cartridge (Section 5.1.2).

5.1.1. CARTRIDGE SLOT

Insert the cartridge in this slot. This slot is configured for open cartridges and application cartridges. When moving the instrument, do not use cartridge slot as a hand-hold. Doing so might result in damage to interface pins located on the back of the slot.

5.1.2. INDICATOR LIGHTS

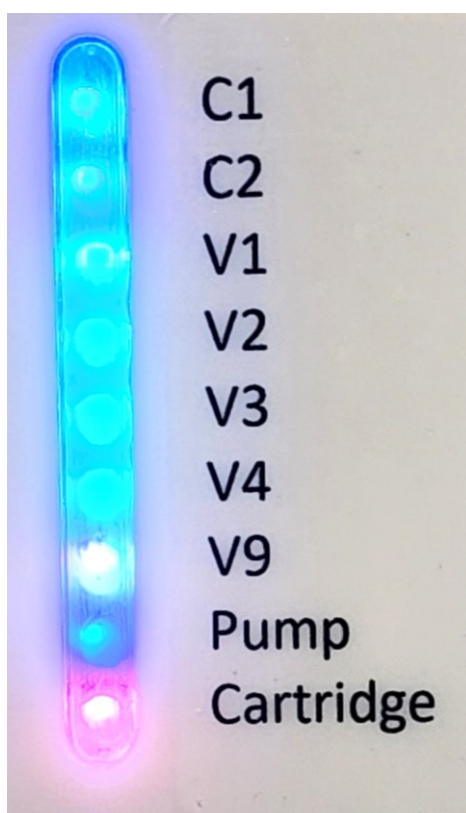


Figure 3. Indicator lights as seen in an idle state with no cartridge inserted.

The indicator lights on the front panel of *Inceptum*[™] allow you to monitor the status and process of the instrument. Each light is labeled for clear understanding of the status. From the top, the first two lights represent the columns, the next five are the valves, and the lower two lights represent the pump and cartridge. For more detailed information about the configuration of the columns, valves, and pumps, please refer to figure 6.

Table 1. Valve position as shown by the color of the indicator light.

Valve Position	Indicator Lights
1-2	cyan
1-3	green
1-2-3	yellow
2-3	blue

Table 2. Pump status indicator light.

Pump Status	Indicator Lights
Running	green
Stopped	blue
Pump Error	red

The cartridge status is indicated by the bottom light.

Table 3. Cartridge status indicator light.

Cartridge Status	Indicator Lights
No Cartridge Detected	red
Cartridge Detected	green
Calibration Failed	yellow

5.2. REAR PANEL

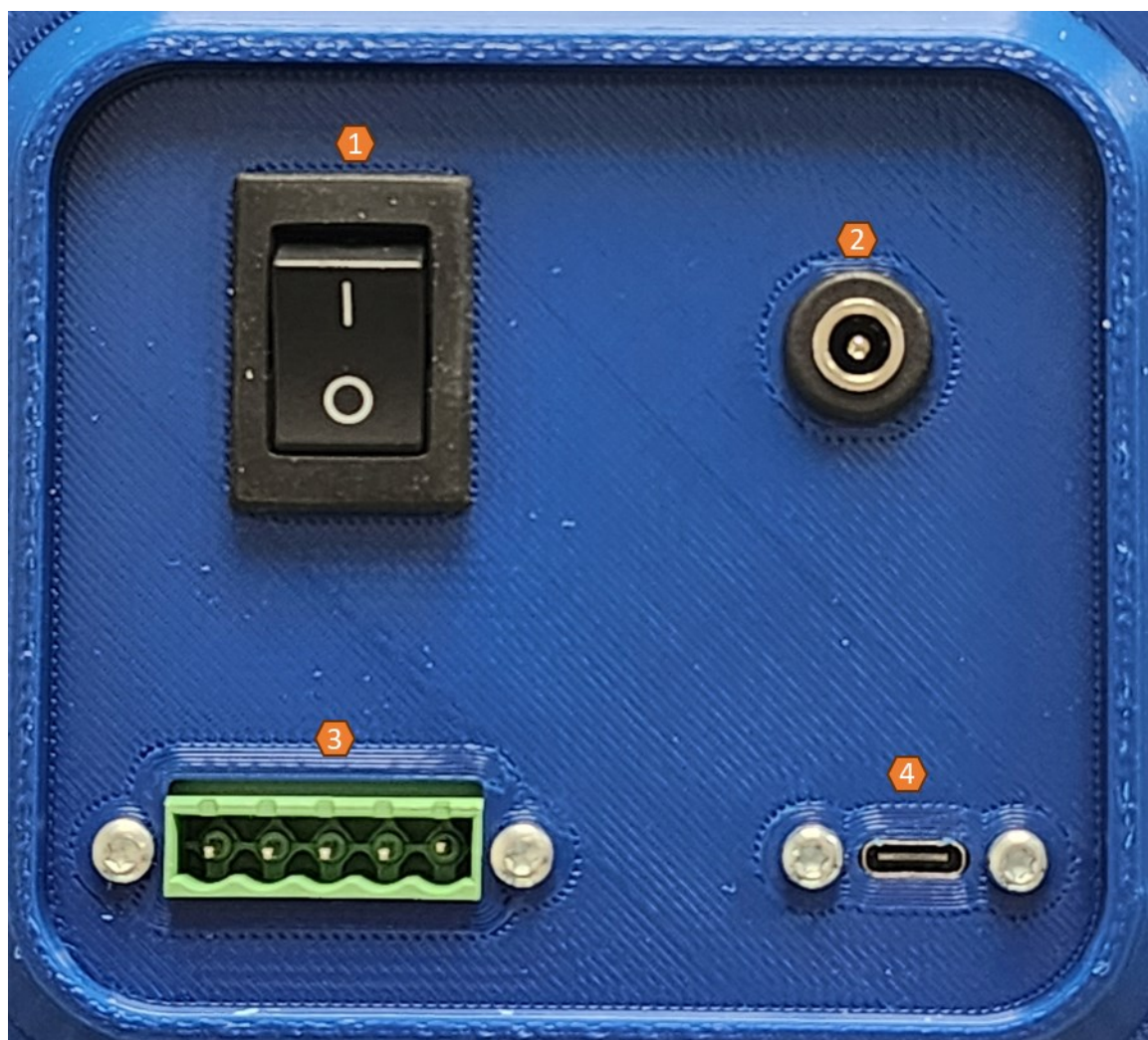


Figure 4. Rear panel connections and controls.

- 1** Power Switch: Turns the instrument on or off.
- 2** Power Input: Insert the power cable here. Use only power supply provided with the instrument.
- 3** External I/O: Connects to the fraction collector (optional)

4

USB Input: Connects to the computer and software. Use USB-C cable provided with the instrument. If a replacement is necessary, most USB-C data cables will work. USB-C cables designed for charging only, often do not have data connections and will not work.

6 GRAPHICAL USER INTERFACE

The main window of the *Inceptum™* software is shown in Figure 5.

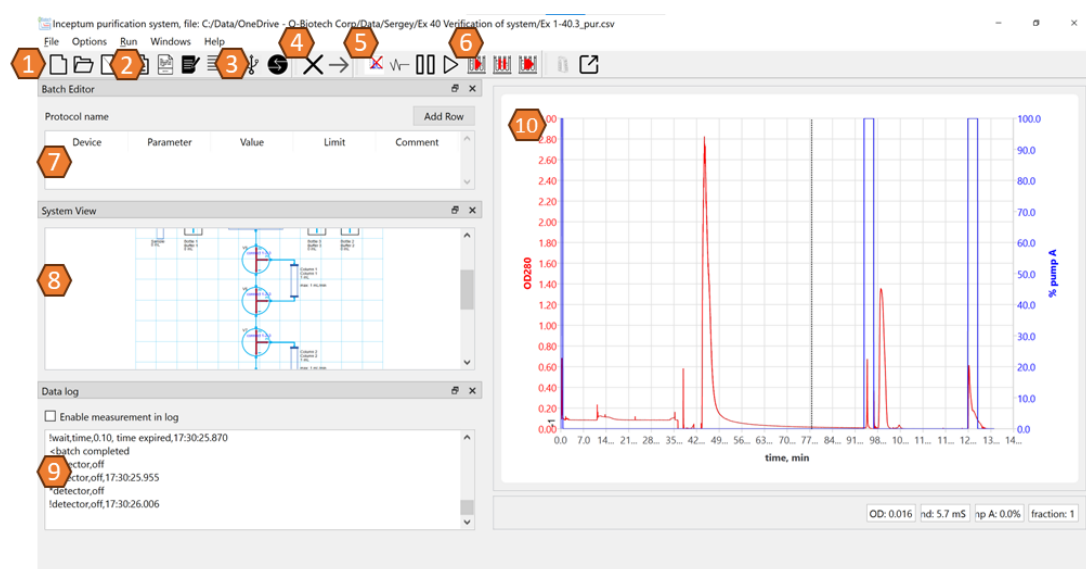


Figure 5. Elements of software user interface.

1

Data file toolbar: Here you can open and save data files. This is also accessible through the "File" menu.

2

Batch protocol toolbar: Here you can open, save, or edit batch files. This is also accessible through the "File" menu.

3

Instrument connectivity toolbar: This allows you to select the port and connection to the *Inceptum™* instrument. This is also accessible through the "Options" menu.

- 4 Batch control toolbar:** Here you can start or stop the batch execution. This is also accessible through the "Run" menu.
- 5 Detector and pump control toolbar:** From here you can start/stop the data capture (detector), set zero for the absorbance (zero detector), as well as start/stop the pump. Pump commands are also accessible through the "Run" menu.
- 6 Fraction collector toolbar:** If you are using a fraction collector, you can start, stop, or pause the fraction collector or command the collector to advance to the next fraction.
- 7 Batch protocol editor window:** Right click to add or remove rows.
- 8 System view:** This shows the fluidics configuration of the cartridge and the current status of the instrument. Right click to change parameters of all elements on the diagram.
- 9 Data log window:** This shows low-level events and data exchanged between the instrument and the software.
- 10 Chromatogram plot:** Right click to reset zoom, shift+left click to select zoom area, ctrl-wheel to zoom in/out, and hold the left mouse button to pan the chart.
- 7 8 9** These are docking windows which can be repositioned, resized, and docked into the tabbed left area. If you close a window, you can reopen it by right-clicking on the toolbar and selecting the appropriate checkbox for the window.

6.1. BATCH EDITOR WINDOW

The primary mode of operation for *Inceptum*[™] is the batch method, where the purification is performed automatically using a pre-defined protocol. You can create a new batch or open an existing batch through the toolbar. Manual control can be performed for an initial instrument setup after inserting a new cartridge. The manual control can also be useful for an open cartridge, or for customized operation of an application cartridge. The batch editor window facilitates the creation of a new batch method or the editing of an existing batch method.

Commands are executed sequentially, so the next command is executed upon the completion of the previous command. You can add or remove commands in the editor by clicking the right mouse button in the window. Commands can be appended to the current batch by clicking on the **Add Row** button. It is best practice to have all required commands entered prior to protocol execution. For convenience, there is also standard cut, copy, and paste functionality through icons in the toolbar.

Commands can control the instrument directly (e.g. pump, valve, and detector commands), provide set time delays, or conditional commands which activate only when a specific condition is met (e.g. OD crosses threshold). Conditional commands require operational time limits. An individual comment can be set for each command. An example of the batch editor window is shown below.

Batch Editor

gel filtration sample_batch.csv

Add Row

	Device	Parameter	Value	Limit	Comment
1	chart	marker	Start		Marker placed on the Chart
2	pump	flow	1.00 mL/min		pump flow rate
3	pump	fracA	0.00 %		fraction of pump A
4	valve_1	set	2-3		Connect valve 1 positions 2 and 3
5	valve_9	set	1-2		
6	column 1	switch	IN		put column 1 into fluid flow
7	pump	on			Start pump
8	wait	OD>	0.50 au	time 10.00 min	Wait for peak
9	chart	marker	Start of peak		Marker to be placed on chart
10	valve_9	set	2-3		Switch flow to collect peak
11	wait	time	1.00 min		time delay to make OD is high to avoid premature end
12	wait	OD<	0.40 au	time 15.00 min	Wait for end of peak
13	chart	marker	End of peak ...		Marker to be placed on chart
14	valve_9	set	1-2		Stop collection, divert to waste
15	wait	time	20.00 min		Rinse the column
16	pump	off			Stop pump. End of batch method

Figure 6. Batch editor window.

6.2. BATCH COMMANDS

Batch commands contain the following elements:

Subsystem (device): This defines which device this command relates to. This includes the pump, valve, detector, wait timer etc.

Action: This is the relevant parameter or action for the selected device. E.g. for the pump you can select parameters such as flow (flow rate), fracA, etc.

Value: Parameter values can be entered in several ways: Numeric, selected using a spinbox, predefined values selected using the dropdown box, or text that can be entered into the cell.

Units: If applicable, this shows units for the parameter value.

Table 4. Pump commands

Action	Type of Value	Units	Notes
flow	numeric	mL/min	Set pump flow rate.
fracA	numeric	%	Set fraction of pump A in the isocratic flow
fracA_start	numeric	%	Set fraction of pump A at the beginning of gradient flow
fracA_end	numeric	%	Set fraction of pump A at the end of gradient flow
gradientTime	numeric	min	Set gradient time. Combination of fracA at the start and the end of the gradient and gradient time determines the rate of change of pump A fraction.
isocratic	none		Set pump to isocratic flow (constant fraction of pump A)
gradient	none		Set pump to gradient flow (fraction of pump A will change linearly from fracA_start to fracA_end during the gradientTime).
on	none		Start pump
off	none		Stop pump
calibrate	none		Calibrate pump. This command is typically not used.

In order to set pump for gradient operation, first, stop the pump. Next, set flow parameters (fracA_start, fracA_end, gradientTime etc) and start the pump (pump on). The next command in the batch should be time delay (wait, time) to allow the gradient to be completed.

Table 5. Valve Commands

Action	Type of Value	Units	Notes
set	combobox		Select which outlet of the valve are connected

Table 6. Detector Commands

Action	Type of Value	Units	Notes
zero	none		Set UV absorbance to zero.
on	none		Turn reporting of the UV and conductivity measurement on. This command is executed automatically at the beginning of a batch
off	none		Turn reporting of the UV and conductivity measurement off. This command is executed automatically at the end of a batch.

Table 7. Column Commands

Action	Type of Value	Units	Notes
Switch	combobox		Change valves position to switch the column in the flow or out of the flow.
Name	string		Set name of the column
Volume	numeric	mL	Set column volume
max flow rate	numeric	mL/min	Set maximum flow rate through the column.

Table 8. Bottle Commands

Action	Type of Value	Units	Notes
name	string		Set buffer name
volume	numeric	mL	Set initial volume of the container

Table 9. Sample Input Commands

Action	Type of Value	Units	Notes
volume	numeric	mL	Set volume of the sample container

Table 10. Sample Collect Commands

Action	Type of Value	Units	Notes
volume	numeric	mL	Set maximum volume of the collection container

Table 11. Waste Commands

Action	Type of Value	Units	Notes
volume	numeric	mL	Set maximum volume of the waste container

Table 12. Wait and Event Commands

Action	Type of Value	Units	Notes
time	numeric	min	Wait until the set time has elapsed.
OD>	numeric	au	Wait until OD is greater than the threshold. This setting also has an expiration time. When the expiration time is reached, the program execution continues even if the OD trigger is not reached.
OD<	numeric	au	Wait until OD is less than the threshold. This setting also has an expiration time. When the expiration time is reached, the program execution continues even if the OD trigger is not reached.
Conductivity>	numeric	mS	Wait until Conductivity is greater than the threshold. This setting also has an expiration time. When the expiration time is reached, the program execution continues even if the Conductivity trigger is not reached.
Conductivity<	numeric	mS	Wait until Conductivity is less than the threshold. This setting also has an expiration time. When the expiration time is reached, the program execution continues even if the Conductivity trigger is not reached.

Table 13. Chart Control Commands

Action	Type of Value	Units	Notes
marker	string		Place marker on a chart. Useful to indicate specific steps on the chart.

Table 14. Fraction Collector Control Commands

Action	Type of Value	Units	Notes
start	none		Start fraction collection. Fraction numbers start from 1.
stop	none		Stop fraction collection
continue	none		Continue fraction collection, fraction numbers continue.
duration	numeric	sec	Set time duration of a fraction.
advance	none		Advance fraction collector to the next fraction immediately.

6.3. SYSTEM VIEW AND CONTROL

“System View” displays the current instrument state and allows the operator to manually control the system state (See Figure 7).

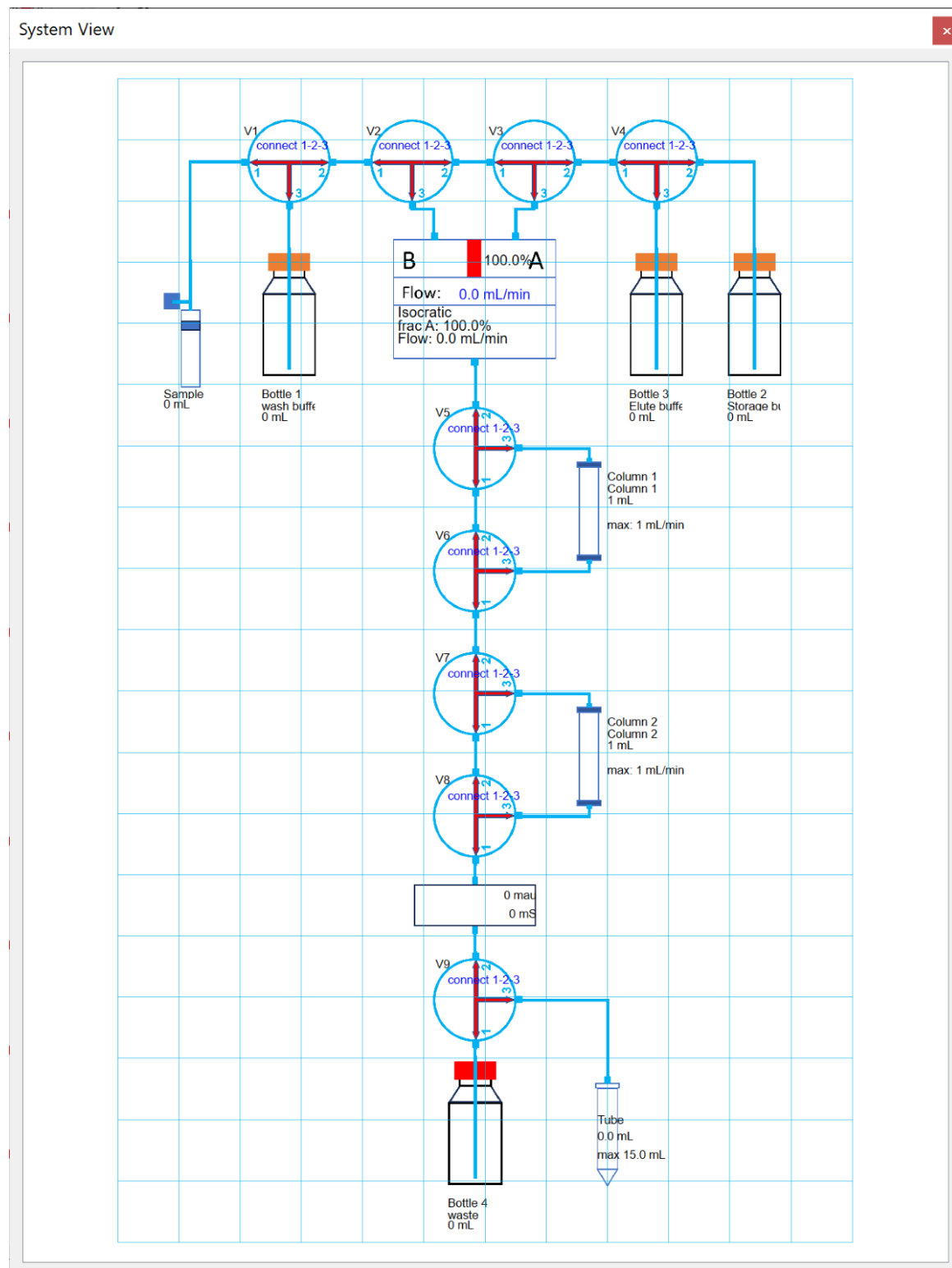


Figure 7. System view window.

System view operations:

- Use **Ctrl+mouse wheel** to zoom in and out.
- Use mouse wheel or horizontal and vertical scroll bars to move the view around.
- **Right-click** on a subsystem (pump, valve, column, etc.) to change the parameters of that subsystem.

The manual control using the System View is useful for priming and setup of the cartridge. Typically, the chromatography will be performed using a batch protocol. However, the System View allows to perform a chromatography in a manual mode. In addition, if a manual adjustment to the currently executed protocol is necessary, it can be done using System View.

6.4. SYSTEM CONFIGURATION AND INSTRUCTIONS

Configuration depends on the intended cartridge use.

Application cartridges have pre-configured protocols that can be utilized directly or modified for customized use.

Open cartridges require manual setup or a custom batch protocol.

6.5. CONNECTING EXTERNAL FRACTION COLLECTOR

Inceptum™ can interface with an external fraction collector (not included). If using a fraction collector, connect the I/O of the fraction collector to the back panel (See **Error! Reference source not found.** and Table 15).

7 OPERATION

- 1 Open the *Inceptum™* software by clicking on the software icon on the desktop or from the taskbar or start menu.
- 2 Remove the cartridge from its packaging and check the valve orientation. The valves have to be oriented as shown in Figure 8 for correct operation.

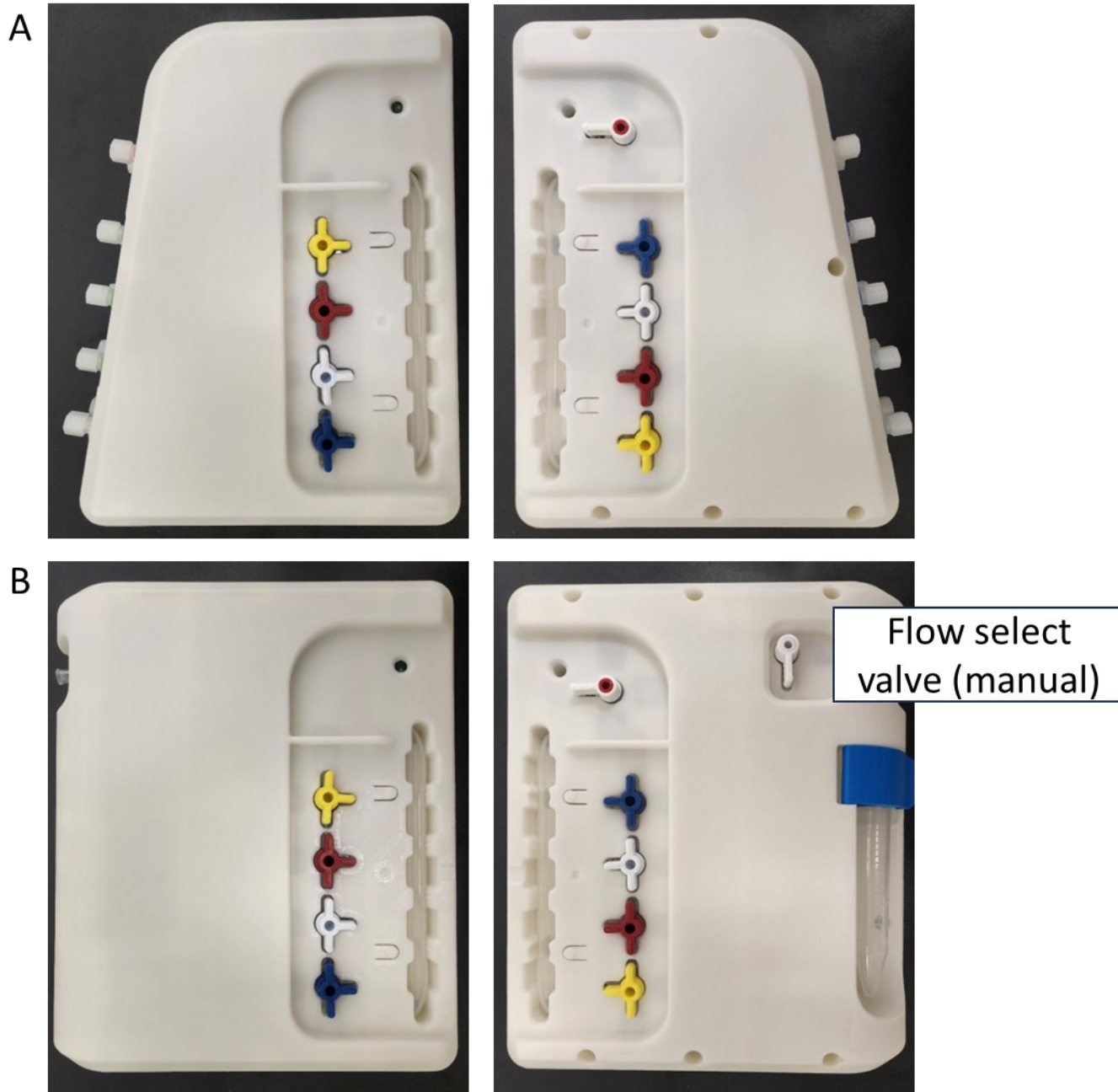


Figure 8. Correct Valve orientation on a cartridge.

A) Open cartridge. B) Application cartridge. Flow select valve orientation depends on the cartridge, and it's use, see cartridge "Instructions for Use".

- 3 Insert the cartridge into the slot on the instrument (Figure 9). The cartridge should insert readily into the slot. DO NOT force the cartridge into the slot.



Figure 9. Insert cartridge into the instrument slot as shown above. The cartridge should slide into the slot without excessive force. If there is difficulty inserting the cartridge, check the correct orientation of the valves (see previous step) or turn instrument off, then on to realign valves.

- 3.1 If there is difficulty inserting the cartridge, visually verify that the slot is not obstructed. If the valve slots are misaligned, turn off the instrument, wait 5 seconds, and turn it back on. This will reset the valve slots to the correct orientation. Any previously entered batch settings will be preserved by the software.
- 4 Following insertion, the instrument will detect the cartridge, and the bottom light on the front panel will turn green. Autocalibration will begin. The autocalibration progress bar (see Figure 10) must reach 100% before the cartridge can be used. You will not be able to run any purifications without a successful autocalibration. You may manually calibrate the pump from the 'Run' dropdown menu in the toolbar to manually operate the pump through the software, though you will still be unable to carry out protocol driven purifications with this type of calibration. If the autocalibration fails, remove the cartridge and attempt reinsertion after 3 seconds have elapsed. If the autocalibration fails again, the cartridge is not operational and needs to be replaced. Please contact customer service for replacement options.

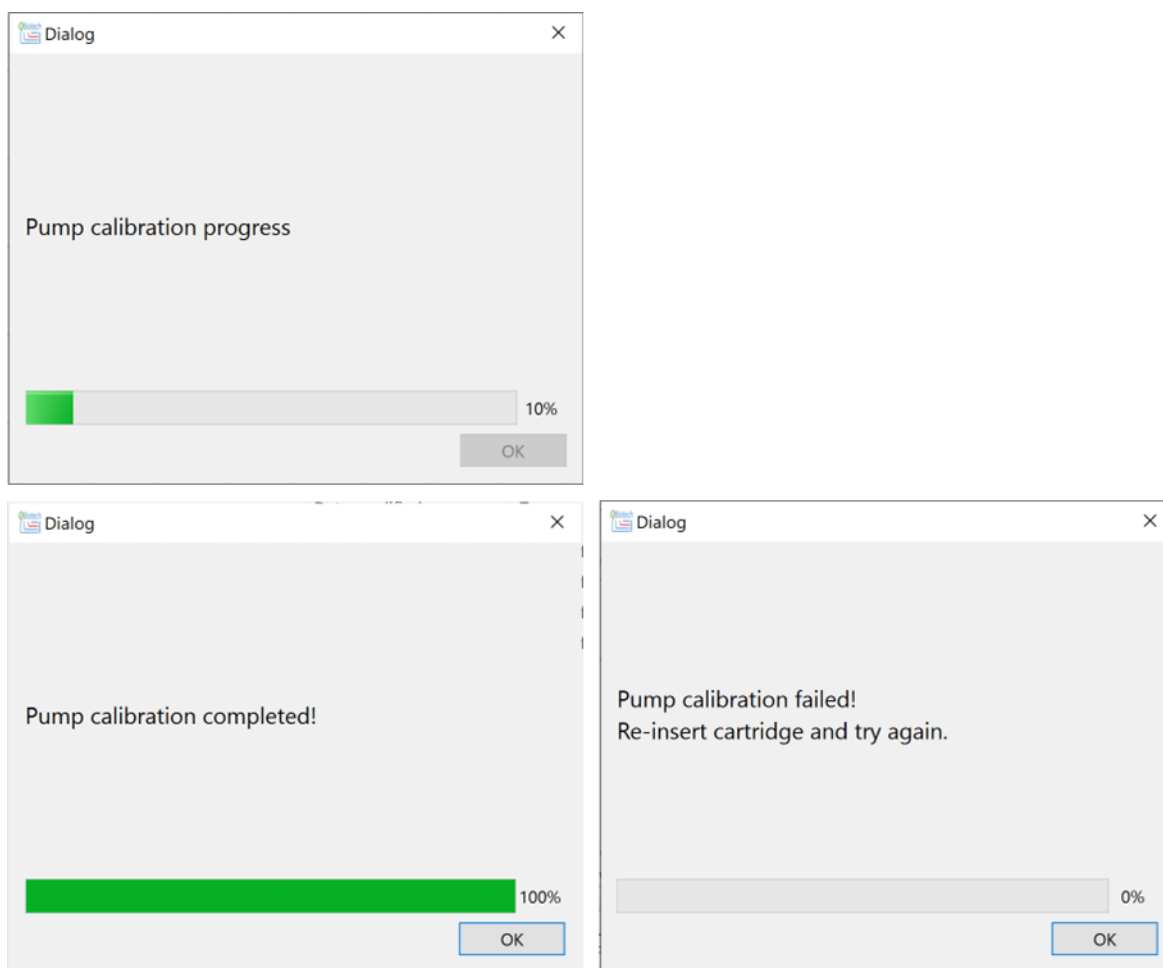


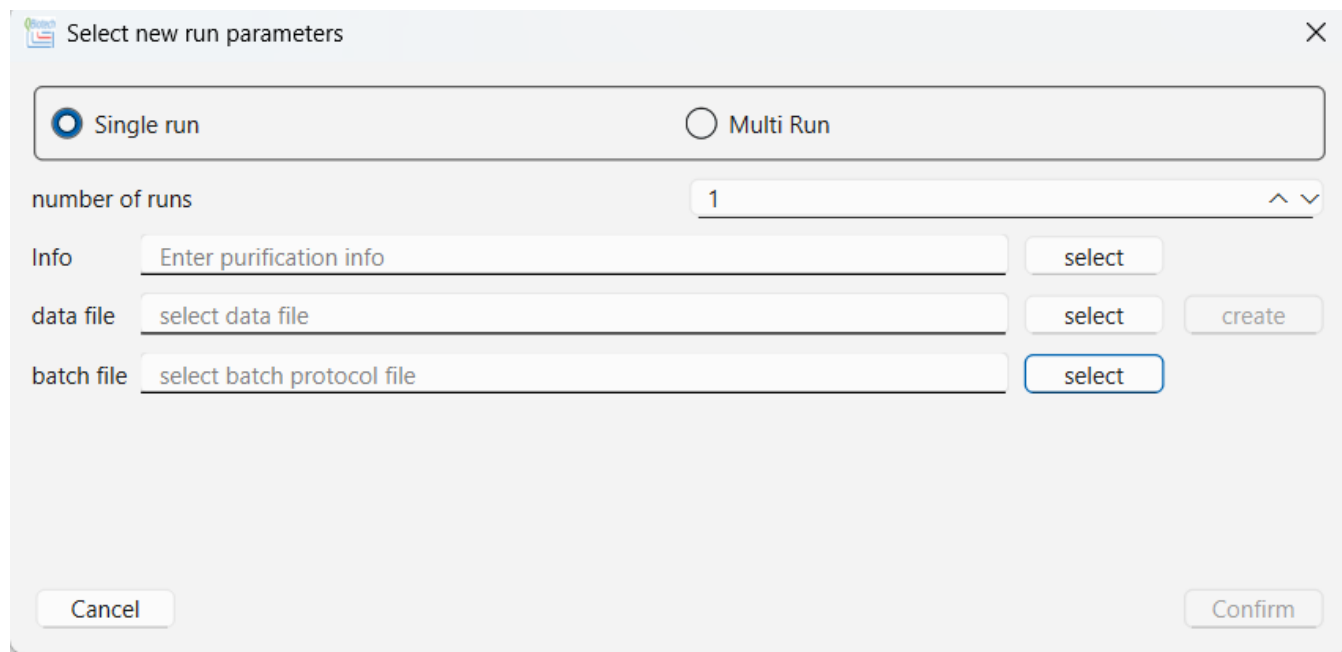
Figure 10. Pump calibration progress window.

When pump calibration is successfully completed, close the window by pressing "OK". The instrument is ready for use.

- 5 To start new purification run, select 'Start new purification run' from the toolbar or the 'File' dropdown menu. This will open the New Run Parameters window (Figure 11) which contain selection of single or multi-run, Purification information, data and batch protocol files. Multi-run enables performing the same purification multiple times without manual intervention.
- 6 If an application cartridge is inserted, the purification batch will be automatically loaded. Users can utilize this batch method, modify it, or load a new batch method. For an open cartridge, a user-defined protocol must be used.
- 7 Clicking the 'select' next to the info bar will open the purification info window (Figure 12). Here you can type any notes on the purification you are running, as well as specifying who is operating the system and any reference you choose.

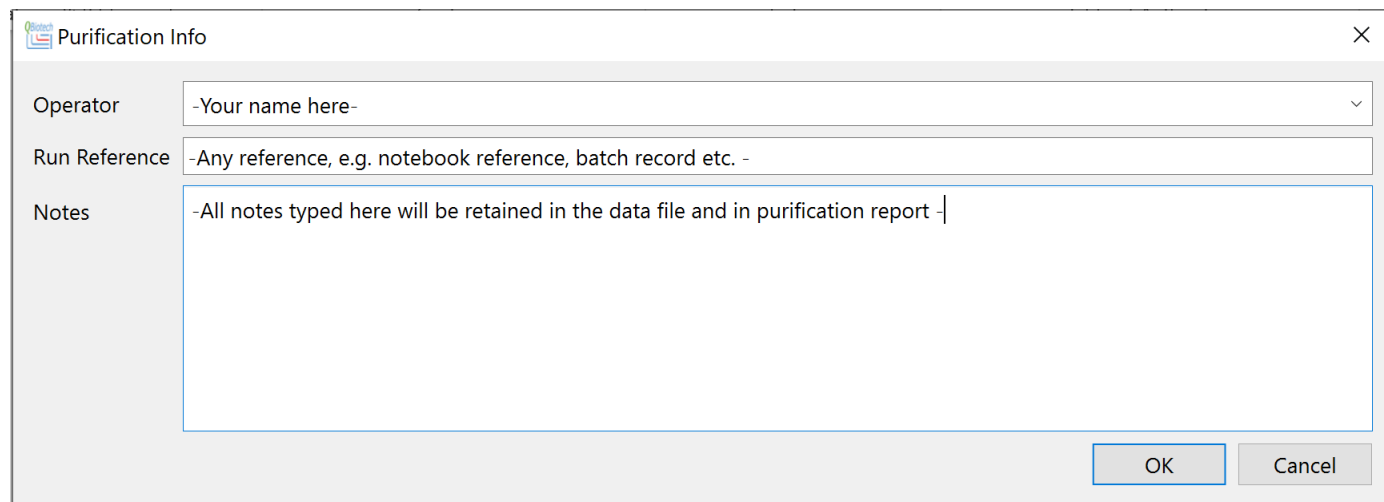
Operation

- Clicking the 'select' next to the data file bar will open your computers file explorer for you to select where your purification will be saved (Figure 13). You may also select 'create' and the system will automatically create a new file based on your reference entry in the purification info window and directory you select.



The 'Select new run parameters' dialog box features a title bar with a close button (X). It contains two radio buttons: 'Single run' (selected) and 'Multi Run'. Below these is a 'number of runs' input field with the value '1' and up/down arrow icons. The main section has three rows: 'Info' with a text field 'Enter purification info' and a 'select' button; 'data file' with a text field 'select data file', a 'select' button, and a 'create' button; and 'batch file' with a text field 'select batch protocol file' and a 'select' button. At the bottom are 'Cancel' and 'Confirm' buttons.

Figure 11. Select run parameters.



The 'Purification Info' dialog box has a title bar with a close button (X). It contains three fields: 'Operator' with a dropdown menu showing '-Your name here-'; 'Run Reference' with a text field containing '-Any reference, e.g. notebook reference, batch record etc. -'; and 'Notes' with a large text area containing '-All notes typed here will be retained in the data file and in purification report -|'. At the bottom right are 'OK' and 'Cancel' buttons.

Figure 12. Purification information window.

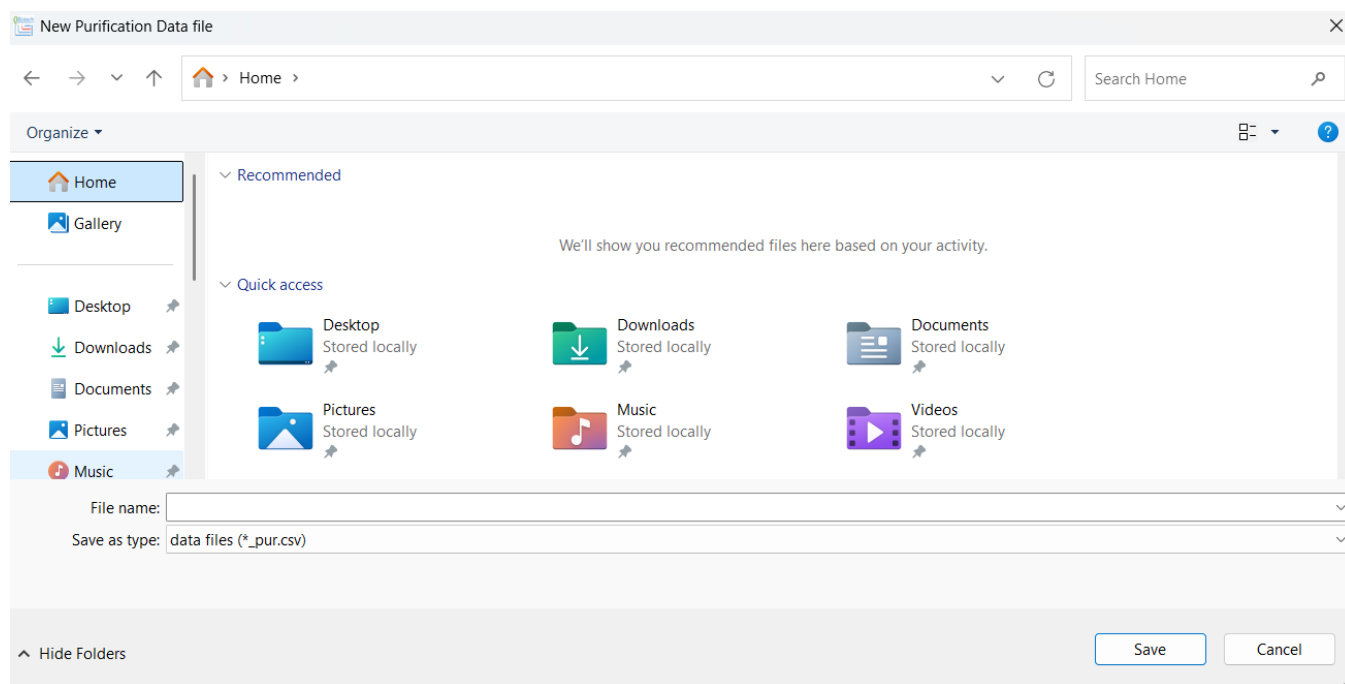
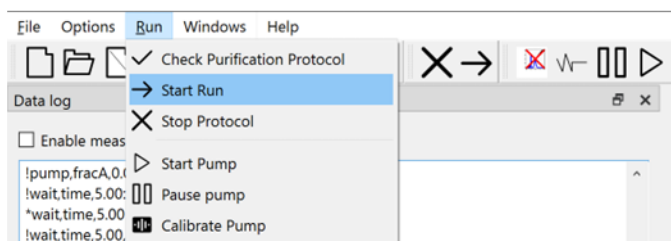


Figure 13. Dialog box to select new data file name.

- 9 Clicking the 'select' next to the batch file bar will open your computer's file explorer to select batch protocol file. It is not necessary to have previously opened the protocol in the software. Only the selected protocol from the file will be used for the purification.
- 10 Start the purification using menu 'Run/Start run' or toolbar '→' (see Figure 14 **Error! Reference source not found.**). You will not be able to operate the pump manually while performing a protocol driven purification.

A



B

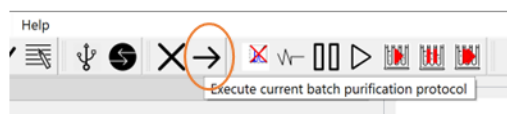


Figure 14. Options to start purification.

A) from menu Run/Start Run, or, B) from toolbar (right arrow button).

- 11 During the execution of the protocol for each "wait" condition, a timer will appear at the bottom of the window (see Figure 15). This timer indicates the estimated time

until completion for each timed delay step. The progress of the batch protocol can be monitored in the batch window, and the current step will be highlighted.

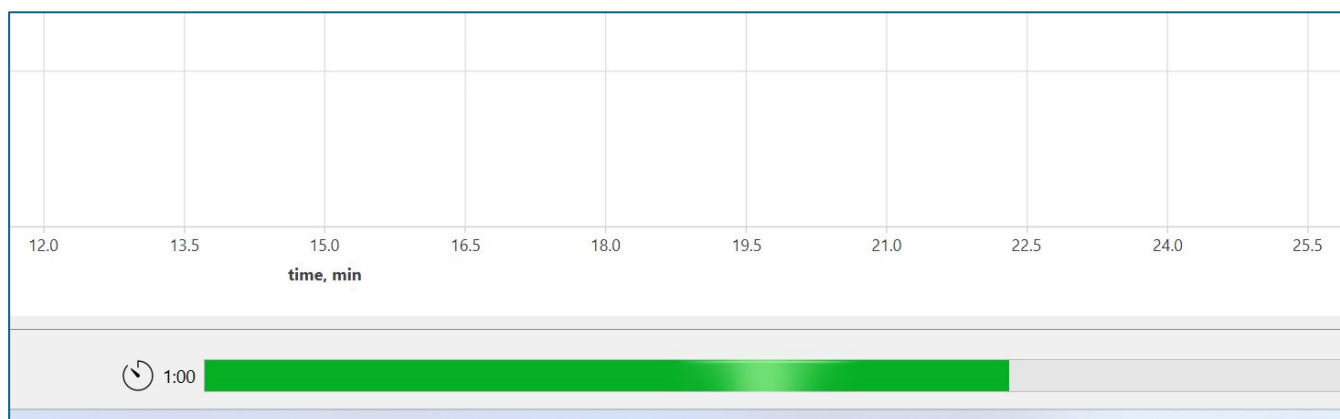


Figure 15. Progress bar at the bottom of the main window showing time remaining in the current step.

The status of the process can also be observed through the data log window and system view in the software. The batch process can be paused or halted through the batch control toolbar (Figure 5, ⁴)

12 The run can be paused or halted using “Stop current protocol” action on toolbar (see Figure 5. ⁴), or “Run/Stop Protocol” menu. To re-start, abort or continue the run, select “Run/Start Run” menu. Select action you would like in the Dialog window (see Figure 16)

Note: When the protocol is paused, the system maintains the current status. For example, if the pump was running, it will continue to run. Manual control of the valves and the pump is enabled through system view window. When the run is continued, the system will continue with any manual changes made. The delay timer will continue counting during the pause.

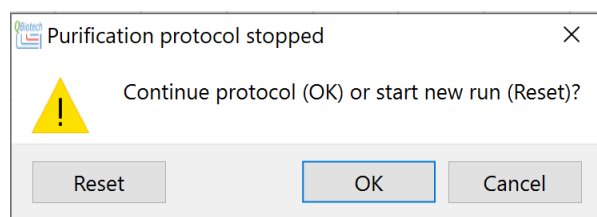


Figure 16. Options to continue paused protocol.

12 When the process is complete, a notification will appear confirming completion (see Figure 17. If using an open cartridge, make sure that the fluid connections are secured (either disconnected or pinched off) in order to prevent accidental fluid flow

and mixing once the cartridge is disengaged. All tubing must be secured before ejecting the cartridge. When using an automatic cartridge this is not necessary.

Once this is complete, press 'eject cartridge' on the toolbar. The instrument will automatically return the valves and pumps to their default positions. The instrument will disengage from the cartridge and the software will provide a prompt to remove the cartridge when ready.



Figure 17. A dialog window indicating batch completion.

- 13 Remove the cartridge and refrigerate for reuse as necessary. Do not leave the cartridge in the instrument when not in use.
- 14 In order to print a purification report Select menu File/Print report. The report can be printed to any printer installed on the computer, including "print to pdf". An example of the report is shown in Figure 18.

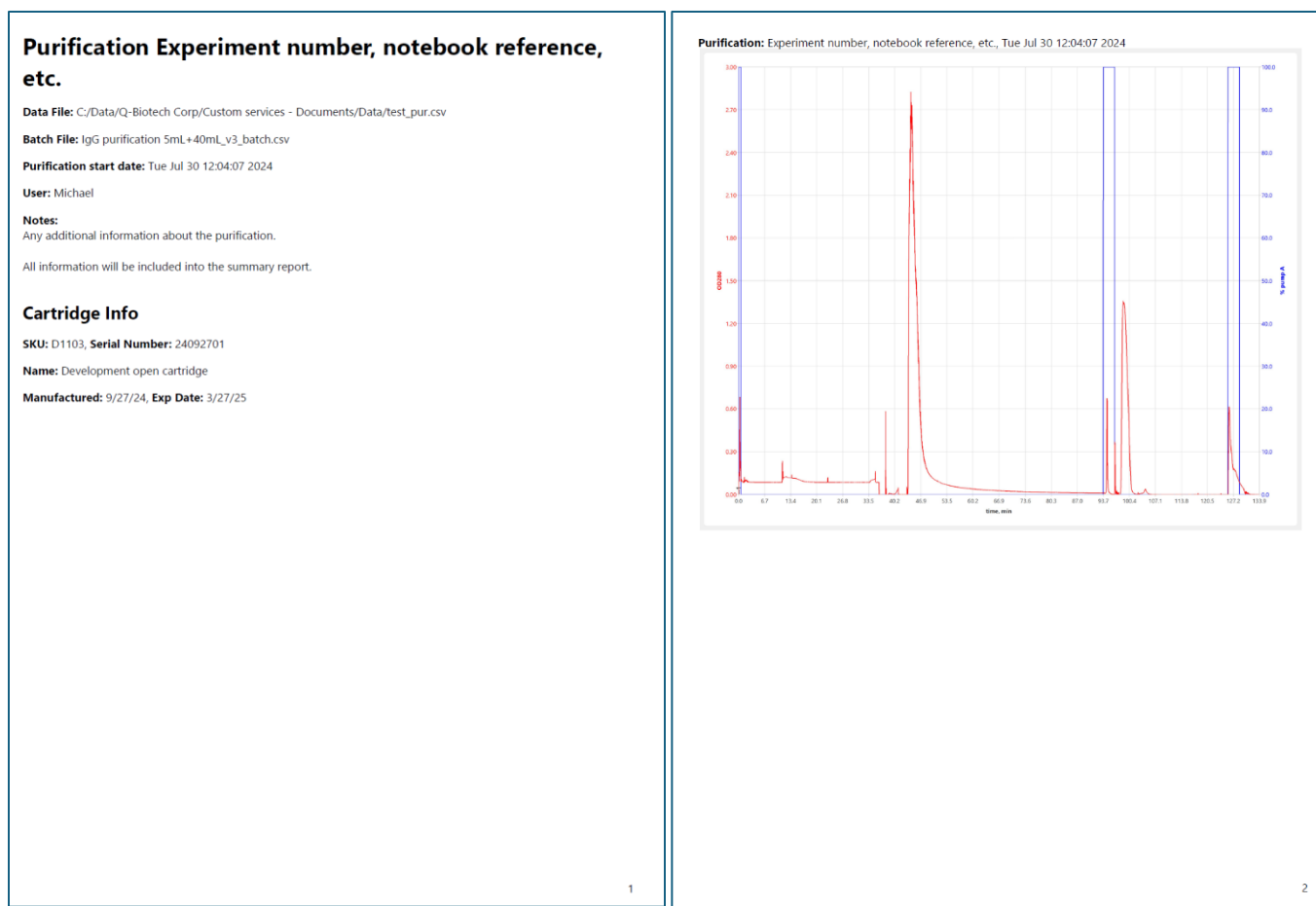


Figure 18. Example of printed report.
The header contains all information entered in the new file dialog box.

5 MAINTENANCE AND TROUBLESHOOTING

The cartridge should insert easily into the slot. If there is difficulty inserting the cartridge, visually verify that the cartridge slot is not obstructed, then turn off the instrument, wait 5 seconds, and turn it back on.

If the valves on the cartridge are misaligned, manually adjust the valves, see Section 7, turn off the instrument, wait 5 seconds, and turn it back on.

Inceptum™ operates on a closed system with a sealed interior and is designed to prevent overflow. If the housing or the cartridge requires cleaning, wipe the surface with a 70% ethanol solution. Do not spray the instrument with the solution, wipe only.

If the software cannot connect to the instrument, make sure the USB-C cable is fully inserted. If the problem persists, remove and re-insert USB-C cable. When computer sound is enabled, Windows will provide audible notification of removal and insertion of the cable.

6 SPECIFICATIONS

Instrument

Flow rate (flow rate depends on cartridge)	0 – 50 mL/min
Max Pressure	15 psi (103 kPa)
Number of independent pumps	2
Wetted materials	No fluid contact with disposable cartridge
Optical density range (@275 nm)	0 – 3,000 m.a.u. (0-3 OD ₂₇₅ @ 1 cm optical pathlength)
OD stability	< 0.5% CV after 15 min warmup
Conductivity measurement range	0 - 500 mS
External operation	Controlled through GUI software from a laptop/PC with USB-C serial connection. Windows 10 or later, 64-bit OS is required.
External instrument control	Can control external fraction collector using standard interface (connect TTL line to external ground to advance fraction, start/stop remote control). Programmable interface with 3 command lines
Operational parameters	
Power consumption	60W max
Input power	90-240V AC, 50/60 Hz
Max internal voltage	12V
Fusing	No external fusing
Environmental requirements	
Operating temp	2-40°C
Storage temp	2-40°C
Operating humidity	Up to 90% RH, non-condensing
Dimensions	10.5 x 10 x 11 in (w x d x h) 267x254x279 mm

Specifications

Standard Cartridge

Separation media	Function specific, up to 2 columns, up to 20 mL each.
Buffer capacity	Up to 3 buffer solutions, up to 500 mL total volume
External fluid connections	Sample inject port, sample collect tube, external fraction collector outlet. Sample collect tube or external fraction collector outlet selected by manual valve prior to cartridge use).
Wetted materials	Silicone, polyethylene, Tygon, quartz, gold.

Open Cartridge

Separation media	User provided, up to 2 columns, unlimited volume (external placement).
Buffer capacity	Unlimited, connection provided (luer-lock or slim-line sterile connector)
Wetted materials	Silicone, polyethylene, Tygon, quartz, gold.

10 REAR PANEL CONNECTOR INFORMATION

The rear panel contains a terminal block for connecting to a fraction collector (**Error! Reference source not found.**). The matching terminal block is produced by Phoenix Contact, part number 1902149 (<https://www.phoenixcontact.com/en-pc/products/printed-circuit-board-connector-fkct-25-5-st-508-1902149>).

Any fraction collector that accepts contact closure as a signal to advance to the next fraction can be used with *Inceptum™* System. Connect the control signal to Pin1 and ground to Pin 3 of the connector (Table 15).

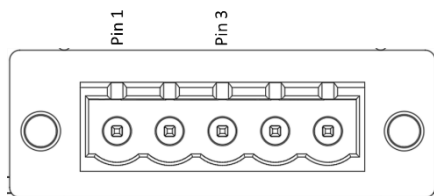


Figure 19. Connector to control an external fraction collector.
The pin 1 is located at the left side of the connector, when viewed from the rear panel.

Table 15. External fraction collector output signals.

Pin	Signal	Type	Active	Description
1	Advance fraction	Pulse	Low	Output is TTL compatible and can withstand +15V. Normally open. To advance fraction, this pin is connected to Ground (pin 3) for at least 100 μ s.
2	N/A			
3	Ground	--		
4	N/A			
5	N/A			

11 WARRANTY AND ORDERING INFORMATION

The *Inceptum™* System is warranted for one year against defects in materials and workmanship. If any defects should occur during the warranty period, Q Biotech Corp will repair or replace the instrument at its discretion, without charge. However, the following defects are specifically excluded:

- Defects caused by improper operation
- Repair or modification performed by an unauthorized personnel
- Defects caused by using damaged or modified cartridges
- Damage caused by deliberate or accidental misuse
- Damage caused by disaster
- Damage due to improper solvents or samples

7.1. 11.1 WARRANTY INFORMATION

Model I1001

Serial Number _____

Date of Delivery _____

Warranty Period _____

7.2. 11.2 ORDERING INFORMATION

cat #	Name
I1001	<i>Inceptum™</i> Chromatography system
C1101	<i>Inceptum™</i> Antibody purification cartridge
C1103	<i>Inceptum™</i> Open cartridge, standard

Please contact us to customize cartridges (e.g. custom connectors or buffer solutions) or to request new cartridge types.