we are cellix
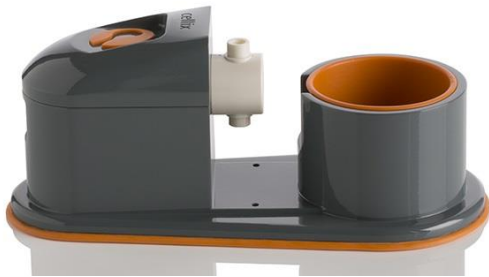
Quick Start Guide
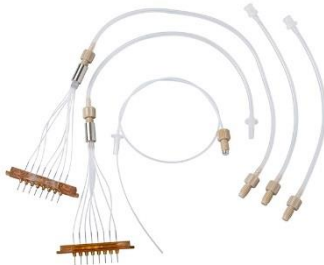
Kima™ Pump PC Control

Kima Pump Box Contents

1. Kima pump

2. Kima controller

3. iPod Touch with iKima app

4. Tubing and cables for Kima pump

5. Bottle 100 mL with GL45 cap

6. Velcro strips

1. Power socket
2. Power switch
3. "Ready" indicator
4. USB connector
5. Power indicator
6. Kima pump ports (4 underneath)

1. Bottle holder
2. Pump
3. Kima pump socket

Connecting Kima controller and Kima pump

- Fix the Kima controller to a wall/incubator using Velcro strips provided.
- Plug in the power cable (110–230 V) and connect the power supply to the power socket of the Kima controller.
- Plug the Kima pump to the Kima controller (port 1) using the Kima cable. The Kima cable can be easily disconnected for ease of use.
- Connect the USB cable to the Kima Controller USB port and to your PC
- Press the power switch to turn on/off the Kima controller (power indicator displays a red light when power is on).
- The "ready" indicator informs when the Kima controller is ready to be used.

Connecting tubing: Kima-connect tubing set contains four different parts

- Kima1-connect: pump priming cable (2 supplied per set)
- Kima2-connect: pump inlet cable
- Kima3-connect: pump outlet cable
- Kima4-connect: biochip outlet cable

Kima1-connect pump priming cable (2 supplied per set) connection
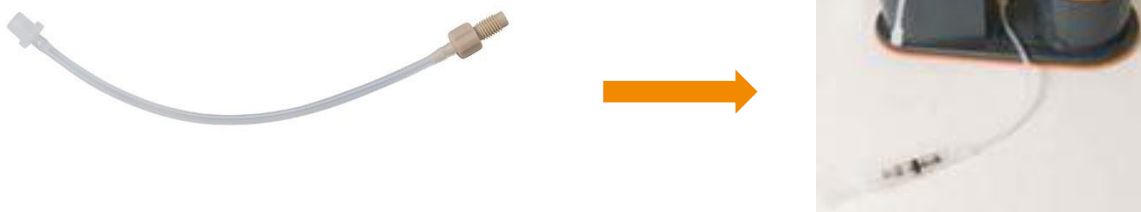
Connects to inlet and outlet of pump and prime with solution using syringe.

Kima2-connect pump inlet cable connection

Connects from bottle into pump.

Kima3-connect pump outlet cable connection
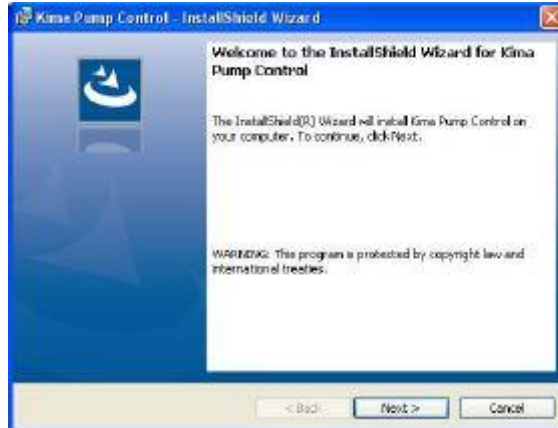
Connects from pump to biochip inlet.

Kima4-connect biochip outlet cable connection

Connects from biochip outlet to bottle.

Installing the Kima Control Application

1. Open the SetupKimaControl.exe file (included in the Install Installation CD)

2. Click Next >

3. Click Install

4. The installation is complete
5. Click Start -> Programs -> Cellix Limited -> Kima pump control -> KIMA CONTROL in order to launch the Kima control application.

Installing the Kima Drivers

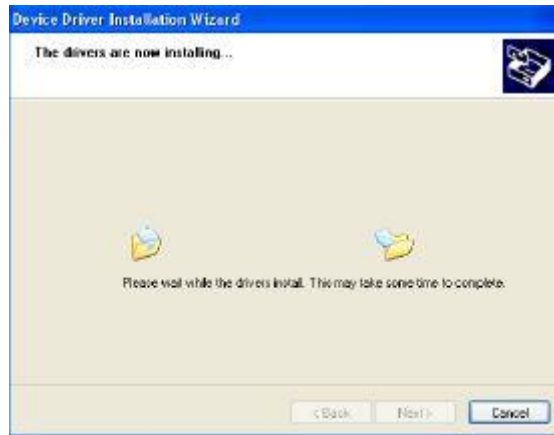1. Open CDM v2.10.00 WHQL Certified.exe (included in the Installation CD)*

2. Click Extract

*The driver can be also downloaded from http://www.ftdichip.com/Drivers/VCP.htm
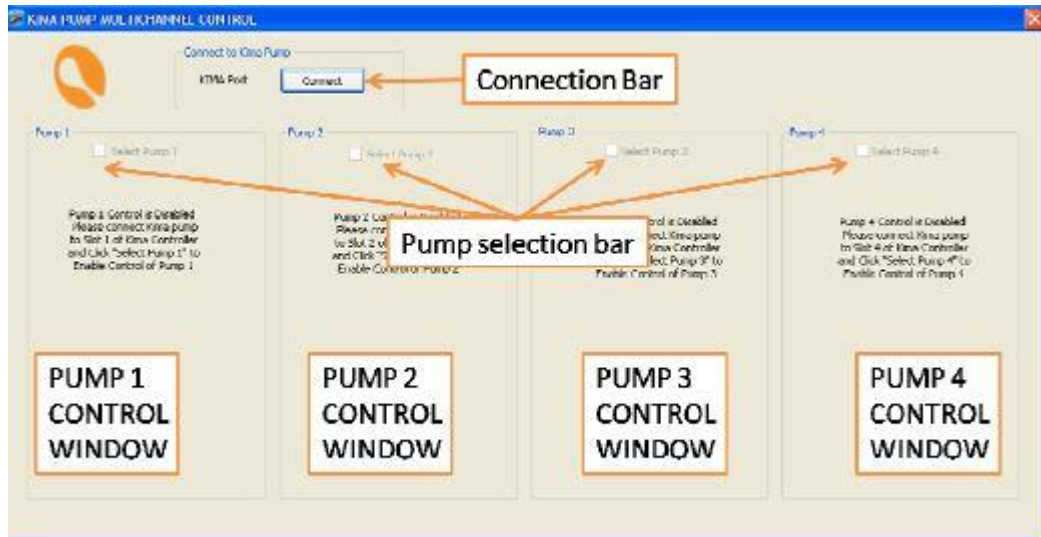
3. Click Next >

4. The installation is complete

Kima Control PC Application

The Kima control application provides full control of the 4 Kima pump connected to the Kima controller via USB. Each of the 4 pumps can be enabled/disabled independently as well as being programmed with individual flow rates.
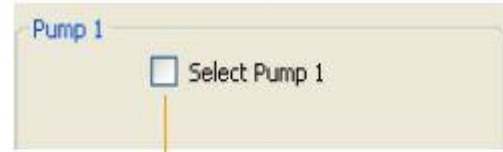
Main window

Connection bar
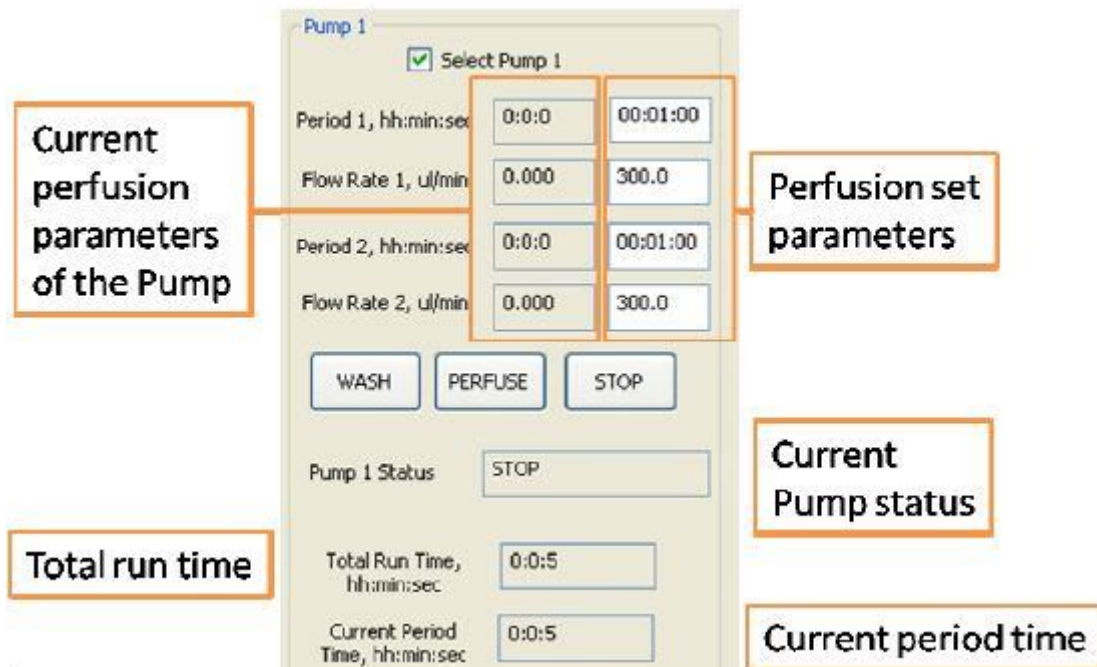
Pump selection bar

Pump control window

The Pump control window is disabled unless you are successfully connected to the controller.
To connect, press the 'connect' button. A confirmation message should appear indicating you are connected.

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Once connected, to enable the pump control window, simply click

☐ Select Pump 1

and the window will become enabled. You can now start controlling your Kima pump(s).

Pump control window sections

WASH

The washout mode is used to wash and prime tubing before and after cell culture experiments. Press wash to start running the pump and press stop to stop it. While it is running, the status displays 'WASH'

PERFUSE

The perfusion mode is used to run samples at flow rates determined by the user. The user can select two flow rates for two different time periods (see figure below).

These two flow rates are then continuously looped or cycled until the user stops the device. The connection of the Kima controller with the PC is not necessarily maintained; i.e. the PC can be switched off but the device will continue to work as programmed. It is possible to re-establish the communication connection once the PC is restarted, in order to change the flow rate settings if required.
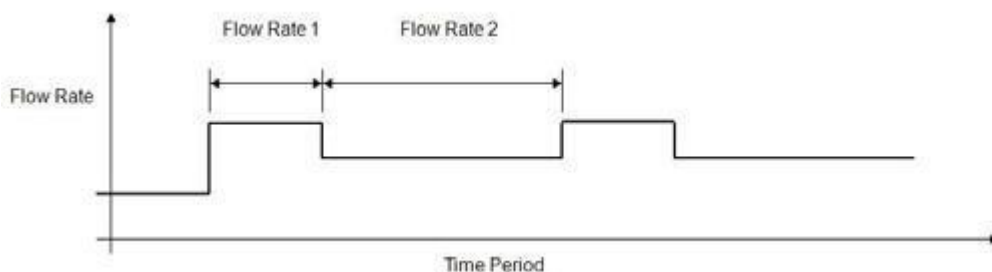
How to configure the pump in perfusion mode

1. Select the flow rate and time for each period.
2. Click on the 'PERFUSE' button.

Typical settings:
- Flow rate 1: 600 µL/min for Period I = 2 minutes
- Flow rate 2: 0 µL/min for a Period II = 20 minutes (i.e. flow stops).

The 'STOP' button stops the Kima pump regardless of its current status.

Pump status information
The pump status information section displays the selected pump status and running time.

Pump status	STOP	The pump is stopped
	WASH	The pump is washing
	PERFUSION PERIOD 1	The pump is perfusing the period 1
	PERFUSION PERIOD 2	The pump is perfusing the period 2
Total run time	Perfusion mode	Total time since perfuse button was pressed
	Washing mode	Total time since perfuse wash was pressed
Current period time	Perfusion mode	Time since perfusion period 1 or perfusion period 2 has started
	Washing mode	Time since washing has started

Troubleshooting

- The PC doesn't connect with the Kima controller

  o Check that the USB cable is properly connected to both PC and Kima controller.
- The Kima pump doesn't run

  o Check that cable between the pump and the controller is securely connected to correct Kima controller port.

  o Switch off and on the controller and try again.

For more information on the Kima pump or any other Cellix product or service, please call:

Republic of Ireland: +353-1-4500-155.

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