BioLogic LP Buffer Select Valve

Catalog Number 731-8321

The BioLogic LP Buffer Select Valve is a low pressure, 5-port, 4-position valve for stream selection and is rated for a maximum pressure of 30 psi. Connect the valve to the peristaltic pump for buffer and solvent selection. Refer to the BioLogic LP Instruction Manual for discussion of software control of the valve.

Connection to the BioLogic LP Controller and Rack

The BioLogic LP Buffer Select Valve mounts to the System Rack using the clamp and Allen key. It is powered and controlled by the BioLogic LP Controller. This valve must be plugged into the Buffer Selector port on the rear panel of the Controller. The Controller will automatically detect the valve when it is properly connected.

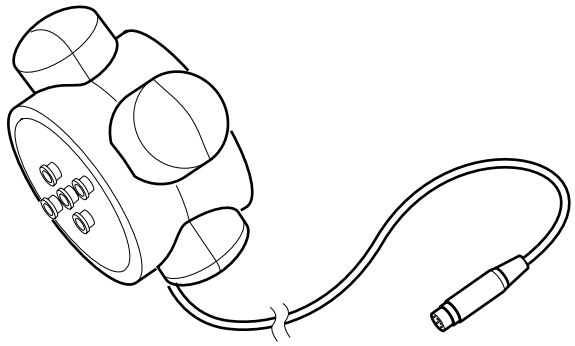

Figure 1. BioLogic LP Buffer Select Valve

Plumbing and Operation of BioLogic LP Buffer Select Valve

To plumb and operate the BioLogic LP Buffer Select Valve, refer to the discussion below and the illustrations on the following page:

1. Using the provided barb-to-male luers, connect a length of Tygon tubing between the Common port of the valve to the inlet port of the pump. The pump inlet port is user-defined by selecting "Flow" from the Pump Screen. Match the appropriate luer connector with the tubing ID, and ensure a firm connection but do not over-tighten.
2. Using the provided barb-to-male luers, connect a length of Tygon tubing to ports A/B, C, D, or E of the valve to either the BioLogic LP Proportioning Valve/Mixer (for A/B port) or to the solvent reservoir. Match the appropriate luer connector with the tubing ID, and ensure a firm connection but do not overtighten. Attach tubing only to those ports that will deliver buffer. Block the unused ports with the provided plugs. Manually prime each line from the valve to the Pump.
3. Select the buffer composition from the Buffer Select Screen, which may be reached in one of two ways.

   Option One:
   a. Select the "Pump" key from the front panel.
   b. Select "Buffer" from the display.

   Option Two:
   a. Select "Valve" key from the front panel.
   b. Select "Buffer" from the display.

   Note: Always manually prime all pre-pump valves before initiating a run. Failure to displace air with buffer may damage the column during a chromatography run.

4. The Mixing and Buffer Select Valves work together to either create a gradient (with Buffers A and B) or maintain isocratic conditions. Select “Mix” from the display to create a mixture between buffers A and B, and enter the mixture in terms of %B. For isocratic conditions, use the “Next” and “Previous” keys from the Controller panel to select any of the other five possibilities.

Note: Allowable buffer options are indicated by capital letters; lower-case indicates that the valve may not be connected and thus, is not an allowable option.

5. Choose “OK” to accept the selection. Select “Cancel” to return to the Buffer Select Screen.

Valve maintenance

The BioLogic LP Buffer Select valve should **always** be rinsed with water following use with aqueous buffers, or 20% ethanol following use with non-aqueous solutions. Never allow salt solutions to dry inside the valve as this will **irreversibly** damage it. For long-term storage, store the valve in a 20% EtOH solution and **do not** allow the valve to dry out.

Technical Assistance

For additional assistance, contact your local Bio-Rad representative. In the United States, call Technical Service at 1-800-4BIORAD.

Ordering Information

731-8321	**Select Valve, BioLogic LP Buffer**
731-8224	**0.8mm Barb to Male Luer**
731-8225	**1.6mm Barb to Male Luer**
731-8214	**Tygon Tubing, 0.8mm ID/0.8mm wall, 10 meters**
731-8215	**Tygon Tubing, 1.6mm ID/0.8mm wall, 10 meters**