

Frequently Asked Questions (FAQ)

Living Systems Pressure Arteriograph Systems

Pressure > 200 mmHg

Q 1. Can pressures greater than 200 mmHg be measured and used for control of the PS-200?

Yes, the analog voltage signal from the Pressure Out connector is linear to about 300 mmHg. Use a digital voltmeter to read this voltage (10 mV/mmHg).

However, the digital panel meter of the pressure servo control will read '1', an overload condition.

Computer Control

Q 2. Can I use a computer to program pressure protocols using the PS-200?

Yes. Using a digital-to-analog (D-A) converter, program the amplitudes and time sequence of the voltages that will be outputted from the D-A into the external input jack of the pressure servo control unit.

Pressure Pulsations

Q 3. How can the peristaltic pump pressure fluctuations be minimized?

These pulsations are due to tube expansion when one of the rollers moves off the tube. First, use as large a tube set (e.g., the FC-TS-093 tube set) in the pump as possible when the pump is providing a controlled pressure at the distal end of the cannulated vessel system. A simple windkessel may also be placed in series between the system's distal end and the pump. The windkessel is a 'tee' connector with the branch at right angles to the flow path having a closed-off tube which traps some air. The larger the air trap volume, the more the pulsations are

Frequently Asked Questions (FAQ)

Living Systems Pressure Arteriograph Systems

diminished, but at the expense of slowing the response time from 1–3 seconds to 15 seconds. It is possible in this way to reduce pulsations to as much as ± 1 mmHg. Alternatively, the pulsations may sometimes be minimized by raising or lowering the pump height to closely match the inlet and outlet pressures of the pump.

Perfusion Pressure Control

Q 4. Can I use the pressure servo to control the vessel pressure (P_{AV}), or maintain the difference in pressure (dP) between two locations in an isolated vessel or vascular bed?

Yes, in conjunction with the perfusion pressure monitor (PM-4), use either the dP or P_{AV} output and connect it to the P_{AV} jack on the rear of the PS-200 (see instruction manuals).

Necessity for Recalibration

Q 5. How often do the zero and scale calibrations have to be made?

Normally, the drift of the zero calibration is less than 1.5 mmHg in 24 hours when the ambient temperature changes in the room are not significant. The scale calibration does not have to be readjusted from day to day. It is advisable to adjust the zero calibration daily.

Frequently Asked Questions (FAQ)

Living Systems Pressure Arteriograph Systems

Pressure Arteriograph

Apply and maintain physiological pressures in cannulated blood vessels

