Frequently Asked Questions Gamma/L Pump

- **How do you use a flow monitor with a Gamma/L pump?**

- **How do you set the mA function on the Gamma/L pump?**

- **How do you set the Access Code on the gamma/L pump?**

- **How do you calibrate the gamma/L pump?**

How do you use a flow monitor with a Gamma/L pump?

Connect the flow monitor to the right top connector on the front of the gamma/L pump. The flow menu will only appear when the flow monitor is connected. Push the "P" for 3 seconds. Use the up and down arrow keys to get to the "SET" menu. Press the "P" key momentarily to accept the menu. Use the up and down arrow keys to get to the "FLOW" menu. Press the "P" key momentarily to accept the menu. Use the up and down arrow keys to turn "ON". Press the "P" key momentarily to accept the menu. Use the up and down arrow keys to set the number of strokes the pump will stroke before it stops due to flow. Press the "P" key momentarily to accept the number.

How do you set the mA function on the Gamma/L pump?

Set the pump in the analog mode. Push the "P" for 3 seconds. Use the up and down arrow keys to get to the "SET" menu. Press the "P" key momentarily to accept the menu. Use the up and down arrow keys to get to the "ANALG" menu. Press the "P" key momentarily to accept the menu. Use the up and down arrow keys to select curve, 0-20 mA or 4-20 mA". Press the "P" key momentarily to accept the menu. If you choose the curve setting you will have additional settings please see section 7.4.2 of the operating manual.

0 - 20 mA

at 0 mA the gamma/L does not operate
at 20 mA the gamma/L operates at 180 strokes/min.
Between these two extremes the stroke rate is proportional to the electrical signal.

4 - 20 mA:

at 4 mA the gamma/L does not operate
at 20 mA the gamma/L operates at 180 strokes/min.
Between these two extremes the stroke rate is proportional to the electrical signal.
For signals of below 3.8 mA a fault will be detected and the gamma/L will stop (e.g. cable break).
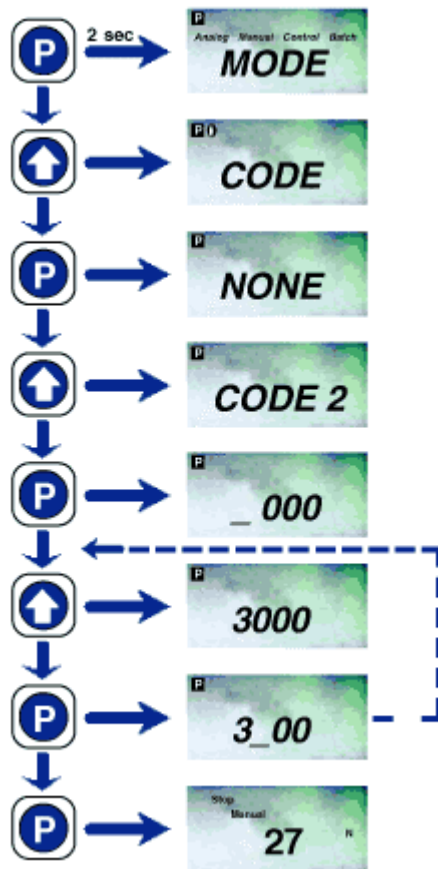
Curve:

In the "curve" processing mode you can program the gamma/L ratios.
There are 3 options available:

- straight line
- lower band
- upper band

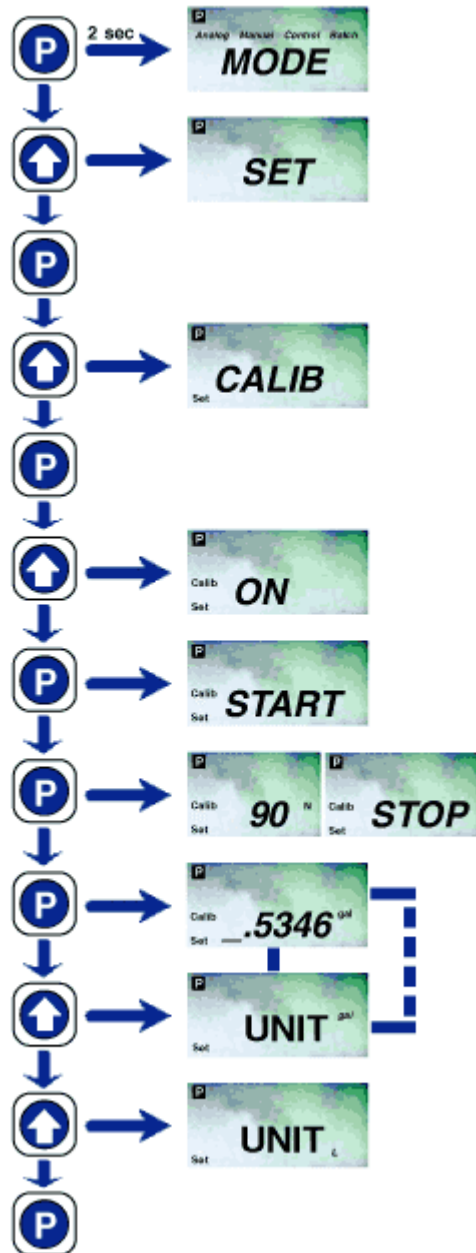# How do you set the Access Code on the gamma/L pump?

- Press the "P" key and hold for 2 seconds until the display word on the screen is flashing.

- Press the "up" or "down" arrow key until the screen displays "CODE".

- Press the "P" key to enter this option.

- Press the "up" or "down" arrow key to select the desired option: "CODE 1", "CODE 2", or "NONE".

- Press the "P" key to accept the option.

- Set the access code by pressing the "up" or "down" arrow key to change the number that is blinking. Press the "P" key to accept the value and he next digit will blink. Continue this procedure until all digits are entered.

- Press the "P" key to accept the code. This access code must be entered to perform any function setting as authorized by the access code selecled.

  NOTE: The access code screen appears anytime the code is necessary to authorize setting changes. Once the code is entered, the user has 15 seconds to make changes.

How do you calibrate the gamma/L pump?

Before calibrating, make sure the pump is plugged into the appropriate electrical outlet and the suction and discharge lines are connected to the pump. Set the stroke length. stroke frequency, and pressure to the desired settings, set the pump to "MANUAL" mode, and prime the pump.

Please note: a calibration column is needed to perform this function.

- Press the "P" key and hold for 2 seconds until the display is flashing.

- Press an arrow key to change the display to "SET". Press the"P" key to accept the input. Press an arrow key to change the blinking display to "CALIB"

- Press the "P" key to accept the input.

- Press an arrow key to change the blinking display to "ON".

- Press the "P" key to accept the input. "START" will be blinking on the display.

- Put the suction line into a calibration column and fill the calibration column to a known volume.

- Press the "P" key to start the pump. "STOP" will flash on the display as the number of strokes are counted.

- Allow the pump to pump for a set period of time (30 seconds to 1 minute - **1 to 2 minutes is recommended**)

- Press the "P" key to stop the pump and enter the volume of media pumped. (This may be entered in either **Litres** or **Gallons**.) *The volume must be entered in gallons it the readout is to be in g/h.*

- FOR CONVERSION 1 LITRE IS EQUAL TO 0.264 GALLONS.

- 1 LITRE IS EQUAL TO 1000 ML.

- Note the volume of media pumped.

- Press an arrow key to change the number that is blinking, then press the "P" key to accept he value and change to the next digit. Continue until the volume is entered and "UNIT" is on the display.

- Press an arrow key to change between the flashing "gal" and 'L" on the right side of the display.

- Press the "P" key to accept the input.

- The "I" key can be pressed to change the display to readout in gal/h or L/h.