

AutoTuning Sequence

AutoTune State 0 Stop

State	Full	Valve	Calibrate	Description
2-4	●	●	●	Zero inner loop sensor
5-6	●	●	●	Control Pressure to 10%
7-8	●	○	○	Set inner loop gain (Restart ¹ at step 3 if gain changed)
9	●	●	●	Calibrate inner loop sensor at 10%
10-11	●	●	●	Control Pressure to 90%
12-13	●	○	○	Set inner loop gain (Restart ¹ at step 3 if gain changed)
14	●	●	●	Calibrate inner loop sensor at 90%
15-16	●	●	○	Vent
17-18	●	●	○	Control Pressure to 10%
19	●	●	○	Wait for pressure to stabilize
20	●	●	○	Tune at 10% (See below, Restart ² at step 3 if pressure < 5% or > 100%)
21-23	●	●	○	Control Pressure to 90%
24	●	●	○	Wait for pressure to stabilize
25	●	●	○	Tune at 90% (See below, Restart ² at step 3 if pressure < 5% or > 100%)
26	●	●	○	Compute new coefficients
27	●	●	○	Reload coefficients
28-29	●	●	●	Control Pressure to 50%
30	●	●	●	Calibrate inner loop sensor at 50%
31	●	●	●	Vent

AutoTune State 20 Tune F

States 20 and 25 are sub-divided as follows:

A	Close test port valve
B	Initialize controller
C-D	Determine leak rate
E	Rough tuning of Apply valve
F-H	Fine tuning of Apply valve
I-K	Verify Apply valve tuning (Restart ³ at step C if incorrect)
L-M	Rough tuning of Release valve
N-P	Fine tuning of Release valve
Q-S	Verify Release valve tuning (Restart ³ at step L if incorrect)
T	Open test port valve

¹ Restart may only be done once.

² Restart repeats until condition does not occur.

³ Restart conditions decrease with repetition.