

7615 Pump Pressure Matching

This procedure is intended for Fluke Calibration Employees, Approved Service Providers, or other authorized personnel trained on service repairs of 7xxx controllers.

Purpose

This document provides instructions for performing 7615 Pump Pressure Matching. This procedure matches the output of the pump sensor to the Paros sensor.

Note:

- This process is automatically performed during the Autotune sequence
- Perform this procedure if your pump sensor has been replaced or is not reading approximately what your Paros sensor is reading
- If normal operation does not allow for excursions above 75% FS
- Pump calibration coefficients are stored on CPU

Preparation

1. Drive pressure 100 to 110 psi
2. Reservoir valve set to Internal On
3. Test port connected to a volume or plugged

Pump Cal

1. Set units to psi
2. Vent system
3. Zero Paros Sensor
 - 3.1. Select [Menu][Cal][Zero]
 - 3.2. Once stable, Enter Actual Pressure from barometric reference and press OK



Fig 1

4. Select previous button to main menu
5. Set pump sensor calibration value for P1
 - 5.1. Enter Pump Calibration Screen
 - 5.1.1. Select [Menu][Cal] then press the Calibrate button on front panel (see fig 2)
 - 5.1.2. Select Other



Fig 2

- 5.2. Using arrows move cursor down to "P1" and enter barometric pressure in psi and press Enter

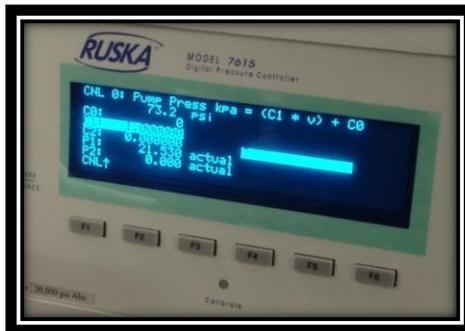


Fig 4

- 5.3. Select Previous button out to main menu
6. Set pump sensor calibration value for P2
 - 6.1. Control to 50% FS of 7615 e.g. (10000 psi for 20000 psi FS 7615)
 - 6.1.1. There are 2 ways to generate pressure. First you can type set point and hit enter, or as in figure 5, you can select (Step↑) until you are at 50% FS, set to control, then press enter



Fig 5

6.1.2.Allow 7615 to control and stabilize at 50% FS pressure

6.1.3.Once stable, enter Measure Mode, let stabilize again.



Fig 6

6.1.4.Open System Valve

6.1.4.1. Select [Menu][Test][Purge][Sys Valve]

6.1.5.Allow system and pump pressure to stabilize

6.1.6.Record the Paros pressure value in psi

6.1.7.Press previous button to main menu

6.1.8.Enter Pump Pressure Calibration Screen

6.1.8.1. Select [Menu][Cal] then press the Calibrate button on front panel

6.1.8.2. Select [Other]

6.1.8.3. Using arrow keys select and edit P2 with the recorded value and press enter

7. Step 6 may be repeated as necessary until the value for P2 is near the highest pressure at which the instrument will be routinely used.

8. Verify pump pressure and Paros sensor

8.1. Push previous to main menu

8.2. For example Select [Menu][Display]

8.3. Verify Pump and System pressure