



## VE-VF HSV/Commodore fuel pump tech sheet

For better operation of the vehicle that your new KPM Fuel Systems VE-VF Commodore fuel pump module is being fitted to it is important to set the operating pressures correctly in your vehicles PCM and FSCM where applicable.

As we test every module before it is shipped we have operating pressures recorded for each specific part number

Part number	Idle Pressure (max pressure)	Full Load Pressure (min pressure)
<b>SFCOM800</b>	600 kpa	350 kpa
<b>SFCOM1000</b>	600 kpa	350 kpa
<b>SFCOM1500</b>	570 kpa	350 kpa

As these pressures are the base operating pressure in the testing station they can be used directly into the vehicles calibration.

However as we have found minor variances from vehicle to vehicle it is recommended to manually check pressures on vehicle when able to do so preferably at the fuel rail and use observed pressure to populate tables in the calibration. Which should be the same or extremely close to testing pressure.

- Please note: SFCOM800 / SFCOM1000 / SFCOM1500 Fuel modules.

All of the 3 modules listed have been manufactured and designed to run at the listed pressures at idle and light cruise. They have also been designed to **decrease** the fuel pressure while applying engine load for **increased** fuel demand. This is how the system is designed to perform and is absolutely what you will expect to see while logging fuel pressures on road or dyno.

All 3 modules are designed to perfectly supply fuel down to a minimum pressure of 350 kpa at full demand for its power rating.

# Calibration Changes

For the changes to the calibration we will use HP Tuners as an example as it's the most comprehensive and widely used tuning tool for the HSV/Commodore platform.

After recording base fuel pressure observed on vehicle or from testing data provided we will change the RAIL PRESSURE MIN and RAIL PRESSURE MAX.

Found under ENGINE - FUEL - GENERAL

For early VE 2006-2009 models it will be set at 400KPA standard, change both of these tables to 600 kpa pressure.

For later VE models , VF models 2010-2017 the RAIL PRESSURE MAX will need to be changed to 100KPA higher than your recorded pressure as the PCM knows what pressure it is running at via fuel pressure sensor and this is the operating window for the injectors.

## Early 2006-2009 VE Commodore

### Limits

Min Injector Pulse

### Rail Pressure

Rail Pressure Min 600 kPa

Rail Pressure Max 600 kPa

### Offset

Offset Select Vacuum

Offset vs. Inj Temp

Offset vs. Volts vs. MAP

## Late 2010-2017 VE-VF Commodore

### Limits

Min Injector Pulse

### Rail Pressure

Rail Pressure Min 300 kPa

Rail Pressure Max 700 kPa

### Offset

Offset Select Vacuum

Offset vs. Inj Temp

Offset vs. Volts vs. MAP

Next under FUEL SYSTEM - FUEL PRESSURE

For all model Commodores 2006-2017

We will need to change the DESIRED FUEL PRESSURE and HOT SOAK VALUES to the recorded pressures.

<b>Desired Fuel Pressure</b>	
Normal	600 kPa
High Flow	600 kPa
Low Flow	600 kPa
Cold Engine	600 kPa
Default	600 kPa
Fail	600 kPa
<b>Hot Soak</b>	
Hot Soak VSS	0 km/h
Hot Soak Factor	0.75
Hot Fuel	Hot Fuel Soak

\*For SFCOM1500 the FSCM will need to be re calibrated also to turn off DTC's To account for the bypass of the FSCM with supplied wiring harness.

Under FUEL SYSTEM – DTCs

Uncheck the ticked boxes and select NO ERROR REPORTED for the following DTC's

P018B – P018C – P018D – P0231 – P0232 – P023F – P025A – P064A – P1255 – P2635

Also under ENGINE DIAGNOSTICS – DTC's

Uncheck the ticked boxes and select NO ERROR REPORTED for the following DTC's

P0230 – P069E