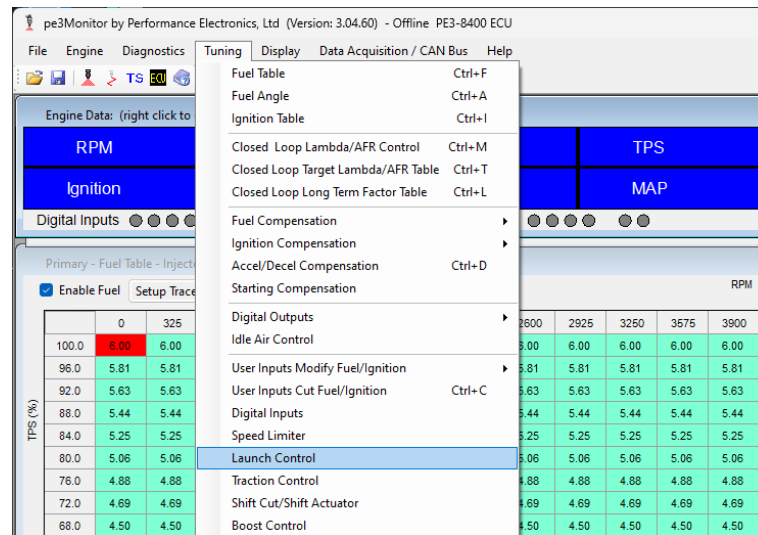


This Application Note describes launch control configuration on a PE3-8400 engine controller using the pe3Monitor tuning software. To access the launch control features, navigate to the *Tuning* menu and click on *Launch Control* in the drop-down list. All the configuration settings for this module are on the *Launch Control* page.



Navigating to the Launch Control Settings Page

Launch control consists of time-based torque and rev limiting along with *Arm* and *Start* input configuration. In practice, launch control is 'armed' when a true condition is observed on the *Arm Channel*. Once armed, the module waits for a true condition on the *Start Channel* to start *Time*. As *Time* elapses, the ECU interpolates the appropriate *Rev Limit* and *Ignition Comp* (ignition compensation in °BTDC) based on the table entries to reduce available torque to the wheels and limit wheel speed. The blue data table on the left of the page shows the current condition of the launch control module (see page 2).

### Launch Control Settings Page

**Launch Control Enable/Disable**

User adjustable Ignition Timing Compensation as a function of 'Time' (positive degrees advances timing). 0.0 makes no change to ignition timing.

Adjustable Rev Limit as a function of 'Time'.

Defines the type of Rev Limit and the Deadband RPM

**Data Table**

- State – State of the launch control module
  - 'Armed' = Launch control is armed but not active
  - 'Running' = Launch control active, time is elapsing
- Rev Limit – Displays current calculated Rev Limit
- Ignition Comp – Ignition Compensation in °BTDC
- Time – Elapsed time in seconds since activation
- Primary Rev Limit – Primary rev limit setting in tune

User adjustable 'Time' axis. Lowest value must be in the left-most cell. Axis must be increasing in cell value from left to right.

'Auto Fill' controls for 'Time' axis manipulation

'Start' and 'Arm' channel configuration

### Notes on Setup:

- While armed, before launch control is active, the Rev Limit and Ignition Comp from the table at the T=0.00 sec entry are in effect. This allows for staging.
- The system can only be activated (time elapsing) once per arm event. After the vehicle has launched the arm condition must be reset (re-armed) to start the process over.
- To function without interruption, the system must remain armed during the launch. Removing the arm condition stops launch control.