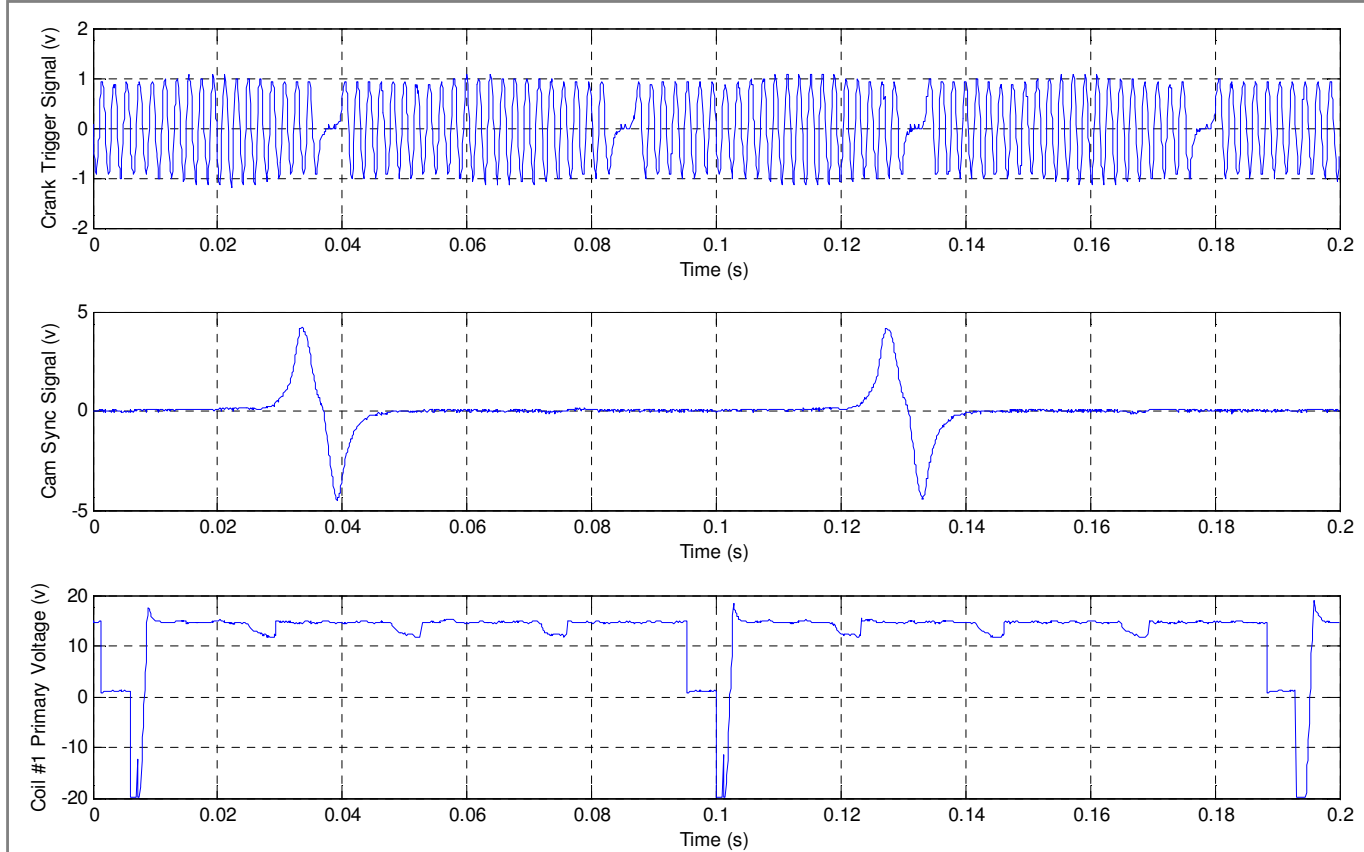


One of the best ways to setup the crank trigger and cam sync settings for a new engine is to measure the electrical signals using a digital oscilloscope on an existing, running engine.

Below is an example of the data that is required. The plot shows the crank trigger signal, the cam sync signal and the primary voltage of the #1 coil while the engine is running.

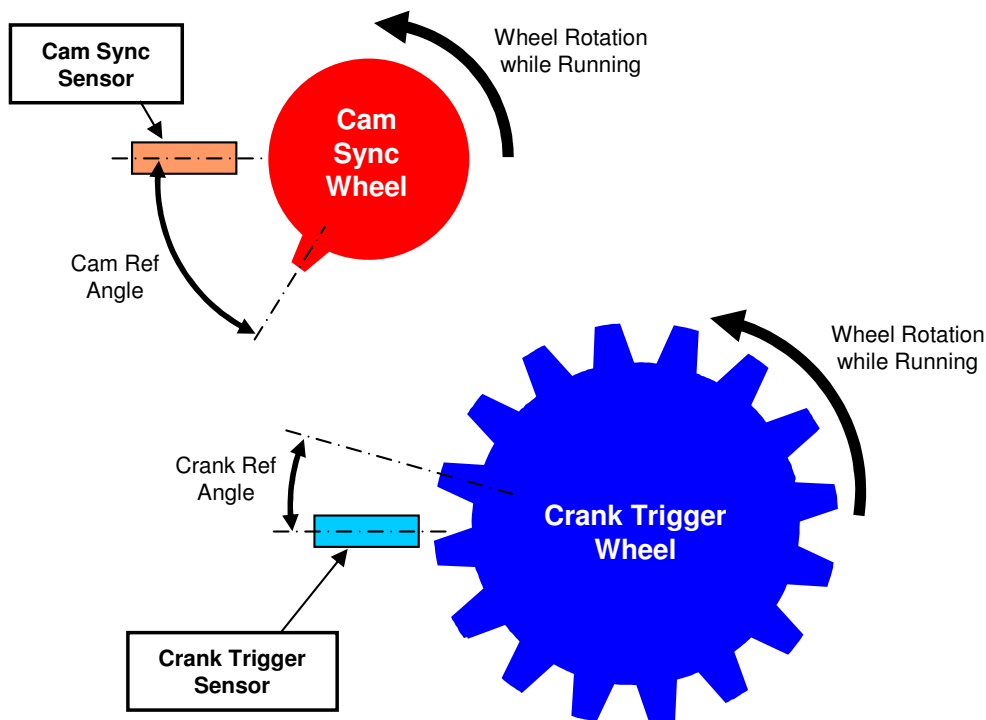


Required Information:

- 1) Data should be taken on a running engine with a known amount of ignition advance.
- 2) Data should be sent to PE in a text or CSV file format.
- 3) The data traces should include at least 1 complete engine cycle.

Below is an example of the data required to correctly configure the Trigger and Sync settings in the ECU if scope traces are not available. Data can be sent to PE for help in configuring the engine.

All data is measured with the engine at TDC #1 on the Compression Stroke



Required Cam Sync Information:

- 1) Type of sensor (VR or Hall effect)
- 2) Number of teeth on the wheel
- 3) Angles between teeth (if multiple teeth)
- 4) Direction of rotation
- 5) Angle between reference tooth and sensor centerline when the engine is at TDC #1 Compression stroke (Cam Ref Angle)
- 6) A drawing showing the information
- 7) Picture of the cam wheel

Required Crank Trigger Information:

- 1) Type of sensor (VR or Hall effect)
- 2) Number of teeth on the wheel
- 3) Angles between teeth (or equally spaced)
- 4) Number and location of any missing teeth
- 5) Direction of rotation
- 6) Angle between reference tooth and sensor centerline when the engine is at TDC #1 Compression stroke (Crank Ref Angle)
- 7) A drawing showing the information
- 8) Picture of the crank wheel