PERFORMANCE ELECTRONICS, Ltd.
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Programmable Fuel and Ignition Control Systems

AN001 – Application Note
Trigger and Sync Definitions for Honda CBR600F4i
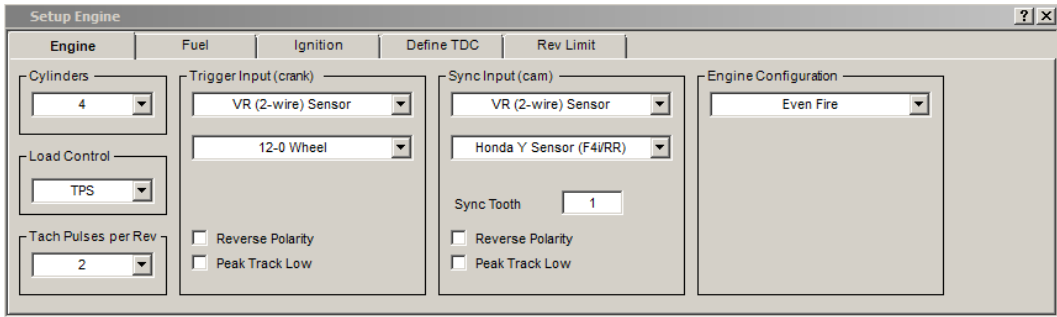**Release Date 1/27/12**

Firmware/Software Version:	PE3 V3.02.01 and higher
Relevant Hardware:	Stock Honda CBR600F4i motorcycle engine
Additional Notes:	The setup below assumes that the coils and injectors are wired in the order of the engine firing order. See below. Coil #1 = Cylinder #1 Coil #2 = Cylinder #2 Coil #3 = Cylinder #4 Coil #4 = Cylinder #3 Injector #1 = Cylinder #1 Injector #2 = Cylinder #2 Injector #3 = Cylinder #4 Injector #4 = Cylinder #3

Basic *Trigger/Sync* Setup

Setup Engine

Tabs: Engine | Fuel | Ignition | Define TDC | Rev Limit

- Cylinders: 4
- Load Control: TPS
- Tach Pulses per Rev: 2
- Trigger Input (crank): VR (2-wire) Sensor / 12-0 Wheel
  - Reverse Polarity
  - Peak Track Low
- Sync Input (cam): VR (2-wire) Sensor / Honda Y Sensor (F4i/RR)
  - Sync Tooth: 1
  - Reverse Polarity
  - Peak Track Low
- Engine Configuration: Even Fire

Trigger Diagnostic Plot

Trigger Diagnostics

Get | Redraw | Zoom In | Zoom Out | Interval A->B: 183.3 ms | Save to File | Read from File | ☑ Hide Injectors | ☐ Hide Coils
Drag cursors with mouse to move.
Arrow to move Cursor A, shift-Arrow to move Cursor B

Signal	Cursor A	Cursor B
Crank Analog max=2.49 min=-2.49	0.44	-1.90
Crank	1	1
Crank Error	0	0
Cam Analog max=2.34 min=-2.49	0.15	-0.29
Cam	0	1
Cam Error	0	0
Coil #1	0	0
Coil #2	0	0
Coil #3	0	0
Coil #4	0	0
Crank Tooth	21	15
RPM max=514 min=439	469	480

***Define TDC* Setup**

Setup Engine

Tabs: Engine | Fuel | Ignition | Define TDC | Rev Limit

Define TDC

	Cylinder #1	Cylinder #2	Cylinder #3	Cylinder #4	Cylinder #5	Cylinder #6	Cylinder #7	Cylinder #8
Tooth Before TDC (Compression Only)	15	21	3	9	0	0	0	0
Angle from Tooth to Sensor at TDC	12	12	12	12	0	0	0	0

Tooth before TDC = 0 – means cylinder NOT USED