

Venus3 ECU Ultimate Class

Trigger or Crank Position Sensor

Complex triggers like 36-1 or 24+TDC or any combination of crank and cam triggers can be used with this class. It has 2 inputs on the ECU and can distinguish signals with a TDC reference like a missing tooth or cam home pulse. It also works with engines with distributors with complex patterns like the Nissan optic encoders. Firmware are written for each specific pattern and number of cylinders. See the ECU selection chart if firmware exist and what the number is.

Coils

This class can do Multi Coil type Ignitions. Timing is done Full Sequential spark up to 4 Cylinders or in Wasted spark format up to 8 Cylinders. This means that coil has to be charged only once per revolution or 2 revolutions which means spark performance are on a maximum. For Full Sequential each coil is connected on its own driver and for wasted spark 2 coils will be paired according to the firing order. Here they are fired at the same time even if COP coils are used. Both methods are recommended for high revving performance engines. Full sequential is preferred for NOS applications and long duration overlap cams. It can do the distributor type one coil systems as well. See the drawings in the manual for more information.

Injectors

This class can do Full Sequential injection up to 4 Cylinders or Split Sequential injection with 2 Injectors per driver. It will alternate driver pulses in sequence so that each cylinder receives its fuel on the same stroke. This will make for a more constant condition on each cylinder resulting in better performance and economy. For Full Sequential there is one injector per driver and for Split Sequential Injectors will be paired according to the firing order. See the drawings in the manual for more information.

Features

All the features are allowed with this class. Such as Accurate fuel and spark timing, Idle Control, Lambda Control, Launch Control, Anti-Lag Control, Cam Control, Flat-shift, Dual Injectors, Rapid fire, Full Sequential Spark, Injector Trimming, Launch Recover Delay, Retarded timing after TDC, etc. Note that there may not be drivers for all the features available at the same time. It can also work with the Advance Intermediate and Standard firmware.

GP Outputs

Up to 5 General outputs can be used for fan control, V-Tech Cam, Shift light etc.