MegaSquirt Stealth

Description

The MS Stealth Package offers a factory/stock looking injection system with late model performance and economy improving mileage, performance and your driving experience.

A Megasquirt II ECU is packaged with a WideBand O₂ sensor controller, fast idle relay fuses and a connector block within the Bosch D-jet ECU box. It is connected to a new fuel harness that incorporates all of the original wiring, boots and components of the factory system. Triggering is achieved through a modified D-jet distributor that uses the factory plug. Maximum performance can be achieved via dyno tuning.

This package is not just an ECU stuffed into a D-jet box with a wiring harness. The MS Stealth package provides a full FI system upgrade with new injectors, hoses & seals, fast idle system (3 types available, 1 included in each package), O₂ sensor & bung, LC1 software and cables. Also included is a disc containing all the necessary software and maps for 3 levels of performance modifications. A Com to USB2 convertor (most laptops don't have com ports anymore) and the necessary ECU tuning cables completes the package.

ECU

The Megasquirt II ECU used is the latest version 3.57 surface mount printed circuit board (PCB). Prior to installation in the D-jet box we mount a Bosch BIP 373 IC for hi current coil output. This is a big improvement over the previous transistor used for a coil driver. The Bosch unit has a thermo-protection circuit so that if the user runs the dwell too short, the unit will heat up and shut off, and then reset after cooling - rather then burning up.

Connections for the programming port and the vacuum port for the map sensor have been mounted on the side of the D-jet case for easy accessed without removing the D-jet box from the mounting bracket.

Distributor

Kertwerks starts with a stock D-jet distributor, with the advance weights, springs, points & advance mounting plates and fuel injection (FI) points removed. A ¹/₄" aluminum disc with the triggering magnets mounted in it is pressed onto the knurl of the distributor shaft where the mechanical advance plate is mounted.

The FI points mounting plate is mounted with a Hall Effect Sensor for triggering. The timing is a critical part to make sure that the sensor triggers 20 degrees BTC and the rotor contact is aligned with the #1 contact on the cap. The rotor carrier is then re-installed into a predrilled hole on the triggering disc.

Throttle Position Switch

The throttle position cover is removed and the plate is stripped of all of the old PCB and drilled for the new throttle position switch (TPS). The TPS is a standard Volvo 760 style switch with the top of the housing removed so that it will fit under the D-jet cover. The unit is then pressure bonded to the old TPS plate in the correct position for operation. This makes replacement of the TPS (should it become necessary), something that can be achieved with a disc sander, a soldering iron and some JB Weld.

Harness

The Kertwerks harness is made of the best quality fine stranded tinned wire in Teflon jackets. The wires are double roll crimped to a factory type connector with a factory shell, and then connected to the ECU/Connector unit. We do not use pigtails, nor are any of our wires unnecessarily spliced between ends.

The Stealth harness starts with 18 & 20 gauge wire, combined with factory style boots, shells, connectors and double wall waterproof shrink wrap to create a Show/Stock looking harness that incorporates all of the factory components, but wires into the fused connector rail and ECU connector.

Fast Idle System

The ECU offers a fast idle output for a solenoid or IAC type idle control. We incorporate the wiring and a fast idle relay into the D-jet box and then wire it through the harness with the wire exiting the harness next to the fuel pump relay output and FI main relay input. This can easily be wired into the A/C fast idle solenoid on cars that are A/C equipped but have an inoperative AAV, or wired into the Kertwerks fast idle valve.



For more information and photos of the MS Stealth system, contact: Kurt Incledon Kertwerks@mindspring.com