

Figure 1 below shows the layout of typical EMS for a two cylinder engine. The actual layout may slightly differ based on the application and users are advised to contact the vehicle manufacturer for the actual layout. The solid lines in the figure 1 below indicate the output signals from the Engine Controller and the dotted lines indicate the input signals to the controller from various sensors and switches.

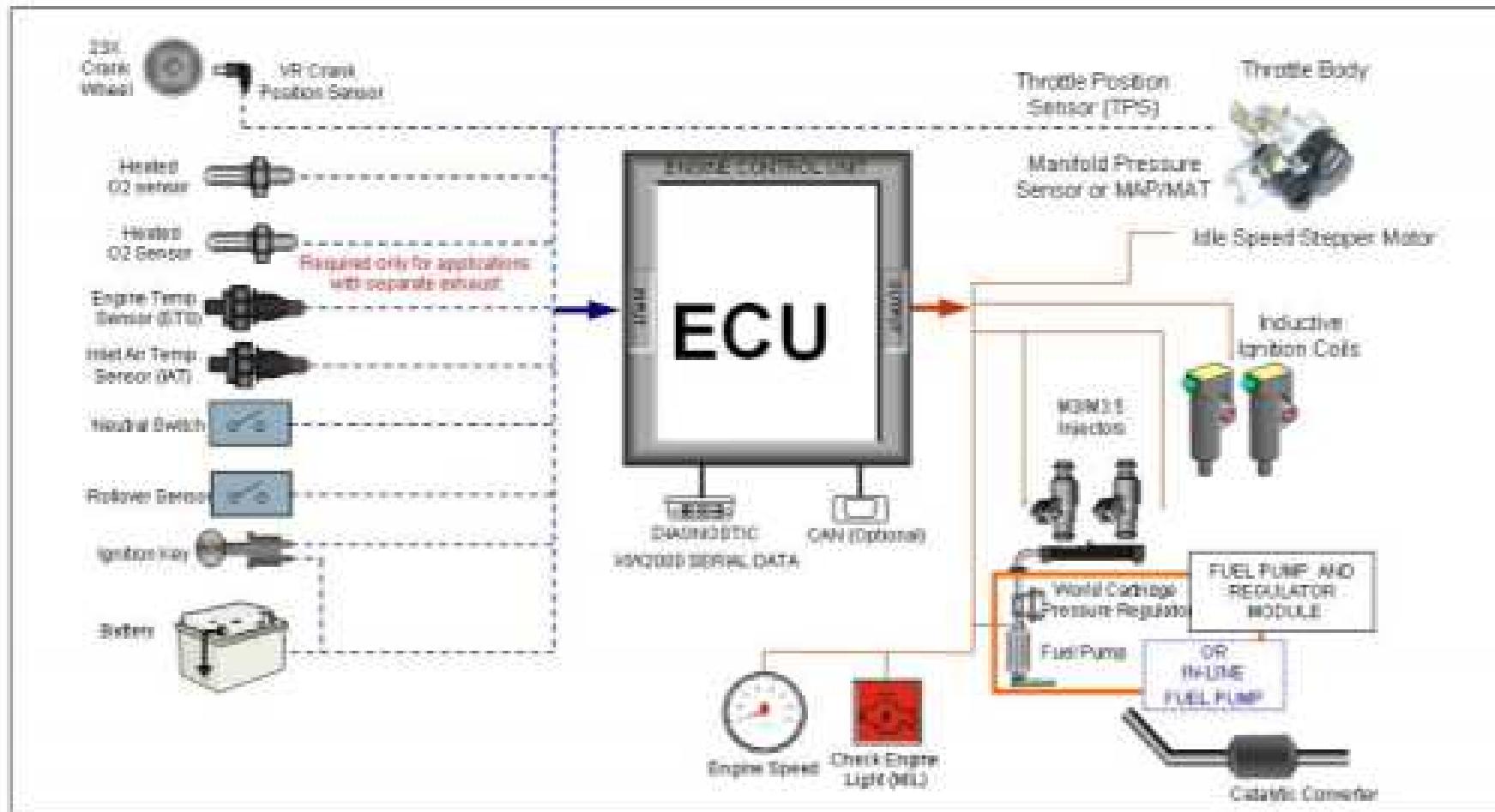


Figure 1

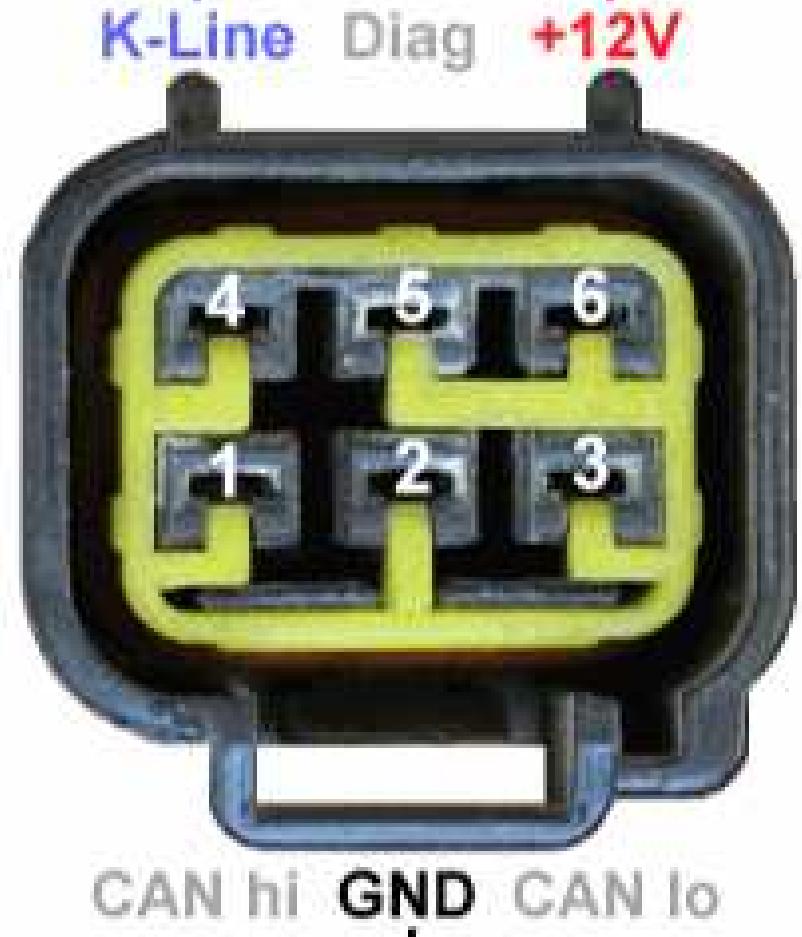
Legend:

- Dotted line indicates inputs
- Solid line indicates outputs

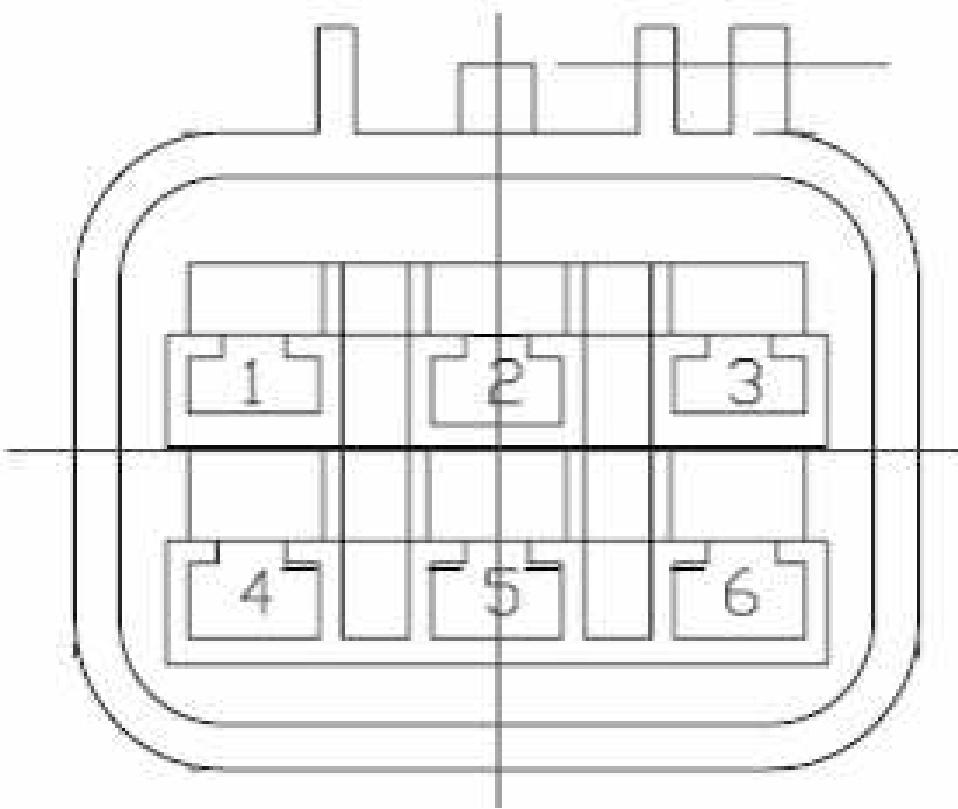
## SAE J1962 Plug



## Delphi ECM Plug



The diagnostic connector has 6 pins as shown in figure 37 as below. These pins can be used to perform various diagnostic or service functions. This Diagnostic Tool uses 3 pins, which are +12V battery, Ground and K-line.



Pin2: Ground

Pin4: K-line

Pin6: +12 V Battery

Malfunction code in MT05	Description
P0107	MAP Circuit Low Voltage or Open
P0108	MAP Circuit High Voltage
P0112	IAT Circuit Low Voltage
P0113	IAT Circuit High Voltage or Open
P0117	Coolant/Oil Temperature Sensor Circuit Low Voltage
P0118	Coolant/Oil Temperature Sensor Circuit High Voltage or Open
P0122	TPS Circuit Low Voltage or Open
P0123	TPS Circuit High Voltage
P0131	O2A Circuit Low Voltage
P0132	O2A Circuit High Voltage
P0031	O2A Heater Circuit High Voltage
P0032	O2A Heater Circuit Low Voltage
P0201	Injector 1 Circuit Malfunction
P0202	Injector 2 Circuit Malfunction
P0230	FPR Coil Circuit Low Voltage or Open
P0232	FPR Coil Circuit High Voltage
P0336	CKP Sensor Noisy Signal
P0337	CKP Sensor No Signal
P0351	Cylinder 1 Ignition Coil Malfunction
P0352	Cylinder 2 Ignition Coil Malfunction
P0505	Idle Speed Control Error
P0562	System Voltage Low
P0563	System Voltage High
P0650	MIL Circuit Malfunction
P1693	Tachometer Circuit Low Voltage
P1694	Tachometer Circuit High Voltage