

# Electronics control unit



**ASSIGN  
BUSTER**

Electronic Control Unit Used in Modern Vehicles Electronic control unit or popularly known as SEC is a generic term used in automotive electronics for any embedded system which controls the electrical subsystems in modern motor vehicles. We can call the SEC as the brain of automobile system. It is generally found in the glove compartment beneath the dash boards of the vehicles. Modern day cars have many electric components to determine the fuel delivery to door control unit to name a few. The subsystem silky transmission shift points or Ignition timing take the directions from ECHO.

An electronic control unit can control all the electronic functions the vehicles drive train. Now let's see how It works In a vehicle and controls the subsystems and send directions. It Is actually kind of small computer which take readings from the electronic sensors which are Installed In the system as well as In subsystems and then Interprets the needs of that vehicle. Actually many of the car's components and even the engine systems can be control through electronic control unit.

By taking reading from the sensors SEC is able tell the time of intervals of scheduled maintenance for the vehicle. When any problem detected SEC tries to send messages to the operator of the vehicle through the instrument cluster. It is even helpful to adjust the fuel levels in cold weather to ensure the smooth running of the car. It is like a personal mechanic riding along with you when ever you are driving your car to ensure the smooth running and controlling the automotive system of your vehicle. Now lets discuss about the types of SEC can be present in a present day motor vehicle.

Types of SEC include engine control module (ECM) which is responsible for controlling the fuel efficiency to ignition timing, transmission control module (TCM) look after the controlling part when a car is experiencing a problem, transmission control module (TCM) it controls the how and when to change gears in the vehicle for optimum performance, fuel economy and shift quality and the automatic transmission, brake control module (BCM or WEBMD) as the name suggests it is used to look after the brake systems of the car, body control module (BCM) is used to controlling the various electronic accessories in a car's body like power window, power mirrors or A/C and central locking system.

Beyond these systems a vehicle can have SEC's like suspension control module (SCM), control module, central control module (CCM), central timing module (CTM), general electronic module (GEM). Taken together, these systems are sometimes referred to as the car's computer. We try here to furnish some details of ECU, the brain of the vehicles. Some modern motor vehicles have up to 80 Uses. The Inbuilt software In SEC continues to grow up In line count, complexity, and sophistication. It has become the key challenge for equipment manufacturers to manage the Increasing complexity and the successful use of number of Uses In a vehicle. Electronics Control Unit By determine the fuel delivery to door control unit to name a few.

The sub systems like transmission shift points or ignition timing take the directions from ECU. An electronic control unit can control all the electronic functions within the vehicles drive train. Now let's see how it works in a vehicle and controls the subsystems and send directions. It is actually kind of small computer which take readings from the electronic sensors which are installed in the system as well as in subsystems and then interprets the

needs of that vehicle. Actually many of the car's components and vehicles have up to 80 Uses. The inbuilt software in SEC continues to grow up in line manufacturers to manage the increasing complexity and the successful use of number of Uses in a vehicle.