

#### 19M0611 - AUTOTRONICS UNIT 2 - MPFI TECHNOLOGY







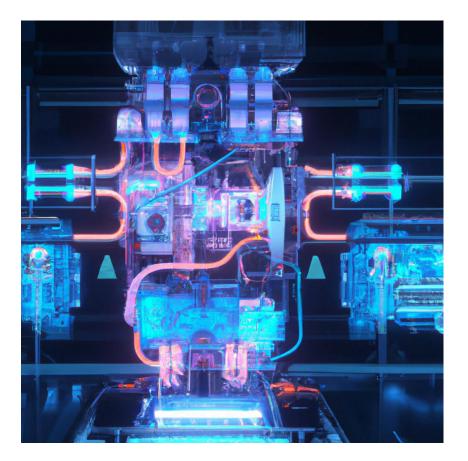




## **INTRODUCTION TO MPFI TECHNOLOGY**

APFI technology, or Multipoint Fuel Injection, is a type of fuel injection system used in modern vehicles. This technology allows for precise and efficient delivery of fuel to the engine, resulting in better performance and fuel economy.

The MPFI system uses multiple injectors that are strategically placed near each cylinder of the engine.







## ADVANTAGES OF MPFI TECHNOLOGY

• One of the main advantages of MPFI technology is its ability to deliver fuel more precisely and efficiently than older fuel injection systems. This results in improved engine performance, better fuel economy, and reduced emissions.

Another advantage of MPFI technology is its ability to adapt to changing driving conditions. The ECU can adjust the fuel delivery based on factors such as altitude, temperature, and humidity, ensuring optimal engine performance in all situations.







## **MPFI VS. CARBURETORS**

■ Before the advent of MPFI technology, most cars used carburetors to mix air and fuel before delivering it to the engine. However, carburetors are less precise and efficient than MPFI systems, leading to poorer performance and fuel economy.

Carburetors also require regular maintenance and adjustments to ensure proper operation, whereas MPFI systems are largely self-regulating and require minimal maintenance.







## FUTURE DEVELOPMENTS IN MPFI TECHNOLOGY

As technology continues to advance, so too will MPFI systems. One area of development is the use of direct injection, which delivers fuel directly into the combustion chamber rather than into the intake manifold.

Direct injection can provide even greater precision and efficiency than traditional MPFI systems, leading to even better engine performance and fuel economy. Additionally, researchers are exploring the use of alternative fuels such as hydrogen and biofuels with MPFI systems.







# THANK YOU