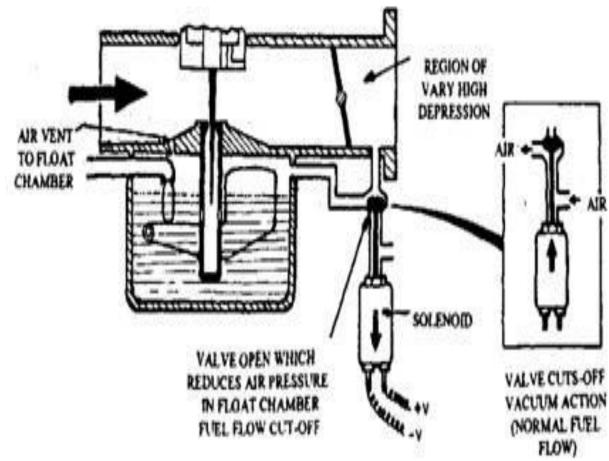


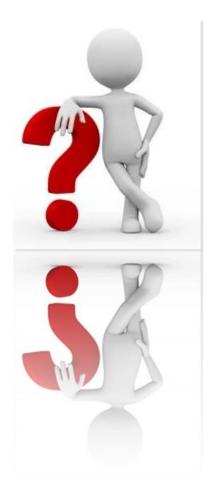
# 19M0611-AUTOTRONICS UNIT 2 - ELECTRONIC CARBURATION CONTROL











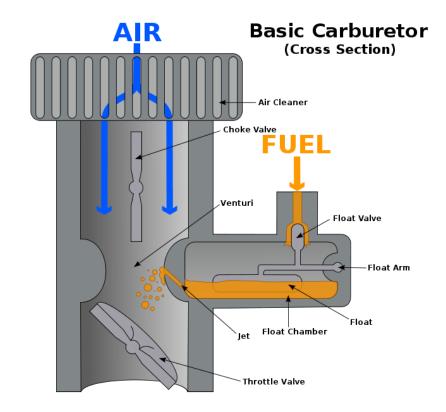




#### INTRODUCTION

Carburation is the process of mixing fuel and air in an internal combustion engine. In the past, carburetors were used to control the fuel-air mixture, but with advancements in technology, electronic control of carburation has become more popular.

Electronic control of carburation involves the use of sensors, microprocessors, and actuators to regulate the fuel-air mixture in real-time. This allows for better fuel efficiency, improved performance, and reduced emissions.





### HOW ELECTRONIC CARBURETION CONTROL WORKS



- ☐ Electronic carburetion control works by using sensors to monitor various aspects of engine performance, such as air intake, engine temperature, and exhaust emissions.
- The data from these sensors is then processed by a central controller, which adjusts the fuel injection system to optimize engine performance and reduce emissions.







#### ADVANTAGES OF ELECTRONIC CARBURETION CONTROL

- One of the main advantages of electronic carburetion control is improved fuel efficiency, as the system can adjust the fuel-to-air ratio in real time based on driving conditions.
- ☐ This technology also allows for more precise control over engine performance, resulting in smoother operation and reduced emissions.



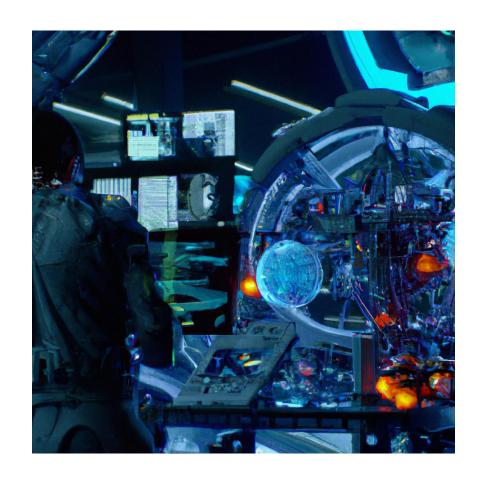




### CHALLENGES OF ELECTRONIC CARBURETION CONTROL

One challenge of electronic carburetion control is the need for sophisticated sensors and controllers, which can be expensive and require specialized expertise to install and maintain.

Another challenge is ensuring compatibility with different types of engines and fuel systems, as well as adapting to changing environmental regulations.







## FUTURE DEVELOPMENTS IN ELECTRONIC CARBURETION CONTROL

- As electronic carburetion control technology continues to evolve, we can expect to see even more advanced sensors and controllers that offer greater precision and efficiency.
- There may also be developments in alternative fuel systems that require new approaches to carburetion control, such as hydrogen fuel cells or electric motors.







### THANK YOU