

# JOB ROLE – AUTOMOTIVE SERVICE TECHNICIAN

Sector: Automotive  
(Qualification Pack Code : ASC/Q1401)



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# **Unit – 3: Major Systems & Components of an Automobile**

## **Session 11: Active & Passive safety**

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# Session Objectives

1. The student will be Able to explain active and passive safety.
2. The student will be Able to identify the components of active and passive safety.

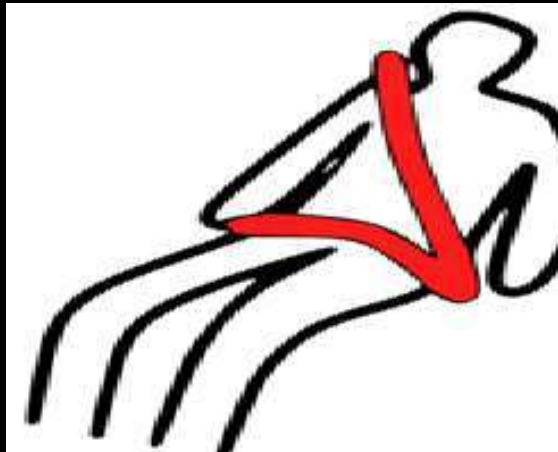
# Introduction of Active and Passive Safety

Following are some of the active and passive security systems.

**Safety Glass :-** Safety glass is used in all auto windows and doors. The safety glass employed in today's vehicles is of two types: laminated or tempered. These types are considered to be safety glass because of their construction.

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**Seat Belts :** A seat belt, sometimes called a safety belt, is a safety\_harness designed to secure the occupant of a vehicle against harmful movement that may result during a collision or a sudden stop.



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**Air Bags** : An airbag is a vehicle\_safety device. This is one of the passive safety systems for the occupants of car. The electrical system of air bags includes the **impact sensors** and the electronic control module.



# Security Systems

## Energy-Absorber Safety Bumpers

- Modern bumpers are designed to absorb the energy of a low-speed impact, minimizing the shock directed to the frame and to the occupants of the vehicle.
- Most energy absorbers are mounted between the bumper face bar or bumper reinforcement bar and the frame.

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## **Security and Antitheft Devices :**

There are three basic types of antitheft devices available:  
locking devices, disabling devices, and alarm systems.

# Summary

In this session you have learnt a following , Active and Passive Safety and Security Systems There are different safety and security systems available in the market and some of which are fitted by the manufacturer.

- Safety glass is used in all auto windows and doors.
- A seat belt reduces the likelihood and severity of injury in a traffic\_collision.

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