

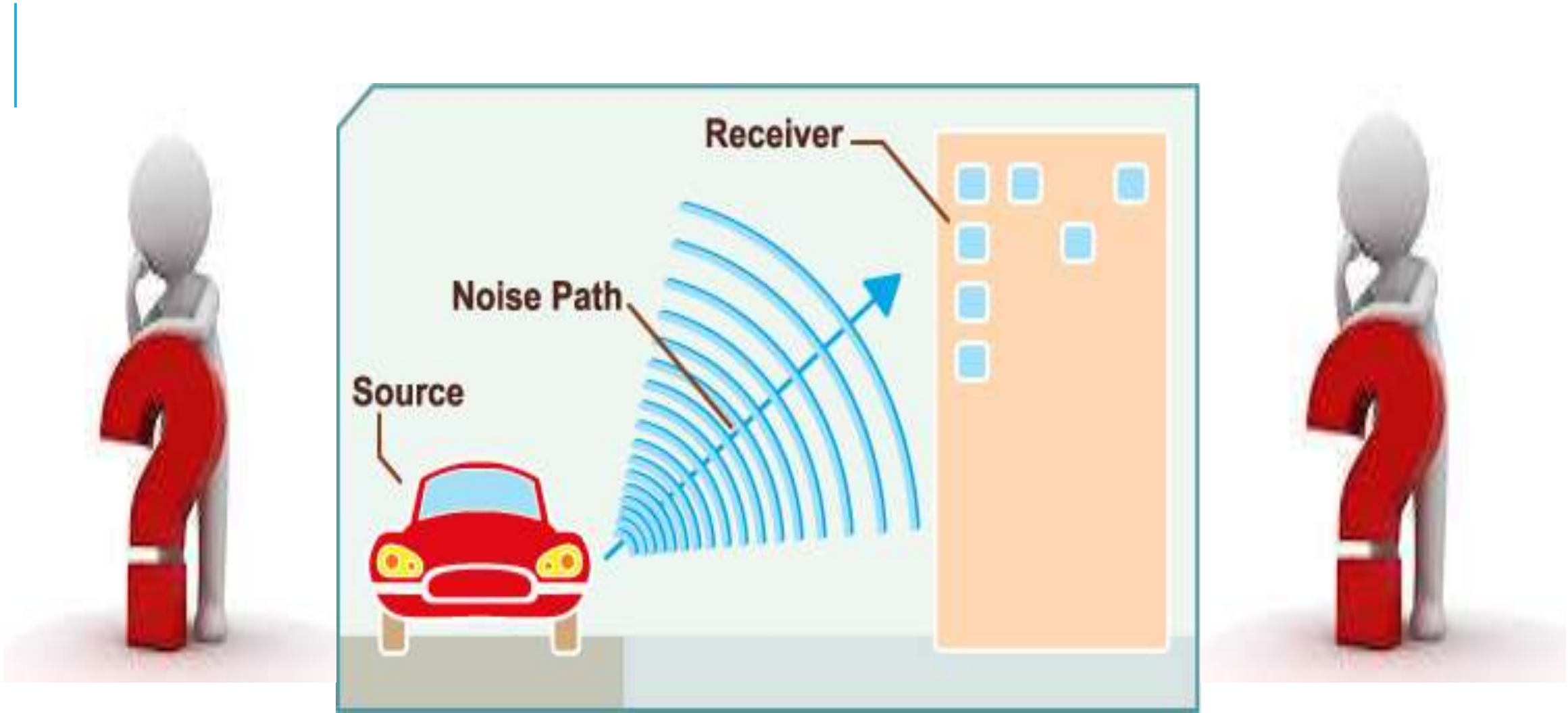


# 19MO631- AUTOTRONICS UNIT 5 - CHASSIS AND SAFETY SYSTEMS

## Noise control

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# Introduction to Noise Control

- ❖ Noise is an unwanted sound that can cause physical and psychological harm to people. It can also disrupt communication and interfere with work and sleep. In order to control noise, it is important to understand its sources, characteristics, and effects.
- ❖ There are various methods of noise control, including soundproofing, noise barriers, and active noise cancellation. These methods can be applied in different settings, such as homes, offices, and industrial facilities.



# Sources of Noise

Noise can come from many sources, both natural and man-made. Natural sources include thunder, wind, and ocean waves. Man-made sources include transportation, construction, and industrial activities.

In order to control noise, it is important to identify the source and determine the level of noise it produces. This can be done through measurements and analysis using specialized equipment.



# Characteristics of Noise

Noise has several characteristics that affect its perception and impact on people. These include frequency, intensity, duration, and variability.

Frequency refers to the pitch of the sound, while intensity refers to its volume. Duration refers to how long the sound lasts, and variability refers to how much the sound changes over time. Understanding these characteristics is important for designing effective noise control measures.



# Soundproofing

Soundproofing is a method of reducing noise transmission between spaces. This can be achieved by using materials that absorb or reflect sound waves, such as insulation, acoustic tiles, and curtains.

Soundproofing can be applied in various settings, such as homes, offices, and recording studios. It is important to consider factors such as the type of noise, the level of attenuation required, and the cost and feasibility of the materials used.



# Noise Barriers

Noise barriers are physical structures designed to block or deflect sound waves. They can be made of various materials, such as concrete, metal, or vegetation.

Noise barriers are commonly used along highways, railways, and airports to reduce the impact of transportation noise on nearby communities. They can also be used in industrial facilities to protect workers from excessive noise exposure.



# Active Noise Cancellation

Active noise cancellation is a technology that uses electronic devices to generate sound waves that cancel out incoming noise. This can be achieved through headphones, speakers, or specialized systems.

Active noise cancellation is effective for reducing low-frequency noise, such as engine noise or air conditioning hum. It is commonly used in aviation, automotive, and consumer electronics industries.





***THANK YOU***