



SNS COLLEGE OF TECHNOLOGY

**Coimbatore-35
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DEPARTMENT OF AUTOMOBILE ENGINEERING

**COURSE NAME : 19AUB204 Automobile Electricals &
Electronics Engineering**

II YEAR / IV SEMESTER

Unit 1 – Electrical Systems

Topic 5 : Details of Head Light and Side Light



History of Head Light

- The first Horseless Carriages used carriage lamps, which proved unsuitable for travel at speed. The earliest lights used candles as the most common type of fuel.
- A headlamp is a lamp attached to the front of a vehicle to illuminate the road ahead. Headlamps are also often called headlights.





Types of Lighting System



- The primary task of headlights on cars is to illuminate the roadway and facilitate fatigue-free and safe driving.
- Headlights and their light sources are thus vehicle components that are relevant to safety. They require official approval and must not be tampered with.





Head Light Bulb



Driving without headlights functioning in a proper way in conditions with low visibility is dangerous both for a driver and other users of the road. That is why it is vital to keep the headlight bulbs bright to guarantee a safe drive and replace them immediately when there are issues.





Types of Head Light



- Halogen headlights
- Xenon And Bi-Xenon Headlights
- LED Headlights
- Laser Headlights





Halogen headlights



- A halogen headlight consists of a thin tungsten filament surrounded by a halogen gas in a glass filament capsule which is extremely resistant to high temperatures.
- It works by sending electricity through the tungsten filament inside the glass capsule.





Xenon And Bi-Xenon Headlights



- Both are equally as good since they both create light entirely from Xenon gas.
- The difference is that Bi-Xenons are for dual-beam headlight systems (1 bulb for both low and high beam) and Xenons are for single beam headlight systems (2 bulbs, 1 for the low beam and one for the high beam).





LED Headlights



- There are some significant benefits to choosing LED bulbs — they last much longer than traditional bulbs and they use a lot less energy, so many drivers want to take advantage of those benefits
- Fahren H11/H9/H8 LED Headlight Bulbs : Best Budget-to-Power Ratio for Headlights or Fog Lights.
- HONCS H11/H8/H9 LED Headlight Bulbs : Best Economy Choice for Low Beams.

. **Aukee LED Headlight Bulbs : Best LED Fog Light.**

BEAMTECH H13 LED Bulb : Best LED Headlights Overall





Laser Headlights



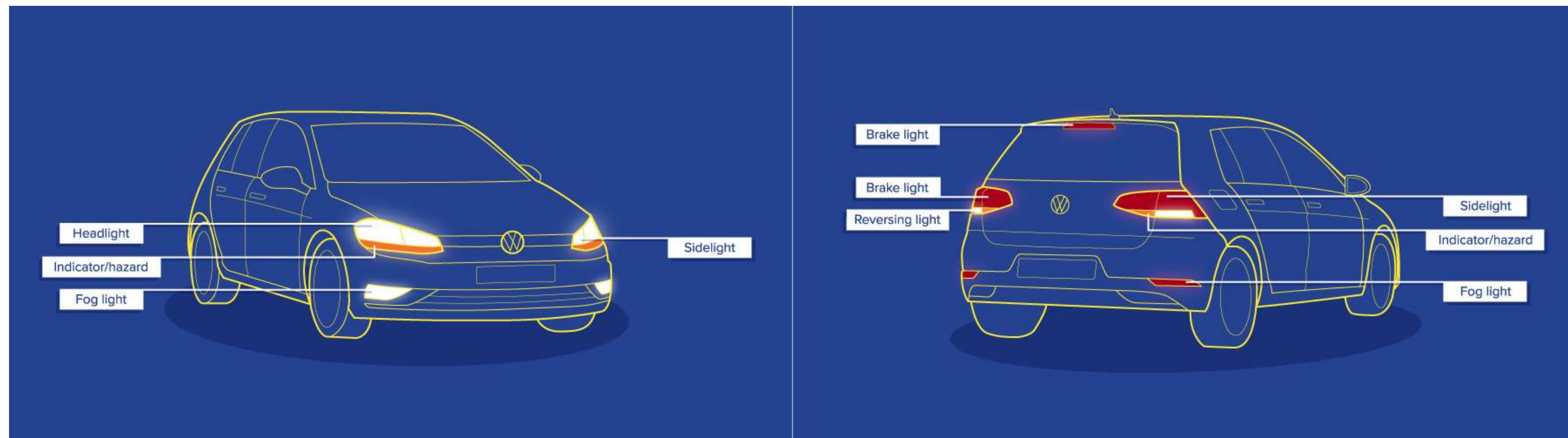
- Laser light is an absolute innovation in automotive lighting and the next big step forward since the introduction of halogen, xenon, and LED headlight





Side Lights

- Sidelights aren't as bright as headlights, so are used by drivers to make themselves visible to traffic during times when it's not dark enough for main lights.





References



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Thankyou