■HID HEADLIGHT SYSTEM

1. General

- HID (High Intensity Discharge) headlight system is used as optional equipment for the low beams of all models in order to realize visibility.
- This system applies high voltage to the electrodes on the light bulb to discharge arcs, the metal atoms that are enclosed in the bulb to emit light.

2. Construction

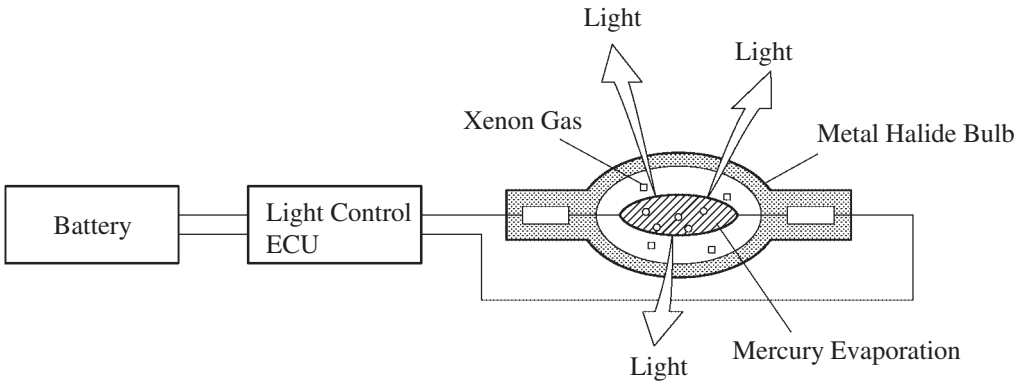
The HID headlight system consists of metal halide bulb (for LO beam/ HID), HIR (Halogen Infrared Reflection)-1 bulb (for HI beam) and a light control ECU.

Service Tip

The metal halide bulb (for LO beam/ HID) and the HIR-1 bulb (for HI beam) are dedicated bulbs. Different bulbs may not be used in their place.

3. Metal Halide Bulb (for LO beam / HID)

- The metal halide bulb contains xenon gas, mercury, and metal halide.
- When high voltage (approx. 20,000 volts) is applied to the electrodes of the metal halide bulb, the xenon gas in the bulb emits light.
- As the temperature in the bulb rises, the mercury evaporates and causes arcs to be discharged.
- As the temperature in the bulb rises, even further, the metal halide in the mercury arc separates into metal atoms and iodine atoms.
- The separated metal atoms discharge light, which causes the bulb to emit light.



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CAUTION

The replacement of an HID (High Intensity Discharge) must be performed only by a TOYOTA dealer. Never touch the glass portion or the electrode portion of the bulb because high voltage that is generated at those areas is very dangerous.