

DISCHARGE HEADLIGHT CONTROL MODULE

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Purpose

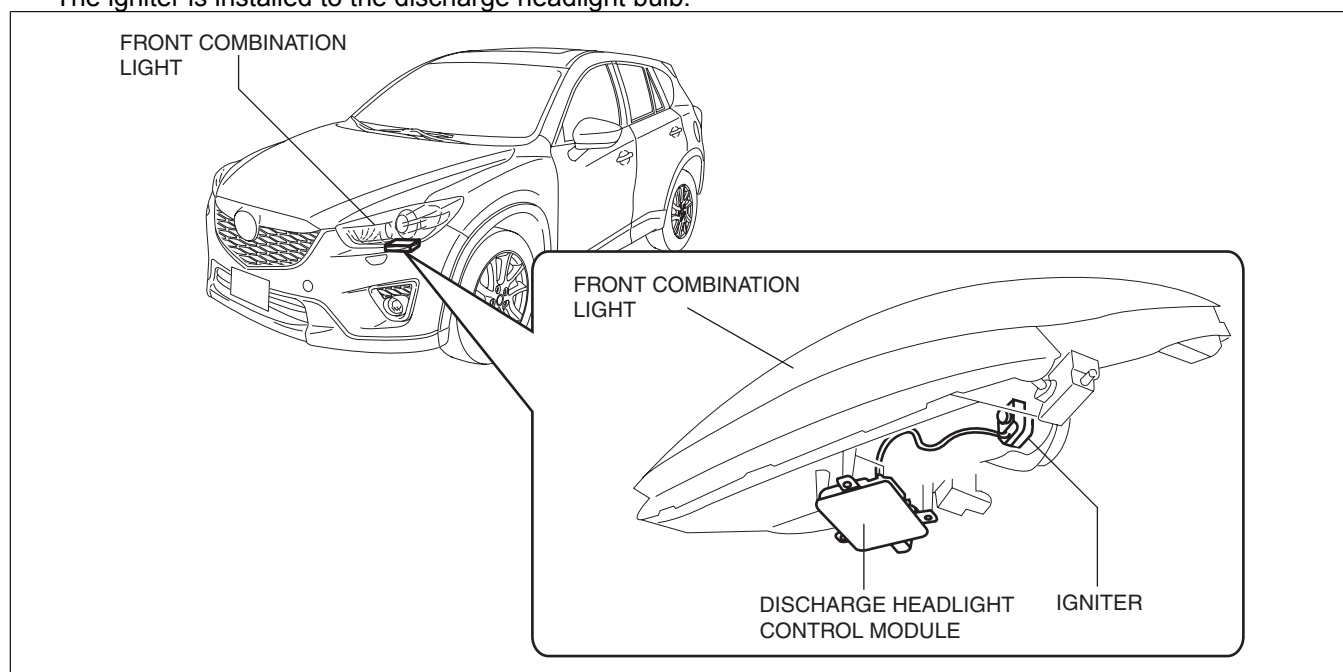
- Converts DC voltage from the battery to AC voltage and outputs the stabilized voltage to the discharge headlight.

Function

- The discharge headlight control module controls the voltage from the battery to illuminate the discharge headlight.
- The discharge headlight control module has a fail-safe function which turns off the discharge headlight if an input/output voltage malfunction occurs for the prevention of part mis-operation and protection.

Construction

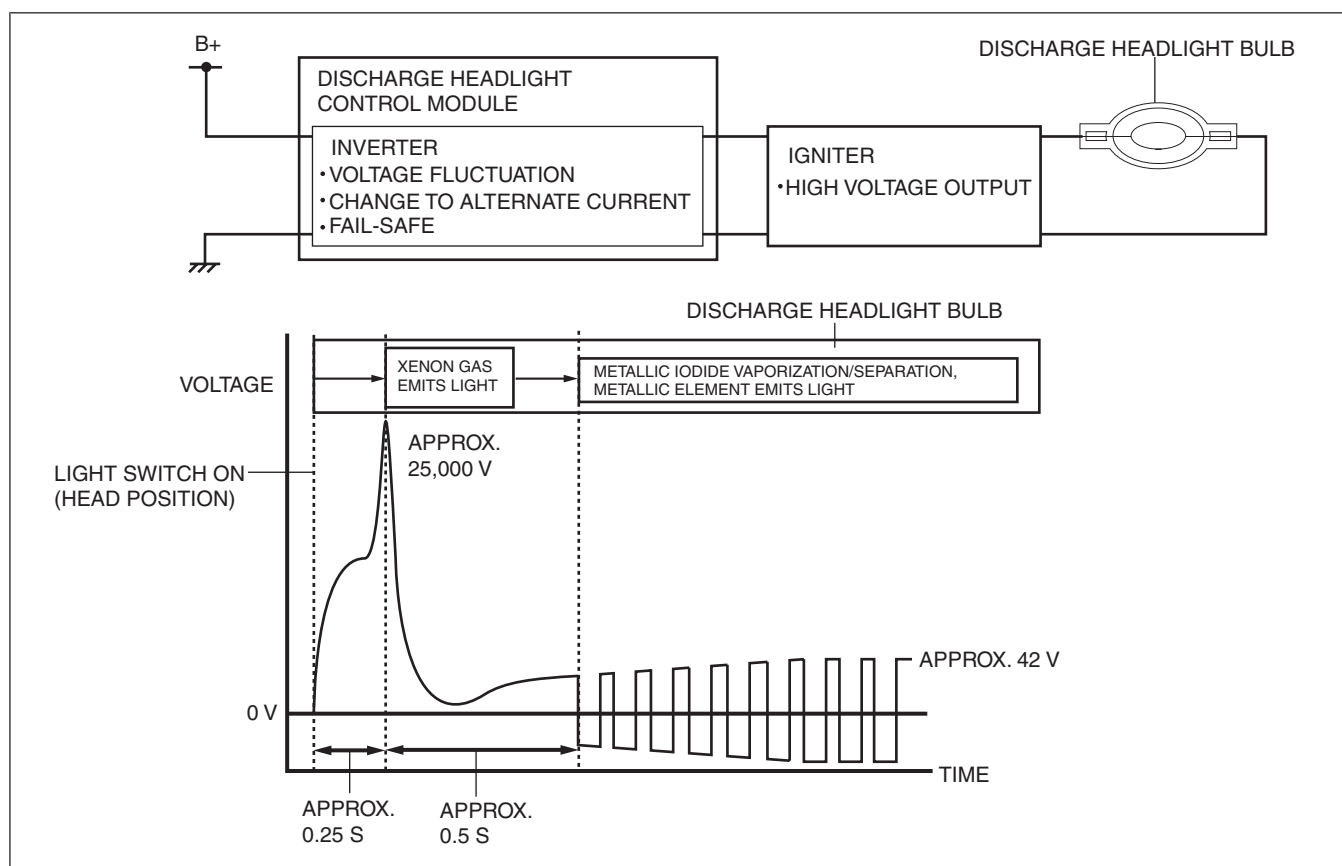
- The discharge headlight control module consists of an igniter which raises the voltage from the battery to approx. 25,000 V, and an inverter which converts the DC voltage from the battery to AC voltage.
- The inverter is integrated with the discharge headlight control module.
- The igniter is installed to the discharge headlight bulb.



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Operation

1. When the headlight relay (LO) turns on, the discharge headlight control module raises the DC voltage from the battery from approx. 12 V to approx. 25,000 V using the igniter, and outputs it to the discharge headlight bulb.
2. After the discharge headlight is illuminated, the discharge headlight control module converts the DC voltage from the battery to AC voltage (approx. 42 V) using the inverter, and outputs it to the discharge headlight bulb.



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Fail-safe

- If the following input/output voltage malfunctions occur, the fail-safe function is activated.

Operation condition	Fail-safe	Recovery condition
Input/output voltage from discharge headlight control module is outside of 6—18 V range. (Except for voltage reduction directly after discharge headlight illumination)	Turns off discharge headlights	Normal input voltage detected
Malfunction is detected in output voltage from discharge headlight control module (open circuit or short to ground in wiring harness)	Turns off discharge headlights	Light switch turned to OFF, and then back to ON