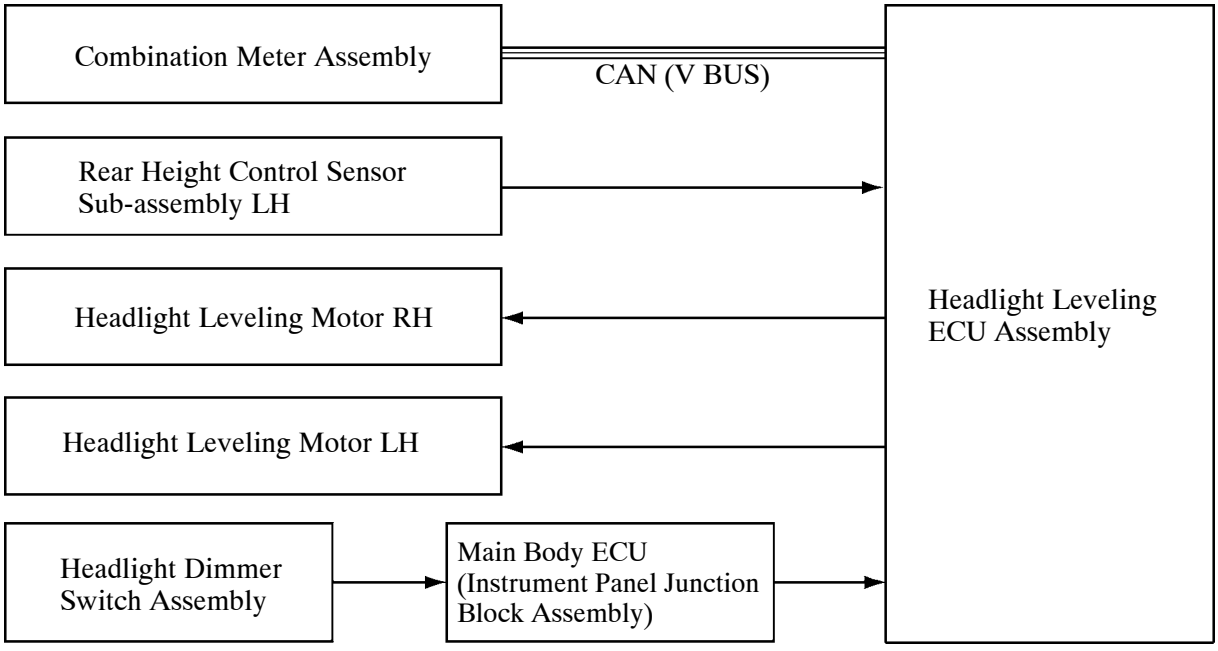
■ AUTOMATIC HEADLIGHT BEAM LEVEL CONTROL SYSTEM

When the headlights are on, the automatic headlight beam level control system operates the headlight leveling motor in accordance with the movement of the vehicle.

▶ System Diagram ◀



▶ Function ◀

- The automatic headlight beam level control system mainly consists of the headlight leveling ECU assembly, rear height control sensor sub-assembly LH, and 2 headlight leveling motors.
- The headlight leveling ECU assembly calculates changes in the vehicle posture based on the signals from the rear height control sensor sub-assembly LH.
- Following this, the ECU controls the headlight leveling motor based on this information, in order to change the headlight reflector angle.

▶ Fail-safe ◀

The headlight leveling ECU assembly executes the fail-safe actions listed below in accordance with the problem that has been detected.

Malfunctioning Parts	Malfunction Detection Conditions	Performed Control
Excessively high input voltage	The input voltage of the headlight leveling ECU assembly becomes 18.5 V or more.	Control signal output to the headlight leveling motor RH/LH is stopped.
Low input voltage	The input voltage of the headlight leveling ECU assembly becomes 9 V or less.	
Rear height control sensor sub-assembly LH high input voltage	The input voltage of the rear height control sensor sub-assembly LH becomes 6.25 V or more.	
Rear height control sensor sub-assembly LH low input voltage	The input voltage of the rear height control sensor sub-assembly LH becomes 4.6 V or less.	
Rear height control sensor sub-assembly LH signal malfunction	The signal voltage of the rear height control sensor sub-assembly LH becomes 4.75 V or more.	
	The signal voltage of the rear height control sensor sub-assembly LH becomes 0.25 V or less.	
Headlight leveling ECU assembly malfunction	The headlight leveling ECU assembly has malfunction.	

▶ Diagnosis ◀

If the headlight leveling ECU assembly detects a malfunction in the automatic headlight beam level control system, the headlight leveling ECU assembly illuminates the master warning light and indicates the warning message on the multi-information display of combination meter assembly.*1 Or the headlight leveling ECU assembly illuminates the headlight leveling warning light of combination meter assembly.*2 At the same time, the Diagnostic Trouble Code (DTC) is stored in memory. The DTC can be read using the Grobal TechStream (GTS). For details, refer to the Repair Manual.

*1: Models with optitron display type combination meter assembly
*2: Models with analog type combination meter assembly

■ ILLUMINATED ENTRY SYSTEM

- The specification of the battery saver function for the illuminated entry system has been changed so that it operates even if the key is inserted in the key cylinder.
- The fade-in/fade-out functions for the illuminated entry system have been changed. If there is a request to turn the illuminations on while extinguishing control (fade-out), this cancels the extinguishing control (fade-out) and turn the illuminations on.