## ■MULTIPLEX COMMUNICATION

### 1. Major Difference

The following changes have been made due to the addition of CAN (Controller Area Network) and the adoption of a new system.

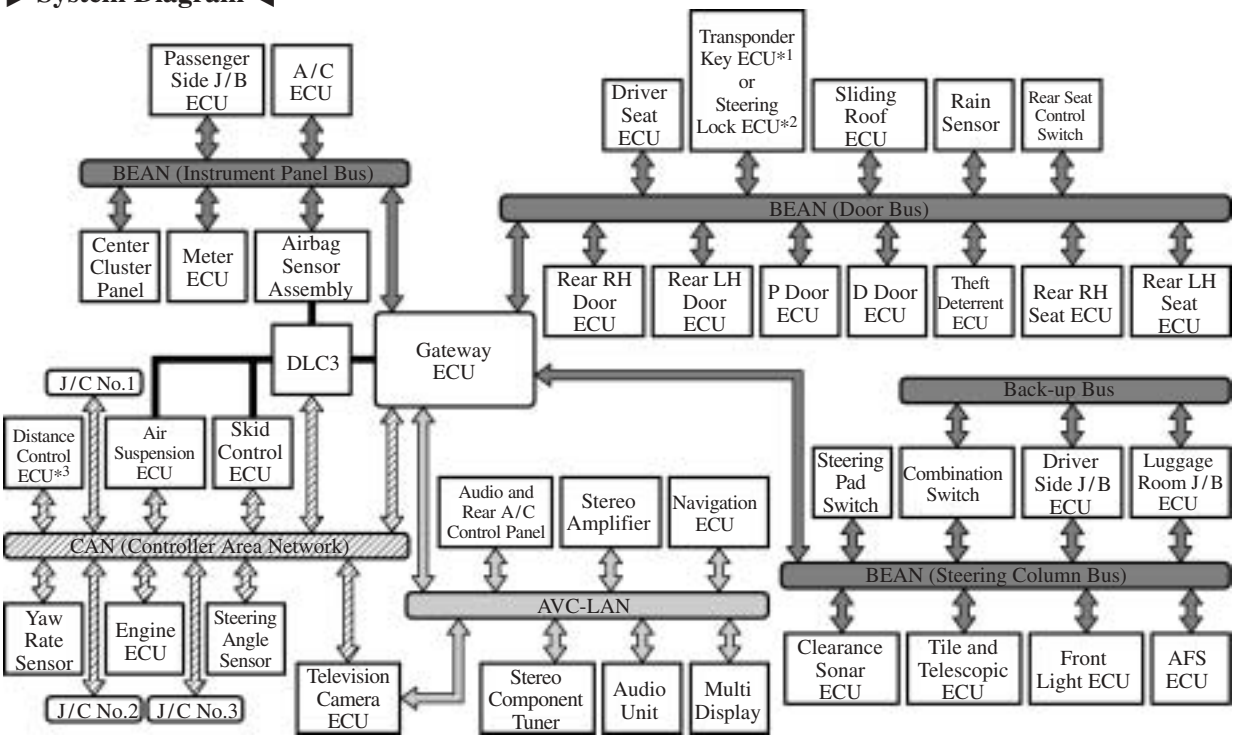
- The engine ECU and the skid control ECU that were connected to the instrument panel bus of the BEAN (Body Electronics Area Network) have been changed to CAN.
- CAN consists of the engine ECU, skid control ECU, steering angle sensor, yaw rate & deceleration sensor, distance control ECU, television camera ECU, air suspension ECU, and DLC3.
- The SIL terminal (serial communication line for diagnosis communication) is no longer used for communication between the engine ECU and DLC3. DTCs of the engine ECU are output through the CAN communication bus instead. For this reason if a malfunction occurs in the CAN communication bus, the engine ECU may not output DTCs.
- The AFS ECU has been added to the steering column bus of the BEAN due to the adoption of the intelligent AFS (Adaptive Front-lighting System).
- A television camera ECU has been added to AVC-LAN and CAN due to the adoption of the rear view monitor and back guide monitor functions in the LEXUS parking assist system.
- The gateway function of the gateway ECU has been changed to enable communication between CAN, BEAN, and AVC-LAN.

**▶ Difference ◀**

| | | New Model | Previous Model |
|---|---|---|---|
| Connected ECUs*1 | BEAN | 27 | 28 |
| | CAN | 8 | — |
| | AVC-LAN | 8 | 7 |
| Communication Frame*2 | | 136 | 140 |
| Gateway function | BEAN x Diagnosis | Gateway ECU | ← |
| | BEAN x AVC-LAN | Gateway ECU | ← |
| | BEAN x CAN | Gateway ECU | — |
| ECU in charge of vehicle information of the customized body electronics system | | Gateway ECU | ← |
| Protocol | | CAN, BEAN, AVC-LAN | BEAN, AVC-LAN |

*1: Optional ECUs are also included.
*2: A group of data that is required for a signal instance of communication

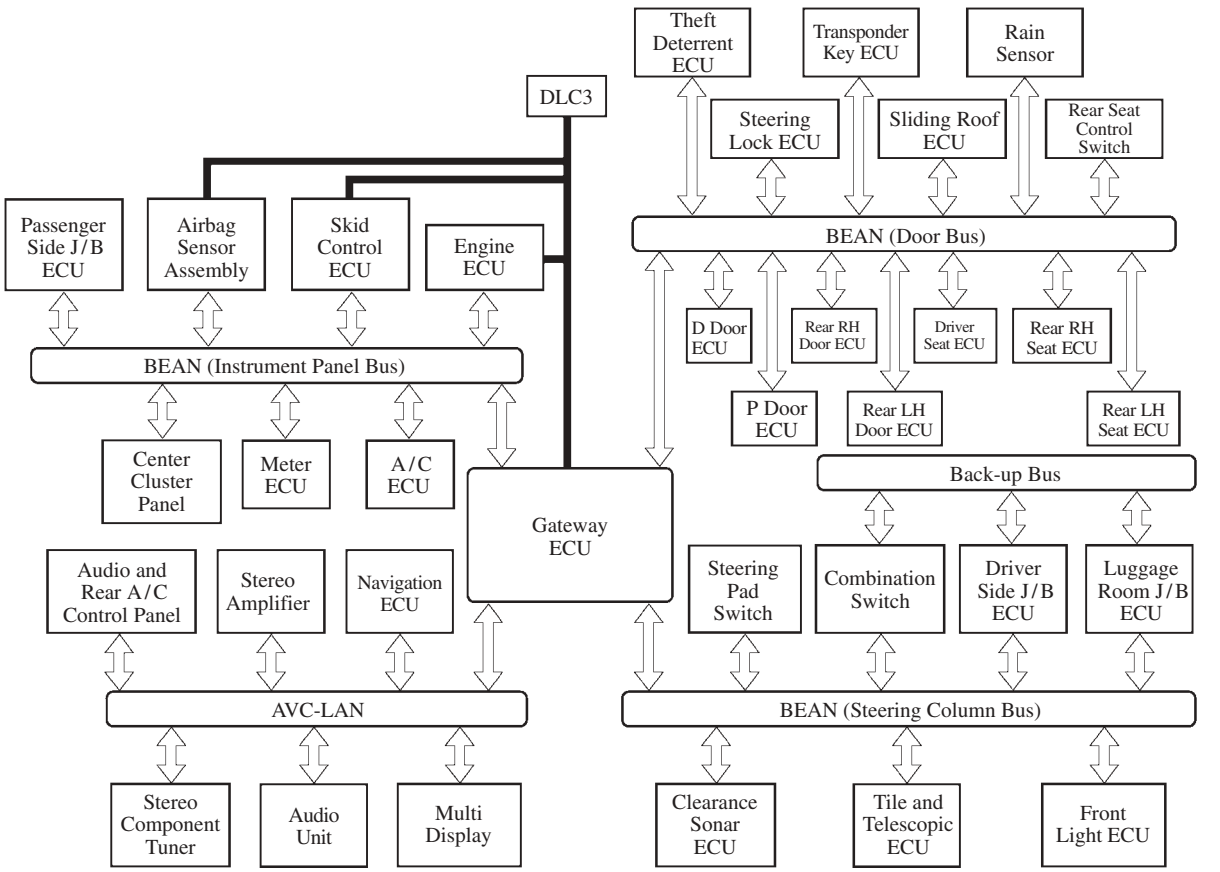
## ▶ System Diagram ◀




*1: without Smart Key System **New Model** 260LSI07

*2: with Smart Key System

*3: with Dynamic Laser Cruise Control System (only for Australia Model)




**Previous Model** 189BE148