BODY ELECTRICAL

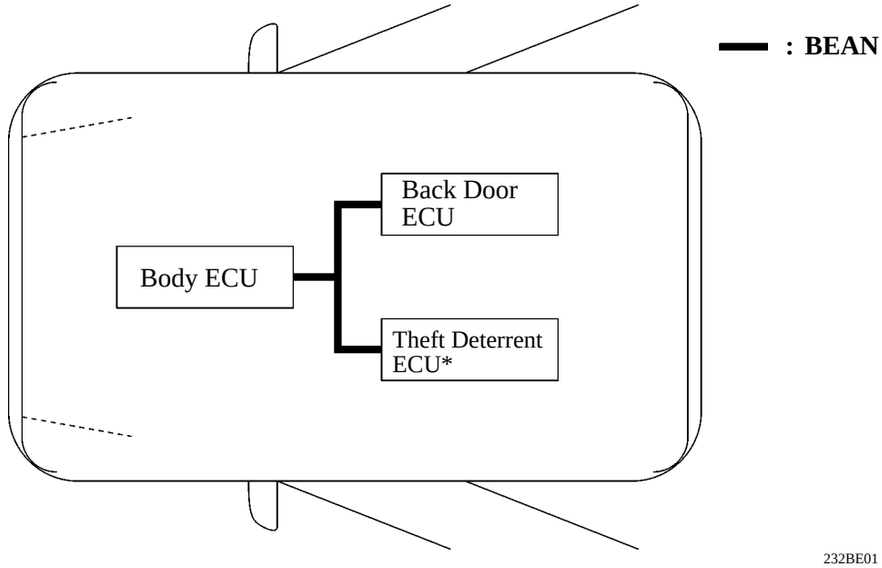
BODY ELECTRICAL SYSTEM CONTROL

■ MULTIPLEX COMMUNICATION SYSTEM

1. General

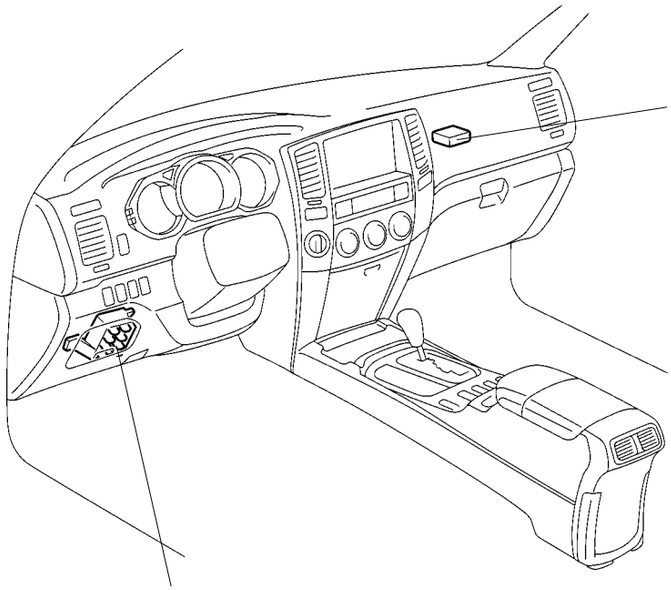
- A multiplex communication system is used for body electrical system control and to achieve a slimmer wiring harnesses configuration.
- BEAN (Body Electronics Area Network) is used between the body ECU, back door ECU and theft deterrent ECU.
- A customized body electronics system, which improves the malfunction diagnostic function, enables the functions to be changed according to customer needs, and reduce the types of parts, has been adopted.

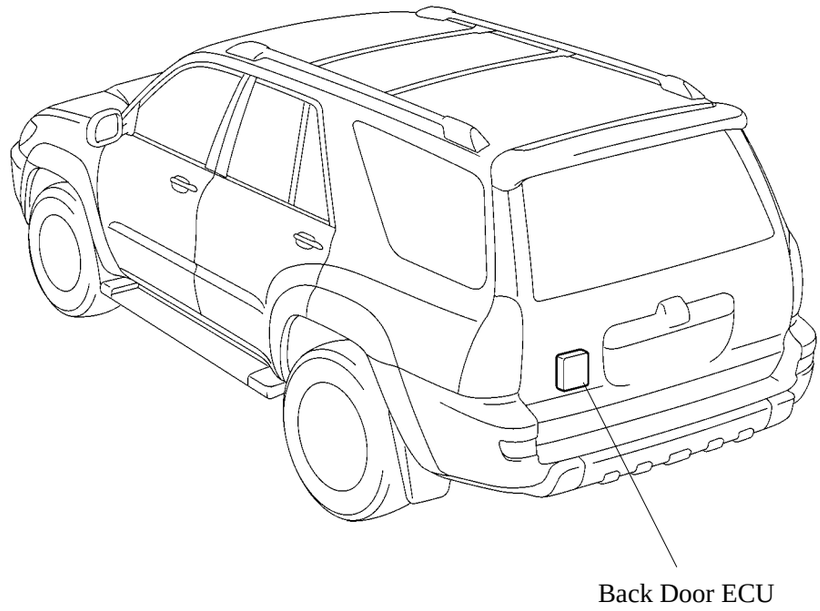
2. System Diagram



*: Only for models with Theft Deterrent System

3. Layout of Main Component





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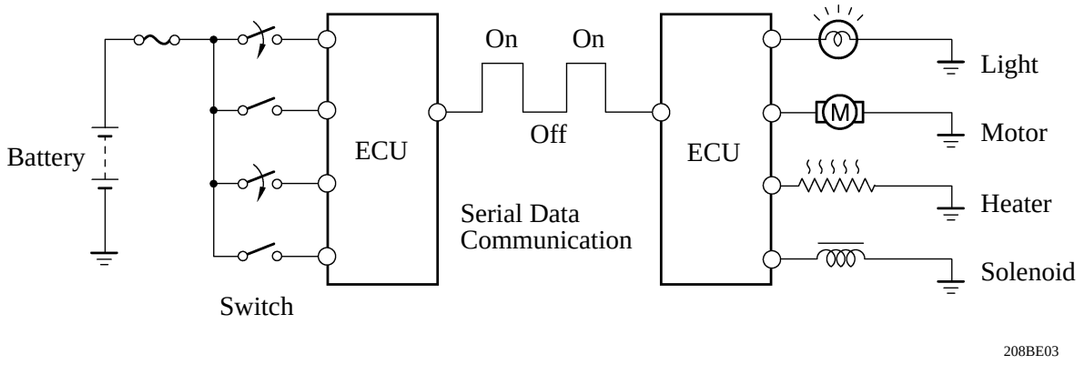
4. System Outline

In the conventional system, electrical loads such as motors and lights were directly connected by wire harness to their switches which controlled their operation. However, in the multiplex communication system, the wire harness is replaced by serial data communication by the ECU, to provide functions similar to the conventional system, through a single serial communication bus. With this system, even when multiple tasks demand additional switches and electrical loads, communication among ECUs can be implemented through the serial communication bus only, resulting in the only reduction in wire harnesses.

▶ Conceptual Drawing of Multiplex Communication System ◀



Multiplex Communication System

Conventional System