65113–01

SYSTEM DESCRIPTION

1. PARTS DESCRIPTION

Components	Function
Automatic light control sensor	Detects ambient light and sends the information to the multiplex network body ECU.
Hazard warning switch	On or off state is sent to the FLASHER RELAY.
Stop lamp switch	Sends the brake pedal state to the rear combination lamp and high mount stop lamp.
HEAD relay	Turns the headlamp on when it is actuated by the headlamp ON demand signal via the multiplex network body ECU.
TAIL relay	Turns the taillamp and illumination on when it is actuated by the taillamp ON demand signal via the multiplex network body ECU.
DIM relay	Turns the headlamp (high beam) on when it is actuated by the headlamp ON demand signal via the multiplex network body ECU.
Door courtesy switch	Detects the door open/close state and sends the information to the respective multiplex network body ECU.
Door unlock detection switch	Detects the door lock/unlock state and sends the information to the respective multiplex network body ECU.
Headlamp leveling actuator	Moves the headlamp (low beam) up and down according to the information from the headlamp leveling switch.

2. OPERATION DESCRIPTION

(a) Manual lighting system

(1) The multiplex network body ECU receives the following:

- Light SW tail signal
- Light SW head signal
- Light SW high beam signal
- Front fog SW signal
- Rear fog SW signal (Europe)
- Lighting system passing signal

(2) The multiplex network body ECU controls the following based on the signals listed in (1).

- HEAD relay ON signal
  Sent when light SW head signal is received.
- TAIL relay ON signal
  Sent when light SW tail signal and light SW head signal are received.
- DIM relay ON signal
  Sent when light SW high beam signal is received.
- FRONT FOG relay ON signal
  Sent when light SW tail and front fog SW signals are received.
- REAR FOG relay ON signal (Europe)
  Sent when light SW tail and rear fog SW signals are received.
- PANEL relay ON signal (Europe)
  Sent when light SW tail and light SW head signals are received.

(3) The multiplex network body ECU controls the on/off operation of the following based on the signals listed in (2):
- Headlamp (low)
- Headlamp (high)
- Clearance lamp
- Front fog lamp
- Rear fog lamp
- Taillamp
- License plate lamp
- Room lamps

(b) Daytime running light system
(1) The multiplex network body ECU receives the following:
- Light SW head signal
- Light SW auto signal
- Light control signal
- Ready condition signal

(2) The multiplex network body ECU controls the following based on the signals listed in (1).
- HEAD relay ON signal
  Sent when the ready condition signal has been received but the light SW head signal have not been received.

(3) The multiplex network body ECU controls the following based on the signals listed in (2):
- Headlamp (Low)

(c) Light auto cut system (Europe)
(1) The multiplex network body ECU receives the following:
- Light SW tail signal
- Light SW head signal
- Front fog SW signal
- Power SW signal

(2) The multiplex network body ECU controls the following based on the signals listed in (1).
- HEAD relay ON signal
  Terminates communication when the power switch ON (IG) signal terminates and the light SW head signal is received while sending the HEAD relay ON signal.
- Front fog relay ON signal
  Terminates communication when the power switch ON (IG) signal terminates while sending the front fog relay ON signal results from receiving the light SW tail signal, light SW head signal, or front fog SW signal.

(3) The multiplex network body ECU controls the on/off operation of the following based on the signals listed in (2).
- Headlamp (low)
- Headlamp (high)
- Taillamp

(d) Light auto cut system (Australia)
  (1) The multiplex network body ECU receives the following:
    - Light SW tail signal
    - Light SW head signal
    - Light SW auto signal
    - Front fog SW signal
    - Power SW signal
    - Light control signal
    - Driver's seat courtesy SW signal
  (2) The multiplex network body ECU controls the following based on the signals listed in (1).
    - HEAD relay ON signal
      Terminates communication when the power switch ON (IG) signal terminates and the driver's seat courtesy SW signal is received while sending the HEAD relay ON signal. The HEAD relay ON signal results from receiving the light SW head signal and illuminance information from the light control signal.
    - TAIL relay ON signal
      Terminates communication when the power switch ON (IG) signal terminates and the driver's seat courtesy SW signal is received while sending the TAIL relay ON signal. The TAIL relay ON signal results from receiving the light SW head signal and illuminance information from the light control signal.
  (3) The multiplex network body ECU controls the on/off operation of the following based on the signals listed in (2).
    - Headlamp (low)
    - Headlamp (high)
    - Clearance lamp
    - Front fog lamp
    - Taillamp
    - License plate lamp

(e) Illuminated entry system
  (1) The multiplex network body ECU receives the following:
    - D/P/RR/RL seat door courtesy SW signal
    - D seat door lock signal
    - P seat door lock signal (w/ Smart Key, w/ Security System)
    - Power SW signal
  (2) The multiplex network body ECU controls the following based on the signals listed in (1):
    - Illumination ON demand signal
      Sent when the respective door courtesy SW signals are received.
      Sent when the respective door lock signals are received.
      Sent when the power switch ON (IG) and power switch ON (ACC) signals are not received.
  (3) The multiplex network body ECU controls on/off and fade–in/fade–out operations of the following based on the signals listed in (2):
    - Key slot lamp
    - Room lamp No.1
    - Personal lamp (Overhead J/B)