

4. System Operation

When the Driver's Door Outside Handle is Pulled and Released

The driver's door outside handle switch engages when the driver's door outside handle is pulled and released. Then, the voltage at terminal (3) of the integration relay drops from 0 V to 12 V. This activates the power transistor, which causes the voltage at terminal (2) to drop from 12 V to 0 V and the illuminations to turn on.

After both doors are locked and the illumination is immediately turned off, the system does not accept any signal input from the outside handle switch for 15 seconds. Therefore, even if the driver's door outside handle is operated, it does not cause the illumination to turn on during that time.

When the Driver's or Passenger's Door is Opened

When the driver's or passenger's door is opened, the courtesy switch on the respective door goes on. In this way, terminal (4) or (6) of the integration relay switches from high level (12V) to low level (0V). As a result, the power transistor is turned on and terminal (2) is switched from high level to low level, turning on the illuminations.

When 15 Seconds has Passed Since Both Doors were Closed

When both doors are closed and terminals (4) and (6) both go high level, the timer circuit operates. The timer keeps the power transistor on for 15 seconds. After 15 seconds has passed, the illuminations are switched off.

When Both Doors are Closed and the Ignition Key is in a Position other than Lock

When both doors are closed and the ignition key is inserted in the ignition key cylinder and turned to a position other than LOCK, terminals (4) and (6) both become high level and terminal (7) or (11) switches from low to high level. As a result, the power transistor goes off and the illuminations are switched off regardless of the operation of the timer circuit.

When Both Doors are Closed and Both Doors are Locked

When both doors are locked after both doors are closed, or are closed after being locked, terminals (4) and (6) become high level together and terminals (17) and (18) switch from low to high level. As result, the power transistor goes off and the illuminations are switched off regardless of the operation of the timer circuit.