

BODY ELECTRICAL

LIGHTING

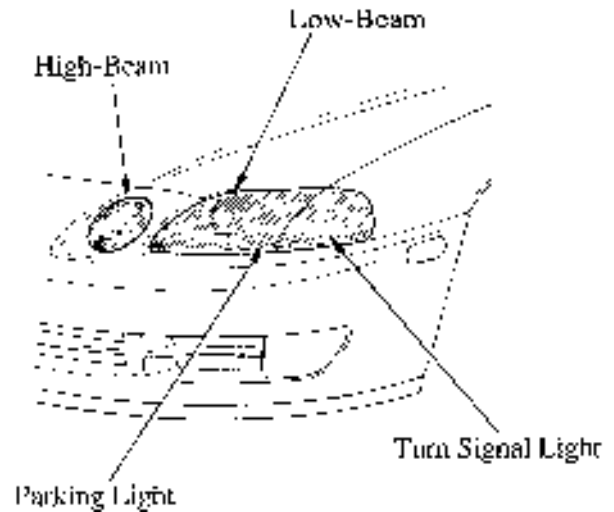
■ HEADLIGHTS

1. Description

The headlights are aerodynamically styled, with the low-beam and high-beam lights mounted separately.

A newly developed projector light is used for the low-beam lights, and the parking light and turn signals are integrated with them.

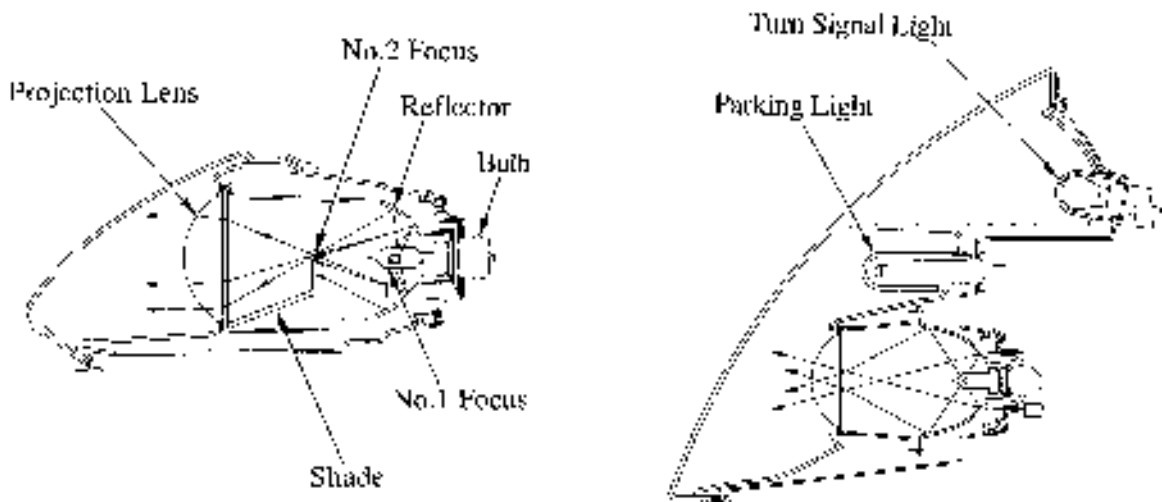
The high-beam is a semi-sealed type which is embedded in the bumper.



2. Projector Light

The projector light used for the low-beam lights has the bulb located at one of the two focal points (No. 1 focus) while the beam collected at the other focal point (No. 2 focus) by the oval-shaped reflector reflects the light, projecting it forward to the projection lens. With this type of light, the effective usage range of the incident beam striking the upper reflector is wide and ensures a sufficient level of light. Compared to the ordinary semi-sealed beam type lamp, this type can be made more compact and since the beam from the source of light is concentrated in a narrower range, the amount of light leaking away from the direction of projection is small.

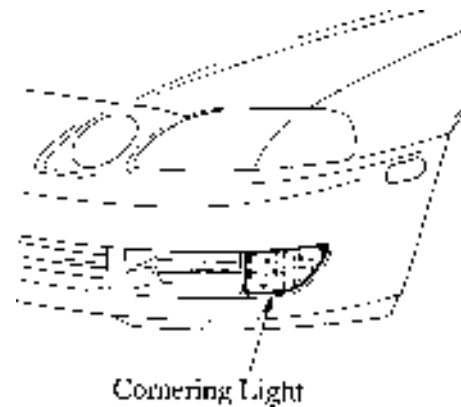
The bulb used is a 12V 55W halogen type bulb.



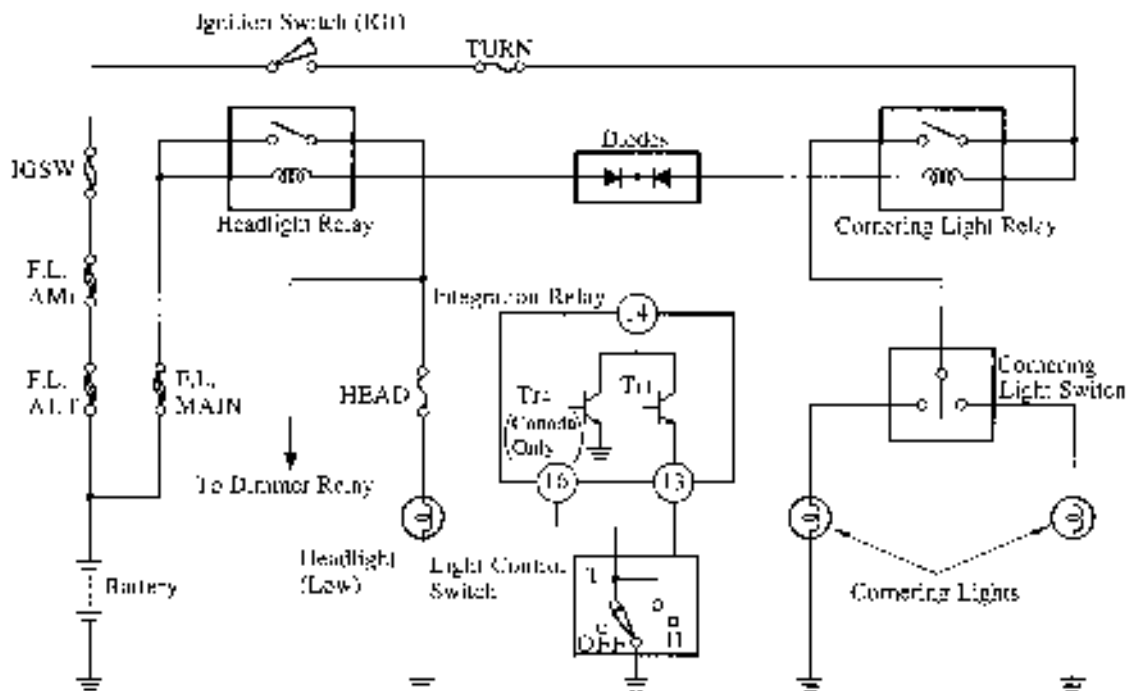
■ CORNERING LIGHT SYSTEM

1. Description

This system lights up special cornering lights embedded in the front bumper which are connected to the turn signal lights. They improve visibility in the direction in which the vehicle is turning when the vehicle is being driven with the headlights on at night.

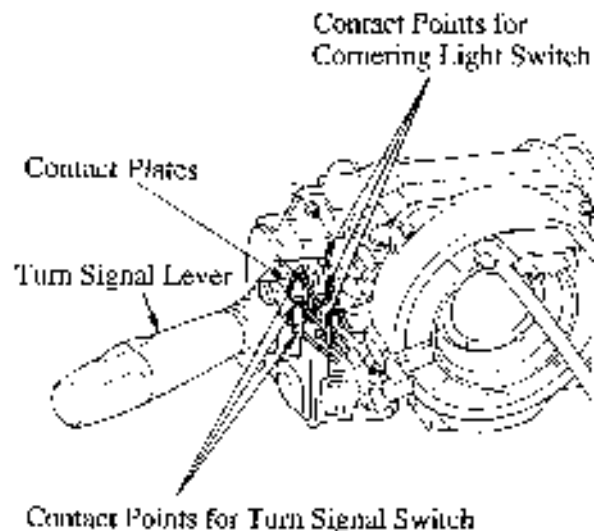


2. Wiring Diagram



3. Cornering Light Switch

The cornering light switch is built into the turn signal switch assembly. This switch has the same construction as the turn signal switch. Its contact plate slides together with the movements of the turn signal lever, connecting the 2 contact points and turning on the light. The contact plate is integrated with the contact plate for the turn signal switch. The interval of these contact points has been made longer than the interval for the turn signal switch. Thus, when making a lane change, etc., if the lever is held partway on to turn the turn signal light on, the cornering light switch remains off. This light goes on only if the turn signal lever is moved the full stroke.



DAYTIME RUNNING LIGHT SYSTEM (Only for Canada)

1. Description

The daytime running light system is designed to automatically activate the headlights (low-beam) and taillights during the daytime to keep the car highly visible to other vehicles. This system in the SC400 differs from that in the 1991 model LS400 and ES250 in that this system is controlled by an integration relay. Its basic construction and operation are unchanged, however. For details of this system operation, see NCF070U, page 4.

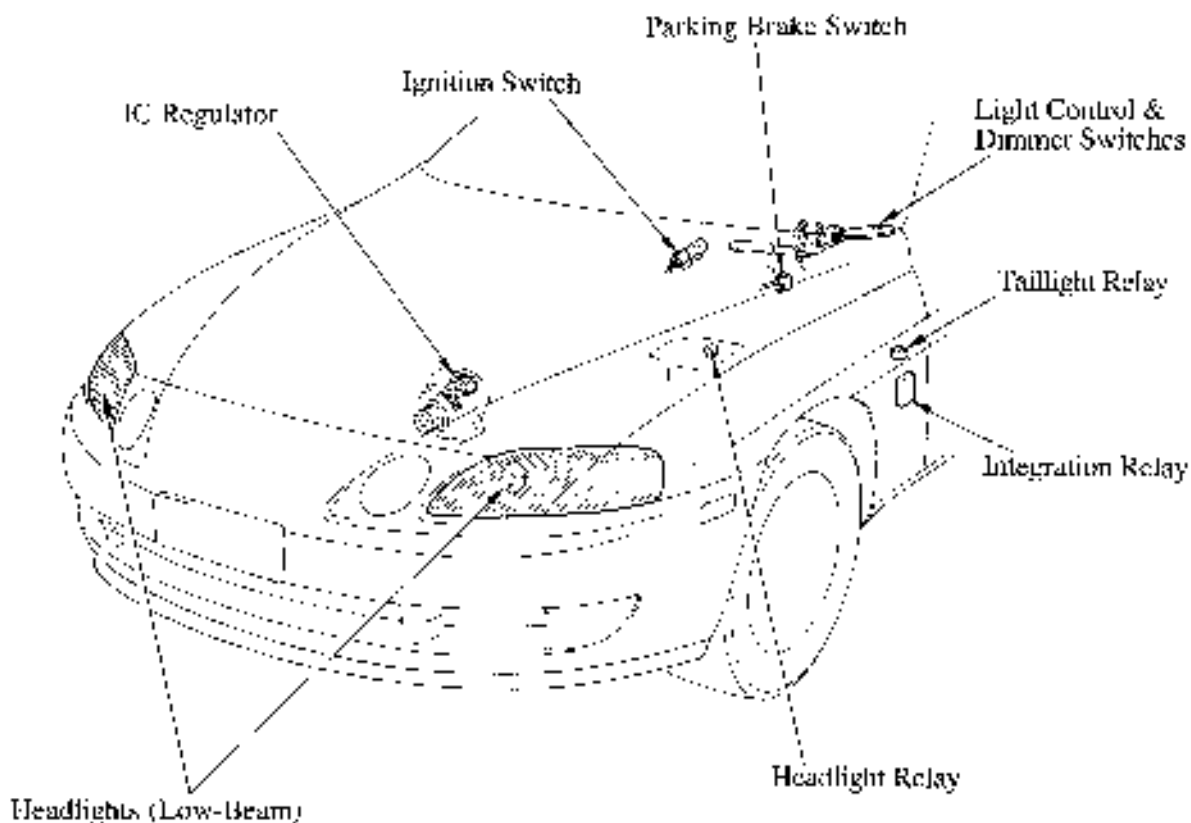
The operation pattern of this system is shown below.

● : Light on as daytime running light, ○ : Lighted up, X : Off

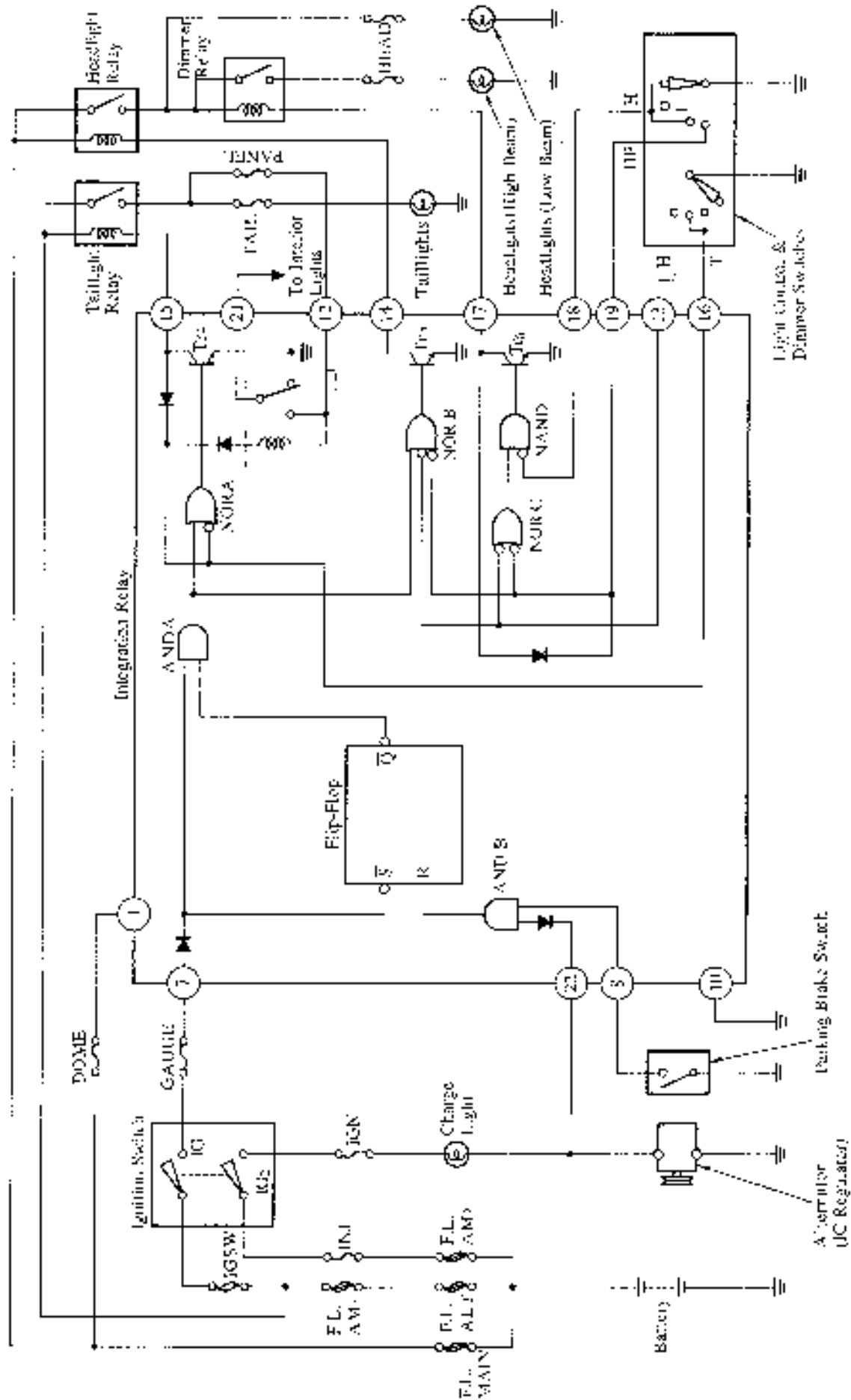
Engine Condition	Light Control Switch	Dimmer Switch	Parking Brake	Taillights	Headlights	
					Low	High
After Starting	OFF	Low, High	Applied	X*	X*	X
			Released	●	●	
		HF (High Flash)	Applied	X*	○	○
			Released	●		
	TAIL	Low, High	Applied	○	X*	X
			Released		●	
		HF	○		○	
	HEAD	Low	Either		○	X
		High, HF				○

*: Only when the engine is started by turning the ignition key from LOCK or ACC to ON position with the parking brake applied. Otherwise, they are turned on as daytime running lights.

2. Layout of Components



3. Wiring Diagram

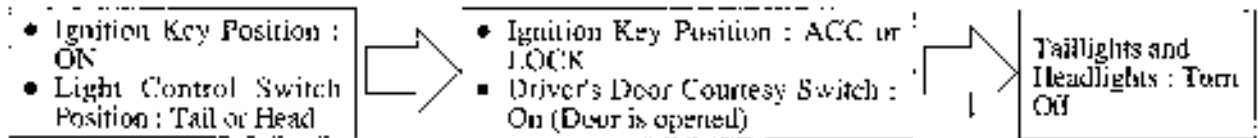


■ LIGHT AUTO TURN-OFF SYSTEM

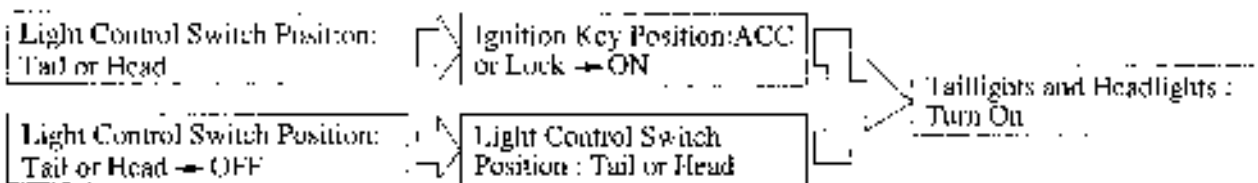
1. Description

The light auto turn-off system is a system which switches taillights and headlights off automatically if they have been forgotten, preventing them from being left on. The system's basic construction and operation are the same as in the LS400. For details, see NCF054U, page 354.

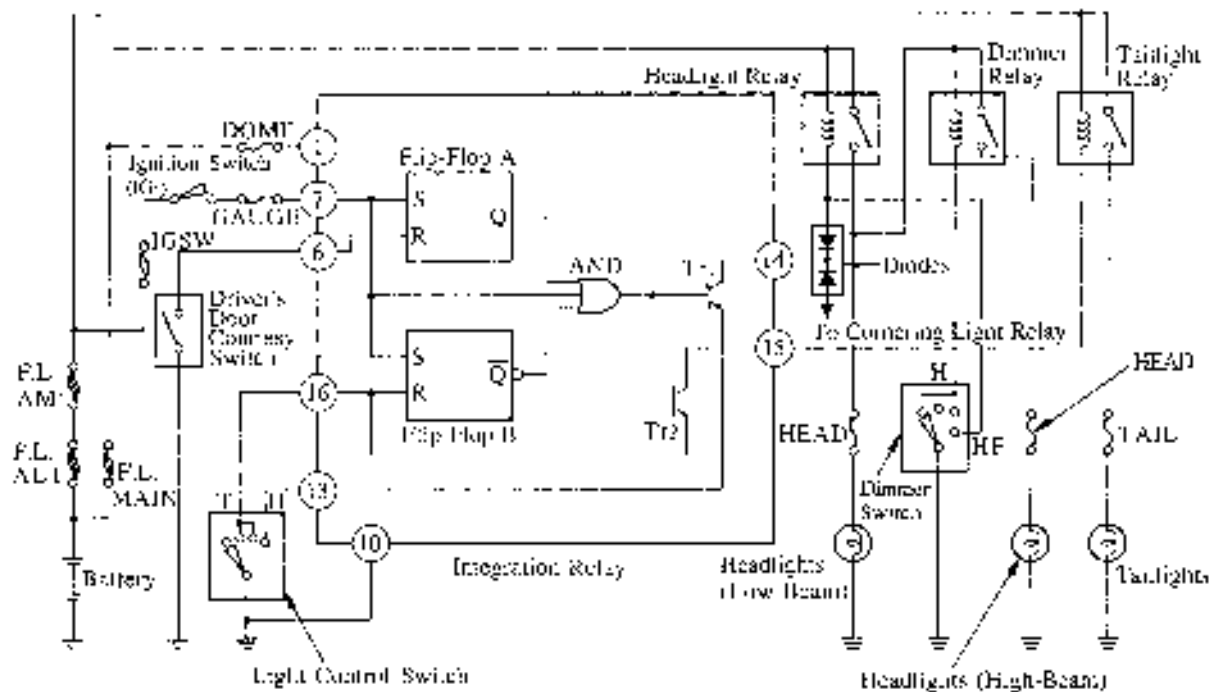
The systems operates with the following procedure to automatically turn off the taillights and headlights:



After taillights and headlights are turned off automatically as above, they can be turned on by the following operation:



2. Wiring Diagram



NOTE: This wiring diagram is for U.S.A. specification vehicles. The control circuit for the dimmer relay differs in Canadian specification vehicles; for details, see the wiring diagram for the daytime running light system on the previous page.

■ ILLUMINATED ENTRY SYSTEM

1. Description

When the driver's or passenger's door is opened, the illuminated entry system turns on the illumination lights around the ignition key cylinder, dome light (only when the control switch is at DOOR position) and footwell illumination lights (for the driver and front passenger) simultaneously. It is useful when entering the vehicle and inserting the ignition key into the cylinder in the dark.

In the LS400, these lights fade out about 8.5 seconds after the driver's door outside handle is released and the front doors are closed. In the SC400, the light off conditions have been set as follows to improve utility.

►Time Chart◀

Component		Condition	
Ignition Key	ACC, ON, ST		
	LOCK		
Driver's and Passenger's Doors	Open		
	Closed		
Driver's and Passenger's Doors	Unlock		
	Lock		
Illumination Lights	On		
	Off		
Requirement		①	② ② ③ ③

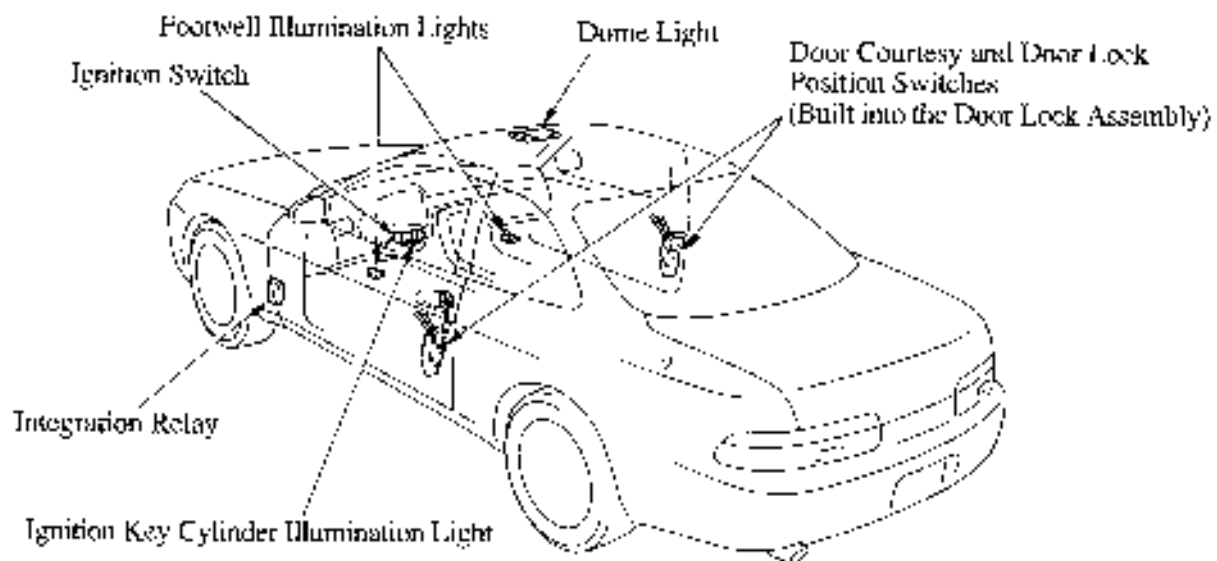
* About 15 seconds

Case ①: About 15 seconds has passed after both doors have been closed.

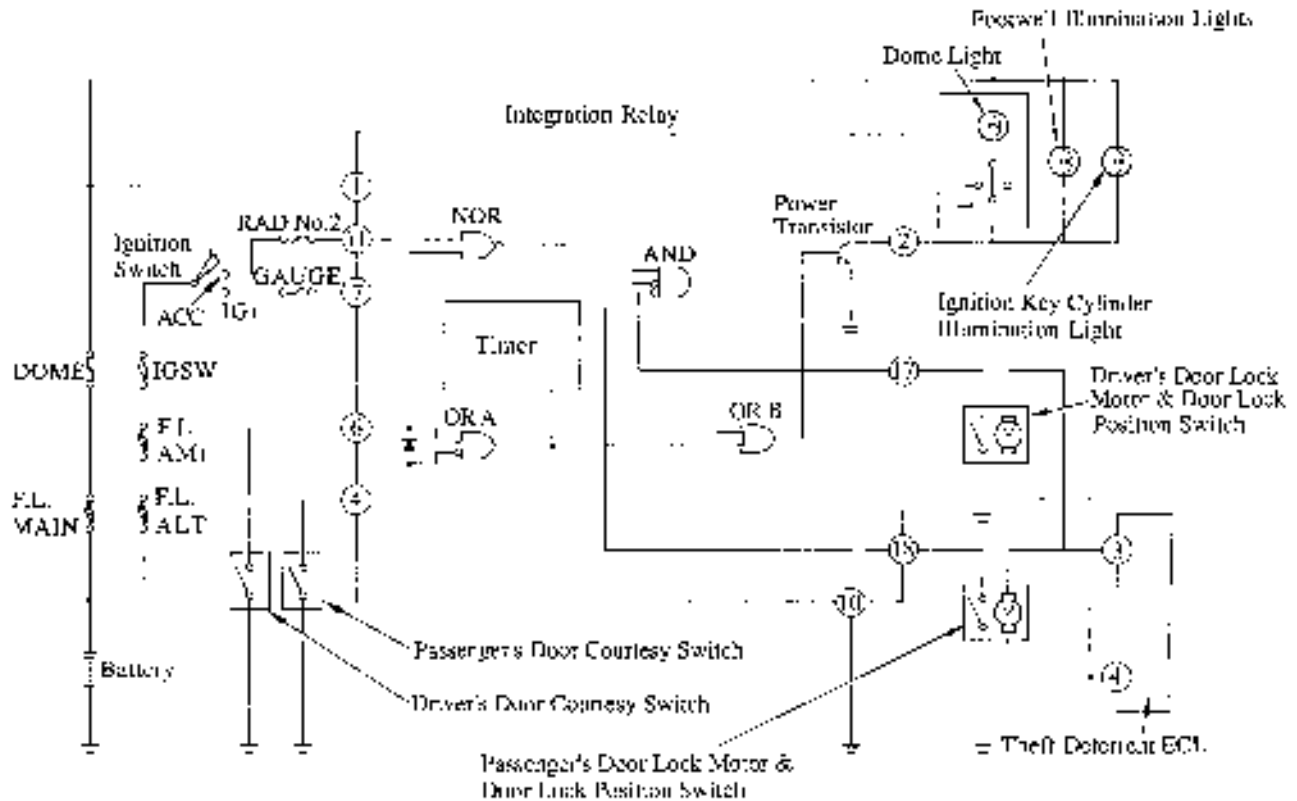
Case ②: Both doors have been closed and the ignition key is in a position other than LOCK.

Case ③: Both doors have been closed and both doors are locked.

2. Layout of Components



3. Wiring Diagram



NOTE: When input to the timer circuit changes from “1” to “0”, “1” is output for about 15 seconds.

4. System Operation

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 illumination lights.

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 illumination lights 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 illumination lights 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 terminal (17) and (18) (23 and 23 in Canadian specification vehicles) switch from low to high level. As a result, the power transistor goes off and the illumination lights are switched off regardless of the operation of the timer circuit.