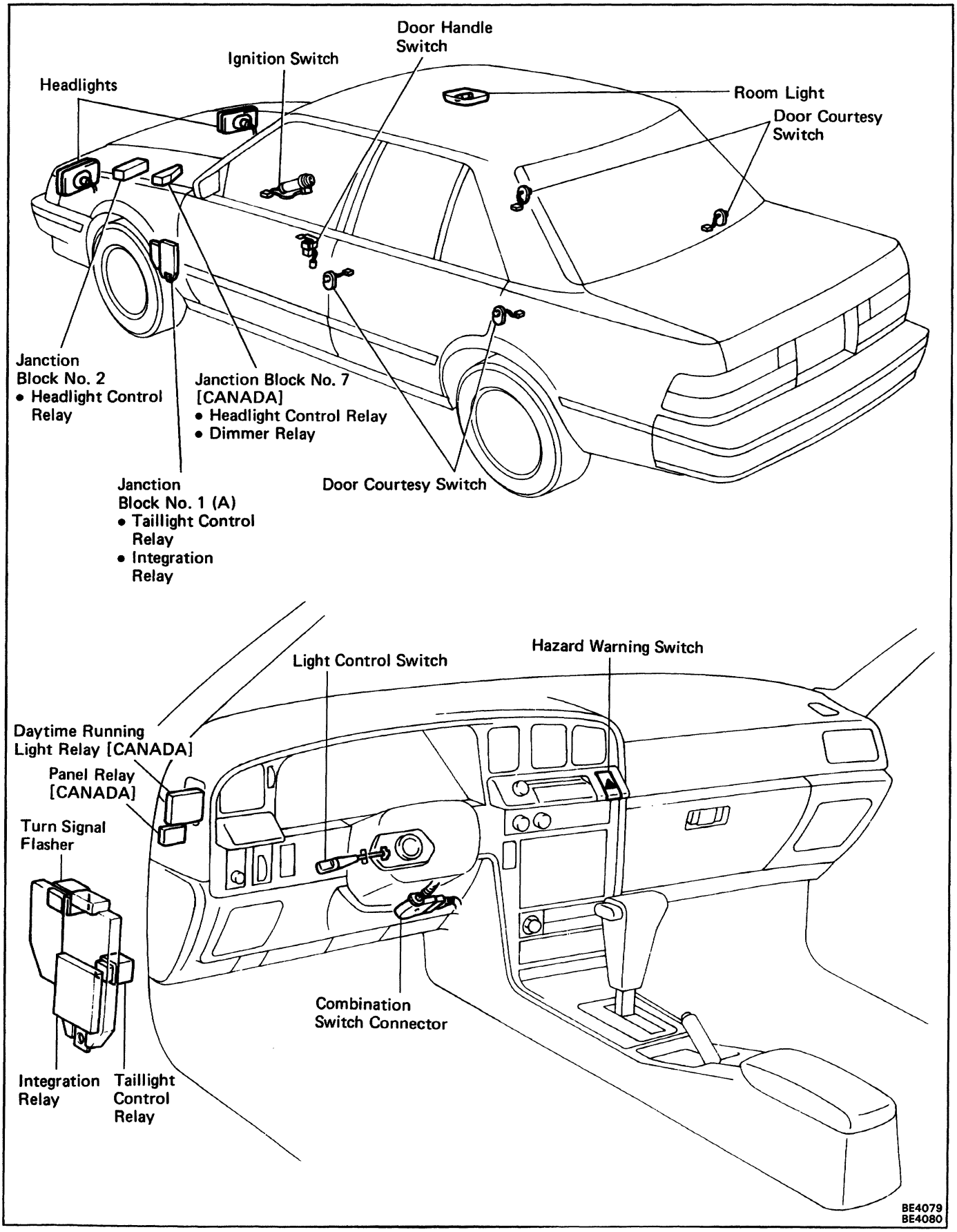
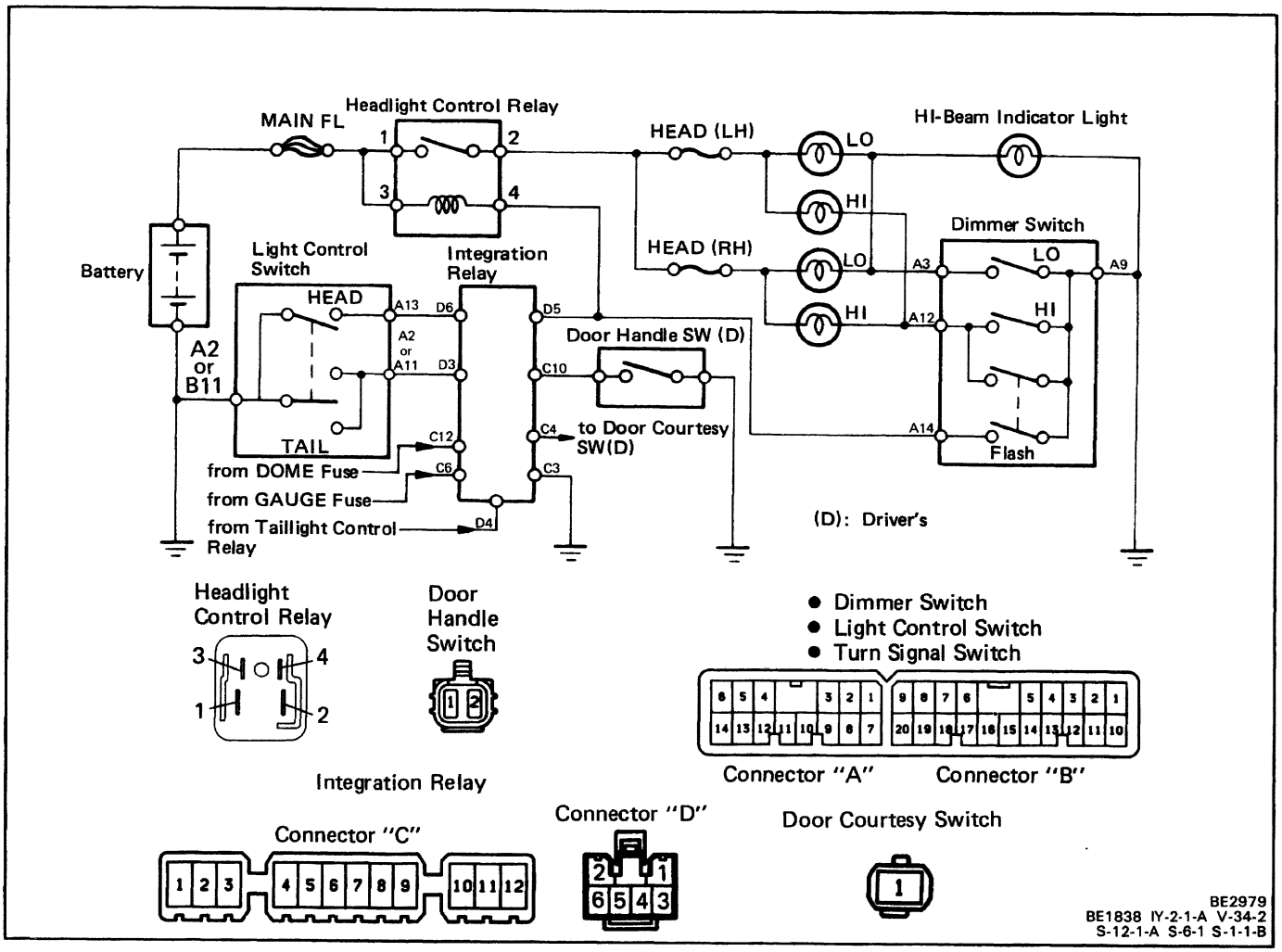
LIGHTING SYSTEM

Parts Location



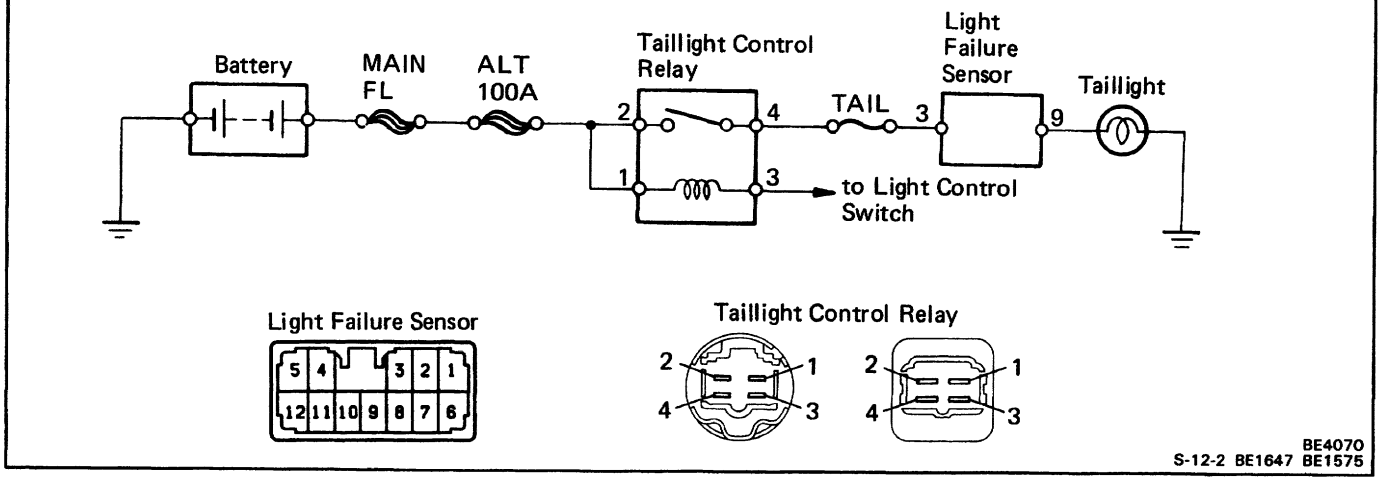
Wiring and Connector Diagrams

Headlight System [USA]



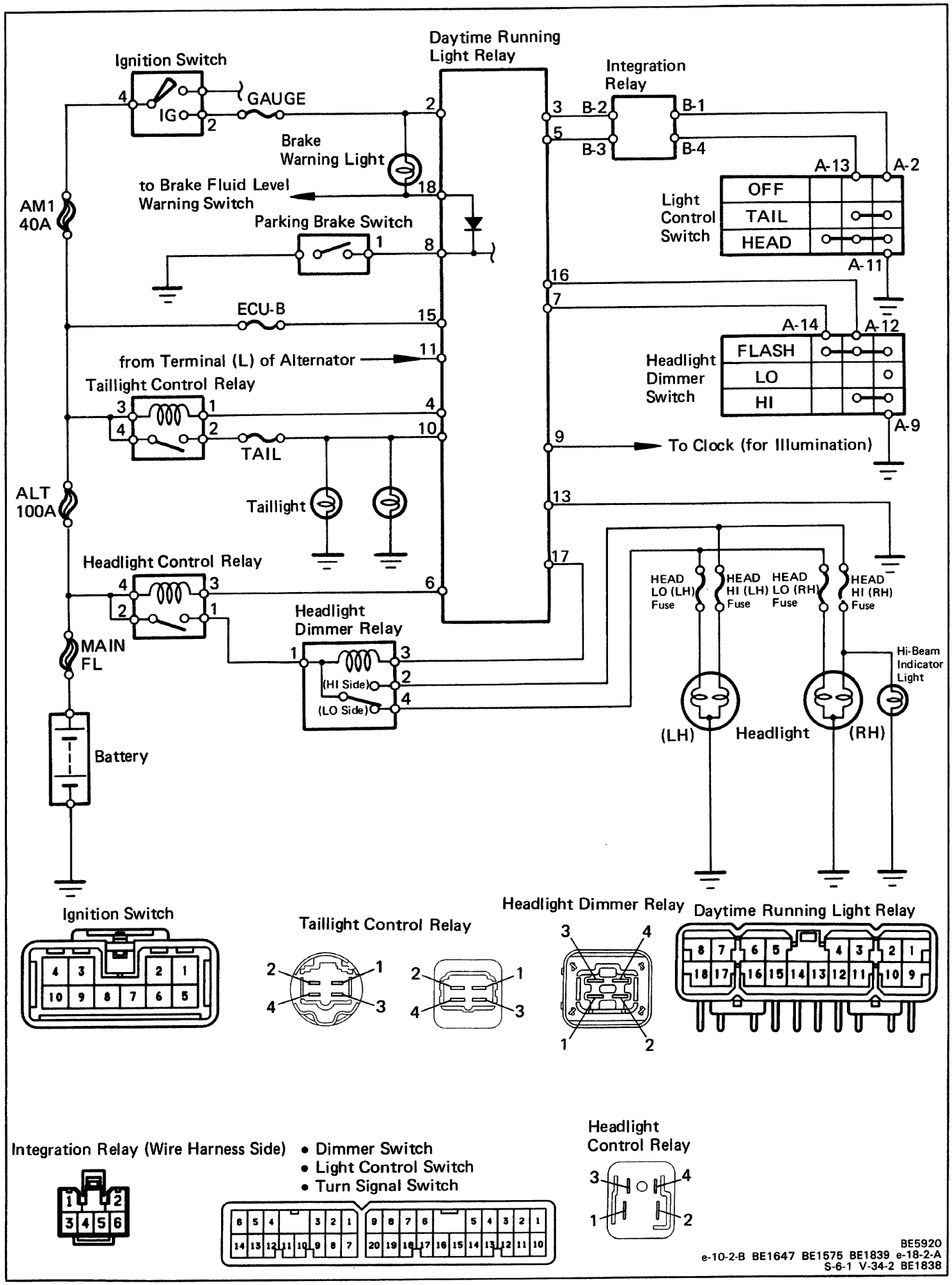
BE2979
BE1838 IY-2-1-A V-34-2
S-12-1-A S-6-1 S-1-1-B

Taillight System

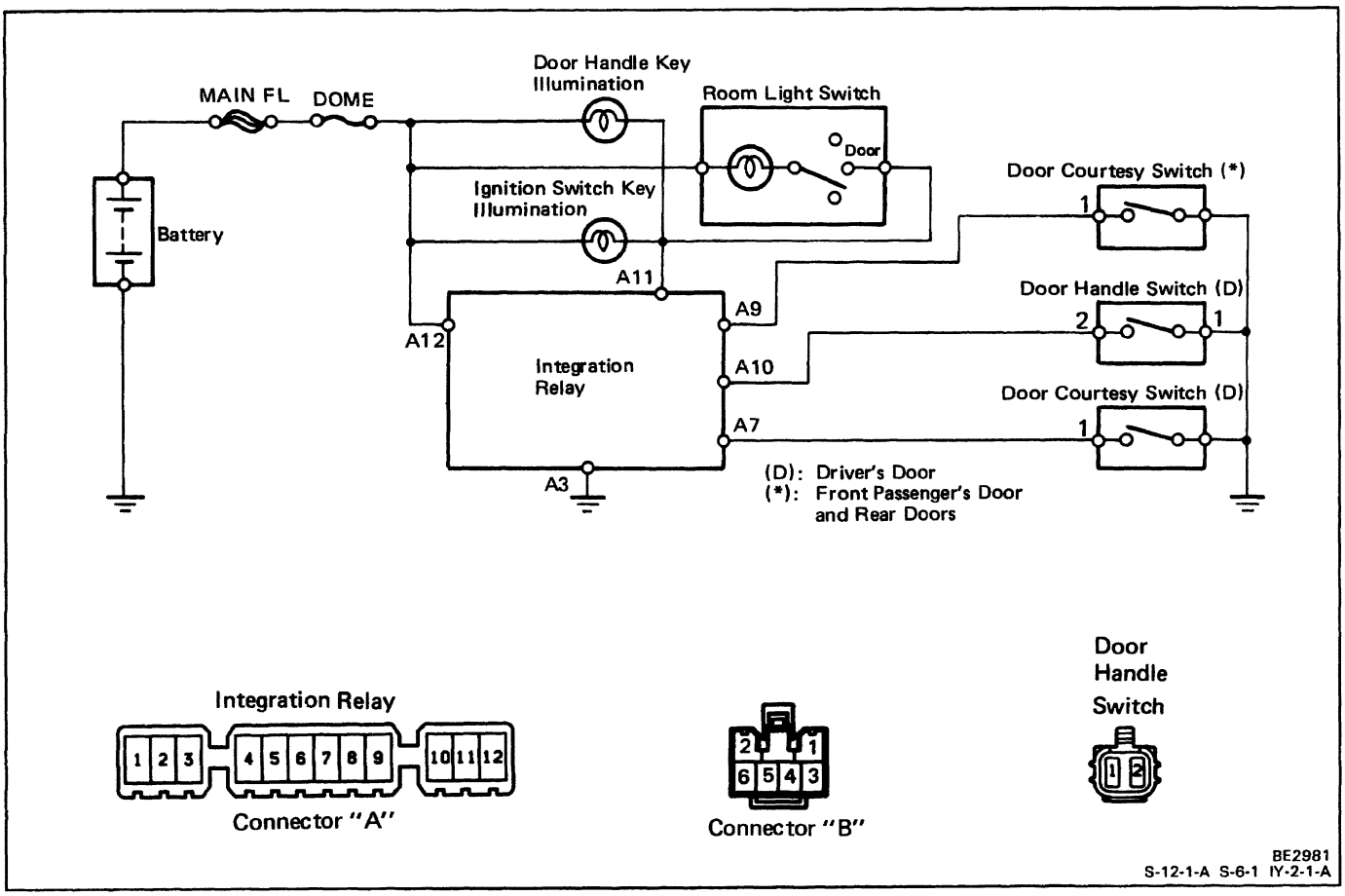


BE4070
S-12-2 BE1647 BE1575

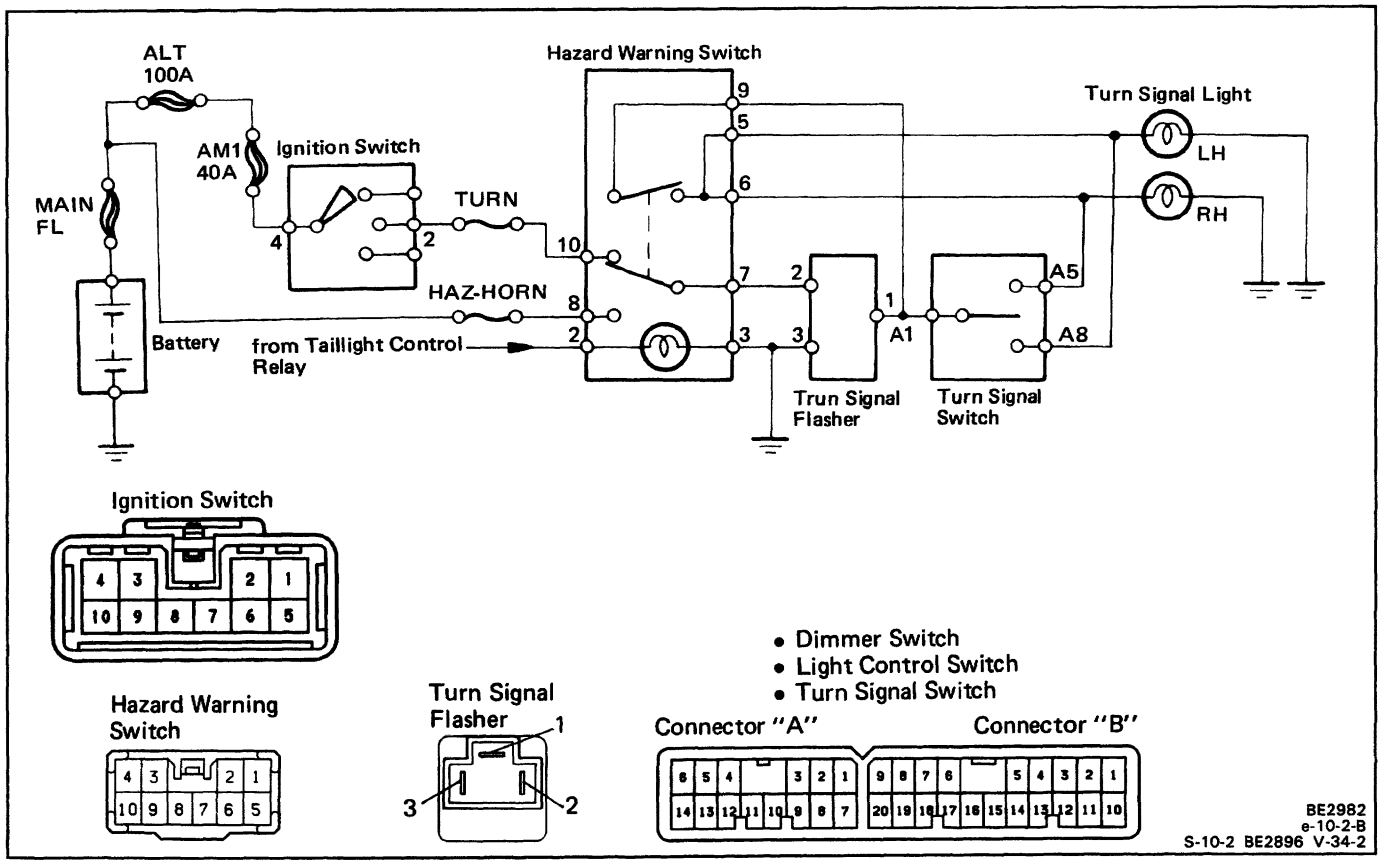
Daytime Running Light System [CANADA]



Illuminated Entry System



Turn Signal and Hazard Warning System

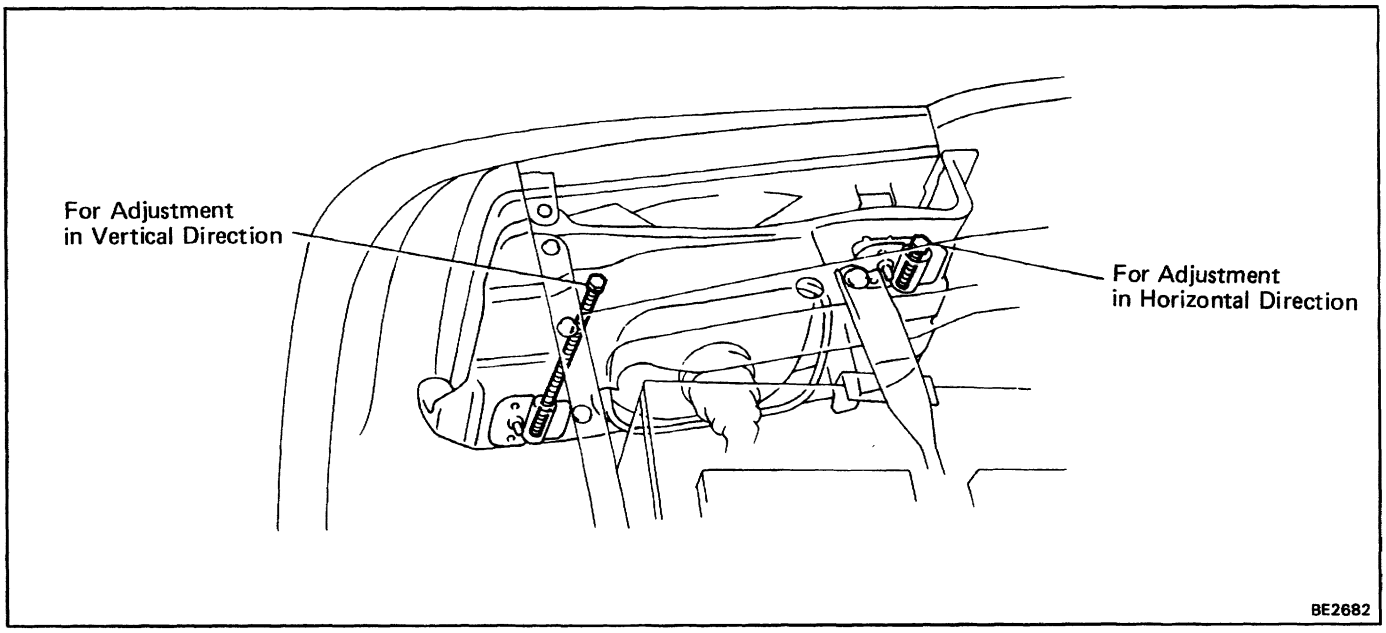


Troubleshooting

Problem	Possible cause	Remedy	Page
Only one light comes ON	Light bulb burned out	Replace bulb	
	Socket, wire or ground faulty	Repair as necessary	
Headlights do not light	Fusible link blown	Replace fusible link	
	HEAD fuse blown	Replace fuse and check for short	BE–3
	Headlight control relay faulty	Check relay	BE–22
	Light control/dimmer switch faulty	Check switch	BE–22
	Daytime running light relay faulty [CANADA]	Check relay	BE–23
	Headlight dimmer relay faulty [CANADA]	Check relay	BE–23
	Wiring or ground faulty	Repair as necessary	
High beam headlights or headlight flashers do not operate	Light control/dimmer switch faulty	Check switch	BE–22
	Daytime running light relay faulty [CANADA]	Check relay	BE–23
	Headlight dimmer relay faulty [CANADA]	Check relay	BE–23
	Wiring faulty	Repair as necessary	
Tail, parking and license light do not light	Fusible link blown	Replace fusible link	
	TAIL fuse blown	Replace fuse and check for short	BE–6
	Taillight control relay faulty	Check relay	BE–22
	Light control switch faulty	Check switch	BE–22
	Daytime running light relay faulty (CANADA)	Check relay	BE–23
	Wiring or ground faulty	Repair as necessary	
Stop light do not light	STOP fuse blown	Replace fuse and check for short	BE–6
	Stop light switch faulty	Adjust or replace switch	
	Wiring or ground faulty	Replace as necessary	
Stop lights stay on	Stop light switch faulty	Adjust or replace switch	
Turn signal does not flash on one side	Turn signal switch faulty	Check switch	BE–25
	Wiring or ground faulty	Repair as necessary	
Turn signals do not operate	TURN fuse blown	Replace fuse and check for short	BE–6
	Turn signal flasher faulty	Check flasher	BE–25
	Turn signal switch faulty	Check switch	BE–25
	Wiring or ground faulty	Repair as necessary	
Hazard warning lights do not operate	HAZ–HORN fuse blown	Replace fuse and check for short	BE–7
	Turn signal flasher faulty	Check flasher	BE–25
	Hazard warning switch faulty	Check switch	BE–25
	Wiring or ground faulty	Repair as necessary	

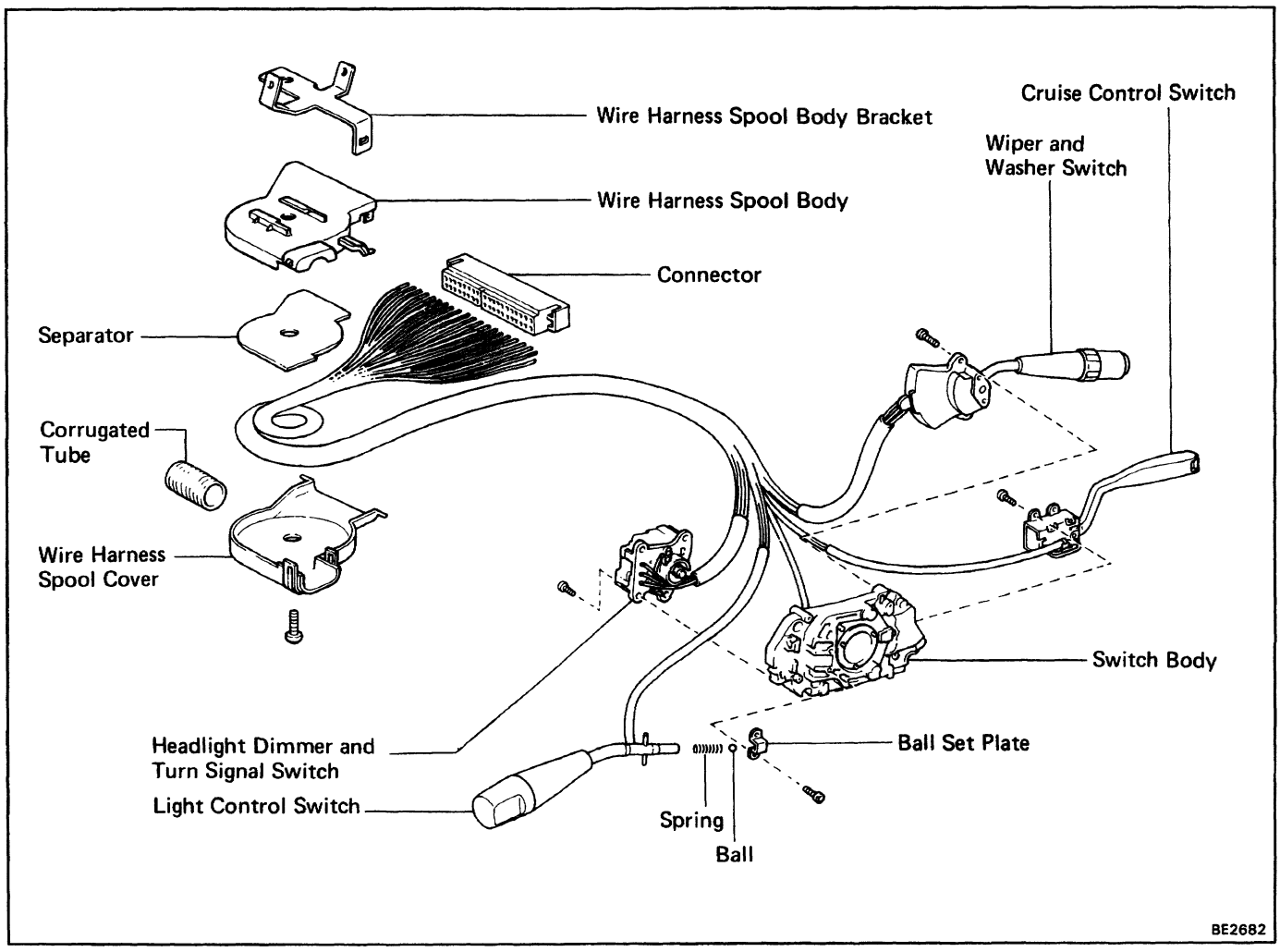
Part Adjustment

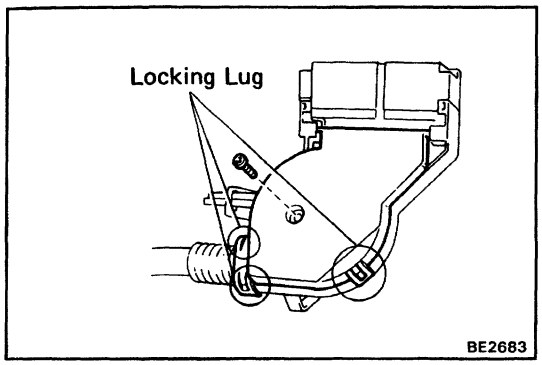
Adjustment of Light Aiming



Parts Replacement

Components

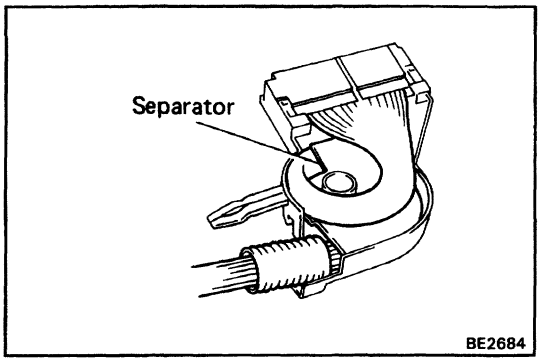




Disassembly of Combination Switch

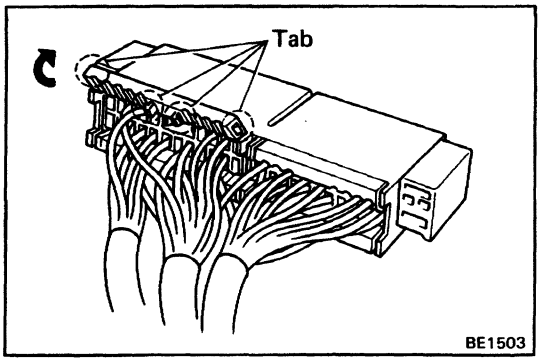
1. REMOVE WIRE HARNESS SPOOL COVER

Remove one screw and pry loose three locking lugs.



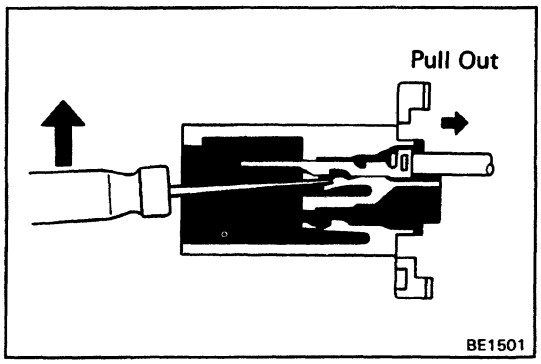
2. REMOVE SEPARATOR

Remove the separator from the spool body.



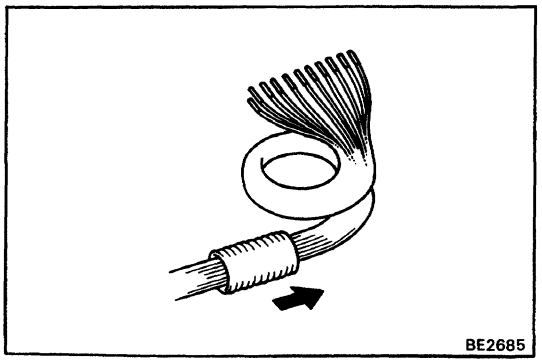
3. REMOVE TERMINALS FROM CONNECTOR

(a) Release four tabs and open the terminal cover.



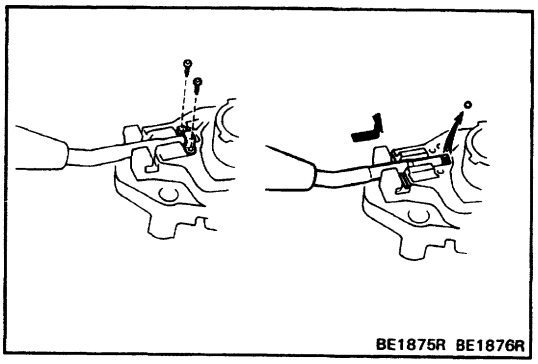
(b) From the open end, insert a miniature screwdriver between the locking lug and terminal.

(c) Pry down the locking lug with the screwdriver and pull the terminal out from the rear.



4. REMOVE CORRUGATED TUBE

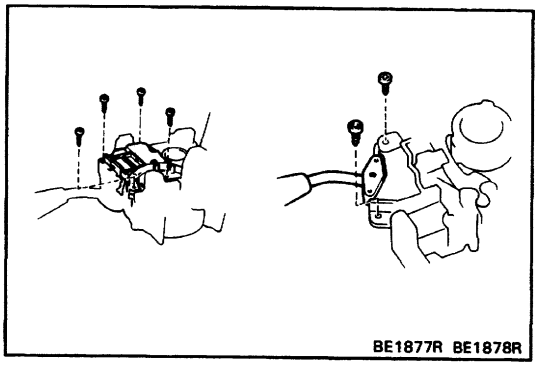
Pull out the corrugated tube from the wire harness.



5. REMOVE LIGHT CONTROL SWITCH

(a) Remove two screws and the ball set plate from the switch body.

(b) Remove the ball and slide out the switch from the switch body with the spring.

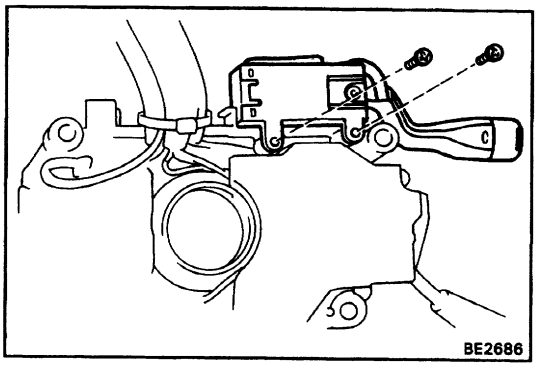


6. REMOVE HEADLIGHT DIMMER AND TURN SIGNAL SWITCH

Remove four screws and the switch from the switch body.

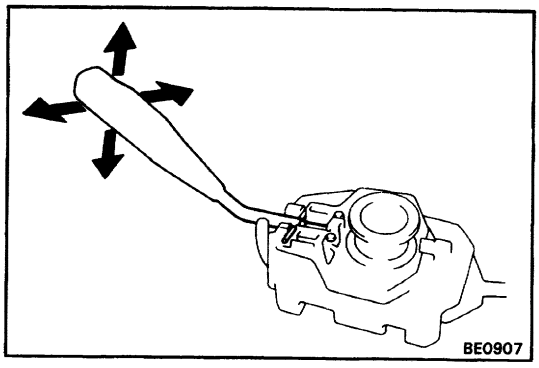
7. REMOVE WIPER AND WASHER SWITCH

Remove two screws and the switch from the switch body.



8. REMOVE CRUISE CONTROL SWITCH

Remove two screws and the switch from the body.

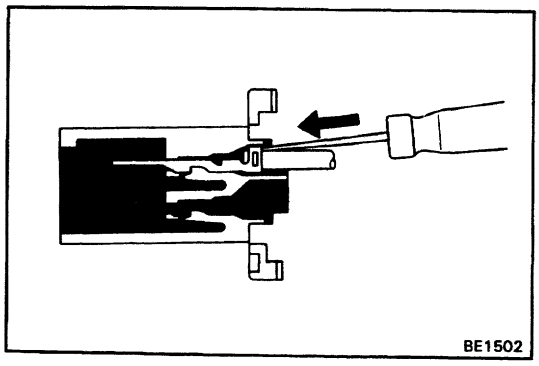


Assembly of Combination Switch

INSTALL PARTS OF COMBINATION SWITCH IN REVERSE SEQUENCE OF DISASSEMBLY

HINT:

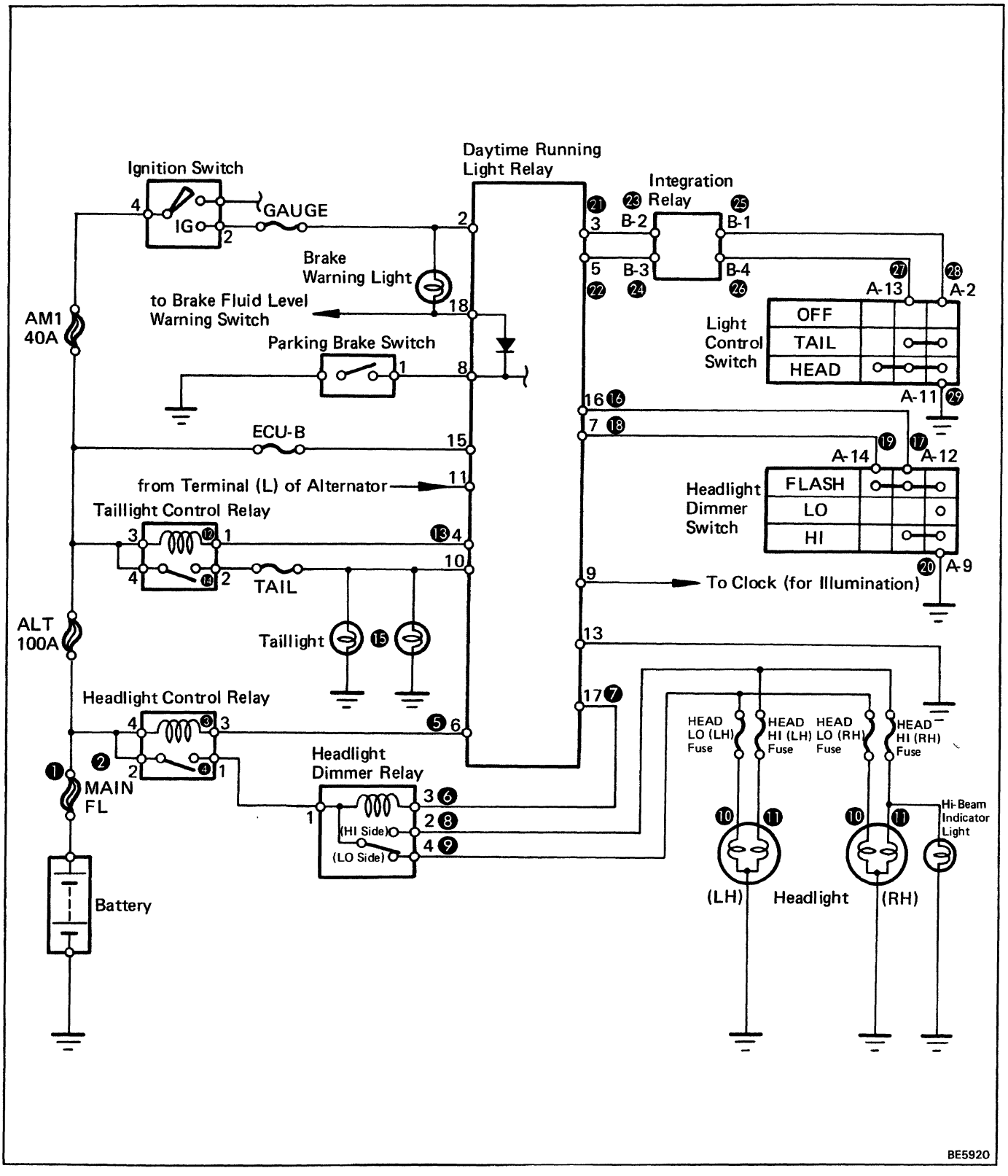
- After installing the light control switch to the switch body, insure that the switch operation is smoothly.



- Push in the terminal until it is securely locked in the connector lug.

SYSTEM DESCRIPTION
Daytime Running Light System

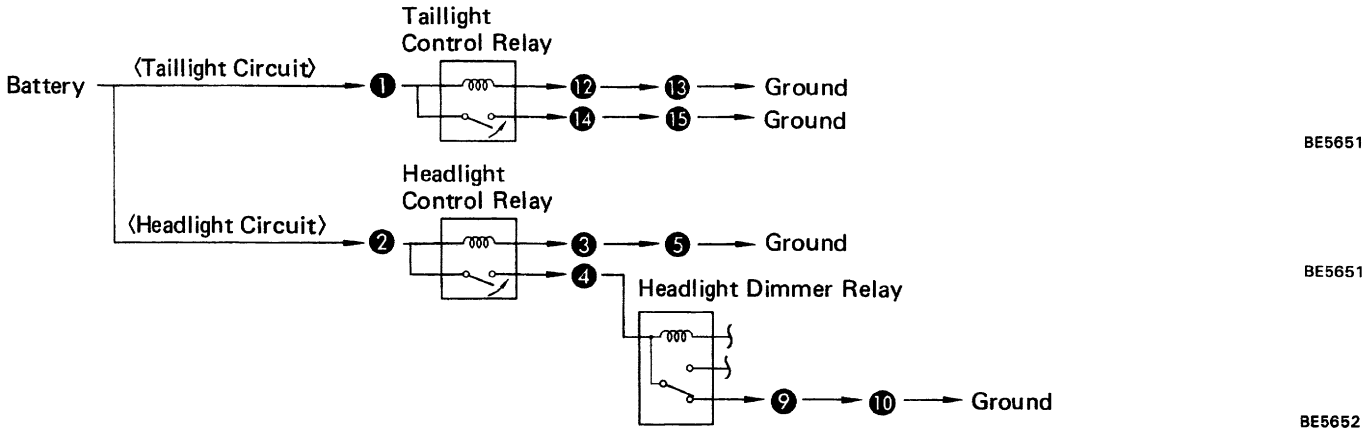
The Daytime Running Light (DRL) system is activated when the engine started (however, if the parking brake lever is engaged when the engine is started, the DRL will not light up after the engine has started. Once the parking brake is released, the DRL with then light up and will remain on regardless of operation of the parking brake lever).
The DRL remain on until the ignition switch is turned off.



Operation examples (Current flow table)

1. DAYTIME RUNNING LIGHT LIGHTS UP

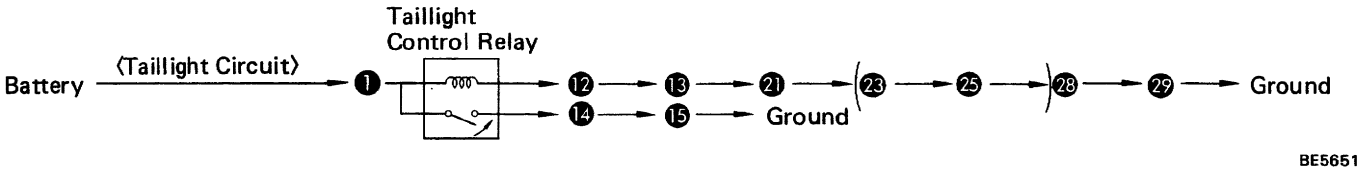
Switch	Position
Ignition Switch	ON (engine running)
Light Control Switch	OFF
Headlight Dimmer Switch	LO or H I



2. TAILLIGHT LIGHTS UP

Switch	Position
Ignition Switch	OFF or ON
Light Control Switch	TAIL
Headlight Dimmer Switch	LO or H I

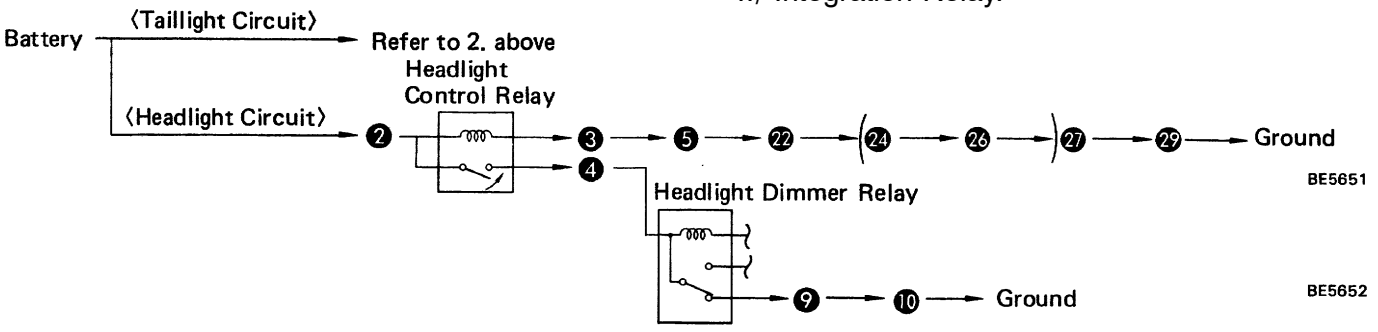
The number in brackets ( ) applies to vehicles w/ Integration Relay.



3. HEADLIGHT LOW BEAM LIGHTS UP

Switch	Position
Ignition Switch	OFF or ON
Light Control Switch	HEAD
Headlight Dimmer Switch	LO

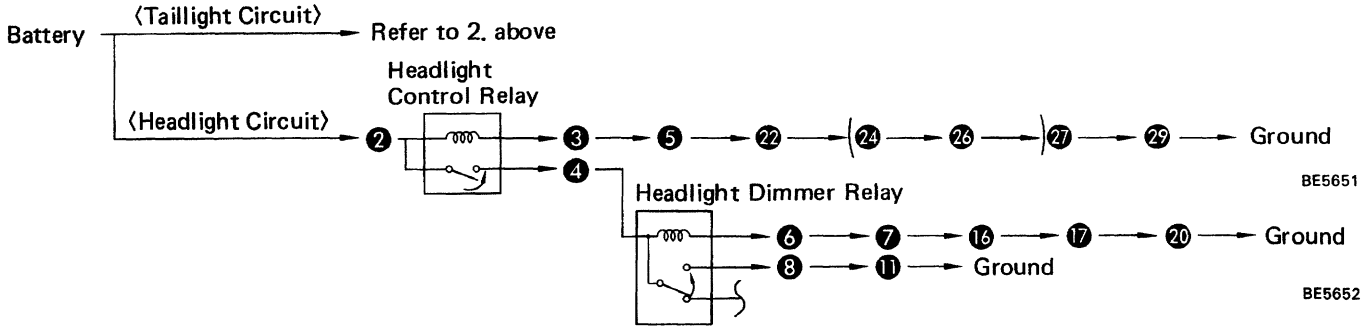
The number in brackets ( ) applies to vehicles w/ Integration Relay.



4. HEADLIGHT HIGH BEAM LIGHTS UP

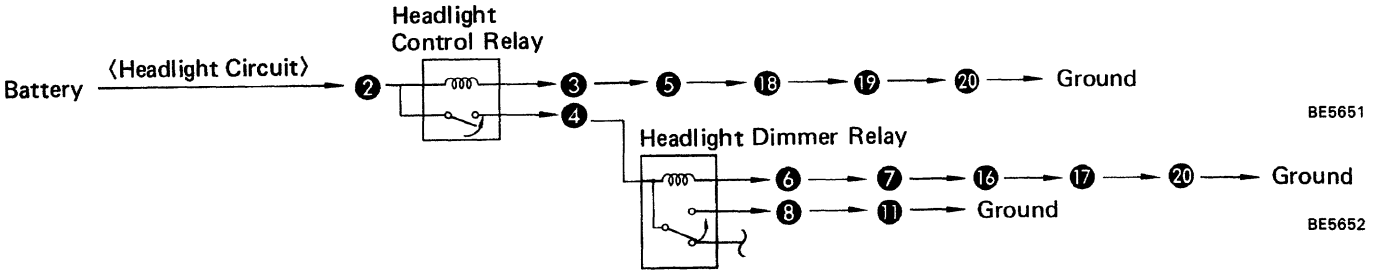
Switch	Position
Ignition Switch	OFF or ON
Light Control Switch	HEAD
Headlight Dimmer Switch	HI

The number in brackets ( ) applies to vehicles w/ Integration Relay.

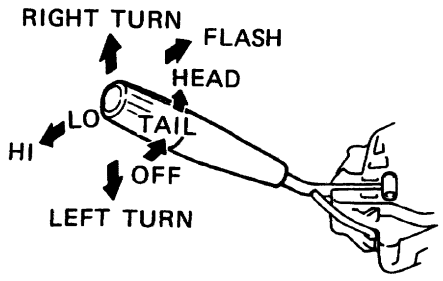


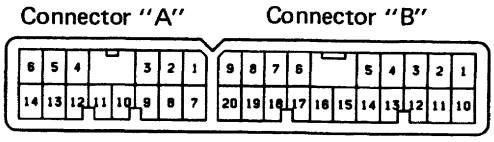
5. HEADLIGHT FLASH

Switch	Position
Ignition Switch	OFF or ON
Light Control Switch	OFF or TAIL or HEAD
Headlight Dimmer Switch	Flash



Reference:





BE2414
V-34-2

Parts Inspection

Headlight and Taillight System

1. INSPECT COMBINATION SWITCH

(Light Control Switch/ Continuity)

Terminal (Color) / Switch position	A2 (W)	A11 (W)	A13 (R)
OFF			
TAIL	○——	——○	
HEAD	○——	——○	——○

(Headlight Dimmer and Turn Signal Switch/ Continuity)

Headlight Dimmer Switch

Terminal (Color) / Switch position	A3 (P–G)	A9 (W–B)	A12 (R–*)	A14 (R–W)
Flash		○——	——○	——○
Low beam	○——	——○		
High beam		○——	——○	

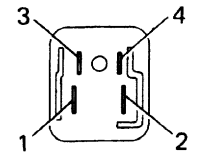
Turn Signal Switch

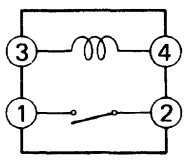
Terminal (Color) / Switch position	A1 (G–W)	A5 (G–B)	A8 (G–Y)
Left turn	○——	——○	
Neutral			
Right turn	○——		——○

If continuity is not as specified, replace the switch.

2. INSPECT RELAY

(Headlight Control Relay/ Continuity)

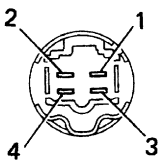


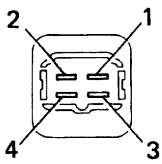


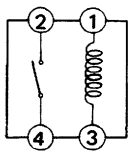
BE1838 BE1840

Terminal / Condition	1	2	3	4
Constant			○—∿∿—○	
Apply battery voltage to terminals 3 and 4.	○——	——○		

(Taillight Control Relay/ Continuity)

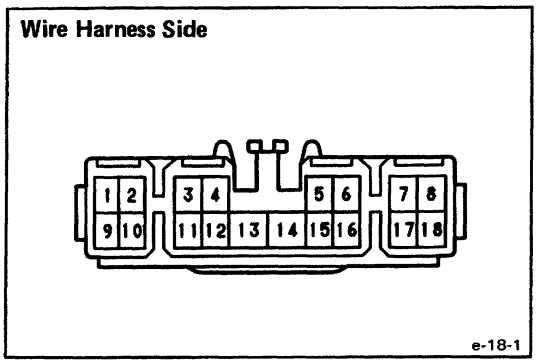






BE1647 BE1575 BE1841

Terminal / Condition	1	2	3	4
Constant	○—∿∿—○			
Apply battery voltage to terminals 1 and 3.		○——		——○



Daytime Running Light System [CANADA]

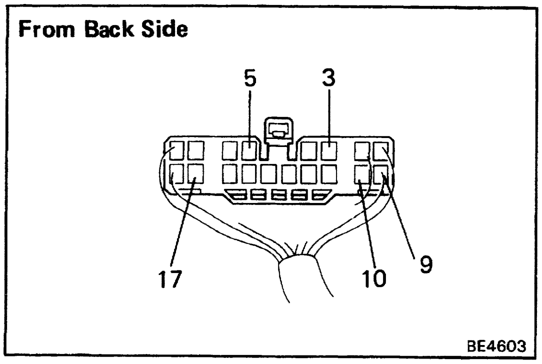
1. INSPECT DAYTIME RUNNING LIGHT RELAY

(Relay Circuit)

Disconnect the connector from the relay and inspect the connector on the wire harness side as shown in the chart.

Check for	Tester connection	Condition		Specified value
Continuity	7 – Ground	Headlight dimmer switch position	Low beam or High beam	No continuity
			Flash	Continuity
	8 – Ground	Parking brake switch position	OFF (Parking brake lever released)	No continuity
			ON (Parking brake lever pulled up)	Continuity
	13 – Ground	Constant		Continuity
	16 – Ground	Headlight dimmer switch position	Low beam	No continuity
			High beam or Flash	Continuity
Voltage	2 – Ground	Ignition switch position	LOCK or ACC	No voltage
			ON or START	Battery voltage
	4 – Ground 6 – Ground	Constant		Battery voltage
	1 1 – Ground	Engine	Stop	No voltage
			Running	Battery voltage
	15 – Ground	Constant		Battery voltage

If circuit is as specified, perform the inspection on the following page.



(Relay Circuit/ Connector connected)

Connect the wire harness side connector to the relay and inspect wire harness side connector from the back side as shown.

Check for	Tester connection	Condition		Specified value
Continuity	3 – Ground	Light control switch position	OFF	No continuity
			TAIL or HEAD	Continuity
	5 – Ground	Light control switch position	OFF or TAIL	No continuity
			HEAD	Continuity
Voltage	9 – Ground	Light control switch position	OFF	No voltage
			TAIL or HEAD	Battery voltage
	10 – Ground	Light control switch position	OFF	No voltage
			TAIL or HEAD	Battery voltage
	17 – Ground	*Headlight dimmer switch position	LO	No voltage
			High or Flash	Battery voltage

* : Light Control Switch turned to HEAD

If circuit is as specified, replace the relay.

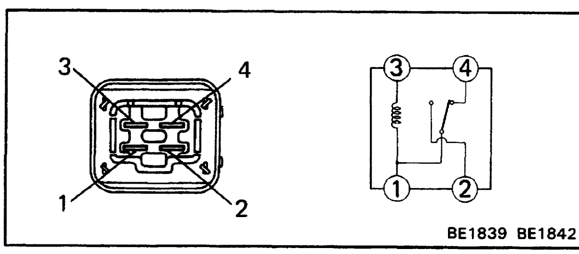
2. INSPECT PARKING BRAKE SWITCH

(Continuity)

See page BE–43.

3. INSPECT RELAY

(Headlight Dimmer Relay/ Continuity)



Terminal / Condition	1	2	3	4
Constant	○———	———	———	———○
	○———	—(coil)—	○	
Apply battery voltage to Terminals 2 and 4.	○———	○		

If continuity is not as specified, replace the relay.

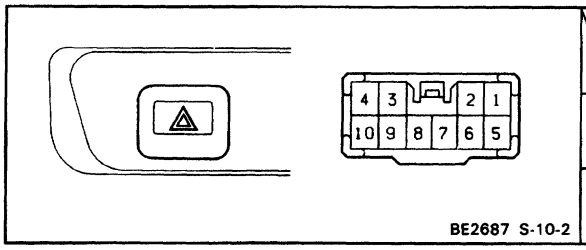
Turn Signal and Hazard Warning System

1. INSPECT SWITCHES

(Turn Signal Switch/ Continuity)

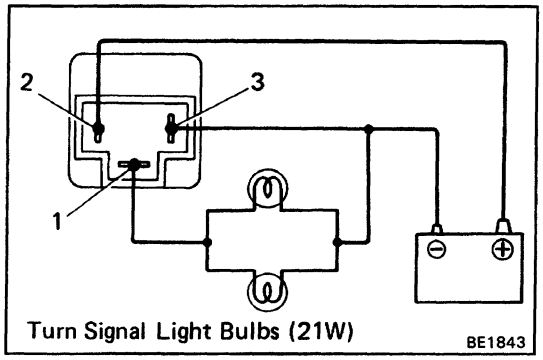
See Headlight Dimmer and Turn Signal Switch on page BE–22.

(Hazard Warning Switch/ Continuity)



Terminal / Switch position	5	6	7	8	9	10	Illumination 3	Illumination 2
OFF			○			○	○	○
ON	○	○	○	○	○			

If continuity is not as specified, replace the switch.



2. INSPECT TURN SIGNAL FLASHER

(Operation)

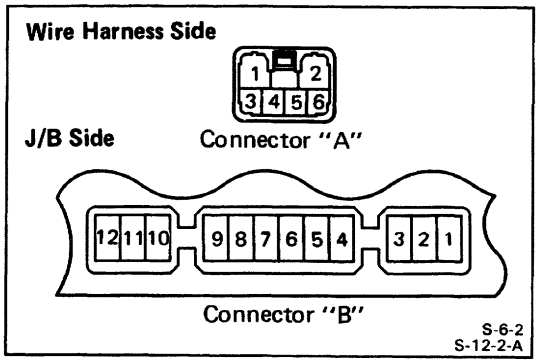
(a) Connect the positive (+) lead from the battery to terminal 2 and the negative (–) lead to terminal 3.

(b) Connect the two turn signal light bulbs parallel to each other to terminals 1 and 3, check that the bulbs flash.

HINT: The turn signal lights should flash 60 to 120 times per minute.

If one of the front or rear turn signal lights has an open circuit, the number of flashers will be more than 140 per minute.

If operation is not as specified, replace the flasher.



Light Auto Turn–Off System

INSPECT INTEGRATION RELAY

(Relay Circuit)

Remove the relay and inspect the connectors on the wire harness and J/B side as shown in the chart.

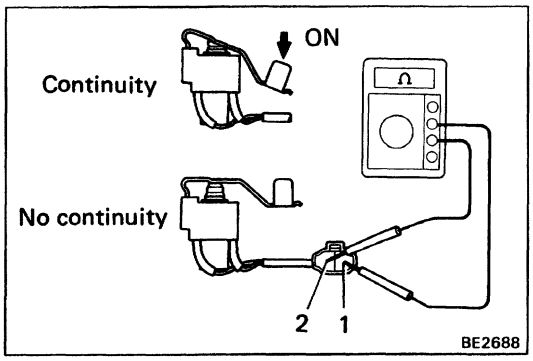
Check for	Tester connection	Condition		Specified value
Continuity	A3 – Ground	Light control switch	Turned to OFF or HEAD	No continuity
			Turned to TAIL	Continuity
	A6 – Ground	Light control switch	Turned to OFF or TAIL	No continuity
			Turned to HEAD	Continuity
	B3 – Ground	Constant		Continuity
	B7 – Ground	Driver's door courtesy switch	OFF (Door closed)	No continuity
			ON (Door opened)	Continuity
Voltage	A4 – Ground	Constant		Battery voltage
	A5 – Ground	Constant		Battery voltage
	B6 – Ground	Ignition switch	Turned to LOCK or ACC	No voltage
			Turned ON	Battery voltage
	B12 – Ground	Constant		Battery voltage

If continuity is as specified, replace the relay.

Illuminated Entry System

1. INSPECT DOOR COURTESY SWITCH

See Step 2 on page BE–43.

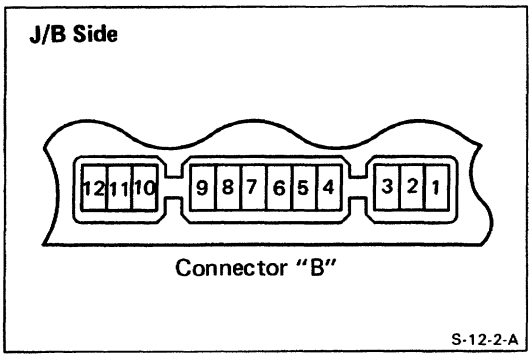


2. INSPECT DOOR OUTSIDE HANDLE SWITCH

(Continuity)

(a) Check that there is continuity between terminals 1 and 2 when door outside handle is pulled.

(b) Check that there is no continuity between terminals 1 and 2 when door outside handle is released.



3. INSPECT INTEGRATION RELAY

(Relay Circuit)

Remove the relay and inspect the connector on the J/B side as shown in the chart.

Check for	Tester connection	Condition		Specified value
Continuity	B3–Ground	Constant		Continuity
	B7–Ground	Driver's door Courtesy switch	OFF (Door closed)	No continuity
			ON (Door opened)	Continuity
	B10–G round	Driver's door outside handle switch	ON (Outside handle pulled)	Continuity
			OFF (Outside handle released)	No continuity
Voltage	B9–Ground	Passenger's door courtesy switch	OFF (Door closed)	Battery voltage
			ON (Door opened)	No voltage
	B11–Ground	Constant		Battery voltage
	B12–Ground	Constant		Battery voltage

If continuity is as specified, replace the relay.