

# SERVICE MANUAL

DATSUN  
MODEL 330 SERIES  
CHASSIS & BODY

Z·ONE·DATSUN

## SECTION BE

### BODY ELECTRICAL

**BE**

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**NISSAN MOTOR CO., LTD.**  
TOKYO, JAPAN

# BODY ELECTRICAL WIRING

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## DESCRIPTION

Cables are covered with color-coded vinyl for easy identification. In the wiring diagram, colors are indicated by one or two alphabetical letters.

It is recommended that the battery be disconnected before performing any electrical service other than bulb or fuse replacement.

In addition to fuses, a fusible link has been installed to protect wiring. The fusible link functions almost the same as a fuse, though its characteristics are slightly different than normal fuses.

## CABLE COLORS

Cable colors are indicated by one or two alphabetical letters:

- B: Black, Br: Brown, G: Green,
- L: Blue, Lg: Light green,
- R: Red, W: White, Y: Yellow

The main cable is generally coded with a single color. The others are coded with a two-tone color as follows:

- BW: Black with white stripe
- LgR: Light green with red stripe

## INSPECTION

Inspect all electrical circuits, referring to wiring or circuit diagrams. Circuits should be tested for continuity or short circuit with a conventional test lamp or low reading voltmeter. Before inspection of circuit, ensure that:

1. Each electrical component part or cable is securely fastened to its connector or terminal.

2. Each connection is firmly in place and free from rust and dirt.

3. No cable covering shows any evidence of cracks, deterioration or other damage.

4. Each terminal is at a safe distance away from any adjacent metal parts.

5. Each cable is fastened to its proper connector or terminal.

6. Each grounding bolt is firmly planted.

7. Wiring is kept away from any adjacent parts with sharp edges or high temperature parts (such as exhaust pipe).

8. Wiring is kept away from any rotating or working parts: fan pulley, fan belt, etc.

9. Cables between fixed portions and moving parts are long enough to withstand shocks and vibratory forces.

### Notes:

- a. Before starting to inspect and repair any part of electrical system or other parts which may lead to a short circuit, disconnect cables at battery terminals as follows:

Disconnect cable at negative (-) terminal, and then disconnect cable at positive (+) terminal.

Before connecting cables to battery terminal, be sure to clean terminals with a rag. Fasten cable at positive (+) terminal, and then ground cable at negative (-) terminal. Apply grease to top of these terminals to prevent rust from developing on them.

- b. Never use a screwdriver or service tool to conduct a continuity test. Use test leads.

- c. Never ground an open circuit or circuits under no load. Use a test lamp (12V-3W) or circuit tester as a load.

## FUSE AND FUSIBLE LINK

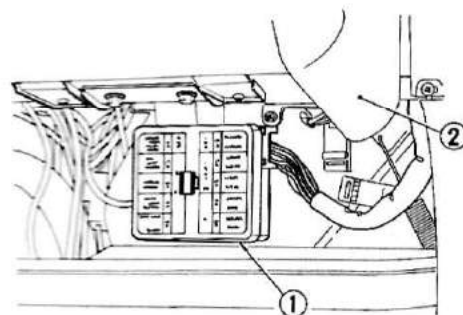
### DESCRIPTION

The fuse and fusible link are protective devices used in an electrical circuit. When current increases beyond rated amperage, fusible metal melts and the circuit is broken.

### MAINTENANCE INSTRUCTIONS

#### Fuse

The fuse block is installed under the instrument panel on the left-hand drive vehicle and is mounted on the dash panel in the engine compartment on the right-hand drive vehicle.



1 Fuse block  
2 Instrument panel  
BE802A

Fig. BE-1 Fuse block  
(Left-hand drive)

When, for one reason or another, fuse has melted, use systematic procedure to check and eliminate cause of problem before installing new fuse.

### Notes:

- a. If fuse is blown, be sure to eliminate cause of problem before installing new fuse.
- b. Use fuse of specified rating. Never use fuse of more than specified rating.
- c. Check condition of fuse holders. If much rust or dirt is found thereon, clean metal parts with fine-grained sandpaper until proper metal-to-metal contact is made.  
Poor contact in any fuse holder will often lead to voltage drop or heating in the circuit and could result in improper circuit operation.

### Fusible link

Fusible link protects lighting, starting, charging and accessory circuits.

A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp, as required, to conduct continuity test. This continuity test can be performed in the same manner as for any conventional fuse.

### Notes:

- a. If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of problem.

- b. Never wrap periphery of fusible link with vinyl tape. Extreme care should be taken with this link to ensure that it does not come into contact with any other wiring harness or vinyl or rubber parts.

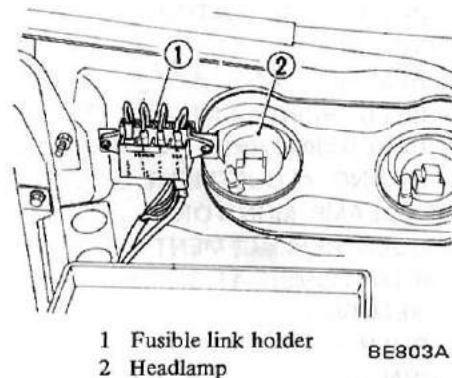


Fig. BE-2 Fusible link

# LIGHTING SYSTEM

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## DESCRIPTION

The lighting system includes the following lamps, switches and their respective components.

- Headlamps
- Front combination lamps

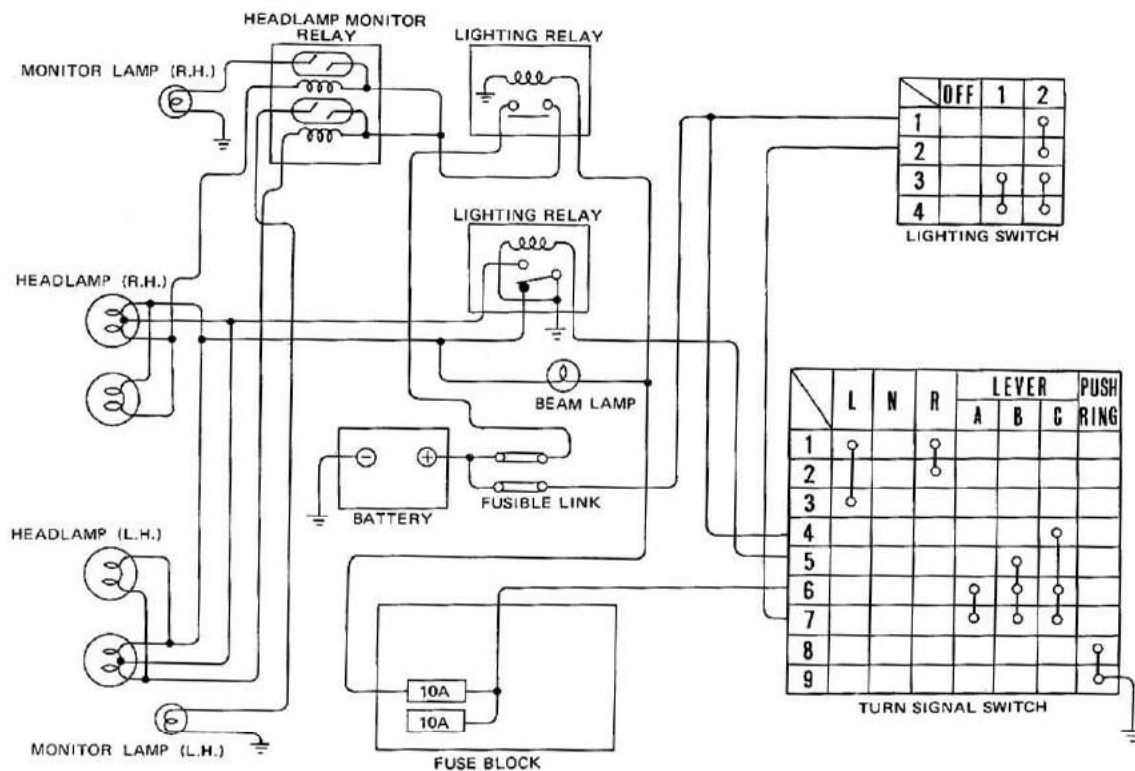
- Turn signal and hazard warning lamps
- Meter and switch knob illumination lamps
- Glove box lamp
- Interior lamp
- Step lamps
- Personal lamps

- Luggage compartment lamp
- Engine compartment inspection lamp
- Trunk compartment lamp
- Rear combination lamps
- License lamps
- Various switches



**LIGHTING SYSTEM CIRCUIT DIAGRAM**

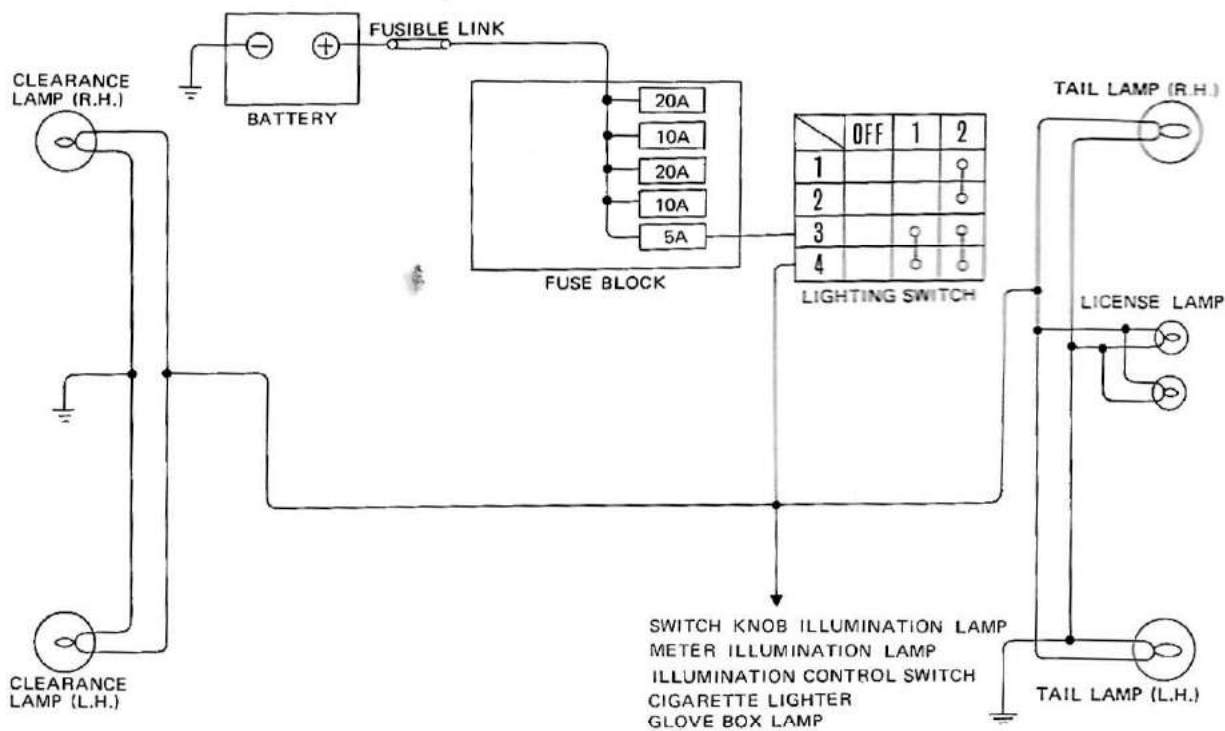
**Headlamp system**



BE805A

Fig. BE-3 Headlamp circuit diagram (Left-hand drive)

**Clearance lamp, tail lamp and license lamp system**

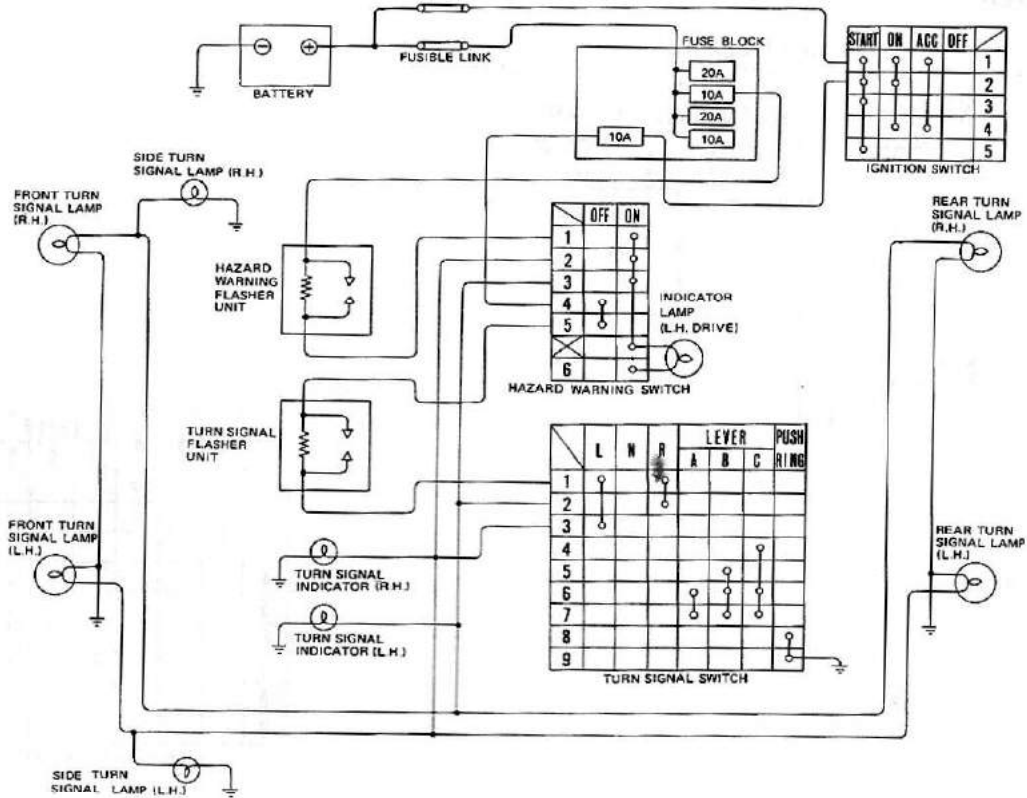


BE806A

Fig. BE-4 Circuit diagram for clearance lamp, tail lamp and license lamps

# Body Electrical System

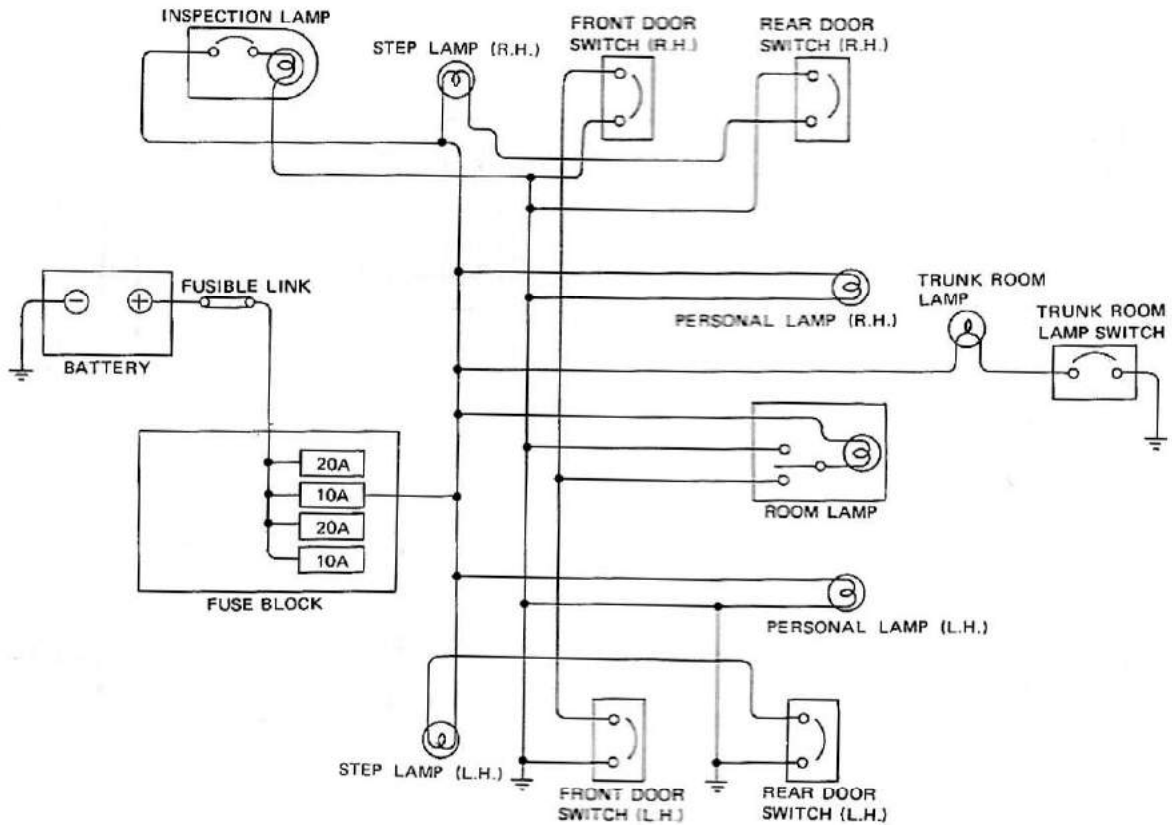
## Turn signal and hazard warning lamp system



BE807A

Fig. BE-5 Circuit diagram for turn signal and hazard warning lamps

## Interior, personal, step, trunk compartment and engine compartment inspection lamp system

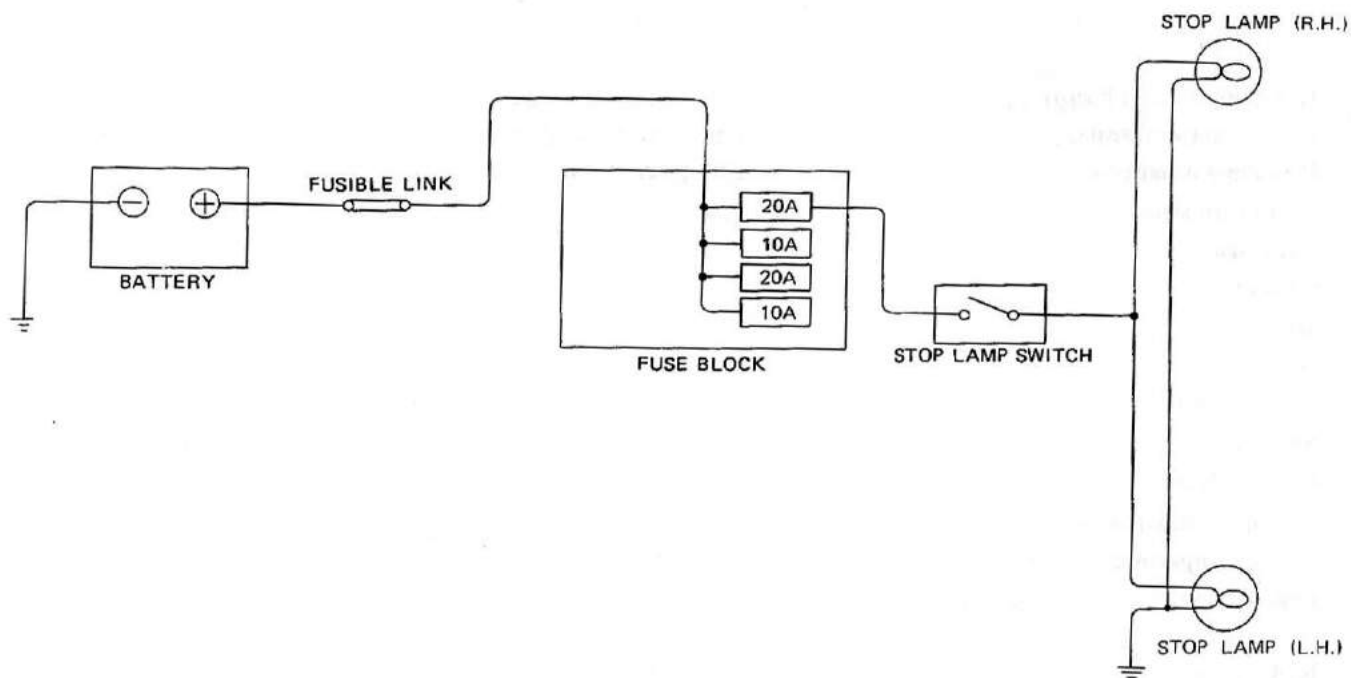


BE808A

Fig. BE-6 Circuit diagram for interior, personal, step, trunk compartment and engine compartment inspection lamps

# Body Electrical System

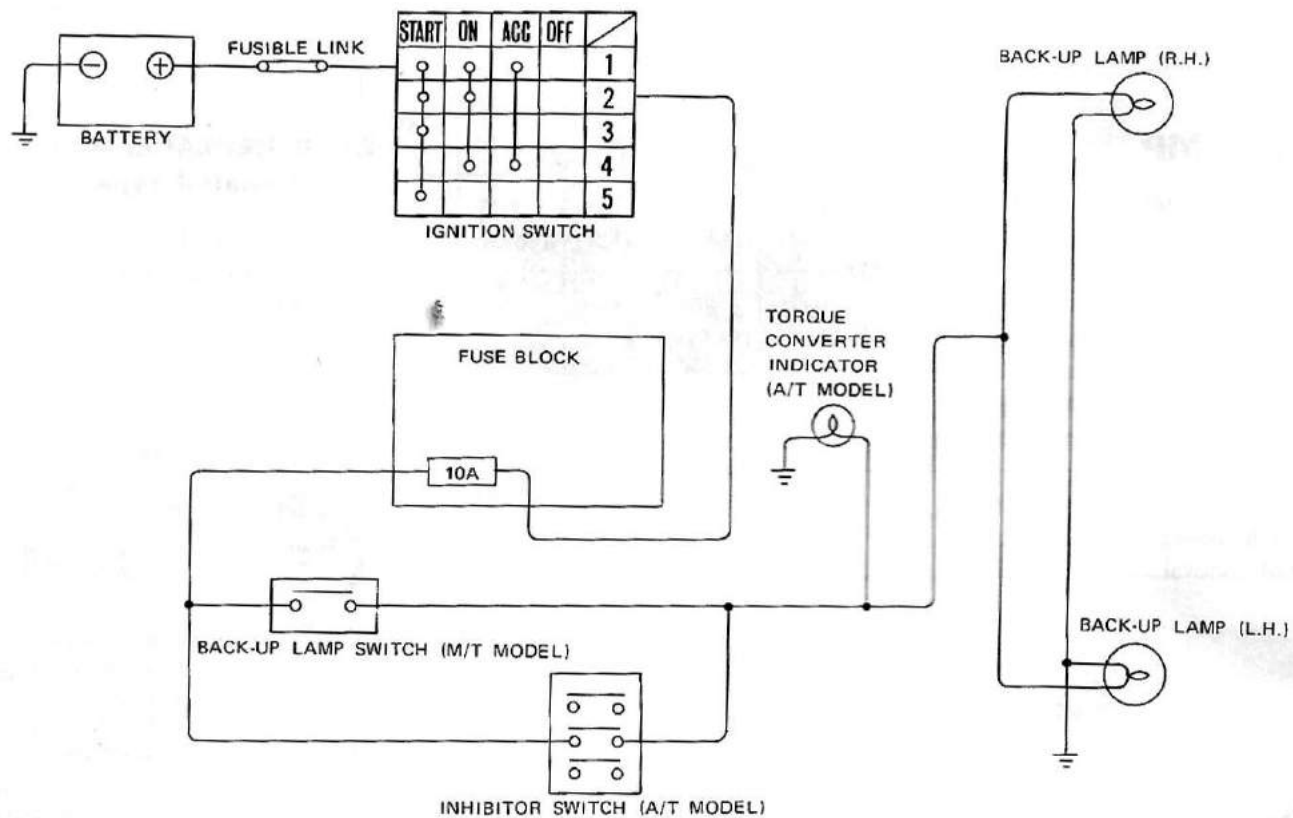
## Stop lamp system



BE809A

Fig. BE-7 Circuit diagram for stop lamps

## Back-up lamp system



BE810A

Fig. BE-8 Circuit diagram for back-up lamps

**BULB SPECIFICATIONS**

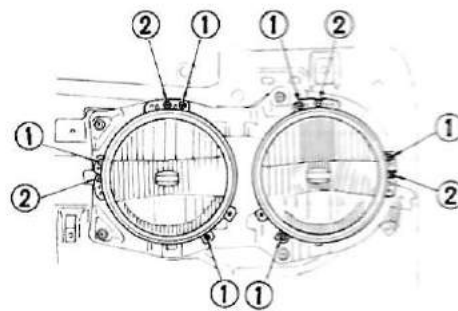
Item	Capacity	Q'ty
Headlamp (sealed beam)	12V-37.5/50W (High/Low)	4/2
Headlamp (semi-sealed)	12V-45/40W (High/Low)	4/2
Headlamp monitor lamp	12V-1.5W	2
Front turn signal lamp	12V-21W	2
Turn signal lamp	12V-5W	2
Clearance lamp	12V-5W	2
Meter and switch knob illumination lamp	12V-3.4W	8
Glove box lamp	12V-3.4W	1
Interior lamp	12V-10W	1
Step lamp	12V-5W	2
Personal lamp	12V-10W	2
Luggage compartment lamp	12V-10W	1
Trunk compartment lamp	12V-3.4W	1
Engine compartment inspection lamp	12V-8W	1
Stop and tail lamp	12V-21/5W, 12V-21/10W*	2/2
Back-up lamp	12V-21W	2
Rear turn signal lamp	12V-21W	2
License lamp	12V-5W	2

Remarks: \*Hardtop

**HEADLAMP**

**REMOVAL AND INSTALLATION**

1. Disconnect battery ground cable.
2. Remove radiator grille and headlamp finisher. Refer to Section BF.
3. Remove headlamp retaining ring.
4. Disconnect headlamp harness connector.
5. Remove headlamp beam unit.
6. Install headlamp in reverse sequence of removal.



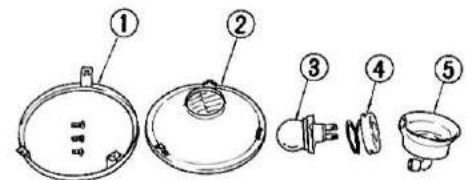
- 1 Headlamp retaining screw
- 2 Headlamp aiming screw

BE811A

Fig. BE-9 Headlamp

**BULB REPLACEMENT (Semi-sealed type)**

1. Remove seal rubber cap.
2. Remove bulb retainer, then bulb.
3. Install bulb in reverse sequence of removal.



- 1 Retaining ring
- 2 Semi-sealed beam unit
- 3 Bulb
- 4 Bulb retainer
- 5 Seal rubber

BE812A

Fig. BE-10 Exploded view of headlamp beam unit

## Body Electrical System

### AIMING ADJUSTMENT

1. Disconnect battery ground cable.
2. Remove radiator grille and headlamp finisher.
3. Aim headlamp with two adjusting screws. See Figure BE-9.

Note: Before making headlamp aiming adjustment, observe the following:

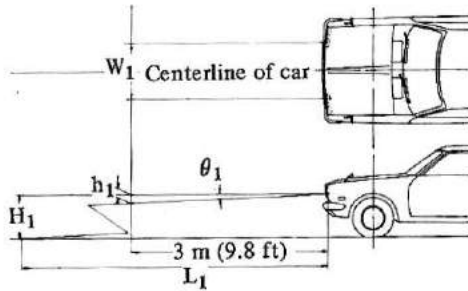
- a. Inflate all tires to correct pressures.
- b. Place car and tester on the same flat surface.
- c. Remove all load from car.

- 1) Fill gasoline tank, radiator and engine oil pan to correct levels.

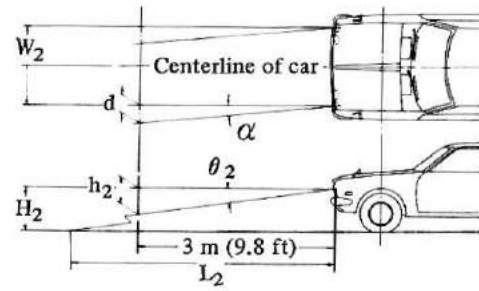
- 2) Remove all passengers, spare tire and tools.

When adjusting headlamp aim, use an aiming machine, aiming wall screen or headlight tester. For aimer operating instructions, refer to operation manuals supplied with the unit.

Driving beam (High)



Passing beam (Low)



BE813A

Item	High beam					Low beam					d mm (in)	$\alpha$ degree
	$H_1$ mm (in)	$W_1$ mm (in)	$\theta_1$	$h_1$ mm (in)	$L_1$ m (ft)	$H_2$ mm (in)	$W_2$ mm (in)	$\theta_2$	$h_2$ mm (in)	$L_2$ m (ft)		
H330V	706 (27.80)	1,012 (39.84)	28'	24.5 (0.965)	86.6 (284)	706 (27.80)	1,340 (52.76)	1°04'	55.9 (2.201)	37.9 (124)	104.8 (4.126)	2°
H330Q	706 (27.80)	1,012 (39.84)	28'	24.5 (0.965)	86.6 (284)	706 (27.80)	1,340 (52.76)	1°04'	55.9 (2.201)	37.9 (124)	104.8 (4.126)	2°
330Q	706 (27.80)	1,012 (39.84)	28'	24.5 (0.965)	86.6 (284)	706 (27.80)	1,340 (52.76)	1°04'	55.9 (2.201)	37.9 (124)	104.8 (4.126)	2°
Q330S	708 (27.87)	1,012 (39.84)	28'	24.5 (0.965)	86.9 (285)	708 (27.87)	1,340 (52.76)	1°03'	54.9 (2.161)	38.7 (127)	104.8 (4.126)	2°
KH330H	685 (26.97)	1,012 (39.84)	30'	26.1 (1.028)	78.7 (258)	685 (26.97)	1,340 (52.76)	1°05'	56.7 (2.232)	36.2 (119)	104.8 (4.126)	2°
WH330V	699.3 (27.53)	1,012 (39.84)	47'	41.0 (1.614)	51.2 (168)	699.3 (27.53)	1,340 (52.76)	1°22'	71.6 (2.819)	29.3 (96.1)	104.8 (4.126)	2°

Note: All figures in above chart are specified values when car is unloaded (tankfull of fuel, no spare tire and tools).

Fig. BE-11 Headlamp aiming adjustment



## HEADLAMP MONITOR

### BULB REPLACEMENT

1. Remove headlamp monitor with a flat-headed screwdriver.
2. Push in on bulb, turn it counterclockwise and remove it from socket.

**Note:** When removing, be careful not to damage painted surface.

## FRONT COMBINATION LAMP

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove front bumper. Refer to Section BF.
3. Disconnect lamp harness connector.
4. Remove lamp attaching nuts and remove combination lamp.
5. Install combination lamp in reverse sequence of removal.

### BULB REPLACEMENT

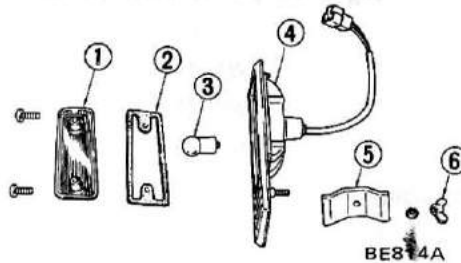
1. Remove lens attaching screws and detach lens.
2. Push in on bulb, turn it counterclockwise and remove it from socket.
3. Install bulb in reverse sequence of removal.

## TURN SIGNAL LAMP

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Disconnect lamp harness connector.
3. Remove relay bracket before detaching right turn signal lamp.

4. Remove wing nut from behind socket assembly.
5. Remove turn signal lamp.
6. Install turn signal lamp in reverse sequence of removal.



- |           |                   |
|-----------|-------------------|
| 1 Lens    | 4 Socket assembly |
| 2 Packing | 5 Bracket         |
| 3 Bulb    | 6 Wing nut        |

Fig. BE-12 Exploded view of turn signal lamp

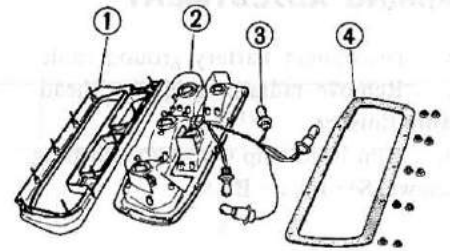
### BULB REPLACEMENT

1. Remove lens attaching screws and detach lens.
2. Push in on bulb, turn it counterclockwise and remove it from socket.
3. Install bulb in reverse sequence of removal.

## REAR COMBINATION LAMP (Sedan and Hardtop)

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove rear finisher of trunk compartment. Refer to Section BF.
3. Disconnect combination lamp harness connector.
4. Remove nuts retaining combination lamp, working from the inside of trunk compartment.
5. Remove combination lamp housing with rim facing to the rear.
6. Install combination lamp in reverse sequence of removal.



- |                |
|----------------|
| 1 Rim          |
| 2 Lamp housing |
| 3 Bulb         |
| 4 Packing      |

BE815A

Fig. BE-13 Exploded view of rear combination lamp

### BULB REPLACEMENT

1. Remove rear finisher of trunk compartment.
2. Turn bulb socket counterclockwise and remove it from lamp housing.
3. Push in on bulb and remove it from socket.
4. Install bulb in reverse sequence of removal.

## REAR COMBINATION LAMP MONITOR (Sedan and Hardtop)

### REMOVAL AND INSTALLATION

1. Disconnect illumination fiber scopes at rear combination lamps.
2. Remove screws retaining lamp monitor, working from the inside of trunk compartment.
3. Then, take out lamp monitor.
4. Install lamp monitor in reverse sequence of removal.

## REAR COMBINATION LAMP (Station Wagon)

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove lamp rim.
3. Remove screws retaining rear combination lamp.
4. Disconnect rear combination lamp harness connector and remove lamp.

5. Install rear combination lamp in reverse sequence of removal.

### BULB REPLACEMENT

1. Remove lamp rim.
2. Remove lens attaching screws, then lens.
3. Push in on bulb, turn it counter-clockwise and remove it from socket.
4. Install bulb in reverse sequence of removal.

### BACK-UP LAMP (Station Wagon)

#### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove back-up lamp rim.
3. Remove screws retaining back-up lamp.
4. Disconnect lamp harness connector and remove back-up lamp.
5. Install back-up lamp in reverse sequence of removal.

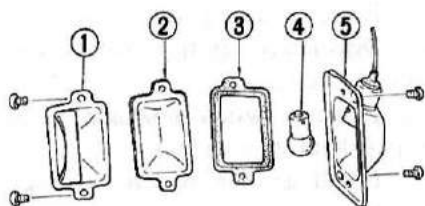
### BULB REPLACEMENT

1. Remove back-up lamp rim.
2. Remove lens attaching screws and detach lens.
3. Push in on bulb, turn it counter-clockwise and remove it from socket.
4. Install bulb in reverse sequence of removal.

### LICENSE PLATE LAMP

#### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove screws retaining license plate lamp bracket to rear bumper.
3. Disconnect lamp harness connector.
4. Remove license lamps from bracket.
5. Install license lamps in reverse sequence of removal.



- |              |                  |
|--------------|------------------|
| 1 Lens cover | 4 Bulb           |
| 2 Lens       | 5 Socket housing |
| 3 Packing    |                  |

*Fig. BE-14 Exploded view of  
license plate lamp*

### BULB REPLACEMENT

1. Remove lens attaching screws and detach lens.
2. Push in on bulb, turn it counter-clockwise and remove it from socket.
3. Install bulb in reverse sequence of removal.

### INTERIOR LAMP

#### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Pull front end of interior lamp housing downward to detach interior lamp from bracket.
3. Disconnect interior lamp harness connector.
4. Install interior lamp in reverse sequence of removal.

### BULB REPLACEMENT

1. Detach interior lamp housing from bracket.
2. Pull bulb out of socket.
3. Install bulb in reverse sequence of removal.

### PERSONAL LAMP

#### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Pull personal lamp out of bracket.
3. Disconnect lamp harness connectors.

4. Install personal lamp in reverse sequence of removal.

### BULB REPLACEMENT

1. Pull personal lamp downward and detach it from bracket.
2. Push in on bulb, turn it counter-clockwise and remove it from socket.
3. Install bulb in reverse sequence of removal.

### STEP LAMP

#### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove lens attaching screws and detach lens.
3. Disconnect lamp harness connector.
4. Install step lamp in reverse sequence of removal.

### BULB REPLACEMENT

1. Remove lens attaching screws and detach lens.
2. Pull bulb out of socket.
3. Install bulb in reverse sequence of removal.

### ENGINE COMPARTMENT INSPECTION LAMP

The engine compartment inspection lamp is located on the right side of engine hood.

#### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Disconnect inspection lamp harness connector.
3. Remove screws retaining inspection lamp and then take out inspection lamp.
4. Install inspection lamp in reverse sequence of removal.

## TRUNK COMPARTMENT LAMP

### BULB REPLACEMENT

1. Pull bulb out from socket.
2. Install bulb in reverse sequence of removal.

## ILLUMINATION LAMP

### BULB REPLACEMENT

#### Combination meter lamp

1. Disconnect battery ground cable.
2. Remove combination meter assembly. Refer to "Meters and Gauges" section.
3. Remove lamp socket and remove bulb from socket.
4. Install bulb in reverse sequence of removal.

#### Light switch lamp

1. Disconnect battery ground cable.
2. Remove cluster lid A. Refer to paragraph on Cluster Lid A.
3. Remove lamp socket and remove bulb from socket.
4. Install bulb in reverse sequence of removal.

#### Wiper switch lamp

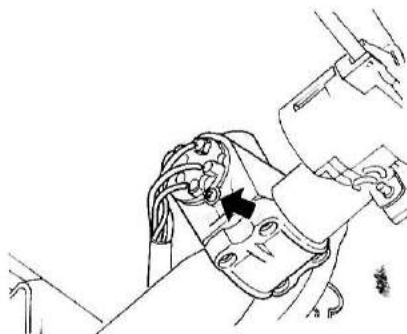
1. Disconnect battery ground cable.
2. Remove radio escutcheon plate. Refer to paragraph on Radio Removal.
3. Remove cluster lid A. Refer to paragraph on Cluster Lid A.
4. Remove bulb socket and then remove bulb from socket.
5. Install bulb in reverse sequence of removal.

## IGNITION SWITCH

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.

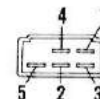
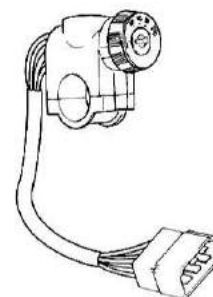
2. Remove steering column shell.
3. Disconnect ignition switch harness connector.
4. Remove switch retaining screw from behind steering lock.
5. Install ignition switch in reverse sequence of removal.



BE817A

Fig. BE-15 Removing ignition switch

	OFF	ACC	ON	START
1				○
2		○	○	○
3			○	○
4			○	○
5				○



BE818A

Fig. BE-16 Ignition switch

## TURN SIGNAL LAMP SWITCH

### REMOVAL AND INSTALLATION

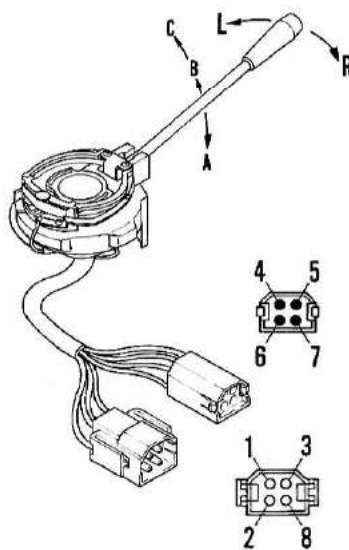
1. Disconnect battery ground cable.
2. Remove steering column shell.
3. Disconnect turn signal switch harness connectors.
4. Loosen switch retaining screws just enough to remove switch and remove turn signal switch.

### INSPECTION

Test continuity through turn signal switch with a test lamp or ohmmeter. Refer to turn signal lamp switch continuity diagram.

### INSPECTION

Test continuity through ignition switch with a test lamp or ohmmeter. Refer to ignition switch continuity diagram.



BE819A

	L	N	R	LEVER			PUSH
				A	B	C	
1	○						
2	○						
3			○				
4						○	
5					○	○	
6				○	○	○	
7					○	○	
8							○
9							○

L.H. model

	L	N	R	LEVER			PUSH
				A	B	C	
1	○						
2	○						
3			○				
4						○	
5					○	○	
6				○	○	○	
7					○	○	
8							○
9							○

R.H. model

Fig. BE-17 Turn signal lamp switch

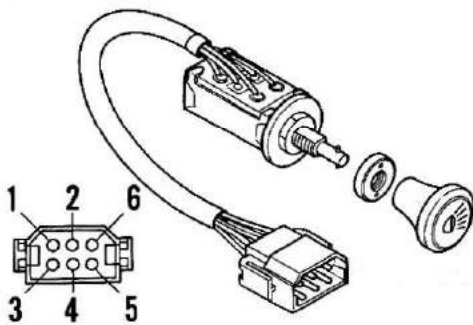
## LIGHT SWITCH

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Disconnect light switch harness connector.
3. Push in on light switch knob, turn it counterclockwise and remove it from switch.
4. Remove switch retaining nut and remove light switch.
5. Install light switch in reverse sequence of removal.

### INSPECTION

Test continuity through light switch with a test lamp or ohmmeter. Refer to light switch continuity diagram.



	OFF	1	2
1			○
2			○
3		○	○
4		○	○

L.H. model

BE820A

	OFF	ON
1		○
2		○
3		○
4		○
5		
6		

R.H. model

Fig. BE-18 Light switch

## STOP LAMP SWITCH

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Disconnect switch harness connectors.
3. Remove switch attaching nut and remove stop lamp switch.
4. Install stop lamp switch in reverse sequence of removal.

### INSPECTION

When plunger is pressed into switch

assembly, stop lamp switch contacts are open. Contacts are closed when plunger is projected.

Therefore, test continuity as previously described with a test lamp or ohmmeter.

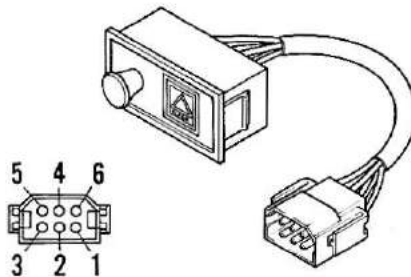
## HAZARD WARNING LAMP SWITCH

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Disconnect switch harness connector.
3. Remove hazard warning lamp switch from cluster.
4. Install hazard warning lamp switch in reverse sequence of removal.

### INSPECTION

Test continuity through hazard switch at each step with a test lamp or ohmmeter. Refer to hazard switch continuity diagram.



	OFF	ON
1		○
2		○
3		○
4	○	○
5	○	○
6		○

L.H. model

	OFF	ON
1		○
2		○
3		○
4	○	○
5	○	○
6		○

R.H. model

BE821A

Fig. BE-19 Hazard warning lamp switch

## ILLUMINATION CONTROL SWITCH

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove cluster lid A. Refer to

paragraph on Cluster Lid A.

3. Disconnect switch harness connectors.
4. Pull switch knob out of switch.
5. Remove switch attaching screws and remove illumination control switch.
6. Install illumination control switch in reverse sequence of removal.

### INSPECTION

Test continuity between two lead wires with a test lamp or ohmmeter. When switch is in OFF position, continuity must not exist. In ON position, resistance between two lead wires must be 0 to 8Ω.

## BACK-UP LAMP SWITCH (Manual transmission models)

### REMOVAL AND INSTALLATION

The back-up lamp switch is installed on the transmission. Removal and installation procedures are described in Section TM.

### INSPECTION

When transmission lever is in "R" position, there should be continuity between two switch harnesses.

## DOOR SWITCH

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove rubber cushion.
3. Withdraw switch and harness assembly from center or rear pillar.
4. Disconnect switch harness connectors and remove door switch.
5. Install door switch in reverse sequence of removal.

Note: Should removal prove difficult, door switch can easily be removed with aid of screwdriver. When using screwdriver, be careful not to damage painted surface.



## Body Electrical System

### INSPECTION

Test continuity through door switch with a test lamp or ohmmeter.

When plunger is pressed into switch assembly, door switch contacts are open.

Contacts are closed when plunger is projected.

### TRUNK COMPARTMENT LAMP SWITCH

The trunk compartment lamp switch is located near the right side hinge of trunk lid.

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Disconnect lamp switch harness connectors.

3. Remove trunk compartment lamp switch.

4. Install lamp switch in reverse sequence of removal.

### INSPECTION

Inspect continuity through trunk compartment lamp switch with a test lamp or ohmmeter. When plunger is pressed into switch assembly, lamp switch contacts are open. Contacts are closed when plunger is projected.

### LUGGAGE COMPARTMENT LAMP SWITCH (Station Wagon)

The luggage compartment lamp switch is located near the right side hinge of tailgate.

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove luggage compartment lamp.
3. Remove tailgate hinge cover. Refer to Section BF.
4. Disconnect lamp switch harness connector and then remove lamp switch.
5. Install lamp switch in reverse sequence of removal.

### INSPECTION

Inspect continuity through luggage compartment lamp switch with a test lamp or ohmmeter. When plunger is pressed into switch assembly, lamp switch contacts are open. Contacts are closed when plunger is projected.

## TROUBLE DIAGNOSES AND CORRECTIONS

### HEADLAMP

Condition	Probable cause	Corrective action
Headlamps do not light on both high and low beams.	Burnt fusible link or burnt fuse. Loose connection or open circuit. Faulty lighting switch.  Faulty lighting relay.  No ground.	Correct cause and replace fuse. Check wiring and/or repair connection. Conduct continuity test and replace if necessary.  Check lighting relay for proper operation and replace if necessary.  Clean and tighten ground terminal.
High beam cannot be switched to low beam or vice versa.	Faulty turn signal lamp switch.  Faulty lighting relay.	Conduct continuity test and replace if necessary.  Check lighting relay for proper operation and replace if necessary.
Headlamps dim.	Partly discharged or run-down battery.  Inoperative charging system.  Poor ground or loose connection.	Measure specific gravity of electrolyte and recharge or replace battery if necessary.  Measure voltage at headlamp terminals. If it is less than 12.8V, check charging system for proper operation.  Clean and/or tighten.
Headlamp lights on only one side.	Loose headlamp connection. Faulty headlamp beam.	Repair. Replace.



## Body Electrical System

### TURN SIGNAL LAMP

Condition	Probable cause	Corrective action
Turn signals do not operate.	Burnt fuse. Loose connection or open circuit. Faulty flasher unit. Faulty turn signal lamp switch.	Correct cause and replace. Check wiring and/or repair connection. Replace. Conduct continuity test and replace if necessary.
No flasher click is heard.	Burnt bulb. Loose connection.	Replace. Reconnect firmly.
Flashing cycle is too slow (Pilot lamp does not go out.), or too fast.	Bulb other than specified wattage being used. Burnt bulbs. Loose connection. Faulty flasher unit.	Replace with one specified. Replace. Repair. Replace.
Flashing cycle is irregular.	Burnt bulb. Loose connection. Bulbs other than specified wattage being used.	Replace. Repair. Replace with one specified.

### TAIL LAMP, STOP LAMP AND BACK-UP LAMP

Condition	Probable cause	Corrective action
Both left and right lamps do not light.	Burnt fuse. Faulty stop lamp switch.  Faulty back-up lamp switch.  Loose connection or open circuit.	Correct cause and replace. Conduct continuity test and replace if necessary.  Conduct continuity test and replace if necessary.  Check wiring and/or repair connection.
Lamp on only one side lights.	Burnt bulb. Loose bulb.	Replace. Repair lamp socket.

Z·ONE·DATSUN

# METERS AND GAUGES

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## DESCRIPTION

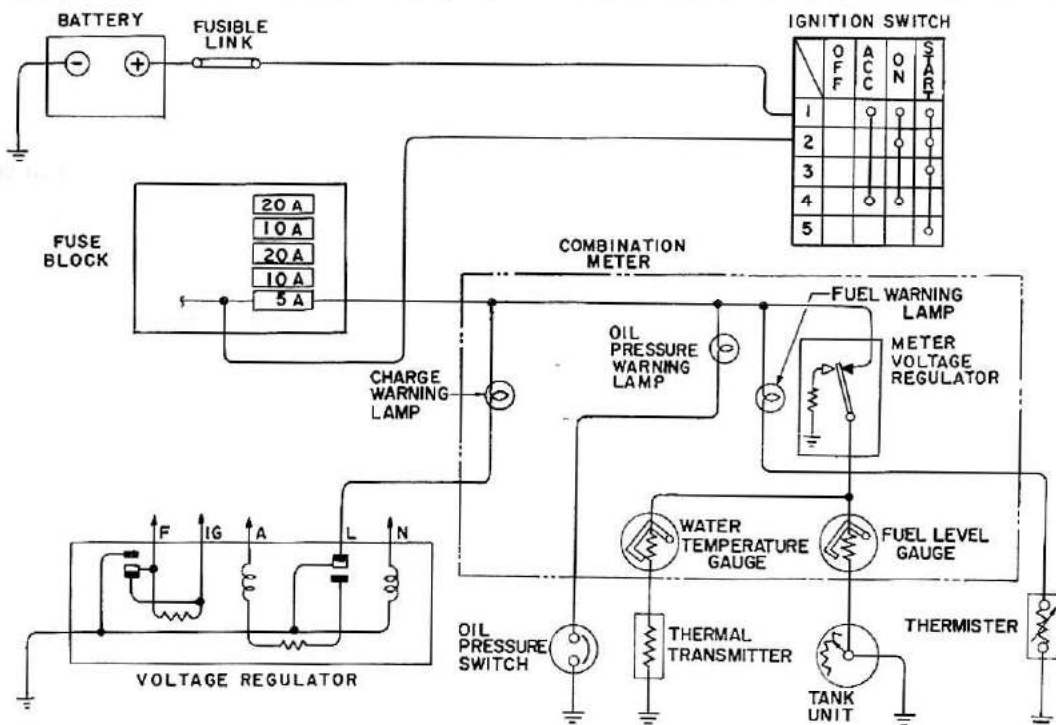
There are two types of meters — circular and square. The circular meters are employed on Hardtop models,

while the square meters are employed on the Sedan and Station Wagon models. The Hardtop models are e-

quipped with a voltmeter. A fuel warning lamp is installed on all models.

## CIRCUIT DIAGRAM OF METERS AND GAUGES

### Oil pressure, charge and fuel warning lamps, and fuel and water temperature gauge system

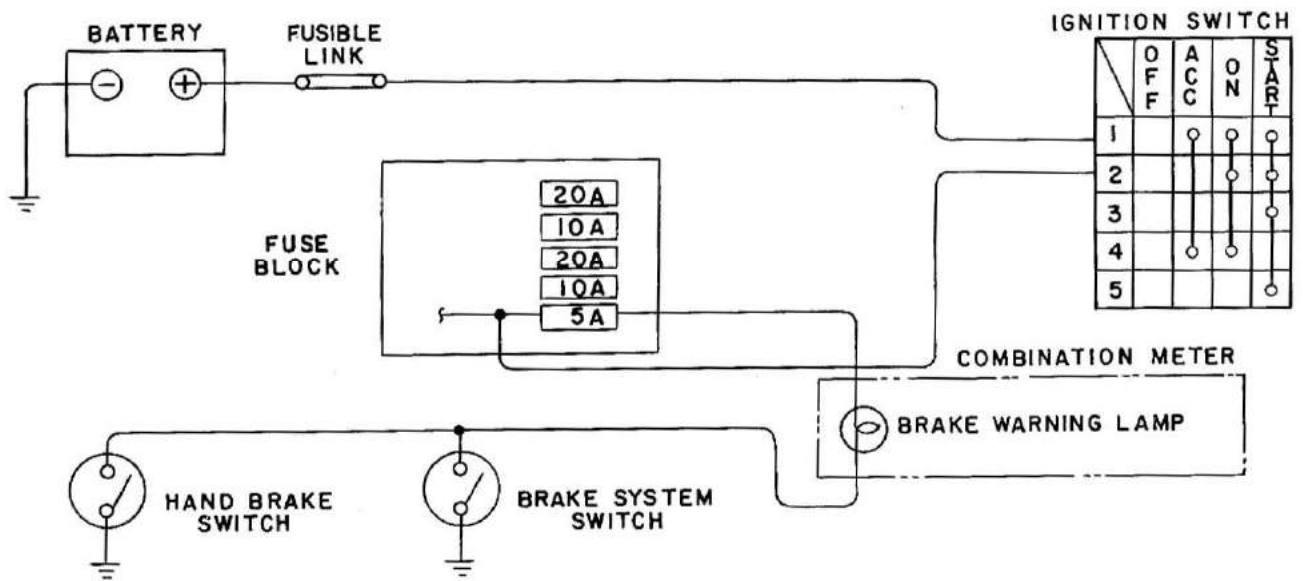


BE786A

Fig. BE-20 Circuit diagram for oil pressure, charge and fuel meters

# Body Electrical System

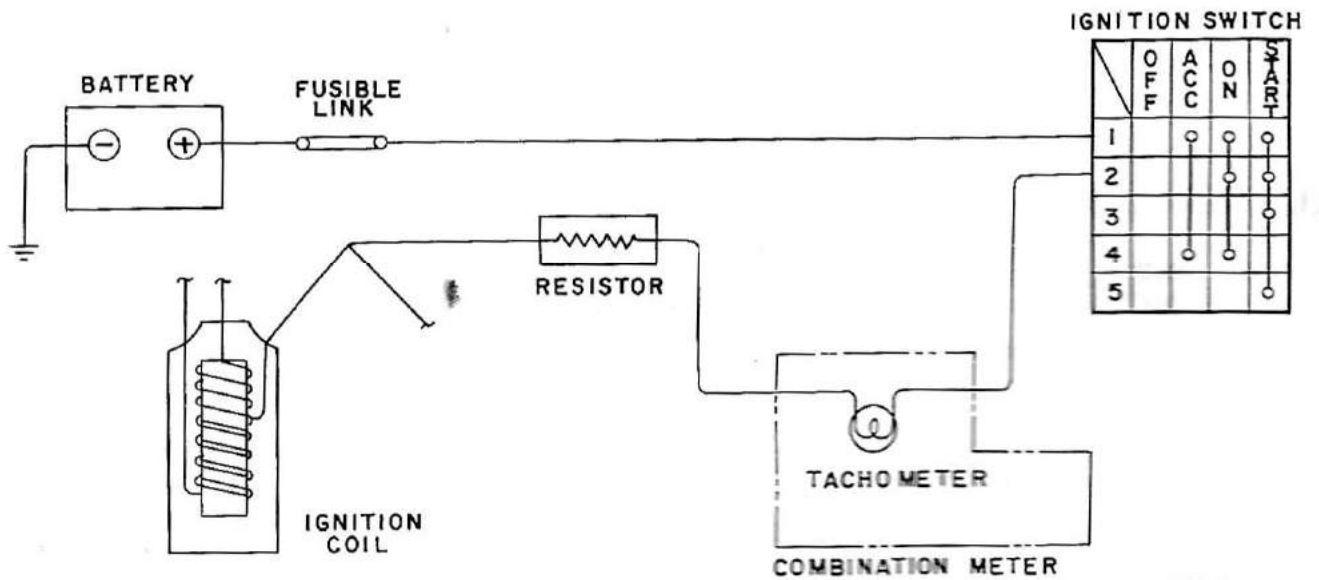
## Brake warning system



BE787A

Fig. BE-21 Brake warning circuit diagram

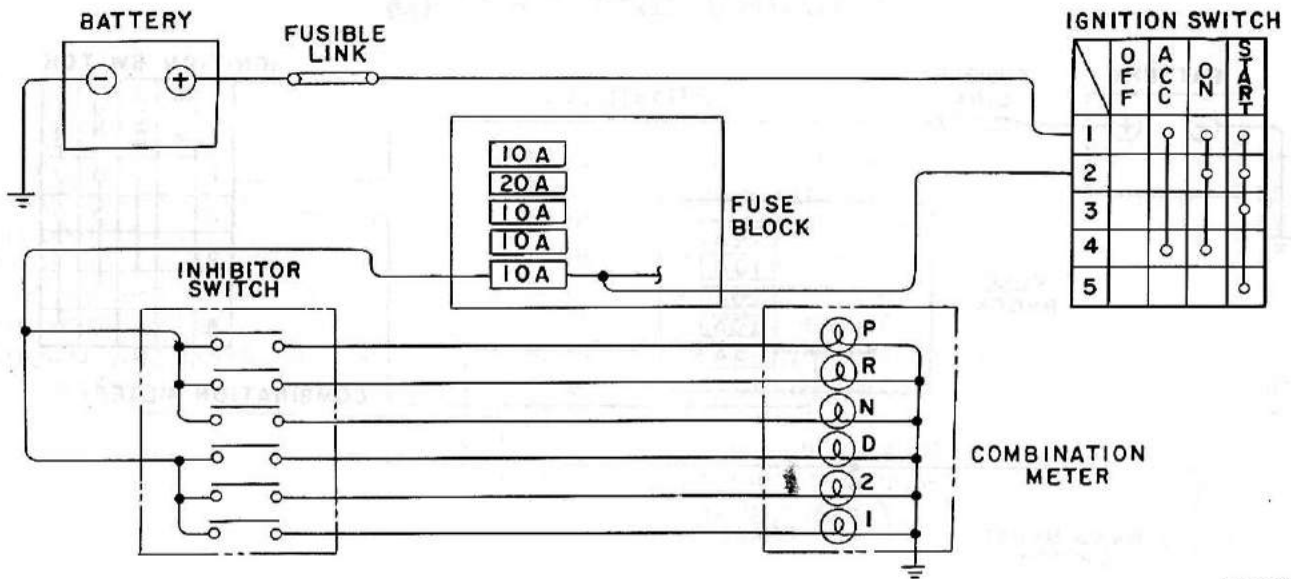
## Tachometer (gasoline engine models only)



BE788A

Fig. BE-22 Tachometer circuit diagram

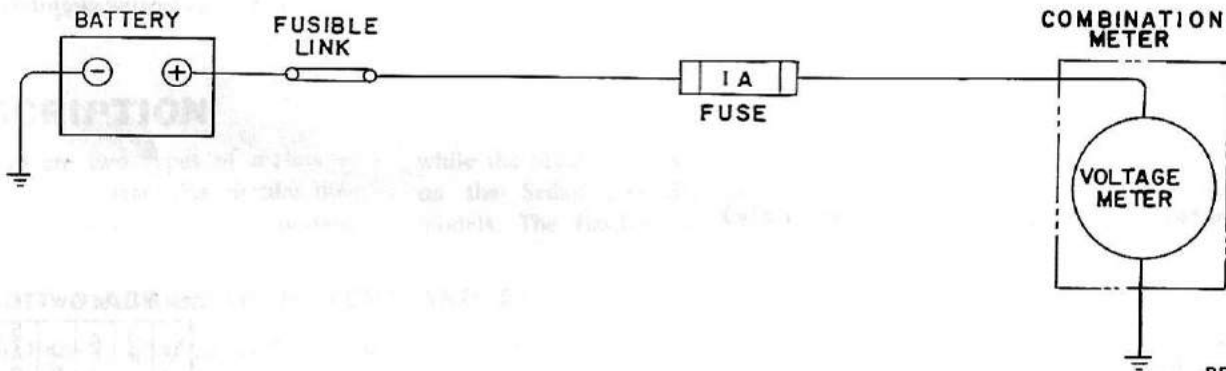
**Torque converter indicator system (Automatic transmission model only)**



BE789A

Fig. BE-23 Torque converter indicator circuit diagram

**Voltmeter system (Hardtop only)**



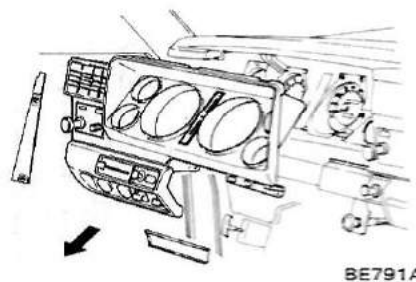
BE790A

Fig. BE-24 Voltmeter circuit diagram

**CLUSTER LID A**

**REMOVAL AND INSTALLATION**

1. Remove battery ground cable.
2. Remove column cover.
3. Remove patch from upper part of cigarette lighter with fingers.
4. Remove screws securing patch on left side of cluster lid A at front pillar, and remove patch.
5. Remove tripmeter knob.
6. Remove nine screws securing cluster lid A.
7. Pull cluster lid A out slightly, and remove by sliding it to the right (for right-hand drive models) or to the left (for left-hand drive models).
8. Installation is in reverse sequence of removal.



BE791A

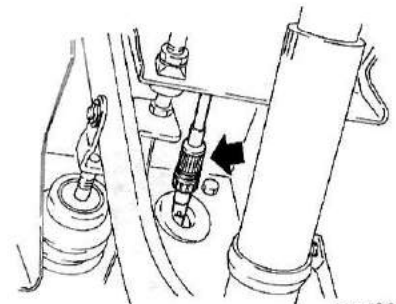
Fig. BE-25 Cluster lid A

**COMBINATION METER**

**REMOVAL AND INSTALLATION**

1. Remove battery ground cable.
2. Remove cluster lid A.
3. Disconnect two 12-pin connectors from rear of combination meter.

4. Disconnect speedometer cable at dash panel.



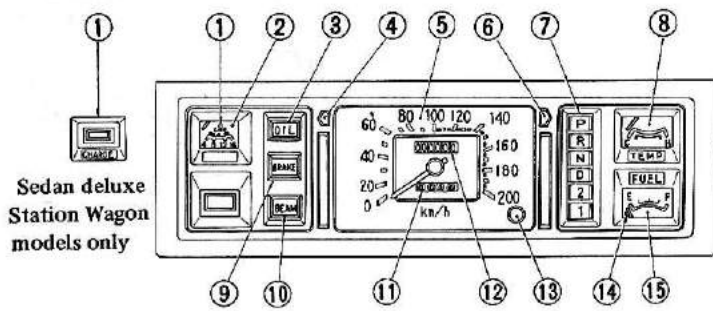
BE792A

Fig. BE-26 Disconnecting speedometer cable

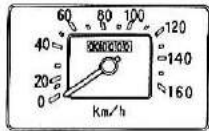
5. Remove screws securing combination meter to dash panel.
6. Install combination meter in reverse sequence of removal.

# Body Electrical System

## Arrangement of combination meter

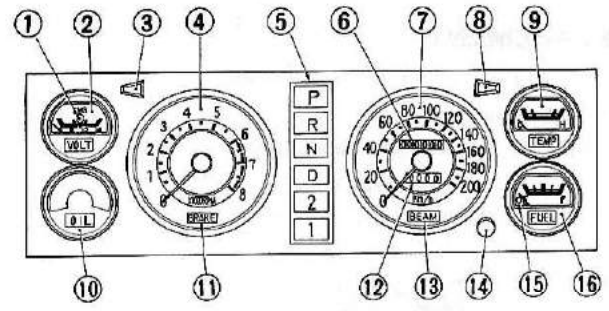


Sedan deluxe  
Station Wagon  
models only

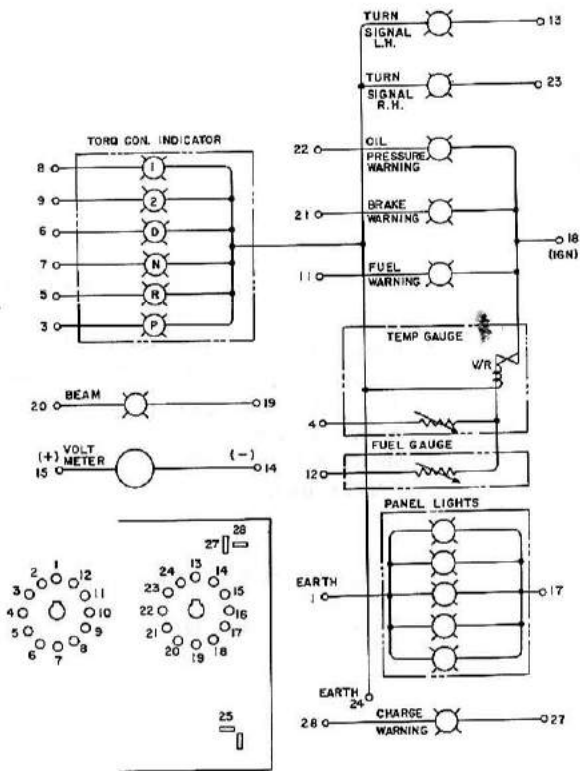


Diesel engine models only

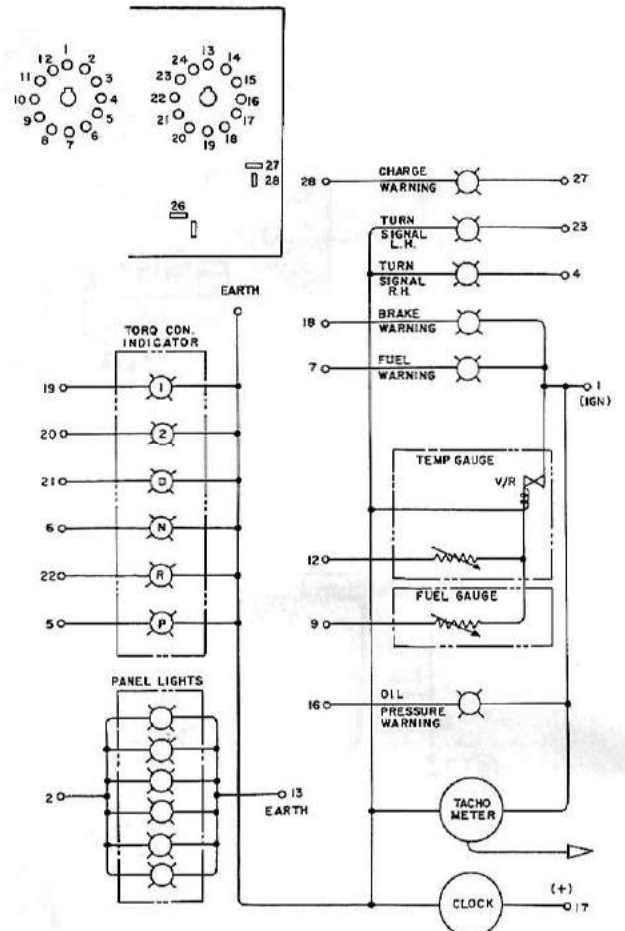
- 1 Charge warning lamp
- 2 Voltmeter (Hardtop models only)
- 3 Oil pressure warning lamp
- 4 Turn signal pilot lamp (L.H.)
- 5 Speedometer
- 6 Turn signal pilot lamp (R.H.)
- 7 Torque converter indicator (A/T models only)
- 8 Water temperature gauge
- 9 Hand brake warning lamp
- 10 High beam pilot lamp
- 11 Tripmeter
- 12 Odometer
- 13 Tripmeter reset knob
- 14 Fuel warning lamp
- 15 Fuel level gauge



- 1 Charge warning lamp
- 2 Voltmeter
- 3 Turn signal pilot lamp (L.H.)
- 4 Tachometer
- 5 Torque converter indicator (A/T models only)
- 6 Odometer
- 7 Speedometer
- 8 Turn signal pilot lamp (R.H.)
- 9 Water temperature gauge
- 10 Oil pressure warning lamp
- 11 Hand brake warning lamp
- 12 Tripmeter
- 13 High beam pilot lamp
- 14 Tripmeter reset knob
- 15 Fuel warning lamp
- 16 Fuel level gauge



Square meter



Circular meter

BE793A

Fig. BE-27 Combination meter



## SPEEDOMETER

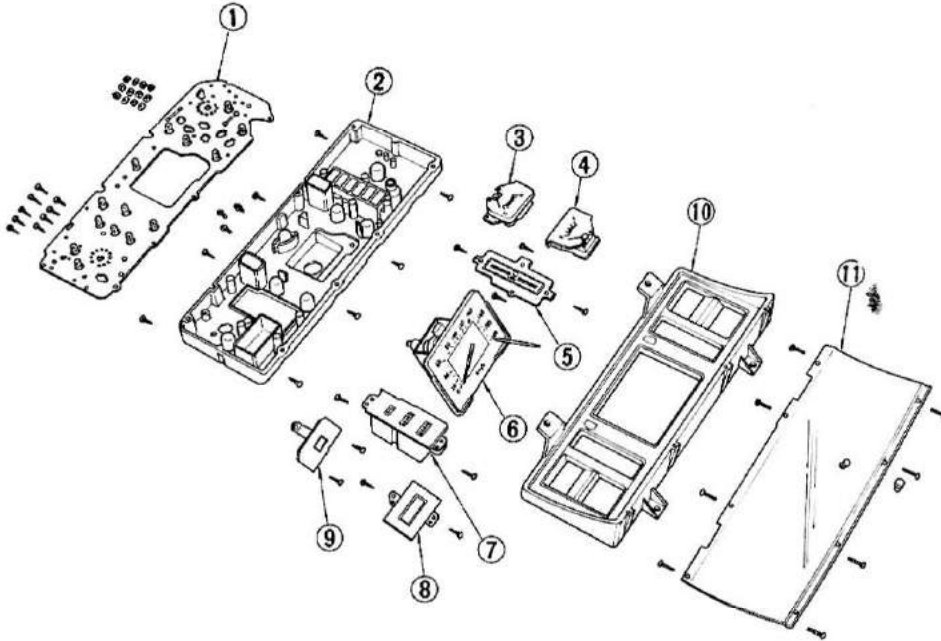
### REPLACEMENT

1. Remove combination meter from instrument panel.
2. Remove front cover and upper

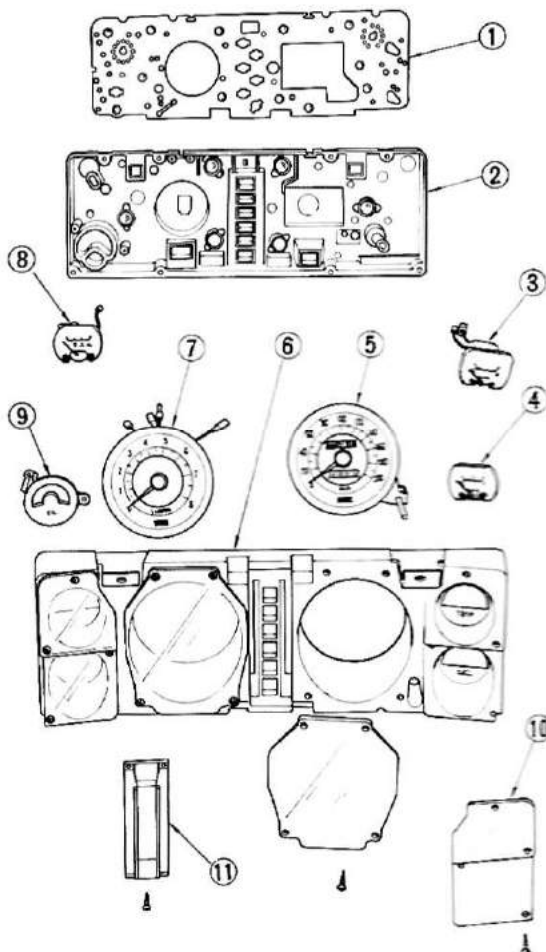
housing.

3. Remove screws securing meter.

4. Install new speedometer in reverse sequence of removal.



- 1 Printed circuit board
- 2 Lower housing
- 3 Water temperature gauge
- 4 Fuel level gauge
- 5 Torque converter mask
- 6 Speedometer
- 7 Warning lamp shade
- 8 Escutcheon
- 9 Lens assembly
- 10 Upper housing
- 11 Front cover



- 1 Printed circuit board
- 2 Lower housing
- 3 Water temperature gauge
- 4 Fuel level gauge
- 5 Speedometer
- 6 Upper housing
- 7 Tachometer
- 8 Voltmeter
- 9 Oil pressure warning lamp
- 10 Front cover
- 11 Torque converter mask

BE794A

Fig. BE-28 Speedometer

## FUEL METER AND WATER TEMPERATURE METER SYSTEM

### DESCRIPTION

The fuel level indicating system consists of a tank unit and a fuel level gauge. The tank unit contains a built-in thermister. The fuel warning lamp is built into the fuel meter and comes on when fuel in the tank drops to 9 liters (2 3/8 US gal, 1 Imp gal) or below.

The water temperature indicating system consists of a thermal transmitter located in the engine block and a water temperature gauge.

The thermal transmitter is equipped with a thermistor element.

The fuel level gauge and water temperature gauge are a bimetal type.

The voltage regulator is used to supply a contact voltage so that the fuel level gauge and water temperature gauge operate correctly.

The operating part of the regulator consists of a bimetal arm and a heater coil.

If both the fuel level gauge and water temperature gauge should become inoperative at the same time, there may be a problem in the voltage regulator.

### REPLACEMENT

#### Fuel meter and water temperature meter replacement

1. Remove combination meter.
2. Remove front cover and upper housing.
3. Remove retaining screws.
4. Install new meter in reverse sequence of removal.

### TANK UNIT

Tank unit is located on fuel tank. Refer to Section FE for Removal.

## OIL PRESSURE WARNING SYSTEM

### DESCRIPTION

The engine lubricating system incorporates an oil pressure warning lamp which glows whenever engine oil pressure falls below 0.2 to 0.4 kg/cm<sup>2</sup> (2.8 to 5.7 psi).

### REPLACEMENT

#### Oil pressure warning lamp

The bulb can easily be replaced by twisting bulb socket behind combination meter.

#### Oil pressure switch

To replace oil pressure switch, disconnect lead wire from switch terminal and unscrew switch.

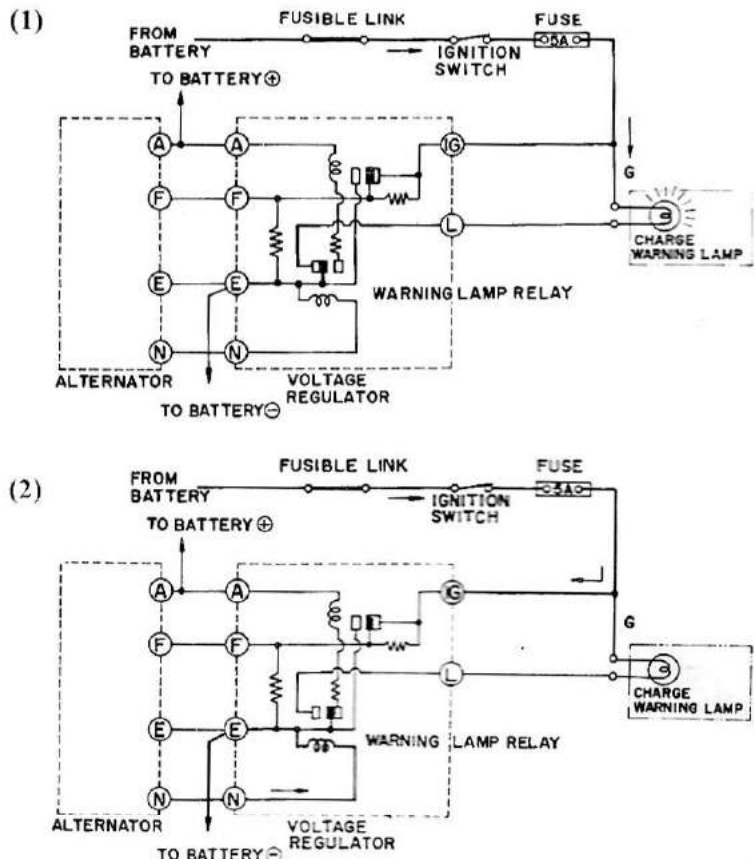
## CHARGE WARNING SYSTEM

### DESCRIPTION

The charge warning system consists primarily of charge warning lamp and voltage regulator.

The charge warning lamp glows when the ignition switch is turned "ON" with the engine shut down, or when the alternator fails to charge when engine is operating.

When the ignition switch is turned "ON", the charge warning circuit is closed and current flows from the ignition switch to the warning lamp and grounds through the regulator (Fig. BE-29). When the engine is started and the alternator comes into operation, the alternator output current (N) opposes the current flowing from the warning lamp; as the current (N) increases, the solenoid is energized and the warning lamp relay contacts are opened—in effect breaking the warning circuit ground connection—and the lamp goes out (Fig. BE-29).



BE748A

Fig. BE-29 Charge warning system

### REPLACEMENT

#### Charge warning lamp

The charge warning lamp bulb can easily be replaced by twisting the bulb socket behind the combination meter.

#### Voltage regulator

1. Disconnect battery ground cable.
2. Disconnect voltage regulator connector.
3. Remove retaining screws, and detach voltage regulator.

### TACHOMETER (Hardtop model)

#### REPLACEMENT

1. Remove battery ground cable.
2. Remove cluster lid A.
3. Remove combination meter.
4. Remove front cover and upper housing.
5. Remove setting screw.
6. Remove wire grommet.
7. Install tachometer in reverse sequence of removal.

### VOLTMETER (Hardtop model)

The voltmeter is a movable, coil type.

### REPLACEMENT

1. Remove battery ground cable.
2. Remove cluster lid A.
3. Remove combination meter.
4. Remove front cover and upper housing.
5. Removing retaining nuts.
6. Install new meter in reverse sequence of removal.

### BRAKE WARNING SYSTEM

#### DESCRIPTION

The brake warning system consists of a warning lamp and a hand brake switch.

#### REPLACEMENT

##### Brake warning lamp

Brake warning lamp bulb can easily be replaced by twisting bulb socket behind indicator lamp assembly.

##### Hand brake switch

1. Disconnect battery ground cable.
2. Disconnect hand brake switch lead wire at connector.

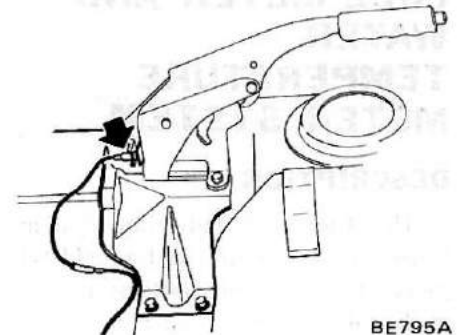


Fig. BE-30 Hand brake switch

3. Remove switch bracket retaining screw.
4. Remove switch from switch bracket.
5. Install switch in reverse sequence of removal.

### BULB REPLACEMENT

All bulbs employed in combination meter are wedge base types.

1. Reach back of combination meter from under instrument panel.
2. Install new bulb in reverse sequence of removal.

**TROUBLE DIAGNOSES AND CORRECTIONS**

**SPEEDOMETER**

Condition	Probable cause	Corrective action
Speedometer pointer and odometer do not operate.	Loose speedometer cable union nut. Broken speedometer cable. Damaged speedometer drive pinion gear (Transmission side). Faulty speedometer.	Retighten. Replace. Replace. Replace.
Unstable speedometer pointer.	Improperly tightened or loose speedometer cable union nut. Damaged speedometer cable. Faulty speedometer.	Retighten. Replace. Replace.
Unusual sound occurs in response to increase in driving speed.	Excessively bent or twisted speedometer cable inner wire or lack of lubrication. Faulty speedometer.	Replace or lubricate. Replace.
Inaccurate speedometer indication.	Faulty speedometer.	Replace.
Inaccurate odometer operation.	Improperly meshed second and third gear or worn gears. Faulty feeding due to deformed odometer and pinion carrier.	Replace speedometer. Replace speedometer.

**WATER TEMPERATURE AND FUEL GAUGES**

Condition	Probable cause	Corrective action
Neither water temperature gauge nor fuel level gauge does operate.	Burnt fuse. Faulty gauge voltage regulator.	Correct cause and replace fuse. Replace water temperature gauge.
Both water temperature gauge and fuel level gauge indicate inaccurately.	Faulty gauge voltage regulator. (Gauge pointer fluctuates excessively.) Loose or poor connection. (Gauge pointer fluctuates slightly.)	Replace water temperature gauge. Correct.

## Body Electrical System

Condition	Probable cause	Corrective action
<b>Water temperature gauge</b> Water temperature gauge does not operate.	Faulty thermal transmitter or loose terminal connection. (When thermal transmitter yellow/white wire is grounded, gauge pointer fluctuates.) Faulty water temperature gauge. Open circuit.	Replace or correct connection.  Replace.
Meter indicates only maximum temperature.	Faulty thermal transmitter. (Meter pointer returns to original position when ignition switch is turned off.) Faulty water temperature gauge. (Meter pointer indicates maximum temperature even after ignition switch is turned off.)	Replace.  Replace.
Water temperature gauge does not operate accurately.	Faulty water temperature gauge.  Loose or poor connection.	[Connect a 116Ω resistance between thermal transmitter yellow/white wire and ground. When meter indicates approximately 50°C (122°F), gauge is serviceable.] Correct connector terminal contact.
<b>Fuel level gauge</b> Fuel level gauge does not operate.	Faulty tank unit or loose unit terminal connection. (Pointer deflects when tank unit yellow/black wire is grounded.) Faulty fuel level gauge. Open circuit.	Replace tank unit or correct terminal connection.  Replace.
Pointer indicates only "F" position.	Faulty tank unit. (Pointer drops below "E" mark when ignition switch is turned off.) Faulty fuel level gauge. (Pointer still indicates "F" position when ignition switch is turned off.)	Replace.  Replace.
Fuel level gauge does not operate accurately.	Faulty tank unit. (Pointer indicates a half level when a 32Ω resistance is connected between tank unit yellow/black wire and ground.) Faulty fuel level gauge. Poor or loose connection.	Replace.  Replace fuel level gauge. Correct connector terminal contact.



## Body Electrical System

### OIL PRESSURE AND CHARGE WARNING LAMPS

Condition	Probable cause	Corrective action
<b>Oil pressure warning lamp</b> Lamp does not light when ignition switch is set to "ON".	Faulty oil pressure switch or loose switch terminal connection. (When switch yellow/blue wire is grounded, warning lamp lights.) Burnt bulb or loose bulb. Open circuit.	Replace or correct connection.  Replace bulb or correct bulb socket.
Lamp does not go out while engine is running.	Lack of engine oil. Oil pressure too low. Faulty oil pressure switch.	Check oil level and add oil as required. Inspect engine oil pressure system. Replace.
<b>Charge warning lamp</b> Lamp does not light when ignition switch is set to "ON".	Burnt bulb or loose bulb. (Warning lamp does not light when voltage regulator white/red wire is grounded.) Open circuit.	Replace bulb or correct bulb socket.
Lamp does not go out when engine is started.	Faulty charging system.	Inspect charging system.

### VOLTMETER

Condition	Probable cause	Corrective action
No voltage indication	1-ampere fuse blown. Loose or disconnected connector. Damaged voltmeter.	Correct cause and replace fuse. Tighten. Replace.
Pointer swings abnormally.	Voltmeter malfunctioning.	Replace.

# ELECTRICAL ACCESSORIES

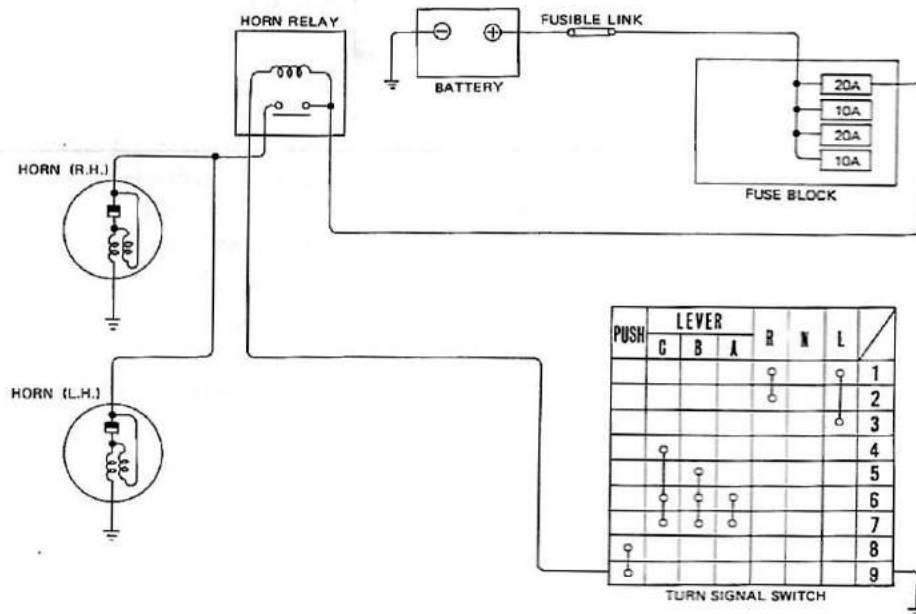
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## DESCRIPTION

### CIRCUIT DIAGRAM OF ELECTRICAL ACCESSORIES

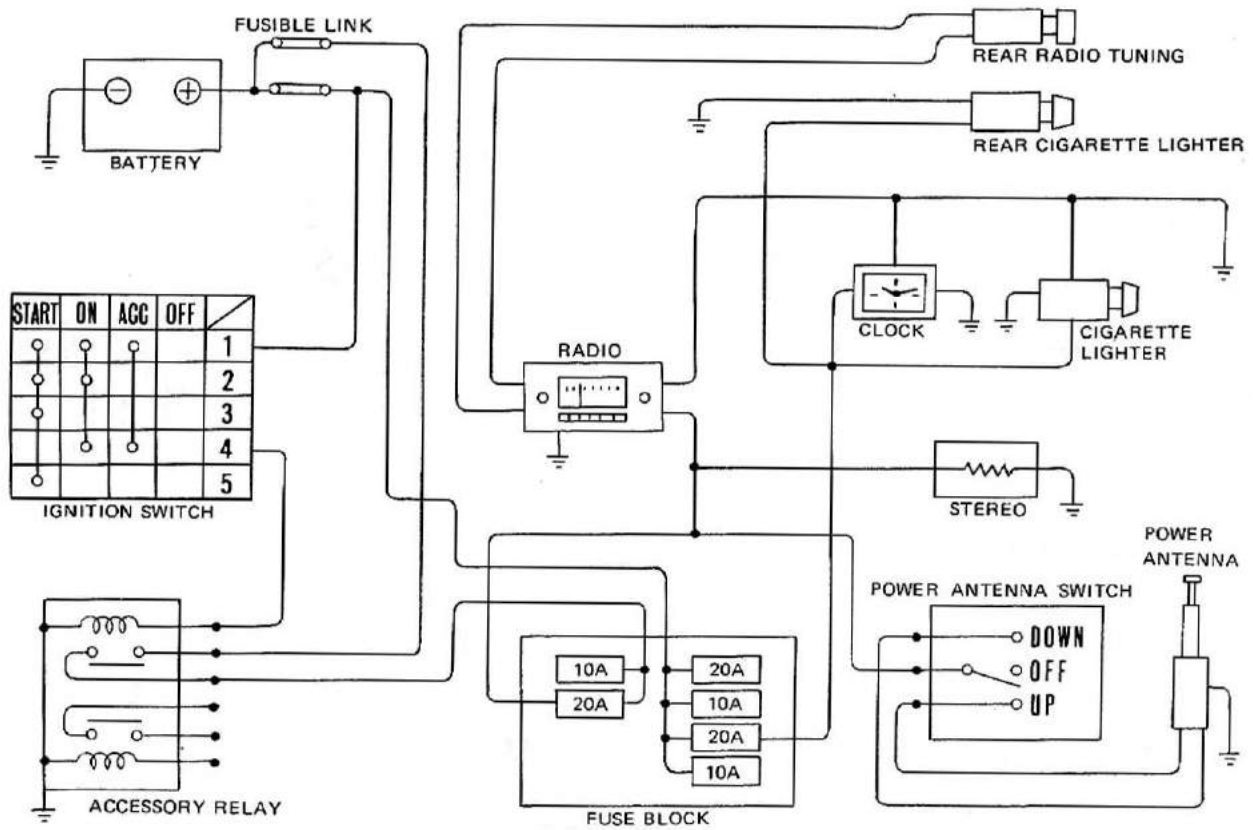
#### Horn system



BE822A

Fig. BE-31 Circuit diagram of horn

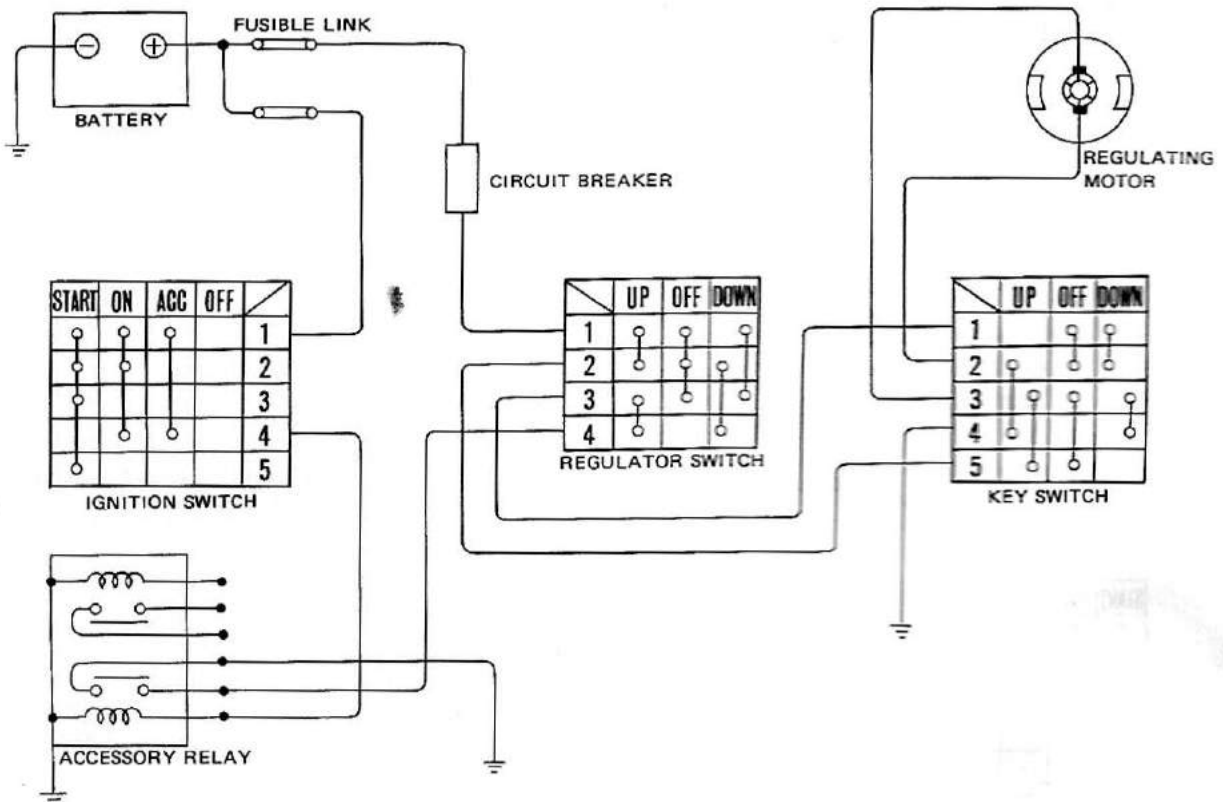
**Radio, stereo, clock and cigarette lighter system**



BE825A

Fig. BE-32 Circuit diagram of radio, stereo, clock and cigarette lighter

**Power side window system (Station Wagon)**

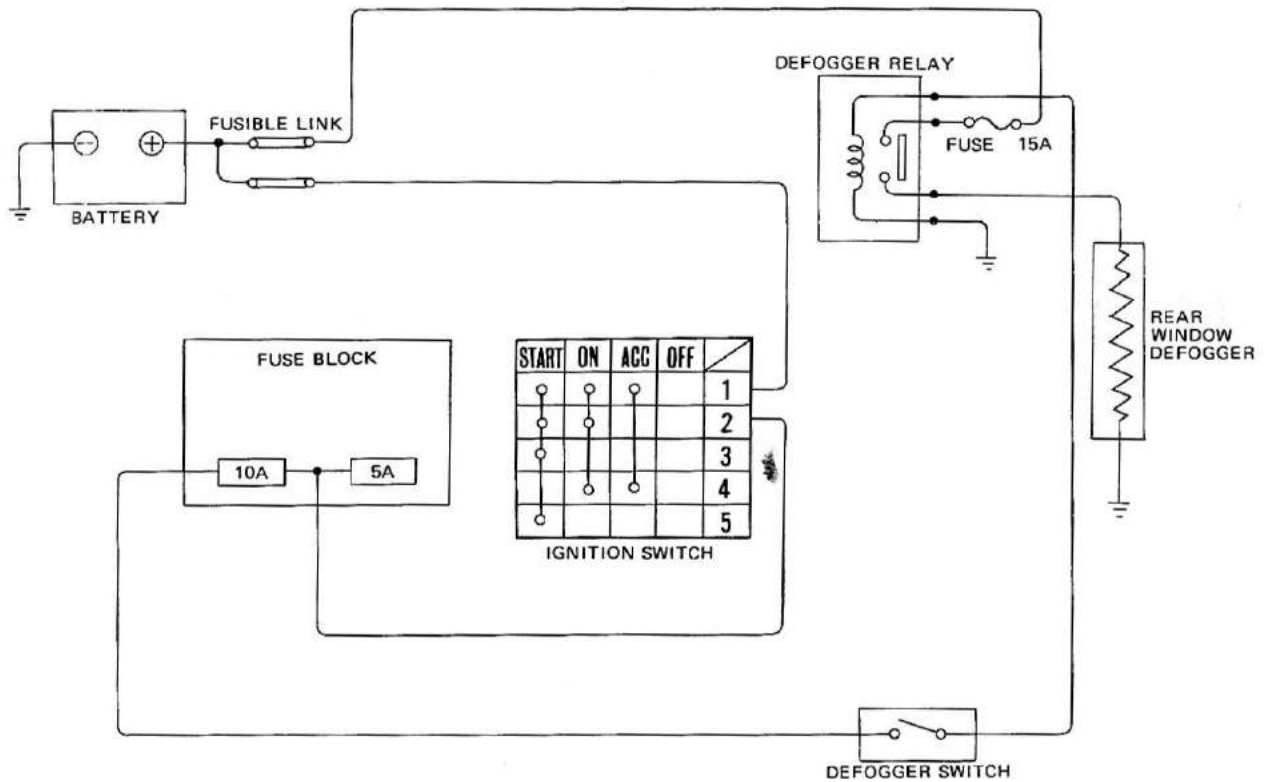


BE827A

Fig. BE-33 Circuit diagram of power side window

# Body Electrical System

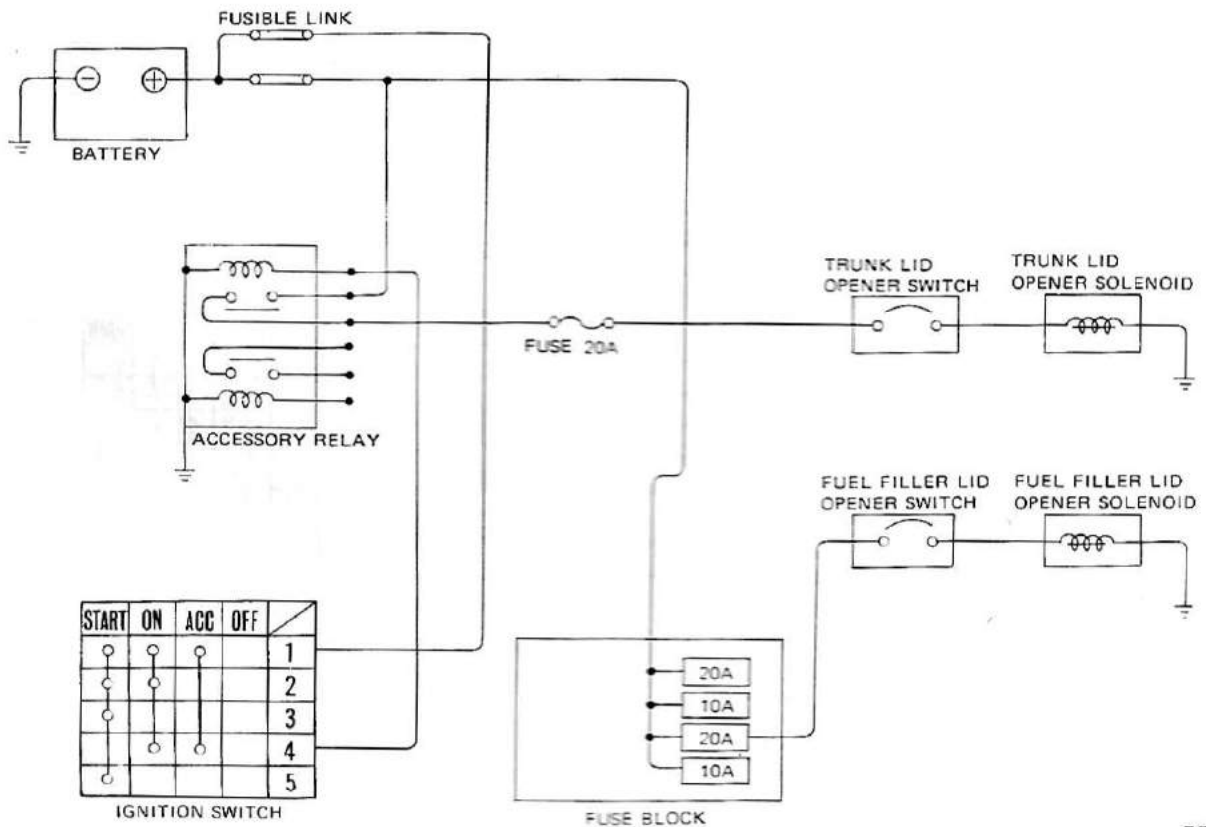
## Rear window defogger system



BE828A

Fig. BE-34 Circuit diagram of rear window defogger

## Trunk lid and fuel filler lid opener system



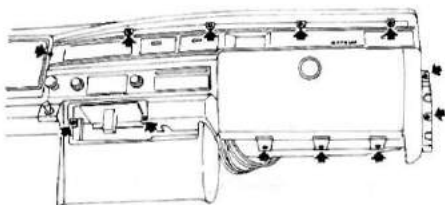
BE829A

Fig. BE-35 Circuit diagram of trunk lid and fuel filler lid opener

## CLUSTER LID B

### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove steering wheel.
3. Remove steering column shell.
4. Remove cluster lid A.
5. Remove radio tuning and switch knobs.
6. Remove heater/air conditioner control knobs.
7. Disconnect the following harness connectors.
  - Cigarette lighter harness
  - Windshield wiper switch harness
  - Wiper switch illumination lamp harness
  - Glove box lamp switch harness
8. Remove cluster lid B attaching screws. Cluster lid B can then be taken out.
9. Install cluster lid B in reverse sequence of removal.



BE830A

Fig. BE-36 Removing cluster lid B

## HORN

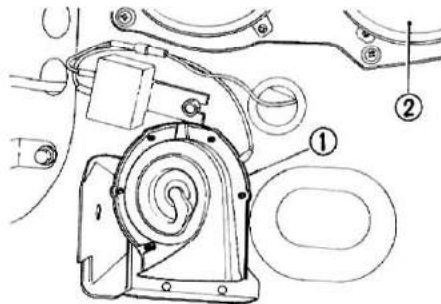
The horn is installed on the radiator core support and the horn relay is mounted on the relay bracket at the right front side of engine compartment. The horn switch is integral with the steering wheel assembly.

### REMOVAL AND INSTALLATION

#### Horn

1. Disconnect battery ground cable.

2. Remove radiator grille and headlamp finisher. Refer to Section BF.
3. Disconnect horn harness connector.
4. Remove horn attaching screw and then remove horn.
5. Install horn in reverse sequence of removal.

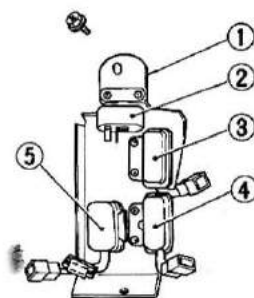


BE831A  
1 Horn  
2 Headlamp

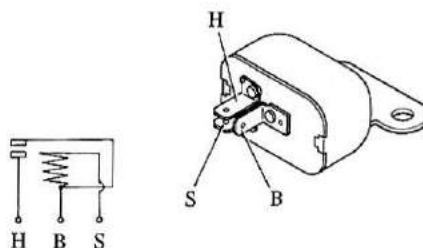
Fig. BE-37 Horn

#### Horn relay

1. Disconnect battery ground cable.
2. Disconnect horn relay harness connector.
3. Remove screws retaining horn relay and then take out horn relay.
4. Install horn relay in reverse sequence of removal.



1 Relay bracket  
2 Horn relay  
3 Auto choke relay  
4 Lighting relay  
5 Headlamp monitor relay



BE832A

Fig. BE-38 Horn relay

## INSPECTION

Test continuity of system with a test lamp or ohmmeter. In horn relay, there must be continuity between terminals **(S)** and **(H)** when there is 12V between terminals **(S)** and **(B)**. See Figure BE-38.

## WINDSHIELD WIPER AND WASHER

### DESCRIPTION

The windshield wiper consists of a wiper motor, a link mechanism, wiper arms, blades, intermittent amplifier and an intermittent relay. The wiper motor unit, consisting of a motor and an auto-stop mechanism, operates wipers at three different speed: intermittent, low-speed, and high-speed. On Sedan deluxe and Diesel engine models, the wiper is a two-speed type: low and high.

The wiper motor unit is located on the cowl top panel in the engine compartment and link mechanism is located under the cowl top grille.

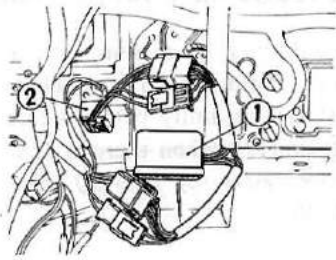
The wiper intermittent relay is installed on wiper motor. The wiper intermittent amplifier is installed behind wiper switch.

The electrically operated windshield washer consists of a washing fluid tank (with motor and pump), washer nozzles, and a vinyl tube connecting those components.

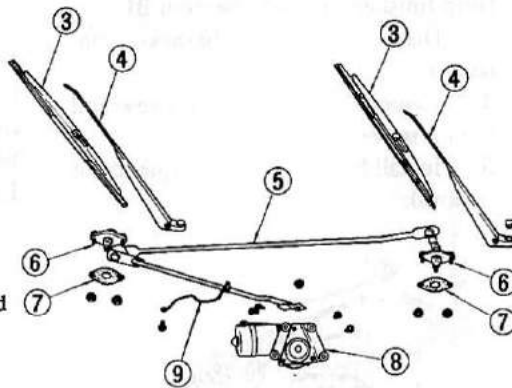
The windshield washer switch is combined with the windshield wiper switch in a single unit. To operate the washer, twist the switch knob.



## Body Electrical System



- |                                |                  |
|--------------------------------|------------------|
| 1 Wiper intermittent amplifier | 5 Connecting rod |
| 2 Wiper switch                 | 6 Pivot          |
| 3 Wiper blade                  | 7 Gasket         |
| 4 Wiper arm                    | 8 Wiper motor    |
|                                | 9 Bonding wire   |



BE833A

Fig. BE-39 Wiper motor, linkage and intermittent amplifier

### REMOVAL AND INSTALLATION

#### Wiper motor and wiper linkage

1. Disconnect battery ground cable.
2. Remove wiper arms with wiper blades.
3. Remove cowl top grille. Refer to Section BF.
4. Separate wiper linkage from wiper motor.
5. Disconnect wiper motor and relay harness connectors.
6. Remove screws retaining wiper motor and then remove wiper motor.
7. Disconnect wiper motor bonding wire from cowl top panel.
8. Remove screws retaining wiper linkage and then take out linkage.
9. Install wiper motor and linkage in reverse sequence of removal. Install wiper blades at correct angle to obtain proper sweeping zone.

2. Detach vinyl washer hoses from clamps.
3. Remove screw retaining washer nozzle and then remove nozzle from cowl top panel.
4. Install washer tank and nozzles in reverse sequence of removal.
5. Adjust nozzle direction so that washer fluid is properly sprayed as shown in Figure BE-41.

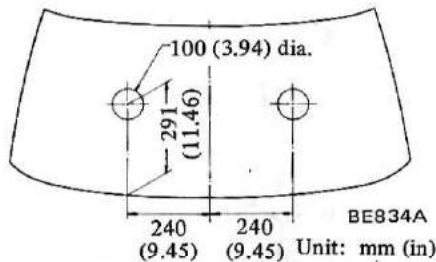


Fig. BE-41 Washer nozzle direction

Windshield washer operating precautions:

1. Be sure to use only windshield washing solution. Never mix soap powder or detergent with solution.
2. To avoid improper windshield washer operation, do not operate windshield washer continuously for more than 30 seconds or without washer fluid. Normally, windshield washer should be operated for 10 seconds or less at a time.

#### Wiper and washer switch

1. Disconnect battery ground cable.
2. Push in on wiper switch knob, turn it counterclockwise and remove it from switch.
3. Remove radio control knobs and escutcheon plate. Refer to paragraph on Radio Removal.
4. Remove nut retaining wiper switch.
5. Disconnect wiper switch harness connector and then remove wiper switch.
6. Install wiper switch in reverse sequence of removal.

### INSPECTION

#### Wiper and washer switch

Test continuity through wiper and washer switch at each step with a test lamp or ohmmeter. Refer to continuity diagram of wiper and washer switch.

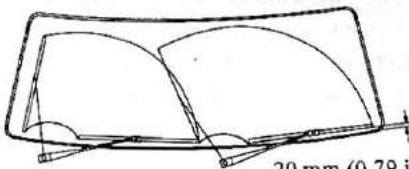


Fig. BE-40 Wiping area

#### Windshield washer tank and nozzles

1. To remove washer tank, pull it upward and detach it from bracket.

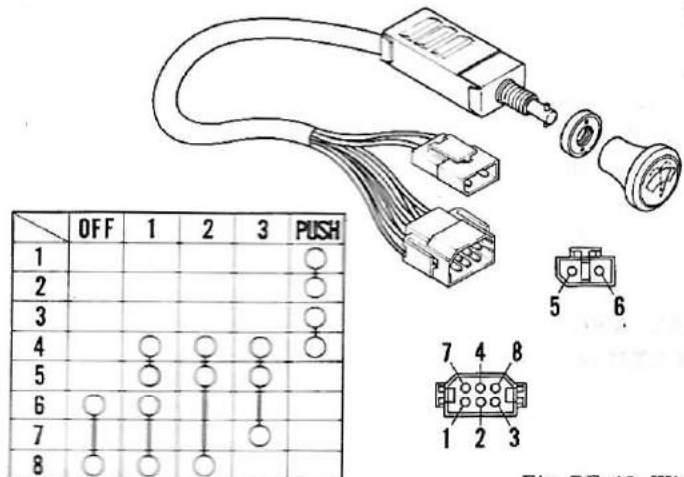
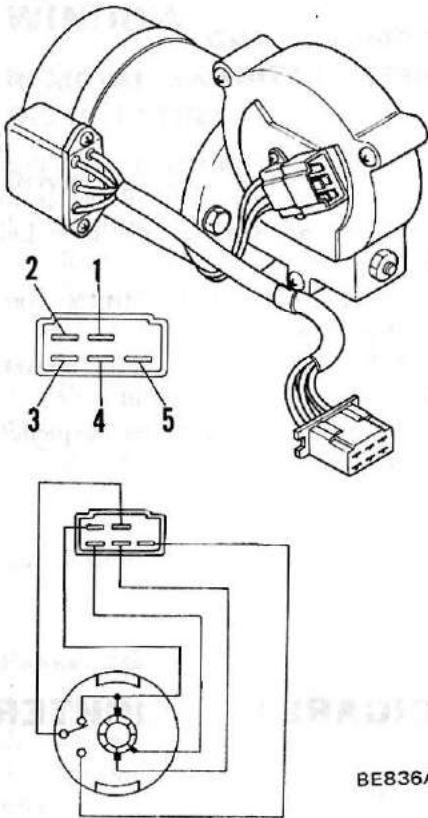


Fig. BE-42 Wiper switch

**Wiper motor**



BE836A

Fig. BE-43 Wiper motor

1. There should be continuity at the following terminals:  
Between ① and ②, ② and ③, ② and ④.
2. Then securely connect positive terminal of a 12-volt DC power supply to terminal ②, and ground terminal ③. The motor should run.
3. Next, ground terminal ④. Do not ground terminal ③ this time. The motor should run.
4. Ground either terminal ③ or ④ to keep wiper motor running.

**RADIO**

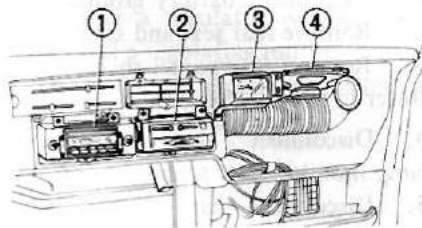
**DESCRIPTION**

The radio system consists of an antenna, a speaker and a radio receiver. The antenna is connected to the radio receiver by the feeder cable. The power antenna is available as an option.

**REMOVAL AND INSTALLATION**

**Radio receiver**

1. Disconnect battery ground cable.
2. Remove windshield wiper switch knob. Refer to paragraph on Wiper Switch Removal.
3. Pull off radio tuning and switch knobs.
4. Remove nuts retaining radio switch.
5. Remove screws retaining radio escutcheon plate and remove plate.
6. Disconnect radio receiver, antenna and speaker harness connectors.
7. Remove screws retaining radio receiver. Radio receiver can then be taken out.
8. Install radio receiver in reverse sequence of removal.



- 1 Radio
- 2 Stereo player
- 3 Clock
- 4 Speaker

BE837A

Fig. BE-44 Removing radio

**Front radio speaker**

1. Disconnect battery ground cable.
2. Remove cluster lid B. Refer to paragraph on Cluster Lid B Removal.
3. Disconnect radio speaker harness connector.
4. Remove nuts retaining radio speaker. Speaker can then be taken out.
5. Install front radio speaker in reverse sequence of removal.

**Rear radio tuning switch**

The rear radio tuning switch is installed on the rear of center console box in separate seat models and on the rear of front seatback in bench seat models.

**SEPARATE SEAT MODELS**

1. Disconnect battery ground cable.
2. Remove center console box. Refer to Section BF.
3. Disconnect cigarette lighter harness connector.
4. Open rear ash tray lid and detach it from console box by pushing it upward.
5. Remove ash tray bracket.
6. Pull radio tuning knob off.
7. Remove tuning switch retaining nut.
8. Disconnect turning switch harness connector. Radio tuning switch can then be taken out.
9. Install radio tuning switch in reverse sequence of removal.

**Antenna and feeder cable**

**MANUAL ANTENNA**

1. Disconnect battery ground cable.
2. Disconnect radio feeder cable at connector located behind combination meter.
3. Remove screws retaining antenna, working from wheel house.
4. Remove antenna retaining nuts. Antenna can then be taken out.
5. Install antenna in reverse sequence of removal.

**POWER ANTENNA**

1. Disconnect battery ground cable.
2. Disconnect radio feeder cable at connector located behind combination meter.
3. Remove screws retaining power antenna motor, working from wheel house.
4. Remove antenna retaining nut. Power antenna can then be taken out.
5. Install power antenna in reverse sequence of removal.

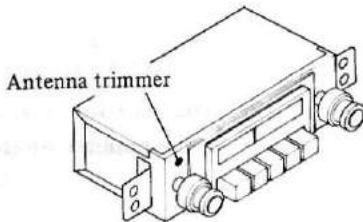
### ADJUSTING ANTENNA TRIMMER

When a new radio receiver, an antenna or an antenna feeder is installed, antenna trimmer should be adjusted.

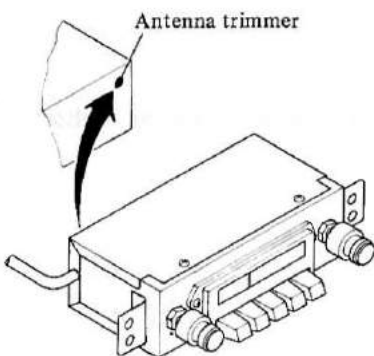
1. Extend antenna completely.
2. Turn in the weakest station between 12 and 16 (1,200 to 1,600 KHz) on dial.

Noise may be generated, but disregard it.

3. Turn antenna trimmer to left and right slowly and set it at a position where receiving sensitivity is highest.



HITACHI-make radio



CLARION-make radio

BE572

Fig. BE-45 Trimmer adjusting screw

### CAR STEREO

The car stereo system consists of a stereo player, an antenna and two rear speakers.

#### REMOVAL AND INSTALLATION

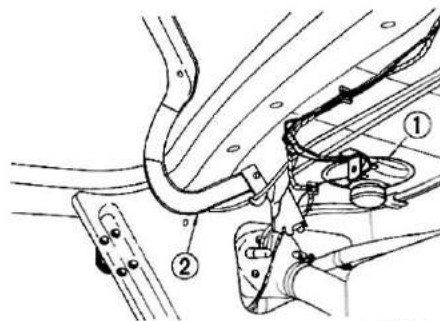
##### Stereo player

1. Disconnect battery ground cable.

2. Remove windshield wiper switch knob. Refer to paragraph on Wiper Switch Removal.
3. Pull off radio tuning and switch knobs.
4. Remove nuts retaining radio switch.
5. Remove screws retaining radio escutcheon plate and then remove plate.
6. Disconnect stereo player, antenna and ground harness connectors.
7. Remove screws retaining stereo player. Stereo player can then be taken out.
8. Install stereo player in reverse sequence of removal.

##### Rear stereo speaker

1. Disconnect battery ground cable.
2. Remove rear seat and seatback.
3. Remove rear parcel shelf finisher. Refer to Section BF.
4. Disconnect rear combination lamp monitor fiber scopes.
5. Disconnect rear speaker harness connectors.
6. Remove screws retaining rear speaker, working from the inside of trunk compartment. Speaker can then be taken out.
7. Install rear stereo speakers in reverse sequence of removal.



BE938A

- 1 Rear speaker
- 2 Trunk compartment lid hinge

Fig. BE-46 Rear stereo speaker

### CLOCK

#### REMOVAL AND INSTALLATION

1. Disconnect battery ground cable.
2. Remove cluster lid B. Refer to paragraph on Removal of Cluster Lid B.
3. Disconnect clock harness connector.
4. Remove clock attaching screws. Clock can then be taken out.
5. Install clock in reverse sequence of removal.

### CIGARETTE LIGHTER

#### REMOVAL AND INSTALLATION

##### Front

1. Disconnect battery ground cable.
2. Disconnect cigarette lighter and illumination lamp harness connectors.
3. Remove lighter retaining ring, working from the rear of lighter. Cigarette lighter can then be taken out.
4. Remove lighter illumination lamp.
5. Install cigarette lighter in reverse sequence of removal.

##### Rear

1. Disconnect battery ground cable.
2. Remove center console box. Refer to Section BF.
3. Disconnect rear cigarette lighter and radio tuning harness connector.
4. Open ash tray lid and detach it from console box by pushing it upward.
5. Remove ash tray bracket.
6. Turn cigarette lighter retaining socket counterclockwise. Cigarette lighter can then be taken out.
7. Install cigarette lighter in reverse sequence of removal.

## POWER DOOR WINDOW

### REMOVAL AND INSTALLATION

#### Driver switch

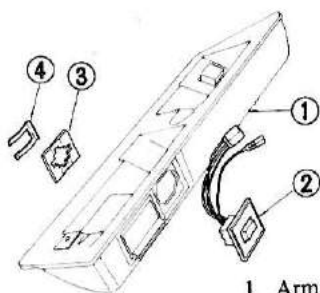
1. Disconnect battery ground cable.
2. Remove switch finisher.
3. Remove screws retaining switch bracket and then withdraw switch assembly.
4. Disconnect switch harness connector.

Power window switch can then be taken out.

5. Install power window switch in reverse sequence of removal.

#### Passenger switch

1. Disconnect battery ground cable.
2. Remove door arm rest.
3. Disconnect switch harness connector.
4. Remove switch retainer and then remove switch assembly.
5. Install seat switches in reverse sequence of removal.



BE839A

- 1 Arm rest
- 2 Switch
- 3 Spacer
- 4 Retainer

Fig. BE-47 Power window switch (Passenger switch)

#### Regulating motor

1. Disconnect battery ground cable.
2. Remove door arm rest.
3. Disconnect power window switch harness and step lamp harness (rear door) connectors.
4. Remove door finisher. Refer to Section BF.
5. Remove door window glass.

6. Disconnect regulating motor harness connector.
7. Remove screws retaining door window regulator and withdraw window regulator with motor from door.
8. Remove breather tube from regulating motor.
9. Remove screws holding motor and pinion rack of window regulator. Regulating motor can then be taken out.
10. Install regulating motor in reverse sequence of removal.

### INSPECTION

Test continuity through the circuit with an ohmmeter or test lamp.

## POWER SIDE WINDOW (Station Wagon)

The power side window system consists of a regulator switch, a key switch and a regulating motor.

The regulating motor is installed on the rear left window regulator.

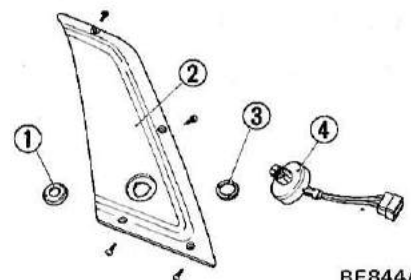
### REMOVAL AND INSTALLATION

#### Regulator switch (Front)

1. Disconnect battery ground cable.
2. Disconnect switch harness connector.
3. Remove switch retaining nut by turning it counterclockwise.
4. Install regulator switch in reverse sequence of removal.

#### Key switch (Rear)

1. Disconnect battery ground cable.
2. Remove switch retaining nut.
3. Remove side window finisher.
4. Remove switch retaining ring.
5. Disconnect switch harness connector. Key switch can then be taken out.
6. Install key switch in reverse sequence of removal.



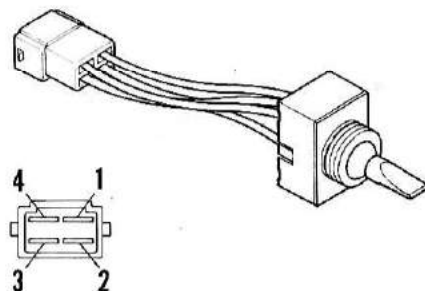
BE844A

- 1 Retaining nut
- 2 Side window finisher
- 3 Retaining ring
- 4 Key switch

Fig. BE-48 Key switch (Rear)

### INSPECTION

Test continuity through power window switch with a test lamp or ohmmeter. Refer to continuity diagram of regulator and key switches.

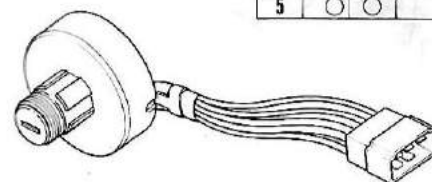


BE840A

Fig. BE-49 Regulator switch (Front)

	1	OFF	2
1	○	○	○
2	○	○	○
3	○	○	○
4	○	○	○

	UP	OFF	DOWN
1	○	○	○
2	○	○	○
3	○	○	○
4	○	○	○
5	○	○	○



BE841A

Fig. BE-50 Key switch (Rear)



## TRUNK LID OPENER

### DESCRIPTION

The trunk lid opener system consists of an opener switch and a solenoid.

The opener switch is installed on the instrument panel and the solenoid is mounted under the trunk lid lock striker.

### REMOVAL AND INSTALLATION

#### Opener switch

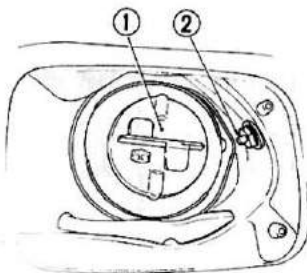
1. Disconnect battery ground cable.
2. Disconnect switch harness connectors.
3. Remove switch attaching screws, working from the rear of switch. Opener switch can then be taken out.
4. Install opener switch in reverse sequence of removal.

#### Opener solenoid

1. Disconnect battery ground cable.
2. Remove rear finisher in trunk compartment.
3. Disconnect solenoid harness connector.
4. Separate solenoid connecting link from striker.
5. Remove solenoid attaching screws. Opener solenoid can then be taken out.
6. Install opener solenoid in reverse sequence of removal.

### INSPECTION

Test continuity through opener switch and solenoid with a test lamp or ohmmeter.



- 1 Fuel filler cap
- 2 Fuel filler lid opener

## FUEL LID OPENER

### DESCRIPTION

The fuel lid opener system consists of an opener switch and an opener solenoid.

The fuel opener switch is installed on the instrument panel and the solenoid is mounted on the side panel in the trunk compartment.

### REMOVAL AND INSTALLATION

#### Opener switch

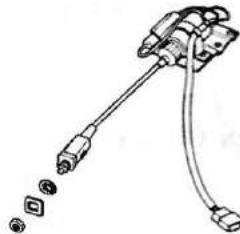
1. Disconnect battery ground cable.
2. Disconnect switch harness connectors.
3. Remove switch attaching screws, working from the rear of switch. Opener switch can then be taken out.
4. Install opener switch in reverse sequence of removal.

#### Opener solenoid

1. Open fuel filler lid.
2. Disconnect battery ground cable.
3. Remove solenoid cable attaching nut and spacer in fuel filler opening.
4. Disconnect solenoid harness connector in trunk compartment.
5. Remove solenoid attaching screws.

Opener solenoid can then be taken out.

6. Install opener solenoid in reverse sequence of removal.



BE843A

Fig. BE-51 Fuel lid opener solenoid

### INSPECTION

Test continuity through opener switch and opener solenoid with a test lamp or ohmmeter.

## REAR WINDOW DEFOGGER

### DESCRIPTION

The electric rear window defogger system consists of a defogger switch, defogger relay and filaments in the rear window. The filaments are contained within the rear window. Heat from filaments keeps rear window free of fog and frost.

### REMOVAL AND INSTALLATION

#### Defogger switch

1. Disconnect battery ground cable.
2. Remove cluster lid A. Refer to paragraph on Cluster Lid A.
3. Pull defogger switch knob off.
4. Remove defogger switch escutcheon.
5. Remove screws retaining defogger switch.

Defogger switch can then be taken out.

6. Install defogger switch in reverse sequence of removal.

#### Rear window filaments

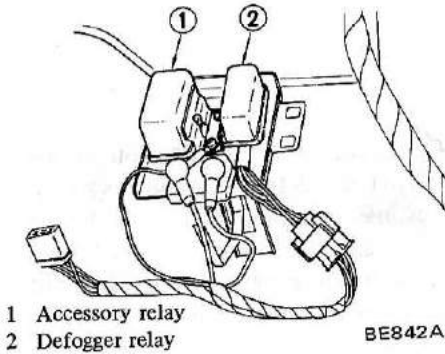
The filaments are printed inside the rear window glass. Therefore, the element cannot be removed.



## Defogger relay

The defogger relay is located under the instrument panel.

To remove relay, remove attaching screws and disconnect harness connector.



1 Accessory relay  
2 Defogger relay  
BE842A

Fig. BE-52 Defogger relay

## INSPECTION

### Defogger switch

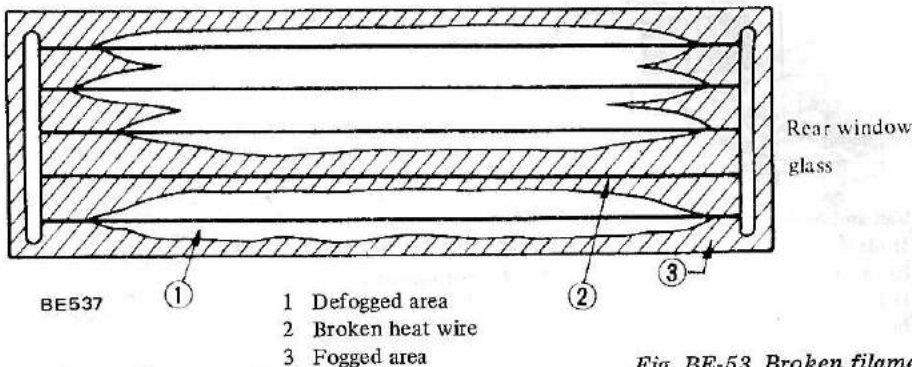
Test continuity of switch with a test lamp or ohmmeter. Test must be carried out with switch at both "ON" and "OFF" positions.

### Rear window filaments

Rear window defogger filaments can be inspected for circuit breaks by one of three methods.

#### Method 1:

Start engine and turn on window defroster system. If area around a specific filament is not defogged, that line is broken.



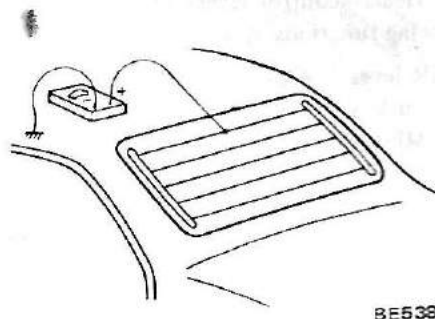
BE537  
1 Defogged area  
2 Broken heat wire  
3 Fogged area

Fig. BE-53 Broken filament

#### Method 2:

Start engine and turn on window defroster system. With a direct-current voltmeter setup as shown in Figure BE-54, check each heat wire for discontinuity. If meter indicates 12 volts or 0 in a specific wire, that line is broken. (Normal indication: 6 volts)

The break in that line can then be detected by moving positive lead of meter along line until an abrupt variation in meter indication is encountered.

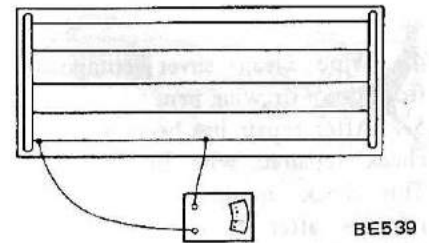


BE538  
Fig. BE-54 Checking for broken filament with D-C voltmeter

#### Method 3:

With an ohmmeter setup as shown in Figure BE-55, place one lead at one end of a heat wire and the other in the middle section of that wire. If meter registers, on a specific grid line, a value twice as much on any other line, that line is broken.

A break in that line can then be located by an abrupt variation in meter indication as test lead moves along broken heat wire.



BE539  
Fig. BE-55 Checking for broken filament with ohmmeter

## FILAMENT MAINTENANCE

### Repair equipment

1. Conductive silver composition (Dupont No. 4817)
2. Ruler, 30 cm (12 in) long
3. Drawing pen
4. Heat gun
5. Alcohol
6. Cloth

### Repair procedure

1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.

**Note:** Shake silver composition container before use.

3. Place ruler on glass along broken line to be repaired as shown in Figure BE-56. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.197 in)] of the break.

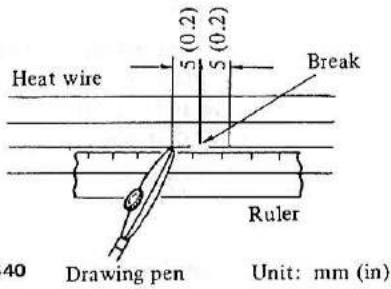


Fig. BE-56 Positioning ruler

4. Wipe clean silver composition from tip of drawing pen.
5. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited.

**Note: Do not touch repaired area while test is being conducted.**

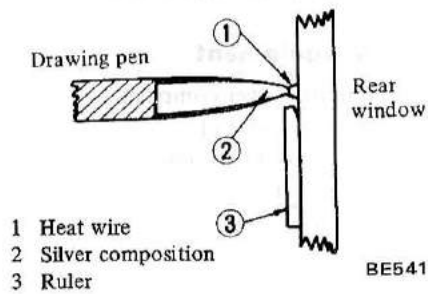


Fig. BE-57 Depositing silver composition in place

6. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.18 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.

**After repair**

Wipe repaired area clean with a soft, clean cloth.

**Note: Do not use a cleaning solvent containing much soapy water.**

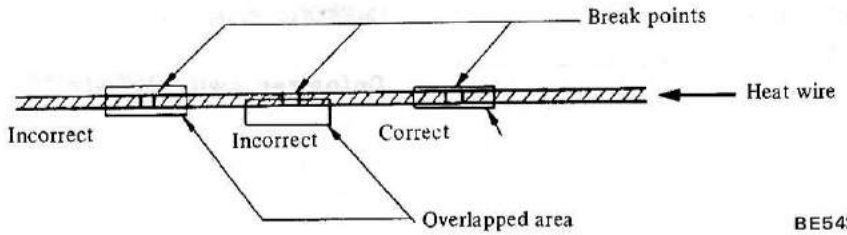


Fig. BE-58 Incorrect and correct deposition of silver composition

**HEATER**

**DESCRIPTION**

Outside air drawn in through the cowl top grille is directed through the air intake box to the heater unit by the fan.

The heater unit houses a mode door and a defroster room door. The mode

door controls the distribution of the air, and the defroster room door controls the switching of the air on the heater side. The air intake box houses an intake door necessary to shut out incoming air when the heater is off.

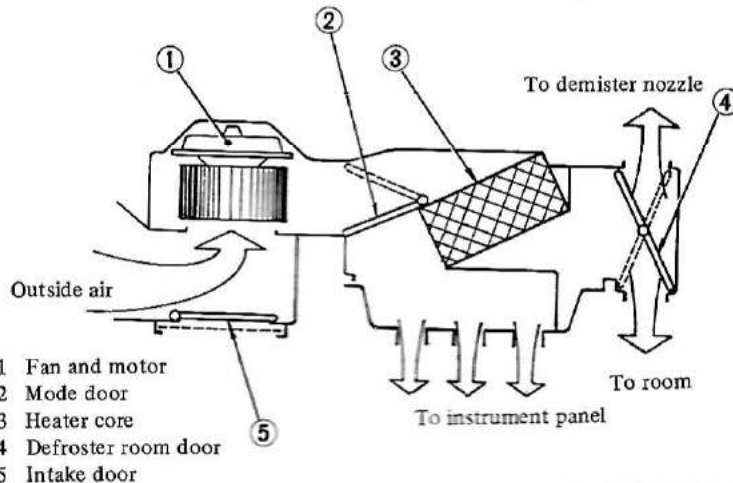


Fig. BE-59 Heater unit system

Heater control levers serve the following functions:

- AIR lever – controls the setting of air outlets.
- TEMP lever – controls the outlet air temperature.
- FAN lever – controls the airflow by the fan.

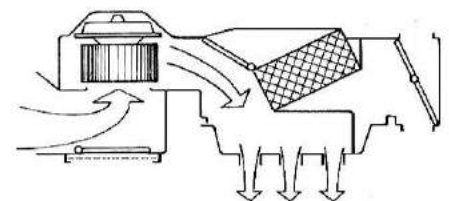
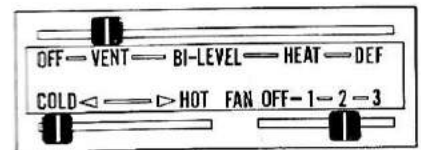


Fig. BE-60 Air flow (VENT)

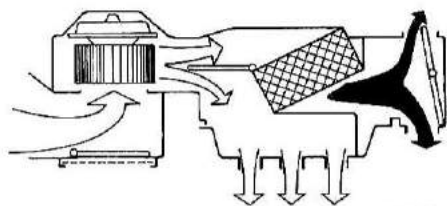
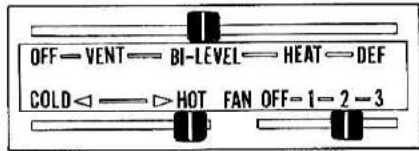
**AIR FLOW**

1. When ventilation is desired.
  - AIR lever ..... VENT
  - TEMP lever ..... COLD
  - FAN lever ..... Any position

## Body Electrical System

2. When cool air on upper side and heated air on lower side are desired.

- AIR lever ..... BI-LEVEL
- TEMP lever ..... HOT
- FAN lever ..... Any position

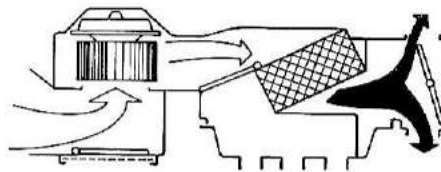
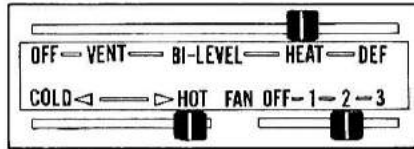


BE798A

Fig. BE-61 Air flow (BI-LEVEL)

3. When heated air is desired

- AIR lever ..... HEAT
- TEMP lever ..... HOT
- FAN lever ..... Any position

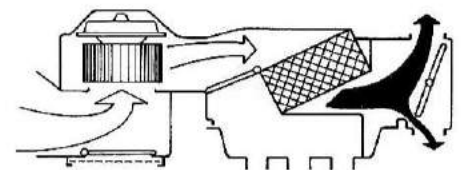
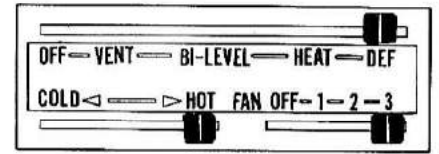


BE799A

Fig. BE-62 Air flow (HEAT)

4. When removal of icing and cloudiness is required.

- AIR lever ..... DEF
- TEMP lever ..... HOT
- FAN lever ..... Any position

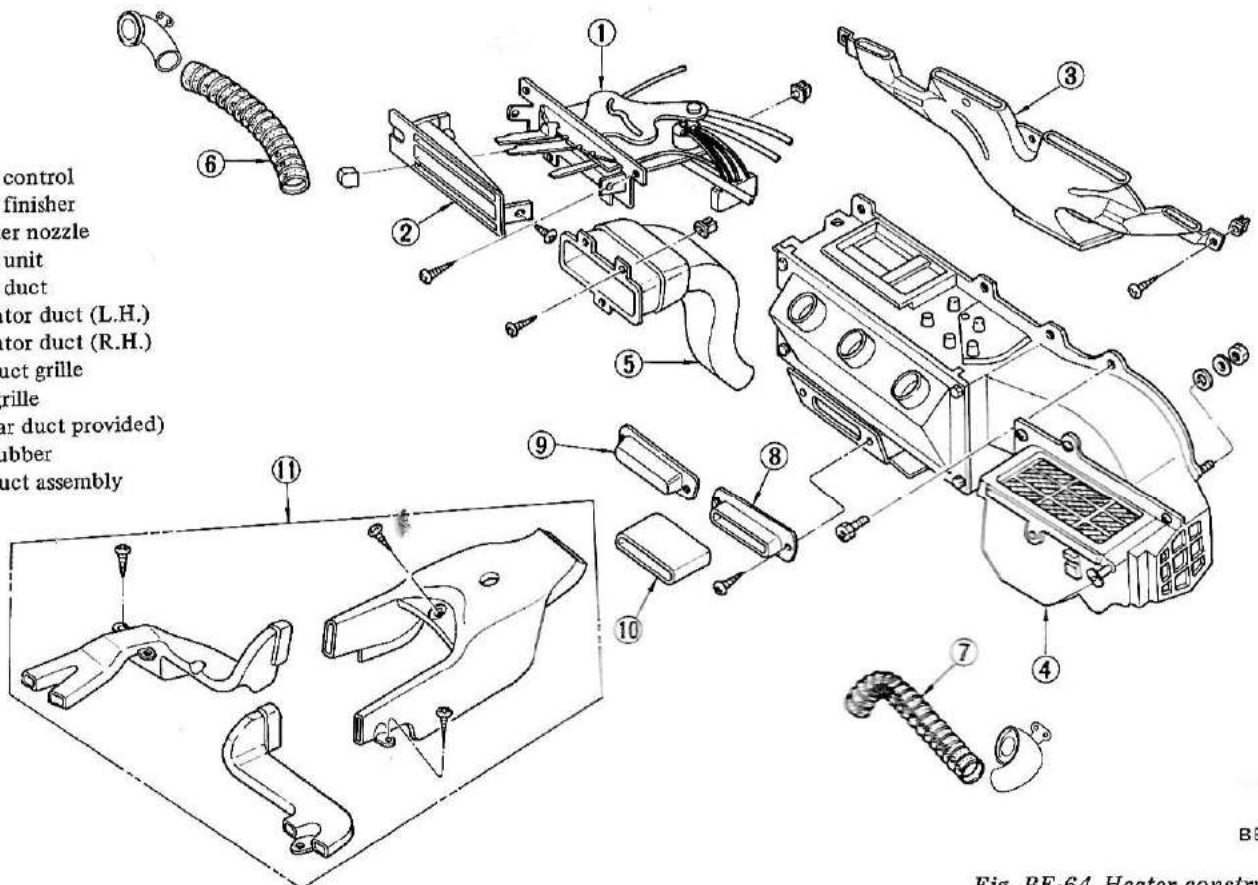


BE800A

Fig. BE-63 Air flow (DEF)

### REMOVAL AND INSTALLATION

- 1 Heater control
- 2 Heater finisher
- 3 Demister nozzle
- 4 Heater unit
- 5 Center duct
- 6 Ventilator duct (L.H.)
- 7 Ventilator duct (R.H.)
- 8 Rear duct grille
- 9 Blind grille
- (No rear duct provided)
- 10 Duct rubber
- 11 Rear duct assembly



BE801A

Fig. BE-64 Heater construction

#### Heater unit

1. Disconnect battery ground cable.
2. Drain engine coolant.
3. Remove package tray.

4. Remove fuse block bracket.
5. Disconnect resistor harness connector.
6. Remove instrument panel. For

details on instrument panel removal, refer to Section BF.

7. Disconnect fan motor and resistance harness connectors.

## Body Electrical System

8. Remove nut securing heater unit housing from engine compartment.
9. Remove six bolts securing heater unit, and detach heater unit.

### HEATER CONTROL ASSEMBLY

1. Remove cluster lids A and B.
2. Disconnect fan switch harness connector.
3. Remove control cables.
4. Remove four screws retaining control assembly and pull them forward.

### REAR HEATER DUCT

Remove front seat and console box, and then, holding rear heater duct in place, disconnect five tapped screws.

For details on front seat removal, refer to Section BF.

Installation is in reverse order of removal.

### INSPECTION

If fan motor fails to rotate, check the following items:

1. Fuse and fusible link.
2. To check for burned-out fuse, follow same procedure as for ordinary fuses, using a circuit tester or test lamp.
3. Loose wire connection.

### Fan motor power supply

1. Disconnect lead wires at connector.

2. Move ignition switch to "ACC" position.
3. Connect test lamp lead wire to "L" wire terminal in connector plug on instrument harness side and the other to ground.
4. Make sure that test lamp goes on.

### Fan motor

1. Disconnect lead wires at connector.
2. Move ignition switch to "ACC" position.
3. Connect test lead to positive side of fuse block power supply and the other to "L" wire terminal in connector plug on fan motor side.
4. Connect test lead wire to "LW" wire terminal in connector plug on fan motor side and the other to ground.
5. Make sure that fan motor operates at each position of fan lever.

## TROUBLE DIAGNOSES AND CORRECTIONS

### HORN

Condition	Probable cause	Corrective action
Horn does not operate.	Discharged battery. (Measure specific gravity of electrolyte.)  Burnt fuse.  Faulty horn button contact. [Horn sounds when horn relay terminal <b>(S)</b> is grounded.]  Faulty horn relay. [Horn sounds when <b>(B)</b> and <b>(H)</b> horn relay terminals are connected with a test lead.]  Faulty horn or loose horn terminal connection.	Recharge.  Correct cause and replace fuse.  Repair horn button.  Replace.  Correct horn terminal connection or replace horn.
Horn sounds continuously.	Short-circuited horn button and/or horn button lead wire. [When black lead wire is disconnected from horn relay terminal <b>(S)</b> , horn stops sounding.]  Faulty horn relay.	Repair horn button or its wiring.  Replace.
Reduced volume and/or tone quality.	Loose or poor connector contact. (Fuse, relay, horn and/or horn button.)  Faulty horn.	Repair.  Replace.

## Body Electrical System

### WINDSHIELD WIPER AND WASHER

Condition	Probable cause		Corrective action
Windshield wiper does not operate.	Motor	<p>No current flows to motor due to:</p> <p style="padding-left: 20px;">Broken armature.</p> <p style="padding-left: 20px;">Worn motor brush.</p> <p>Motor is overheated due to seized motor shaft.</p> <p>Windshield wiper fuse (10A) is easily fused due to short-circuit, layer short-circuit, or burnt component inside motor.</p>	<p>Replace motor.</p> <p>Replace motor.</p> <p>Replace motor.</p> <p>Replace motor or repair short-circuited part.</p>
	Power supply and cable	<p>Blown fuse due to malfunction in other part of windshield wiper circuit.</p> <p>Loose, open or broken wiring.</p> <p>Erroneous wiring.</p> <p>Improper grounding.</p>	<p>Check other part for operation, and correct problem.</p> <p>Check wiring near motor and connector for proper connection.</p> <p>Correct if necessary.</p> <p>Check each wire for color code, and correct if necessary.</p> <p>Correct.</p>
	Switch	<p>Improper switch contact.</p>	<p>Correct.</p>
	Link	<p>Foreign materials interrupt movement of link mechanism.</p> <p>Disconnected link rod.</p> <p>Seized or rusted arm shaft.</p>	<p>Correct.</p> <p>Correct.</p> <p>Lubricate or replace arm shaft.</p>
	Motor	<p>With arm raised, excessive current still flows due to layer short-circuit of motor armature.</p> <p>Windshield wiper stops when lightly held with hand due to worn motor brush.</p> <p>With arm raised, excessive current still flows (3 to 5A) due to seized motor shaft.</p>	<p>Replace motor.</p> <p>Replace motor.</p> <p>Replace motor or lubricate bearing with engine oil.</p>
Windshield wiper operating speed is too slow.	Power supply and cable	<p>Low source voltage.</p>	<p>Measure voltage, check other electrical parts for operation, and take corrective action for power supply if necessary.</p>
	Link	<p>Humming occurs on motor in arm operating cycle due to seized arm shaft.</p>	<p>Lubricate or replace.</p>
	Switch	<p>Improper switch contact.</p>	<p>Conduct continuity test, and replace if necessary.</p>
	Windshield wiper blade	<p>Windshield wiper blade sticks on windshield glass.</p>	<p>Raise arm and operate windshield wiper without applying load.</p> <p>Clean windshield glass and/or replace wiper blade.</p>



## Body Electrical System

Condition		Probable cause	Corrective action
Windshield wiper speed cannot be adjusted correctly.		Motor brush for either low or high speed is worn.	Replace motor.
Windshield wiper does not stop correctly.	Stops anywhere.	Motor	Contaminated auto-stop relay contacts or improper contact due to foreign matter.
		Cable and switch	Improper connection between 1st and 2nd switch steps.
	Does not stop.	Motor	Incomplete auto-stop operation. (Contact is not interrupted.)
			Remove auto-stop device cover, and clean contacts carefully so as not to deform relay plate.
			Remove switch, and make sure that 1st and 2nd steps are not connected at "OFF" position. If connected, replace switch.
			Remove auto-stop device cover, and correct relay plate bending.

## RADIO

### Noise prevention chart

Position car in an open area away from steel buildings, run engine, extend antenna to its maximum length, set volume control to maximum and set dial at a median point where no broadcasting wave is received.

Condition	Probable cause	Corrective action
<b>Ignition system</b> Noise occurs when engine is operated.	High tension cable Ignition coil	Install new high tension cable. Install a 0.5 $\mu$ F capacitor to primary side + terminal of ignition coil. <b>Note: Be careful not to install capacitor to secondary or primary breaker side. This will result in improper engine operation.</b>
<b>Charging system</b> Sound of alternating current present.	Alternator	Install a 0.5 $\mu$ F capacitor to charging terminal A. <b>Note: Do not use a larger capacitor.</b> If capacitor is installed to terminal F, alternator coil will be damaged.
When accelerator pedal is depressed or released, noise occurs.	Regulator	Install a 0.5 $\mu$ F capacitor to "IGN" terminal of voltage regulator.
<b>Fuel system</b> When ignition switch is set to "ON", noise occurs.	Electric fuel pump	Install a 0.5 $\mu$ F capacitor to power lead connector plug of electric fuel pump.

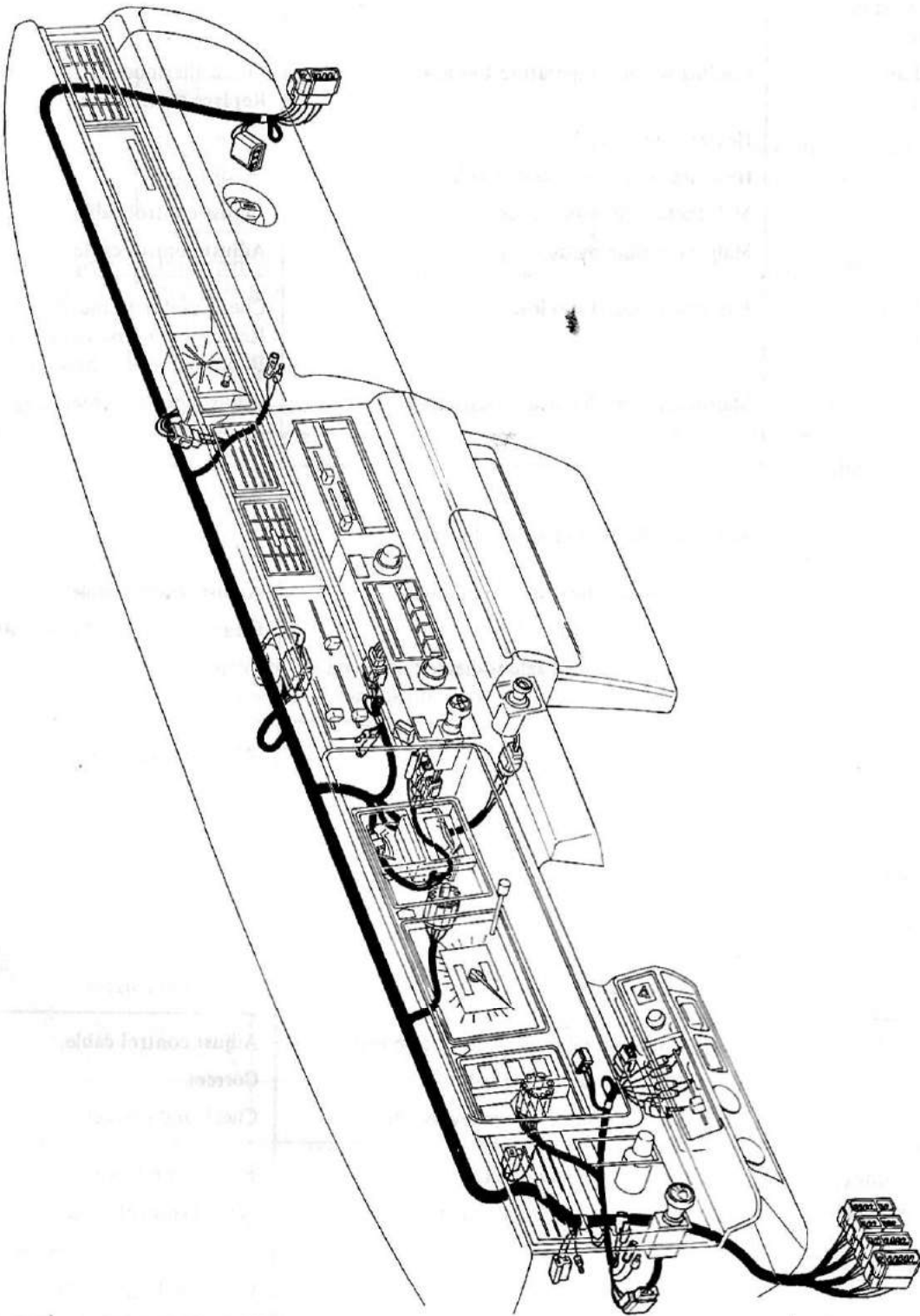
## Body Electrical System

### HEATER

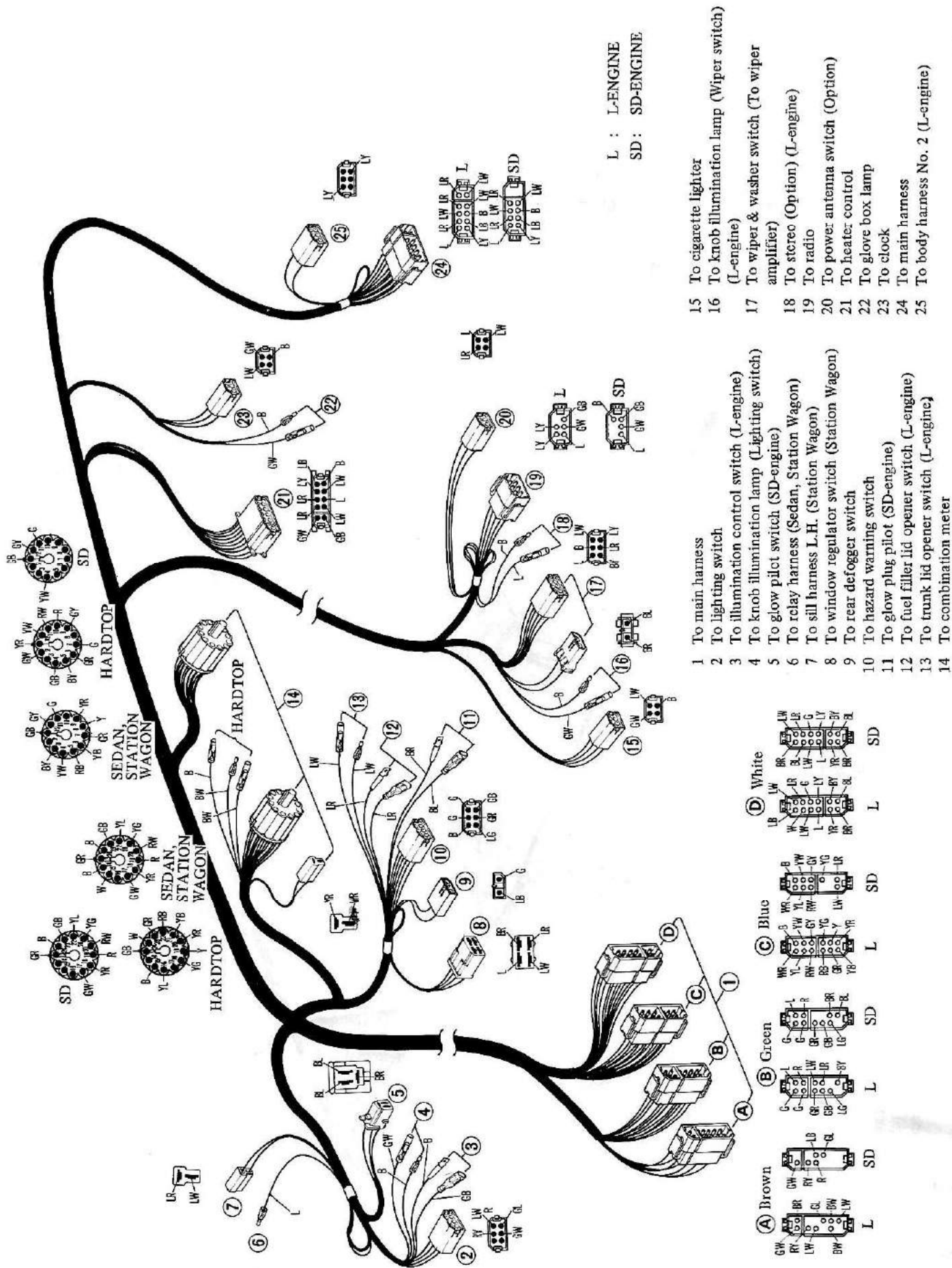
Condition	Probable cause	Corrective action
<p>Inadequate heating performance</p> <p>No heated air discharged</p>	<p>Cooling water temperature too low.</p> <p>Heater core plugged.</p> <p>Insufficient cooling water level.</p> <p>Malfunctioning water cock.</p> <p>Malfunctioning mode door.</p>	<p>Check thermostat. Replace as necessary.</p> <p>Clean.</p> <p>Refill.</p> <p>Adjust control cable.</p> <p>Adjust control cable.</p>
<p>Inadequate air flow to floor</p>	<p>Fan motor speed too low.</p> <p>Malfunctioning defroster room door.</p>	<p>Check motor terminal voltage. Repair poor connection and discontinuity. Replace motor if necessary.</p> <p>Adjust control cable.</p>
<p>Inadequate defrosting performance</p> <p>Cold air discharged</p> <p>Inadequate air flow to defroster</p>	<p>Refer to "No heated air discharged".</p> <p>Malfunctioning defroster room door.</p> <p>Demister nozzle plugged.</p> <p>Lead at demister nozzle-to-heater unit connection.</p>	<p>Adjust control cable.</p> <p>Clean.</p> <p>Correct.</p>
<p>Heated air discharged with lever in VENT position.</p>	<p>Mode door not functioning properly.</p>	<p>Adjust control cable.</p>
<p>Fan does not run.</p>	<p>Fuse melted.</p> <p>Motor wire connector disconnected.</p> <p>Faulty switch.</p> <p>Motor inoperative.</p>	<p>Replace.</p> <p>Correct.</p> <p>Replace.</p> <p>Check and correct.</p>
<p>Control lever drags.</p>	<p>Inner wire rubbing against outer case end.</p> <p>Control cable bent excessively.</p> <p>Malfunctioning doors, door levers, etc.</p>	<p>Adjust control cable.</p> <p>Correct.</p> <p>Check and correct.</p>
<p>Outside air comes in with fan in OFF position.</p>	<p>Malfunctioning intake door.</p> <p>Control cable out of adjustment.</p>	<p>Repair or replace.</p> <p>Adjust control cable.</p>
<p>Noise from fan motor</p>	<p>Unusual noise from fan motor.</p>	<p>Check and tighten loose bolts.</p>

# Body Electrical System

BE844A



# Body Electrical System

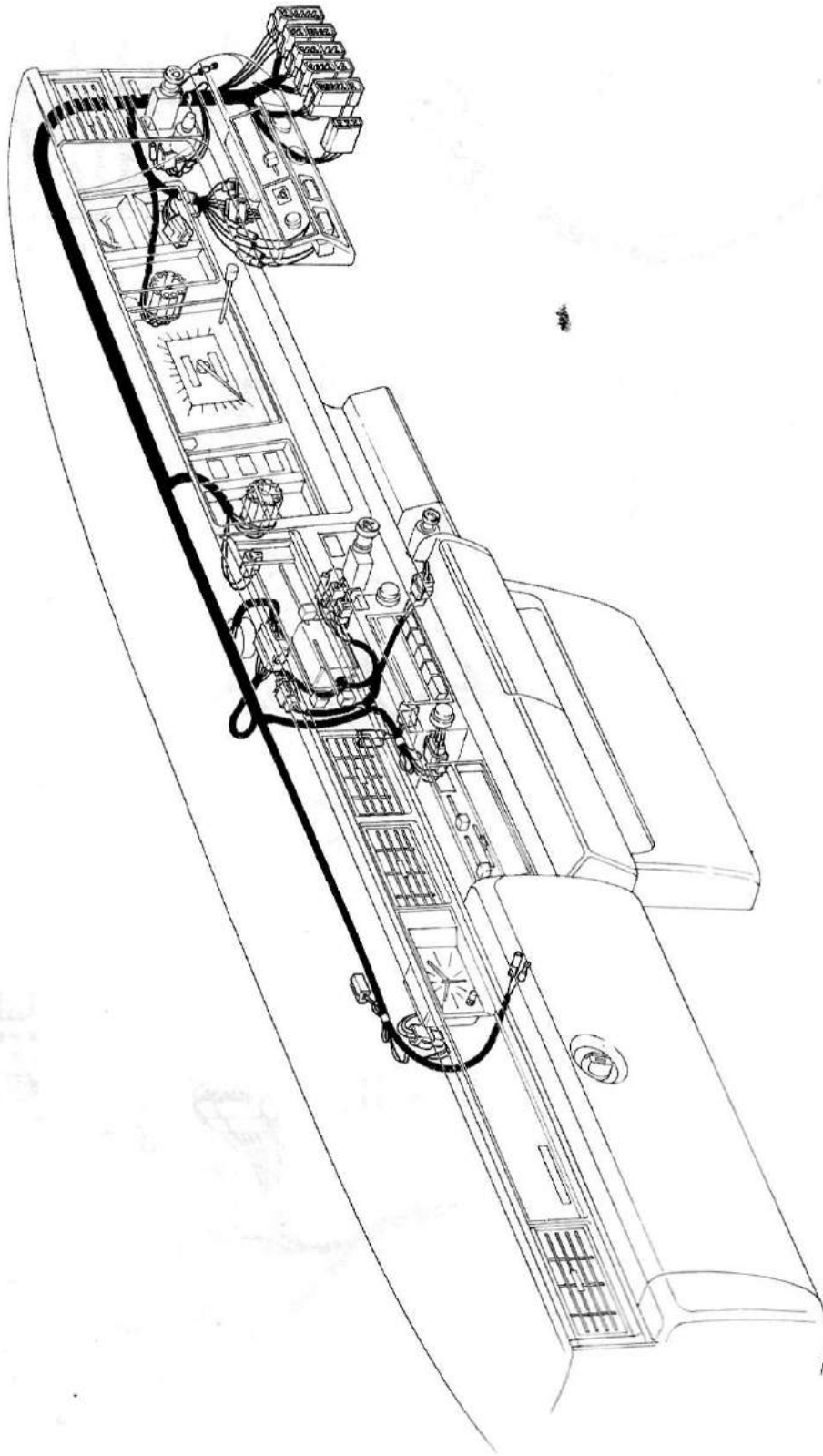


- 1 To main harness
- 2 To lighting switch
- 3 To illumination control switch (L-engine)
- 4 To knob illumination lamp (Lighting switch)
- 5 To glow pilot switch (SD-engine)
- 6 To relay harness (Sedan, Station Wagon)
- 7 To sill harness L.H. (Station Wagon)
- 8 To window regulator switch (Station Wagon)
- 9 To rear defogger switch
- 10 To hazard warning switch
- 11 To glow plug pilot (SD-engine)
- 12 To fuel filler lid opener switch (L-engine)
- 13 To trunk lid opener switch (L-engine)
- 14 To combination meter
- 15 To cigarette lighter
- 16 To knob illumination lamp (Wiper switch) (L-engine)
- 17 To wiper & washer switch (To wiper amplifier)
- 18 To stereo (Option) (L-engine)
- 19 To radio
- 20 To power antenna switch (Option)
- 21 To heater control
- 22 To glove box lamp
- 23 To clock
- 24 To main harness
- 25 To body harness No. 2 (L-engine)

Fig. BE-65 Instrument harness (Left-hand drive)

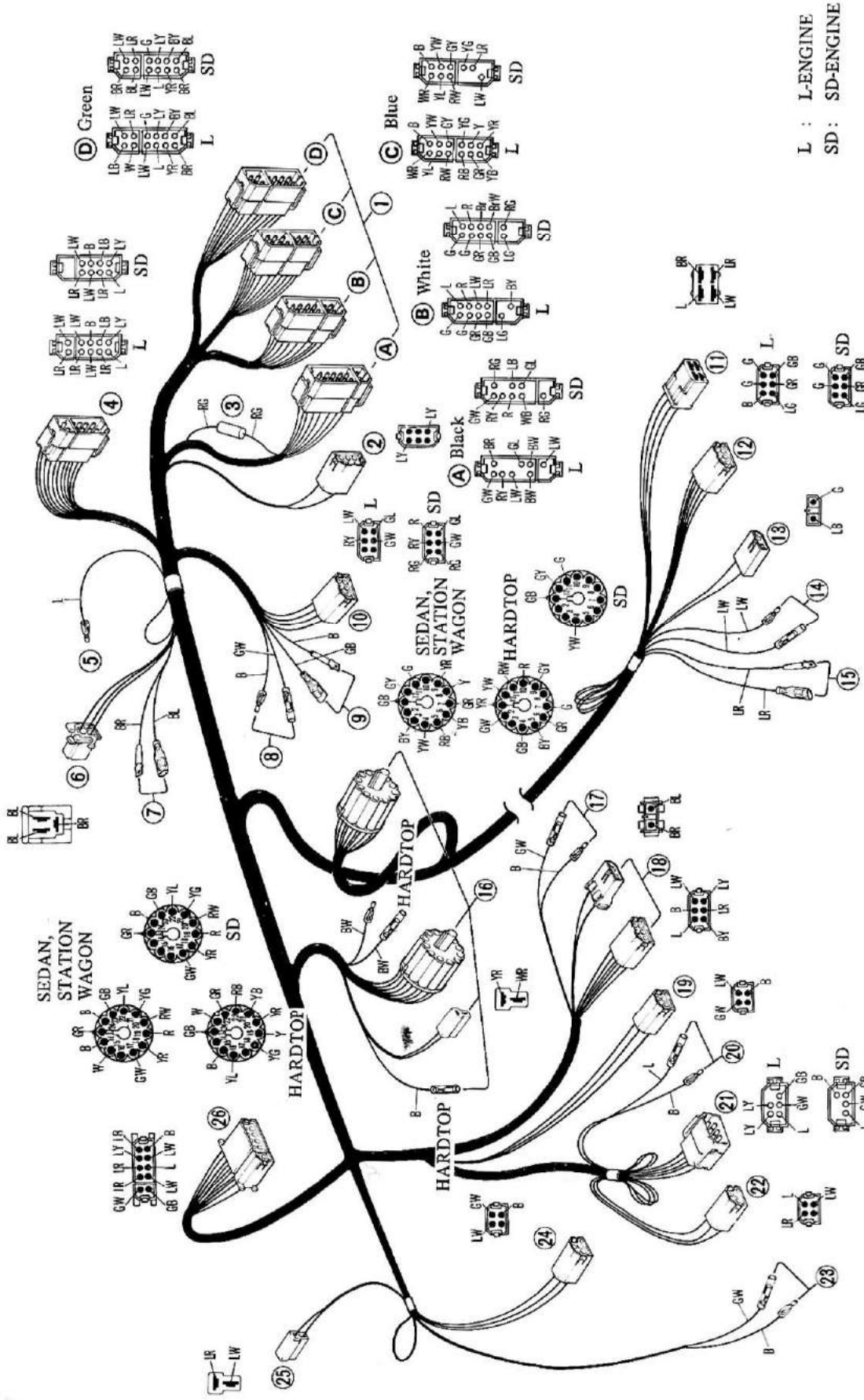
# Body Electrical System

BE846A





# Body Electrical System



L : L-ENGINE  
SD : SD-ENGINE

- 1 To main harness
- 2 To body harness No. 2 (L-engine)
- 3 Fuse (SD-engine)
- 4 To main harness
- 5 To relay harness (Sedan, Station Wagon)
- 6 To glow plug pilot (SD-engine)
- 7 To glow pilot switch (SD-engine)
- 8 To knob illumination lamp (Lighting switch) (L-engine)
- 9 To illumination control switch (L-engine)
- 10 To lighting switch
- 11 To window regulator switch (Station Wagon)
- 12 To hazard warning switch
- 13 To rear defogger switch
- 14 To trunk lid opener switch (L-engine)
- 15 To fuel filler lid opener switch (L-engine)
- 16 To combination meter
- 17 To knob illumination lamp (Wiper switch) (L-engine)
- 18 To wiper & washer switch (To wiper amplifier)
- 19 To cigarette lighter
- 20 To stereo (Option) (L-engine)
- 21 To radio
- 22 To power antenna switch (Option)
- 23 To Glove box lamp
- 24 To clock
- 25 To sill harness L.H. (Station Wagon)
- 26 To heater control

Fig. BE-66 Instrument harness (Right-hand drive)



# SERVICE MANUAL

DATSUN  
MODEL 330 SERIES  
CHASSIS & BODY

Z·ONE·DATSUN



**NISSAN MOTOR CO., LTD.**  
TOKYO, JAPAN

## SECTION SE

# SERVICE EQUIPMENT

**SE**

SERVICE EQUIPMENT ..... SE- 2

## SERVICE EQUIPMENT

### GENERAL DESCRIPTION

Special Tools play very important role in the maintenance of cars. These are essential to the safe, accurate and speedy servicing.

The working times listed in the column under FLAT RATE TIME in FLAT RATE SCHEDULE are computed based on the use of Special Tools.

The identification code of maintenance tools is made up of 2 alphabetical letters and 8-digital figures.

The heading two letters roughly classifies tools or equipments as:

ST00000000:	Special Tool
KV00000000:	Special Tool (Newly established)
EM00000000:	Engine Overhauling Machine
GG00000000:	General Gauge
LM00000000:	Garage Tool
HT00000000:	Hand Tool

### HOW TO READ SPECIAL TOOL LIST

#### APPLIED CAR OR UNIT

In this column word "All" is given for tools applicable to all car models and unit types treated in this manual; for tools applicable only to particular models or units, those car models or unit types are indicated.

### TOOL LIST

X: Available

No.	Tool number	Tool name	Applied car or unit	Set '75 330GA	Newly added	Class	Remarks
				KV00100400			
1.	CLUTCH						
	ST20050010	Base plate	All	X		4	230, 710, 610, C110, C130, S30, 250, B120, 620, 140, T20, T40, C240, C80, 780, 60, 4W73
	ST20050051	Set bolt	All	X		4	230, 710, 610 C110, C130, S30, 250, B120, 620, 140, T20, T40, C240, C80, 780, 60, 4W73

### NEWLY ADDED

"X" put in this column shows newly added tools.

### CLASS

Indicated in this column are classification figures in accordance with "Classification of Special Tool".

### REMARKS

As regards special tools which are also applicable to models or units other than those dealt with in this

manual, this column names those other models or units.

### SPECIAL TOOL SET (See attached tool list)

#### SET '75 330 GA KV00100400

Those tools including in "Set '75 330GA KV00100400" are offered for the 330 models without regard to their destination.

The set is available for new and other dealers who must go through initial preparation.

### CLASSIFICATION OF SPECIAL TOOL

	Classification	
	Important	General
I. Inspection and minor repairs	1	4
II. General disassembly and assembly	2	5
III. Special disassembly and assembly	3	6

#### A. Important

- Exclusive with no alternative
- Parts will be damaged if repaired without special tool.
- Gauges

#### B. General

To facilitate servicing

- Inspection and minor repairs
  - Inspection and maintenance
  - Unit replacement
  - Minor unit disassembly

II. General disassembly and assembly  
General disassembly such as engine, transmission and differential

- III. Special disassembly and assembly
- Disassembly of exclusive parts such as automatic transmission and electrical accessories
  - Special work such as boring and welding
  - Work very rarely required.

## Service Equipment

X: Available

No.	Tool number	Tool name	Applied car or unit	Set '75 330GA	Newly added	Class	Remarks
				KV00100400			
	ST20050100	Distance piece	All	X		4	230, B210, 710 610, C110, C130, S30, 250, B120, 620, 140, T20, C240, C80
	ST20050240	Diaphragm spring adjusting wrench	All	X		4	230, 710, 610, C110, C130, S30, B120, 620, T20, T40, C240
	ST20630000	Clutch aligning bar	All	X		2	230, 710, 610, C110, C130, S30, 620, T20, T40, C240
	ST16610001	Pilot bushing puller	All	X		4	L series, G series, J series SD series

### 2. TRANSMISSION

	ST22360002	Drift C	All	X		2	FS5W71B FS5C71B
	ST23540000	Fork rod pin punch	All	X		2	F4WF60A, R3W56A, F4W56A, R4W63L, F4W63L, FS5W63A, FS5C63A, R3W65L, FS5W71B, FS5C71B
	ST23800000	Transmission adapter	All	X		2	R3W65L FS5W71B FS5C71B
	ST23810001	Setting plate adapter	All	X		2	FS5W71B FS5C71B
	ST23840000	Expander	All	X		5	All
	ST23860000	Counter gear drift	All	X		2	FS5W71B FS5C71B
	ST30031000	Bearing puller	All	X		2	F4W63L R4W63L FS5W63A FS5C63A
	ST23870000	Transmission press stand	All	X		2	FS5W71B FS5C71B

### 3. DIFFERENTIAL CARRIER

	ST06310000	Diff. attachment	All	X		5	230, V610, C130, 620
	ST3110S000	Drive pinion setting gauge set	All	X		2	230, V610, VC110 (Opt.), C130, 620, KSE20
	ST31942000	Dummy shaft					230, 710 (STD., DX.), W610, V610, C110, VC110, C130, B120, 620, KSE20



## Service Equipment

X: Available

No.	Tool number	Tool name	Applied car or unit	Set 75 330GA	Newly added	Class	Remarks
				KV00100400			
	ST3110100	Height gauge					230, V610, VC110 (Opt.), C130, 620, KSE20
	ST31102000	Spacer					230, V610, VC110 (Opt.), C130, 620, KSE20
	ST31970000	Collar	All	X		2	230, V610, VC110 (Opt.), C130, 620, KSE20
	ST30611000	Drive pinion bearing outer race drift bar	All	X		2	(Front) 230, VC110 (Opt.), C130, RS30, KSE20
	ST30613000	Drive pinion bearing outer race drift adapter	All	X		2	(Rear) 710 (All), 610 (All), C110, VC110, 620
	ST30611000	Drive pinion bearing outer race drift bar	All			2	(Rear) 230, VC110 (Opt.), GC110, C130 (All), S30 (All)
	ST30621000	Drive pinion bearing outer race drift adapter	All	X		2	
	ST3090S000	Drive pinion rear inner race puller set	All			2	230, GC110, C130 (All), S30 (All), B120, T20 E20 (All)
	ST30031000	Puller					230, B210, C110 (All), 710 (All), 610 (All), C130 (All), S30 (All), B120, 620, KSE20, T20
	ST30901000	Base		X			230, GC110, C130 (All), S30 (All), B120, T20, E20 (All)
	ST30720000	Gear carrier front oil seal drift	All	X		2	230, 710 (All), 610 (All), C110 (All), C130 (All), S30, 620
	ST33290001	Gear carrier oil seal puller	All	X		5	All
	ST31530000	Drive pinion flange wrench	All	X		2	230, 710 (All), 610 (All), C110 (All), C130 (All), S30 (All), B120, 620, T20, E20
	ST3127S000	Preload gauge	All	X		2	All
	GG91030000	Torque wrench					
	HT62940000	Socket adapter					
	HT62900000	Socket adapter					

## Service Equipment

X: Available

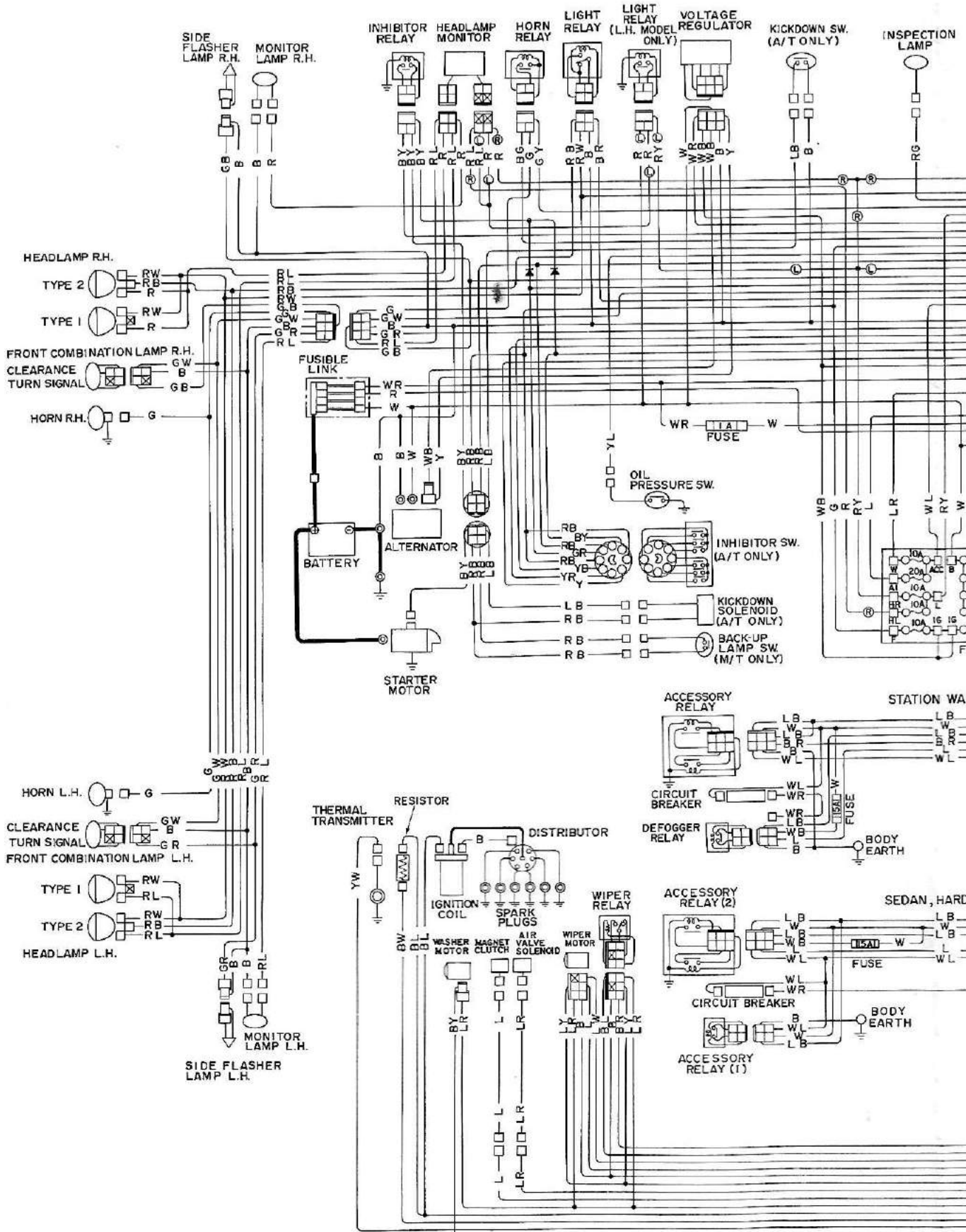
No.	Tool number	Tool name	Applied car or unit	Set '75 330GA	Newly added	Class	Remarks
				KV00100400			
	ST3306S001	Diff. side bearing puller set	All	X		2	230, 710 (SSS), 610, V610, VC110 (Opt.), GC110, C130 (All), S30 (All), 250, 620, KSE20
	ST33051001	Body					230, B210, 710 (All), 610 (All), C110 (All), C130 (All), S30 (All), 250, B120, 620, KSE20
	ST33061000	Adapter					230, 710 (SSS), 610, V610, VC110 (Opt.), GC110, C130 (All), S30 (All), 250, 620, KSE20.
	ST33230000	Diff. side bearing drift	All	X		2	230, 710 (SSS), 610, V610, C130 (All), S30, 620
	ST32110001	Diff. side bearing cap gauge	All	X		5	230, V610, C130, 620
	ST23550001	Solid punch	All	X		2	230, 710 (All), 610 (All), C110 (All), C130 (All), S30 (All), 620
4.	FRONT AXLE AND FRONT SUSPENSION						
	ST35690000	Coil spring setting tool	All	X		2	230, 250
5.	REAR AXLE AND REAR SUSPENSION						
	ST07620000	Rear axle stand	All	X		2	230, 250
	ST36230000	Sliding hammer	All			5	
	ST37110000	Rear axle shaft bearing puller	All	X		2	230, 250
	ST37152000	Drift	All	X		2	230, 250
	ST38220000	Bearing inserter	All	X		2	230, 250
6.	BRAKE						
	GG94310000	Brake pipe torque wrench	All	X		2	All
	ST08080000	Master-Vac wrench	All	X		3	All
	ST08060000	Master-Vac oil seal retainer drift (For 6 inch dia. diaphragm)	All	X		3	Master-Vac with 6 inch dia. diaphragm

## Service Equipment

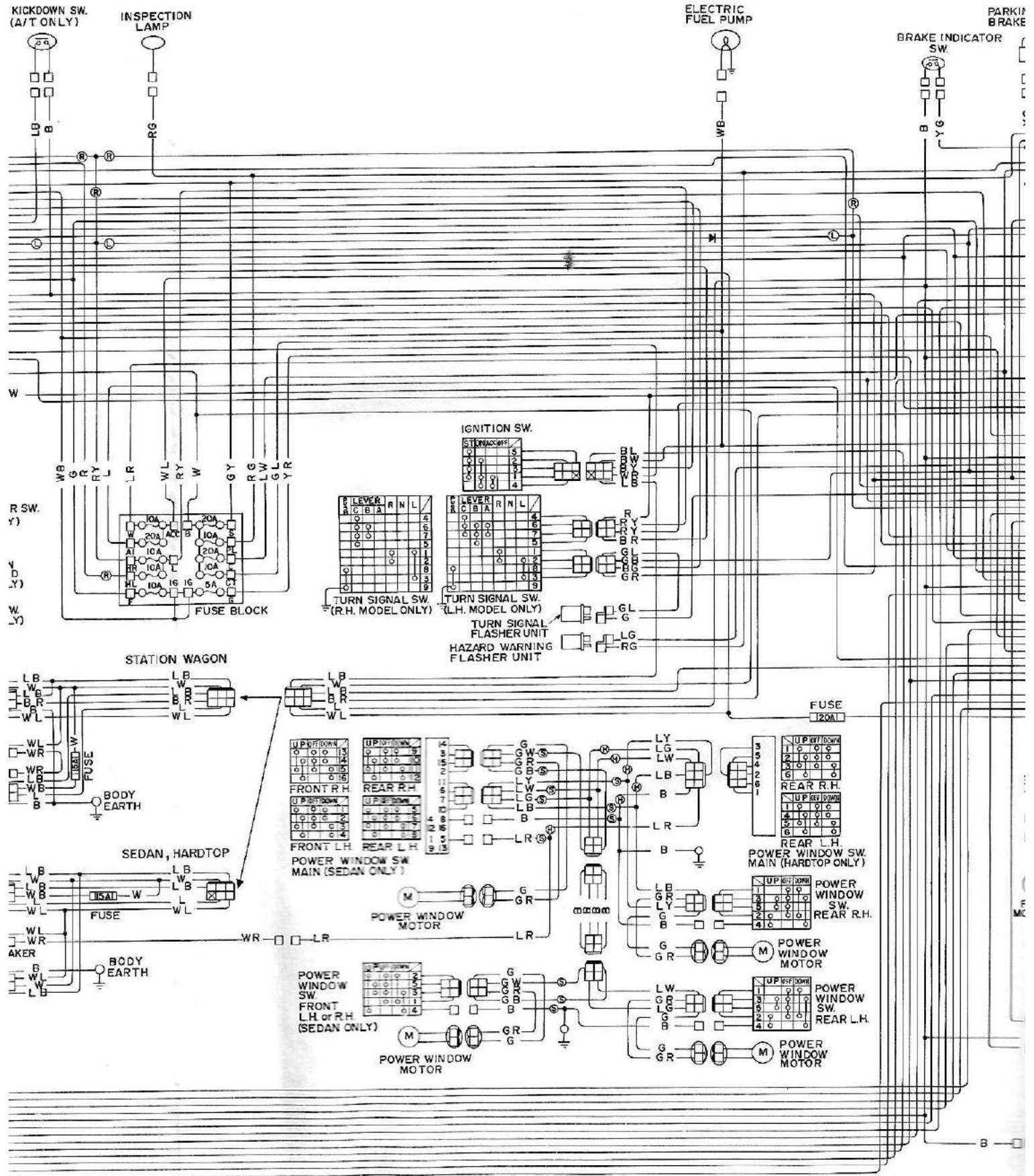
X: Available

No.	Tool number	Tool name	Applied car or unit	Set '75 330GA	Newly added	Class	Remarks
				KV00100400			
	ST08090000	Master-Vac oil seal retainer drift (For 9 inch dia. diaphragm)	All	X		3	Master-Vac with 9 inch dia. diaphragm
7.	STEERING						
	ST27091000	Pressure gauge	All	X		1	230
	ST27180001	Steering wheel puller	All	X		2	230, B210, 610, 710, C110, C130, S30
	ST27200001	Steering gear arm puller	All	X		2	230, 620
	ST27850000	Steering ball joint remover	All	X		2	All
	ST3127S000	Drive pinion preload gauge	All			1	
	GG91030000	Torque wrench					
	HT62940000	Socket adapter					
	HT62900000	Socket adapter					
8.	BODY						
	KV99100100	Door adjusting wrench	All	X	X	2	F10

# SEDAN (L-ENGINE)



Z·ONE·DATSUN



KICKDOWN SW.  
(A/T ONLY)

INSPECTION  
LAMP

ELECTRIC  
FUEL PUMP

PARKING  
BRAKE

BRAKE INDICATOR  
SW.

IGNITION SW.

LEVER		R	N	L	
A	B	A			
0	0	0	0	0	4
0	0	0	0	0	6
0	0	0	0	0	7
0	0	0	0	0	5
0	0	0	0	0	1
0	0	0	0	0	2
0	0	0	0	0	8
0	0	0	0	0	3
0	0	0	0	0	9

LEVER		R	N	L	
A	B	A			
0	0	0	0	0	4
0	0	0	0	0	6
0	0	0	0	0	7
0	0	0	0	0	5
0	0	0	0	0	1
0	0	0	0	0	2
0	0	0	0	0	8
0	0	0	0	0	3
0	0	0	0	0	9

STATION WAGON

SEDAN, HARDTOP

UP/DOWN		1	2	3	4
U	D	U	D	U	D
0	0	0	0	0	3
0	0	0	0	0	4
0	0	0	0	0	5
0	0	0	0	0	16
0	0	0	0	0	2
0	0	0	0	0	3
0	0	0	0	0	4

UP/DOWN		1	2	3	4
U	D	U	D	U	D
0	0	0	0	0	3
0	0	0	0	0	4
0	0	0	0	0	5
0	0	0	0	0	16
0	0	0	0	0	2
0	0	0	0	0	3
0	0	0	0	0	4

UP/DOWN		1	2	3	4
U	D	U	D	U	D
0	0	0	0	0	3
0	0	0	0	0	4
0	0	0	0	0	5
0	0	0	0	0	16
0	0	0	0	0	2
0	0	0	0	0	3
0	0	0	0	0	4

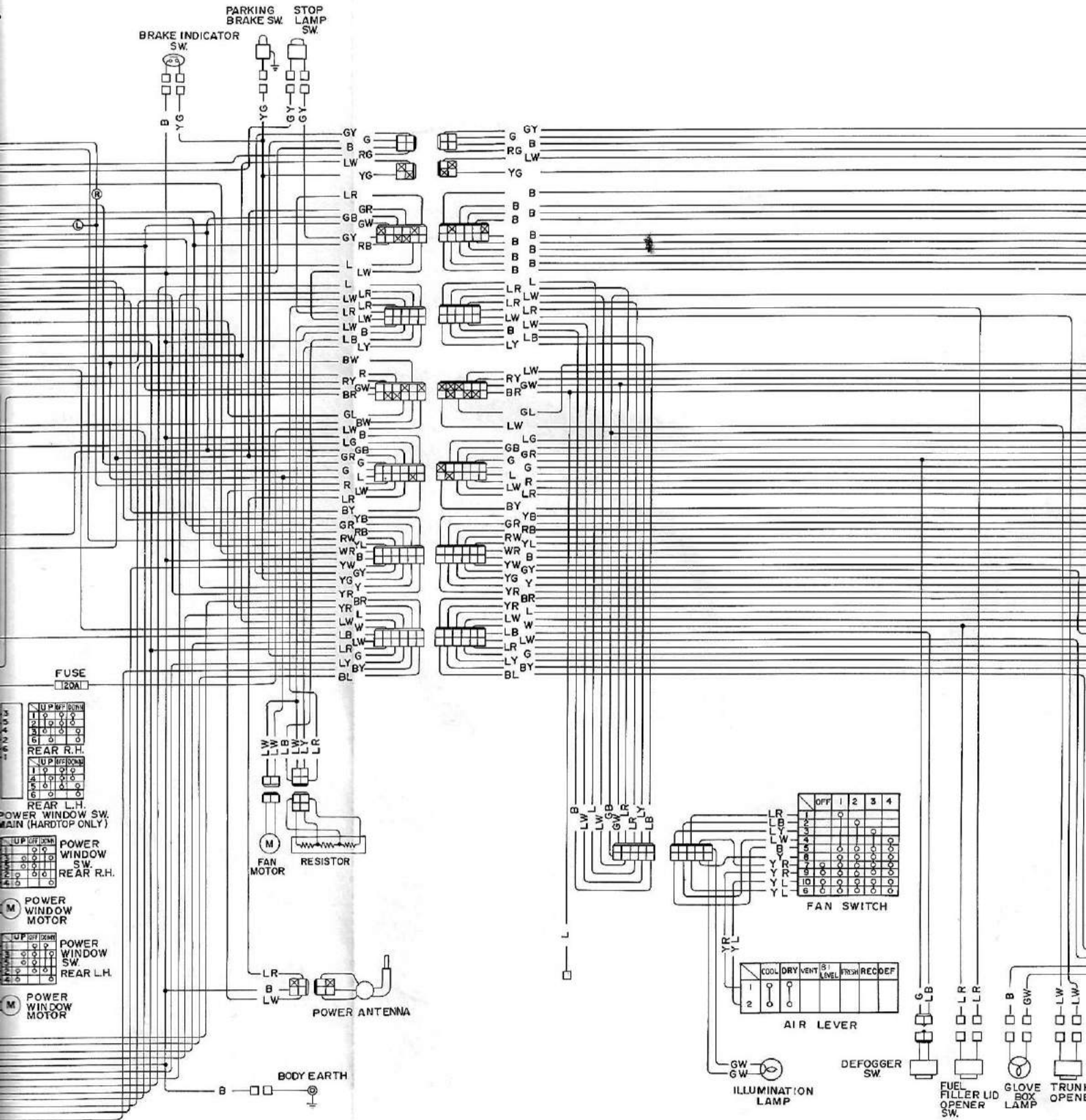
UP/DOWN		1	2	3	4
U	D	U	D	U	D
0	0	0	0	0	3
0	0	0	0	0	4
0	0	0	0	0	5
0	0	0	0	0	16
0	0	0	0	0	2
0	0	0	0	0	3
0	0	0	0	0	4

UP/DOWN		1	2	3	4
U	D	U	D	U	D
0	0	0	0	0	3
0	0	0	0	0	4
0	0	0	0	0	5
0	0	0	0	0	16
0	0	0	0	0	2
0	0	0	0	0	3
0	0	0	0	0	4

UP/DOWN		1	2	3	4
U	D	U	D	U	D
0	0	0	0	0	3
0	0	0	0	0	4
0	0	0	0	0	5
0	0	0	0	0	16
0	0	0	0	0	2
0	0	0	0	0	3
0	0	0	0	0	4



# WIRING DIAGRAM



FUSE  
120A

UP	DOWN
1	0
2	0
3	0
4	0
5	0
6	0

REAR R.H.

UP	DOWN
1	0
2	0
3	0
4	0
5	0
6	0

REAR L.H.

UP	DOWN
1	0
2	0
3	0
4	0
5	0
6	0

POWER WINDOW SW. REAR R.H.

UP	DOWN
1	0
2	0
3	0
4	0
5	0
6	0

POWER WINDOW SW. REAR L.H.

UP	DOWN
1	0
2	0
3	0
4	0
5	0
6	0

POWER WINDOW SW. REAR L.H.

	OFF	1	2	3	4
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	0
10	0	0	0	0	0
11	0	0	0	0	0
12	0	0	0	0	0

FAN SWITCH

	COOL	DRY	VENT	LEVEL	FRESH	REC	DEF
1	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0

AIR LEVER

DEFOGGER SW.

ILLUMINATION LAMP

FUEL FILLER LID OPENER SW.

GLOVE BOX LAMP

TRUNK OPENER

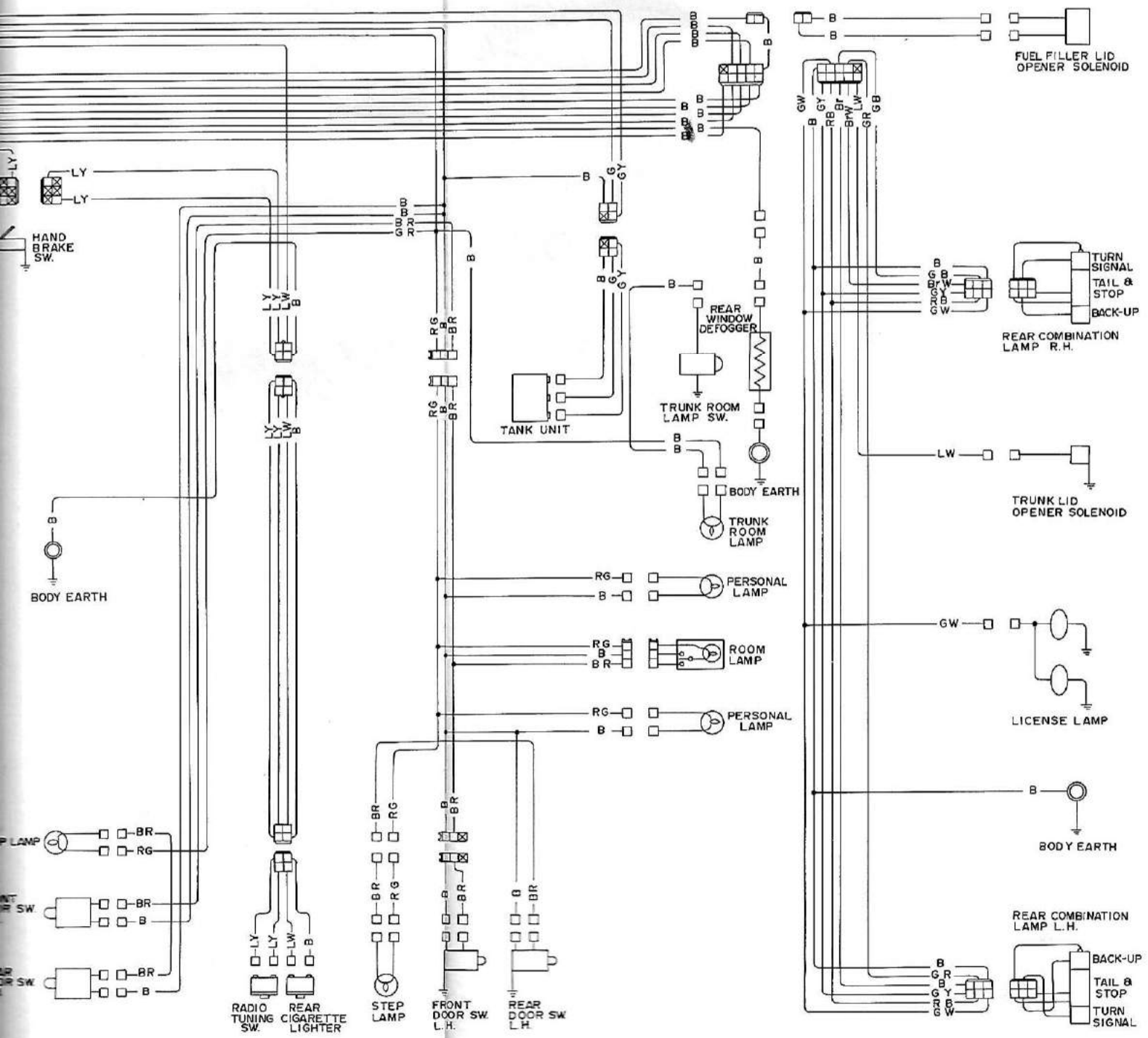
BODY EARTH

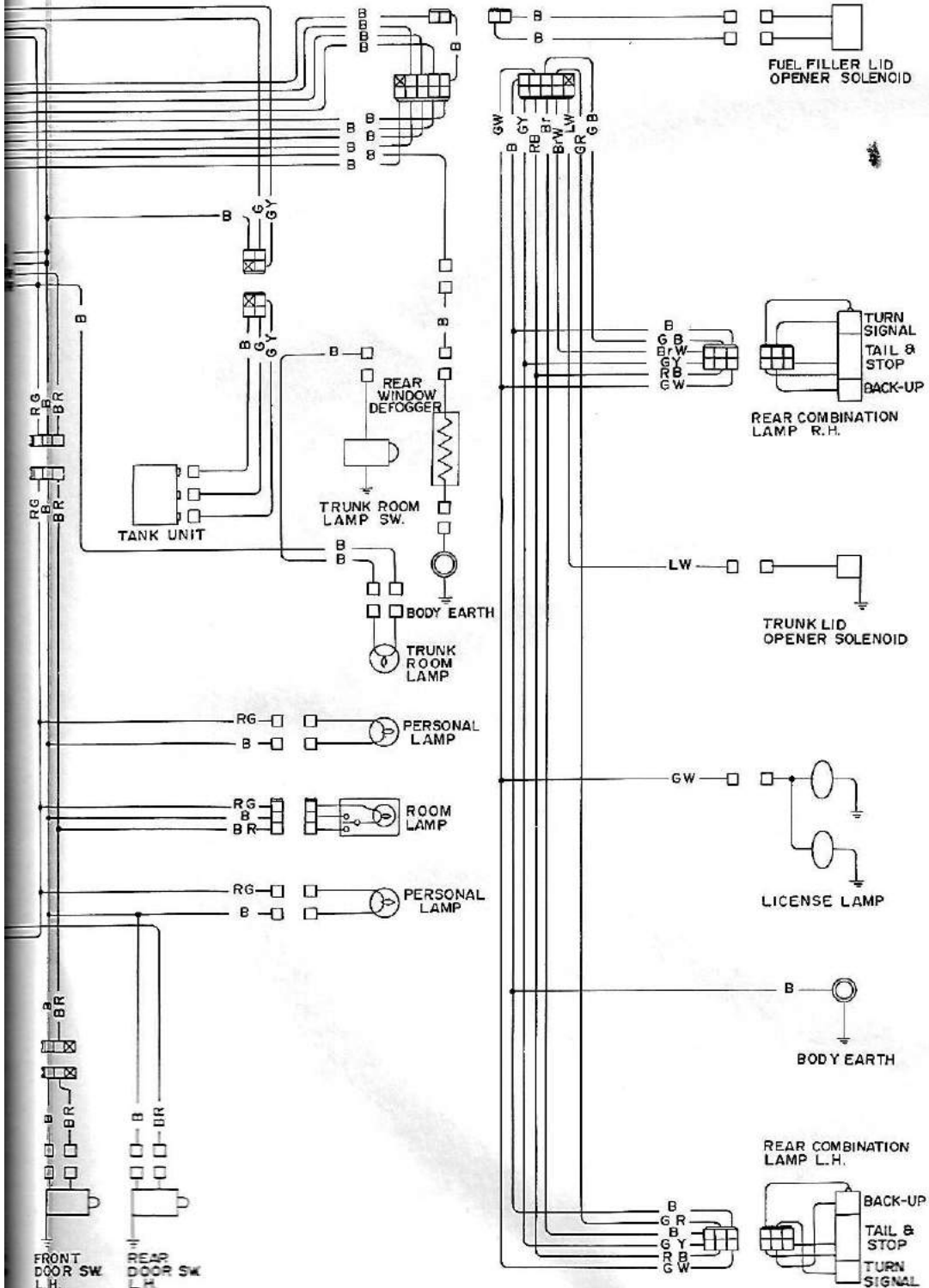
FAN MOTOR

RESISTOR

POWER ANTENNA







COLOR CODE	
B	Black
W	White
R	Red
Y	Yellow
G	Green
L	Blue
Br	Brown

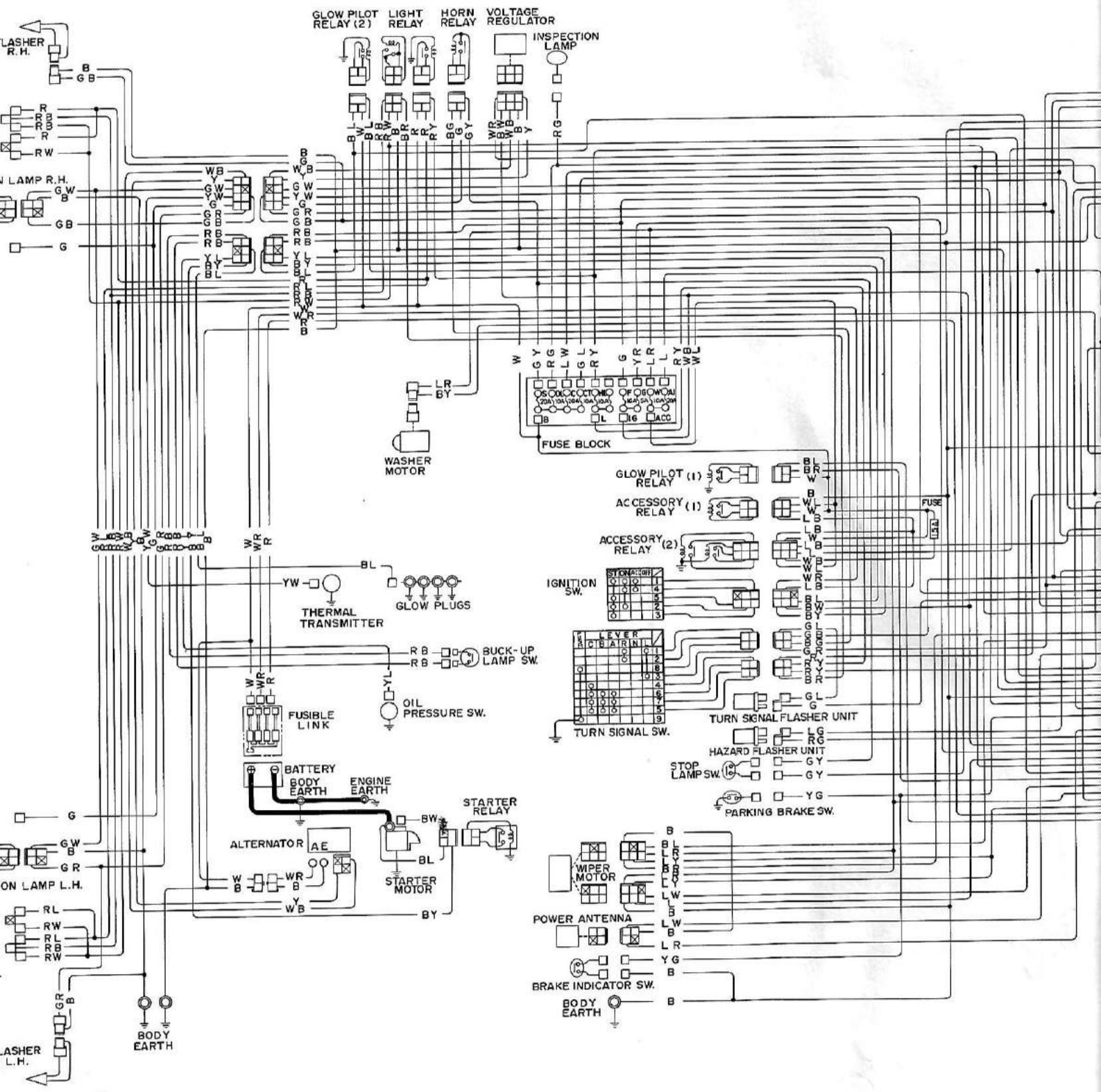
- Ⓛ .... L.H. drive model
- Ⓡ .... R.H. drive model
- Ⓢ .... Sedan
- ⓗ .... Hardtop

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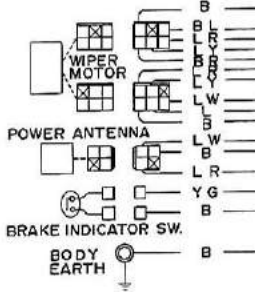
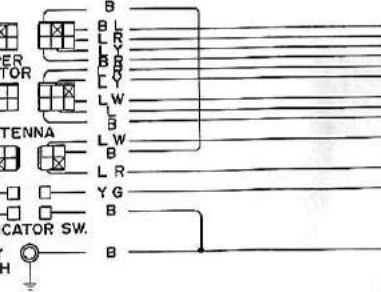
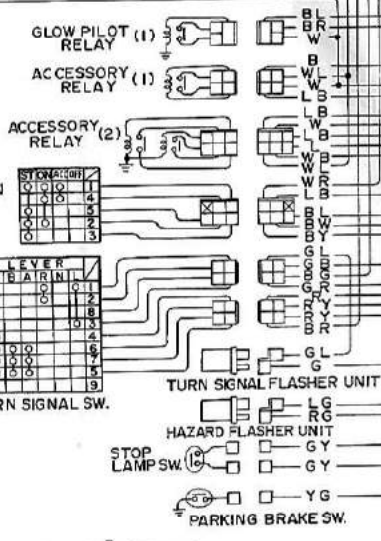
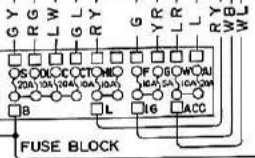




L.H. DRIVE)

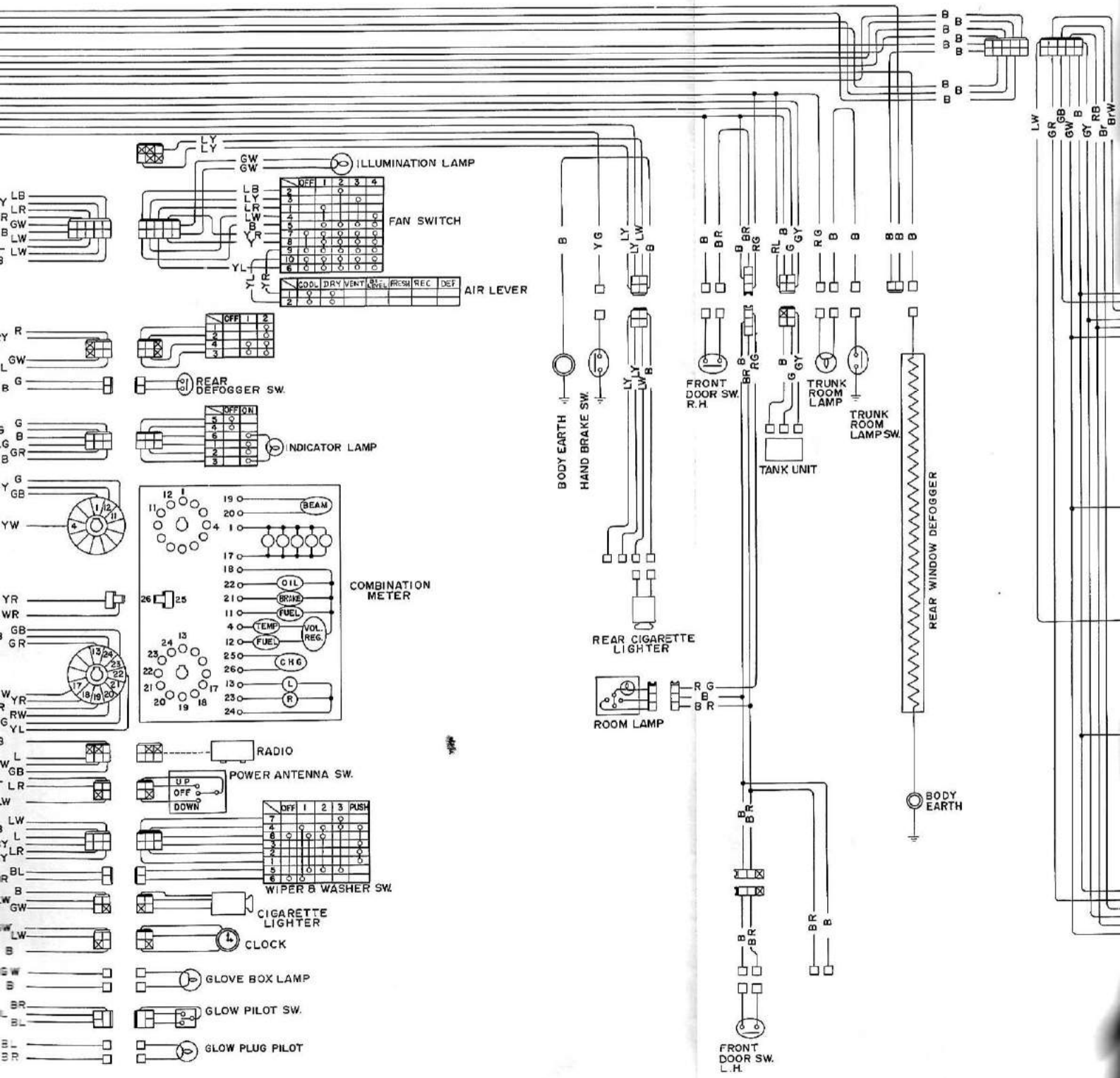


GLASS PILOT RELAY (2) LIGHT RELAY HORN RELAY VOLTAGE REGULATOR INSPECTION LAMP

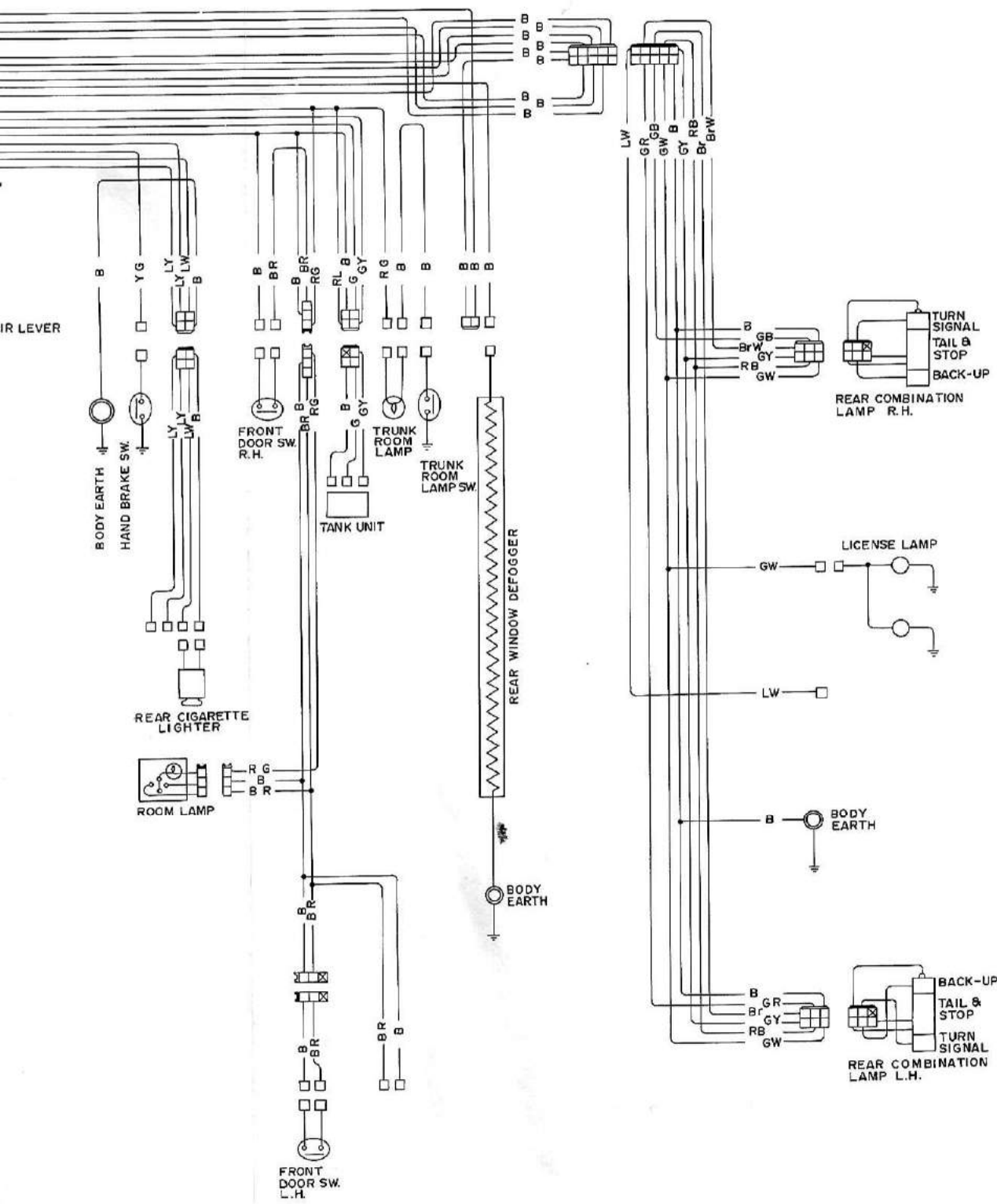




# WIRING DIAGRAM



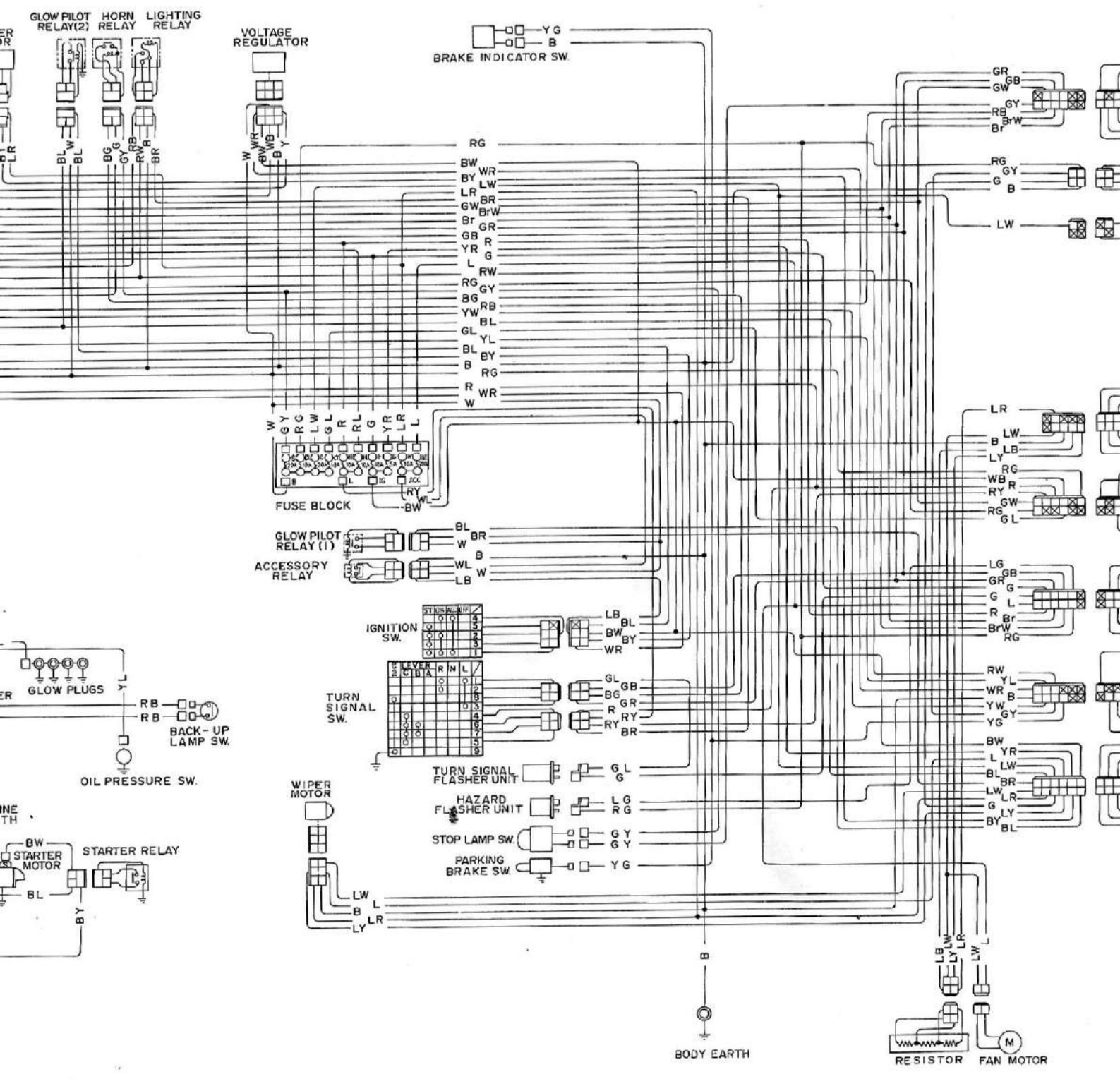
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COLOR CODE	
B	... Black
W	... White
R	... Red
Y	... Yellow
G	... Green
L	... Blue
Br	... Brown







Y G  
B

BRAKE INDICATOR SW.

VOLTAGE REGULATOR

GLOW PILOT RELAY(2)  
HORN RELAY  
LIGHTING RELAY

FUSE BLOCK

GLOW PILOT RELAY (1)  
ACCESSORY RELAY

ST	SL	BL	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

IGNITION SW.

LEVER	R	N	L
A	0	0	0
C	0	0	0
B	0	0	0
A	0	0	0
R	0	0	0
L	0	0	0
N	0	0	0
L	0	0	0
R	0	0	0
A	0	0	0

TURN SIGNAL SW.

TURN SIGNAL FLASHER UNIT

HAZARD FLASHER UNIT

STOP LAMP SW.

PARKING BRAKE SW.

WIPER MOTOR

STARTER RELAY

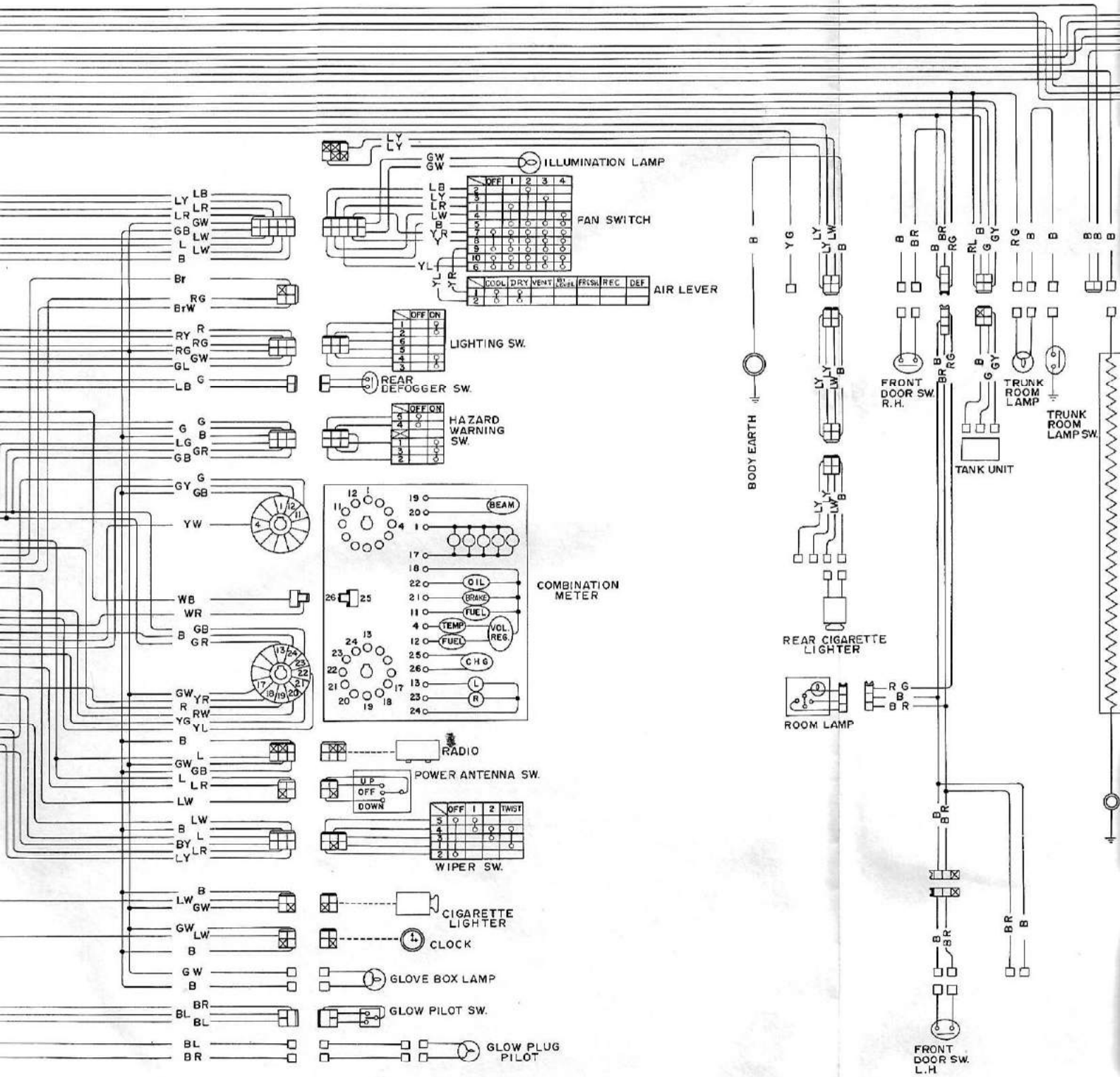
STARTER MOTOR

BODY EARTH

RESISTOR FAN MOTOR

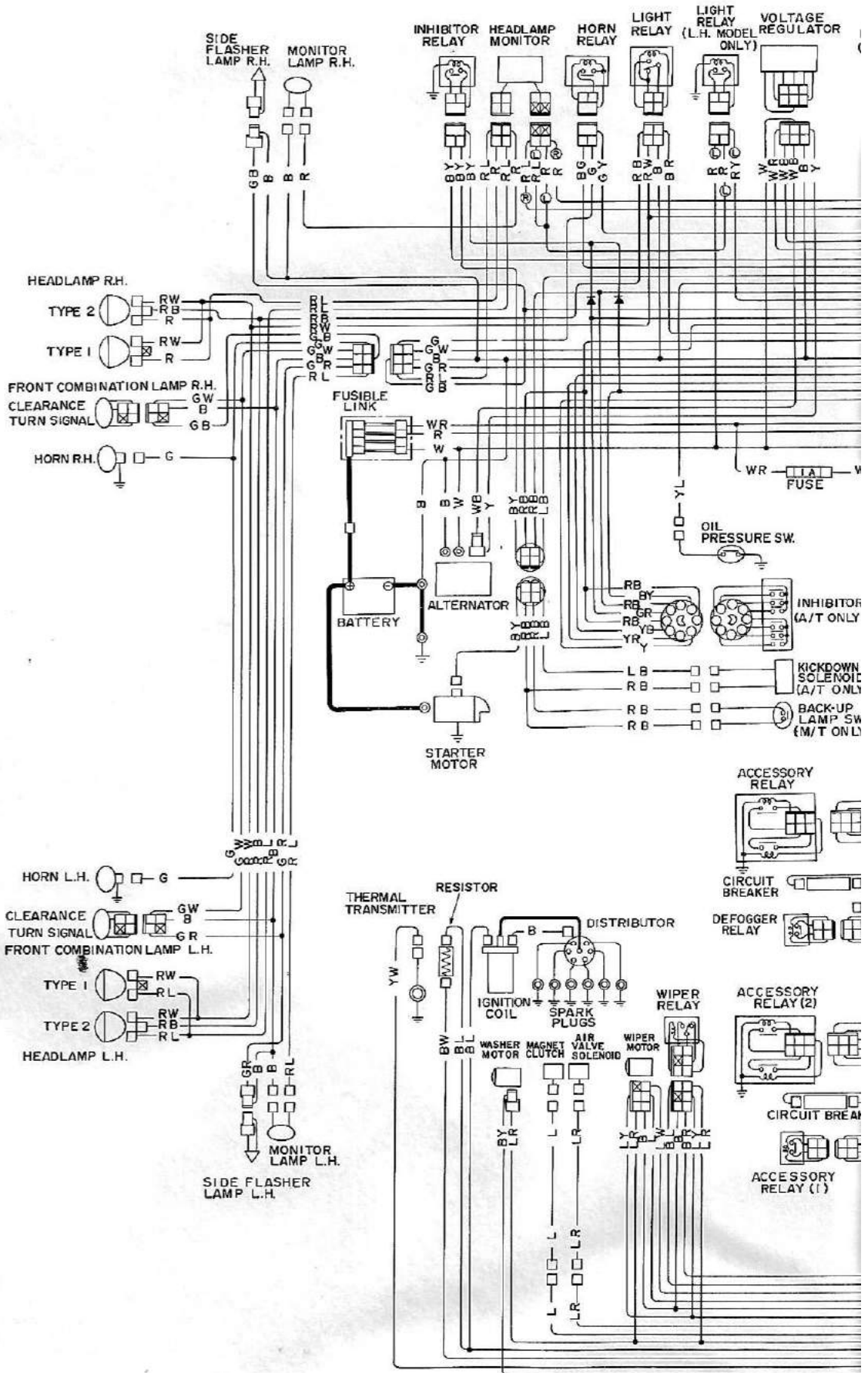


# WIRING DIAGRAM

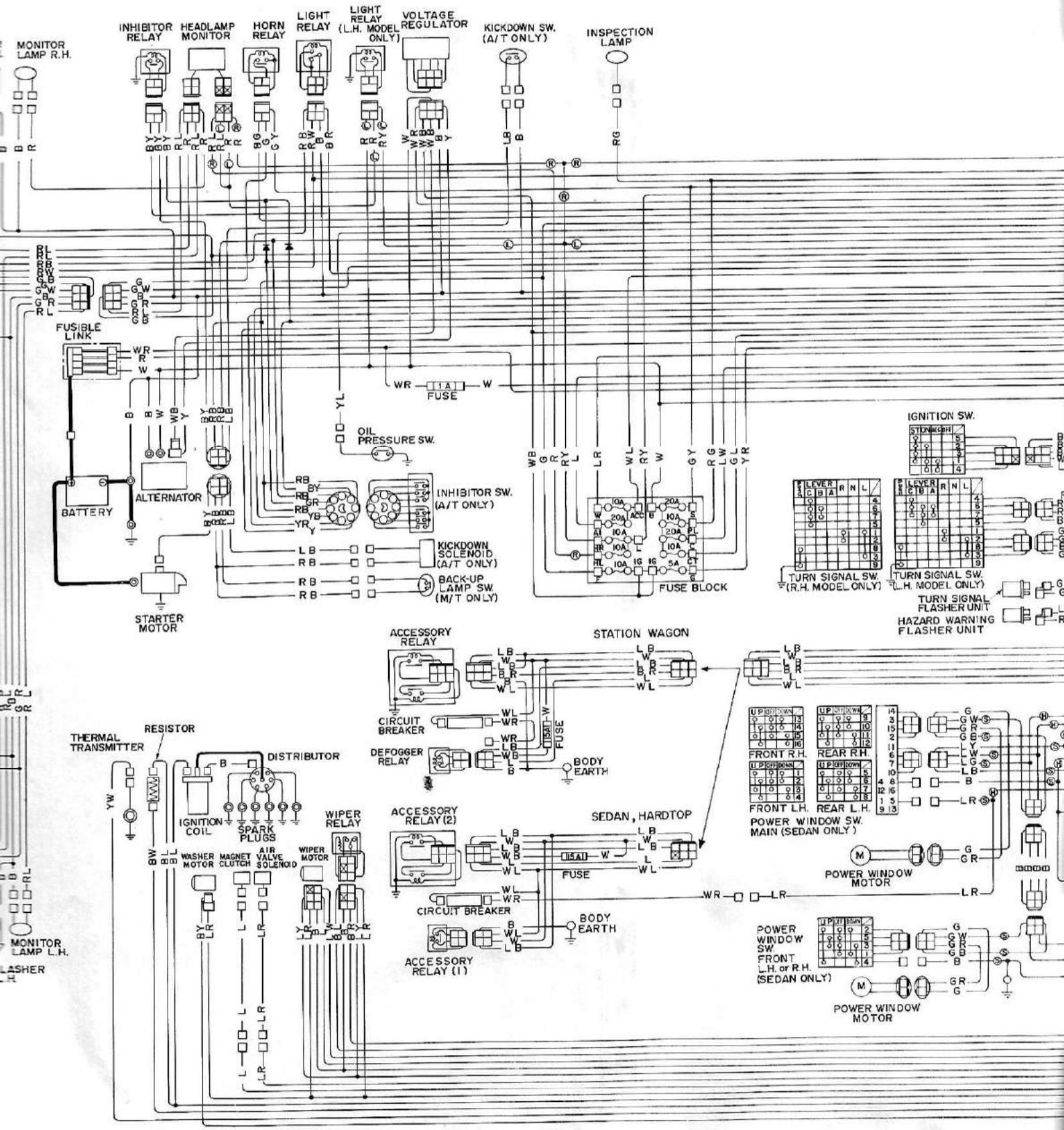




# HARDTOP

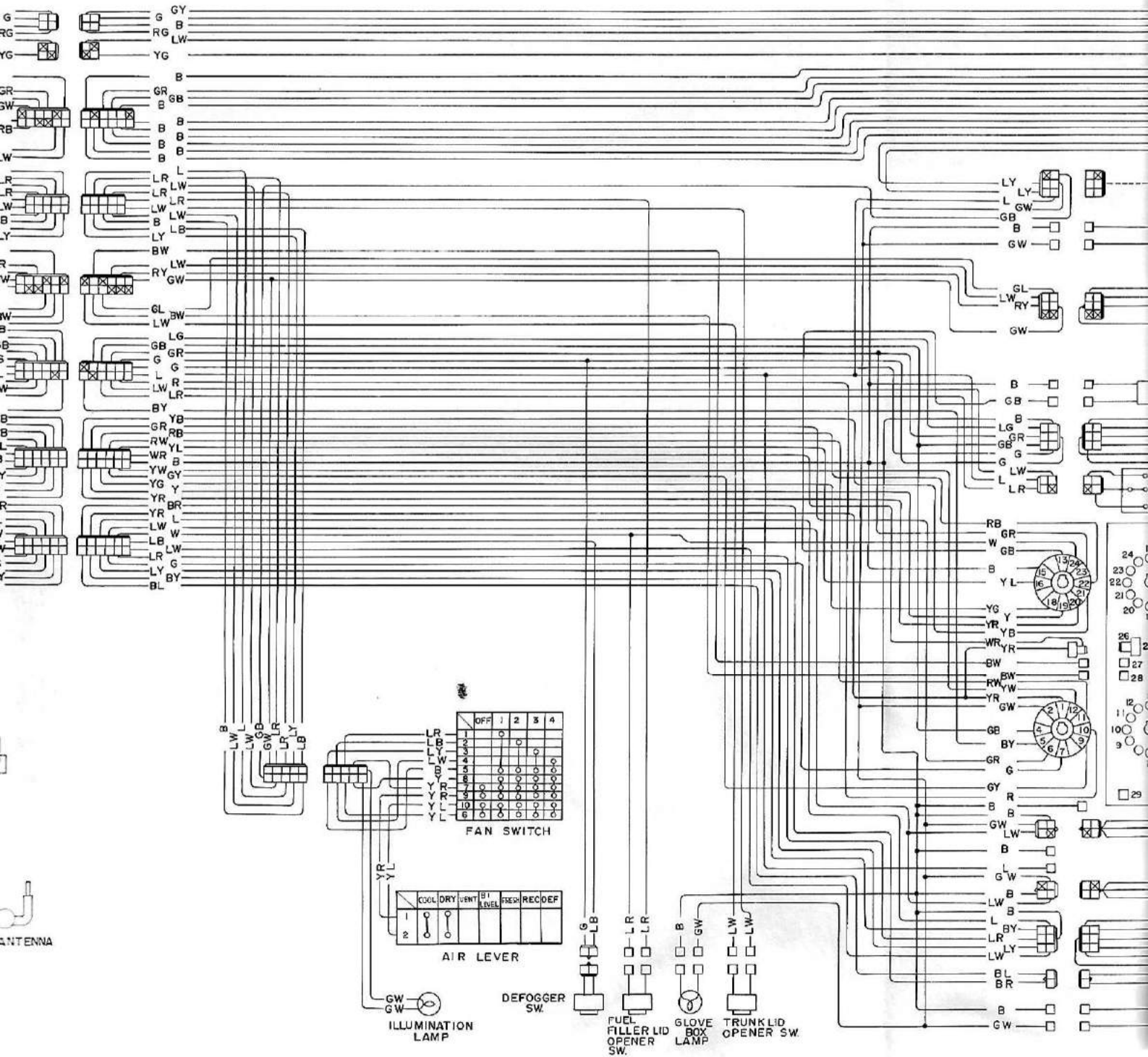




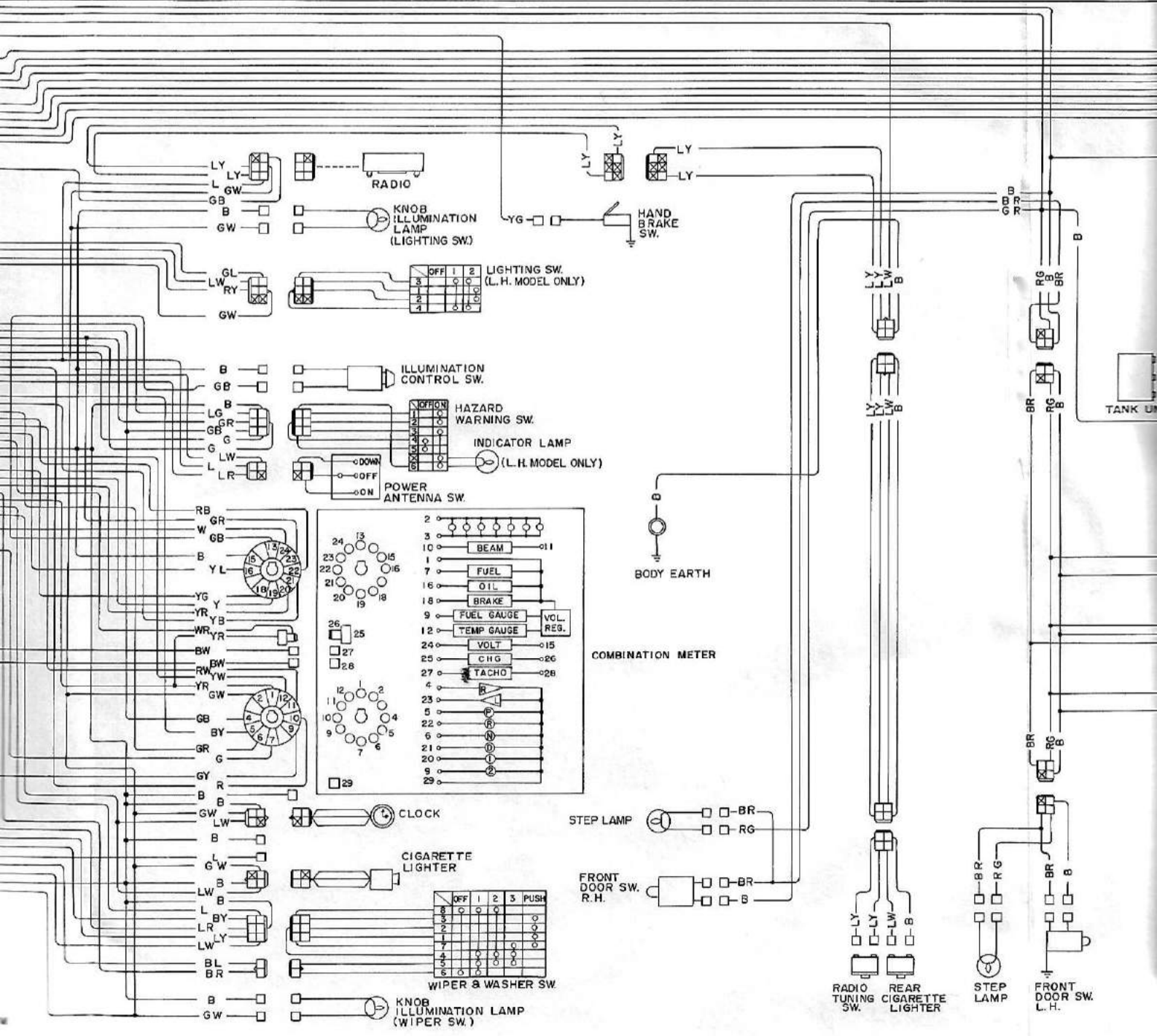


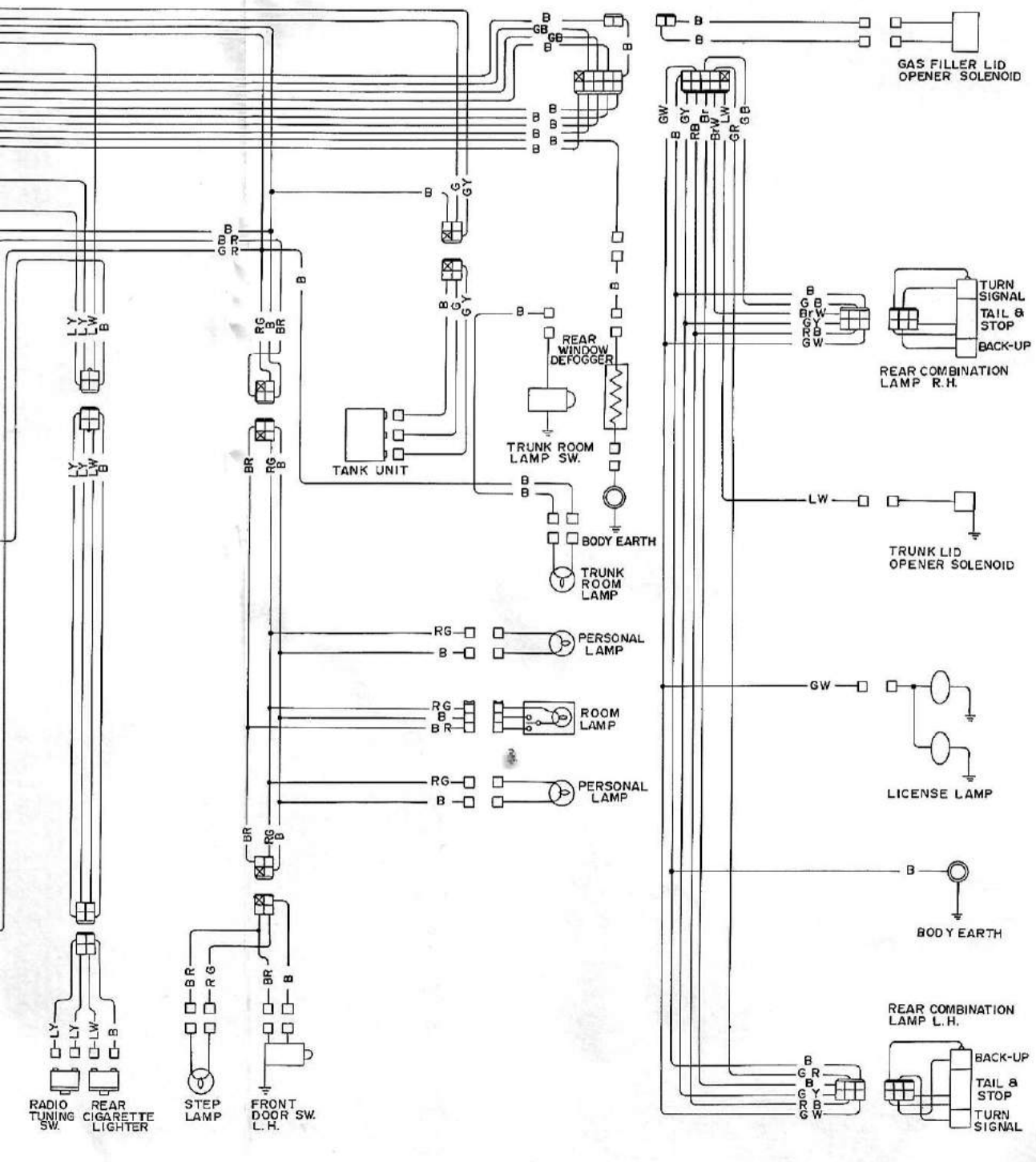


# WIRING DIAGRAM



ANTENNA



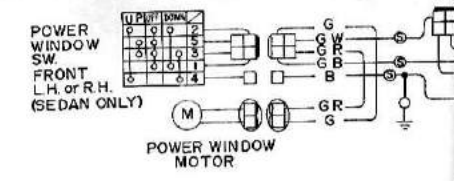
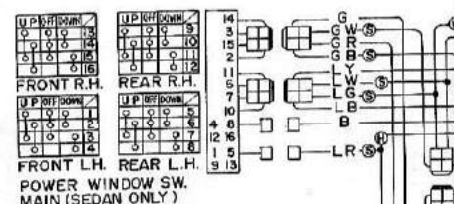
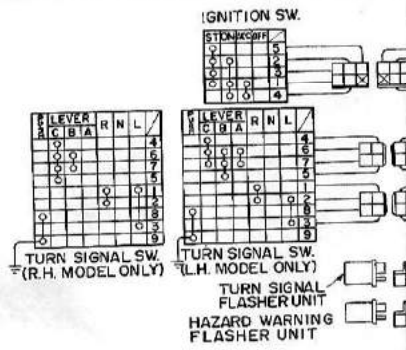
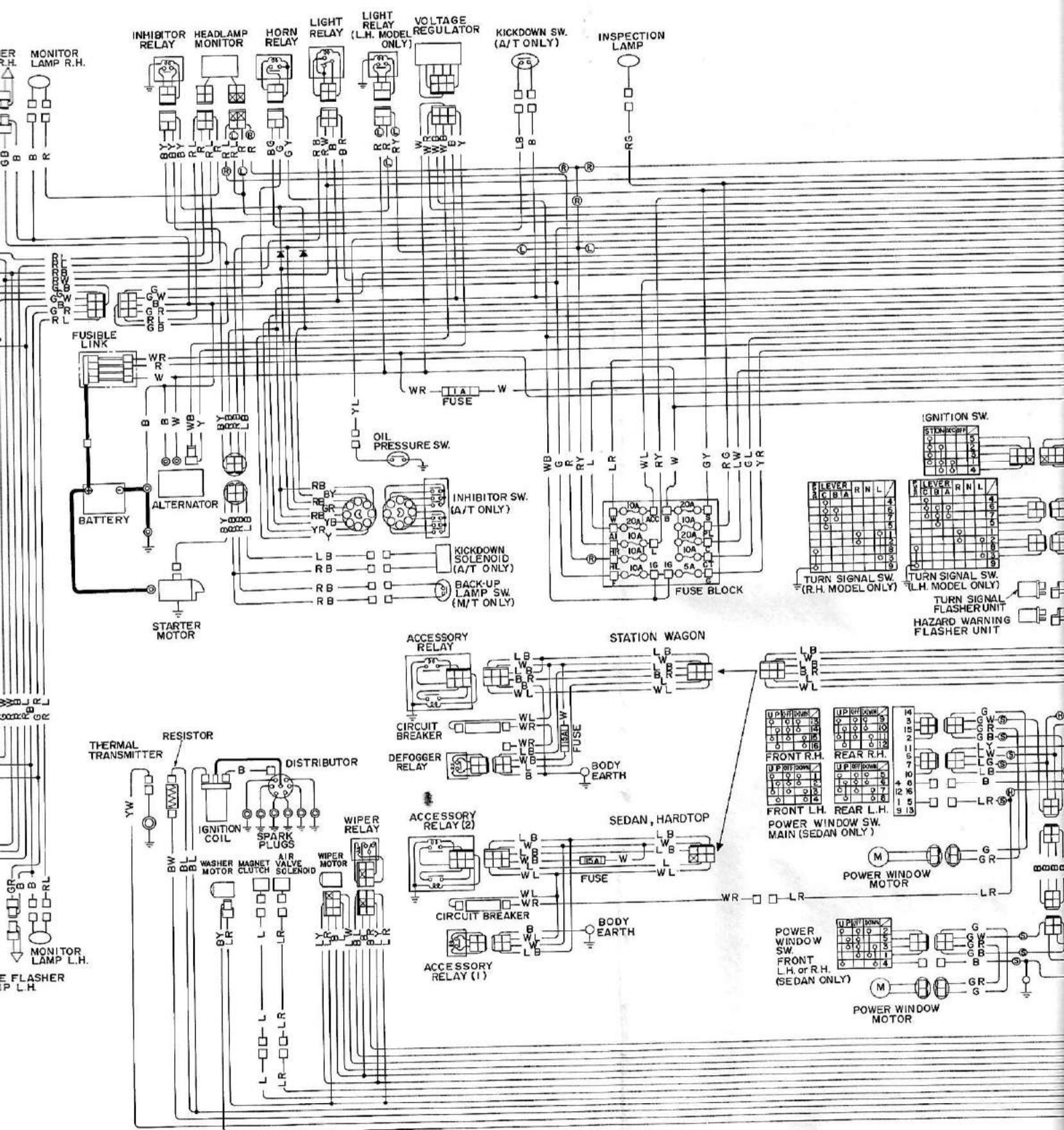


COLOR CODE	
B	... Black
W	... White
R	... Red
Y	... Yellow
G	... Green
L	... Blue
Br	... Brown

- (L) ... L.H. drive model
- (R) ... R.H. drive model
- (S) ... Sedan
- (H) ... Hardtop



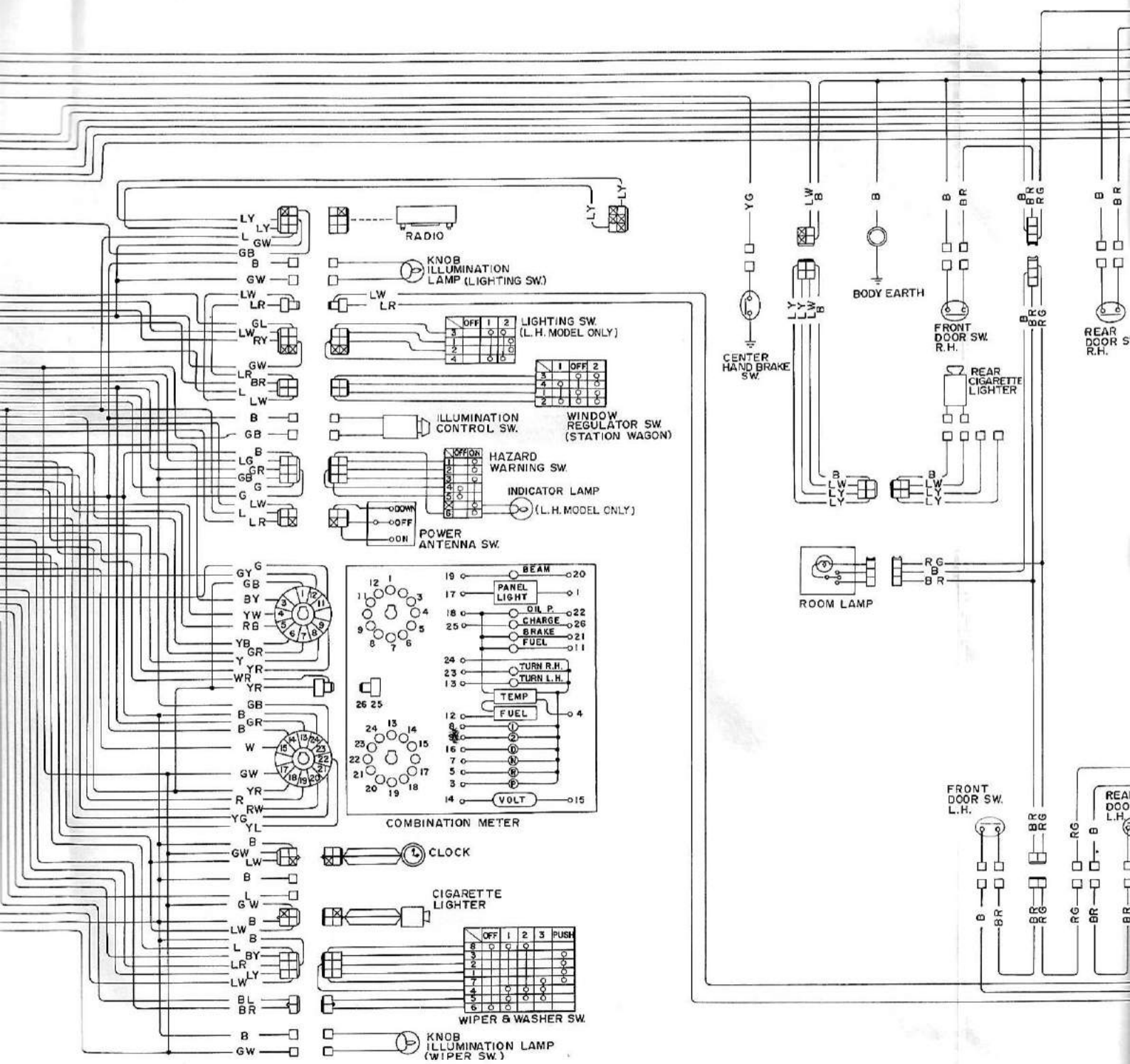




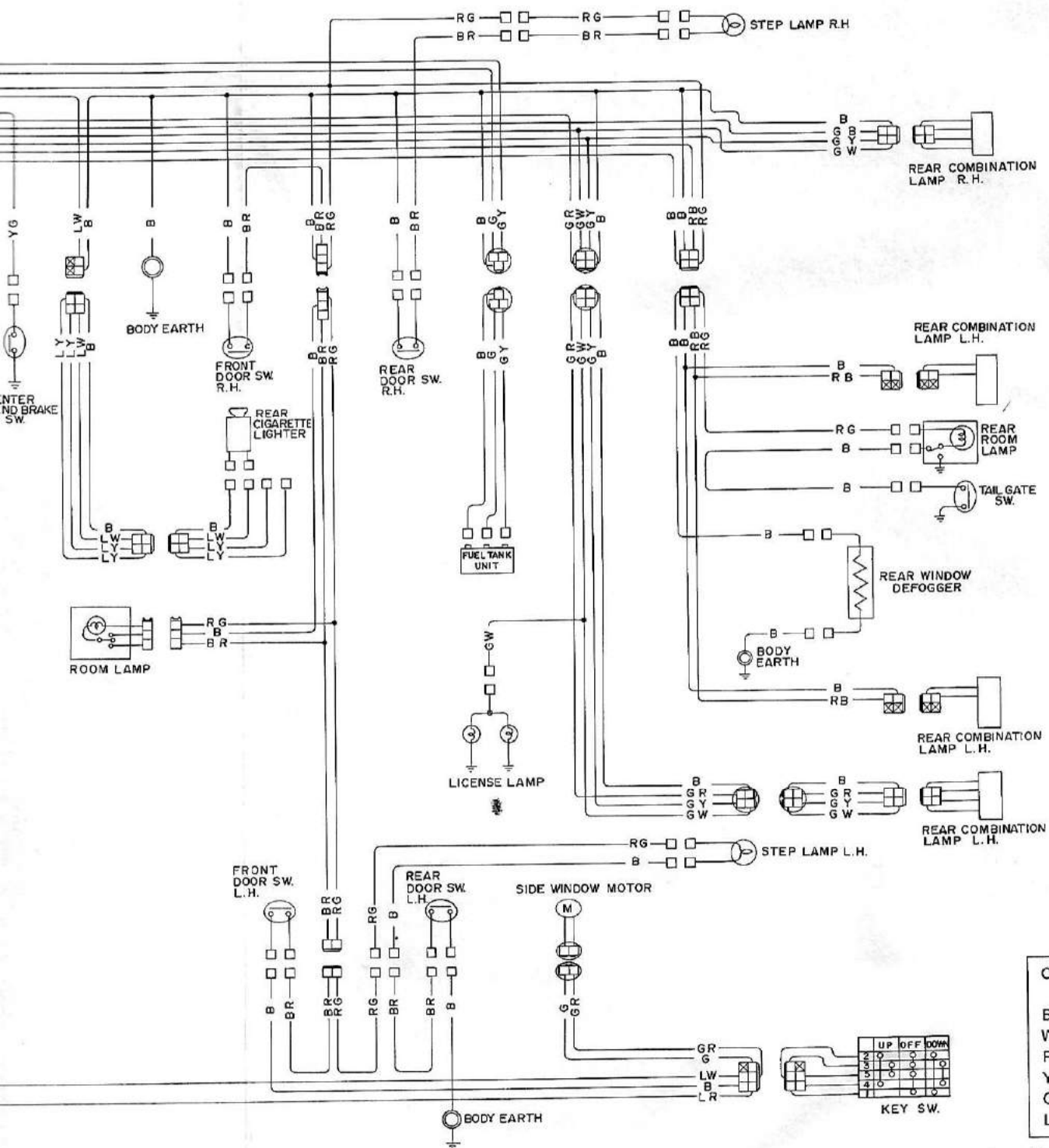
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