

## BODY ELECTRICAL

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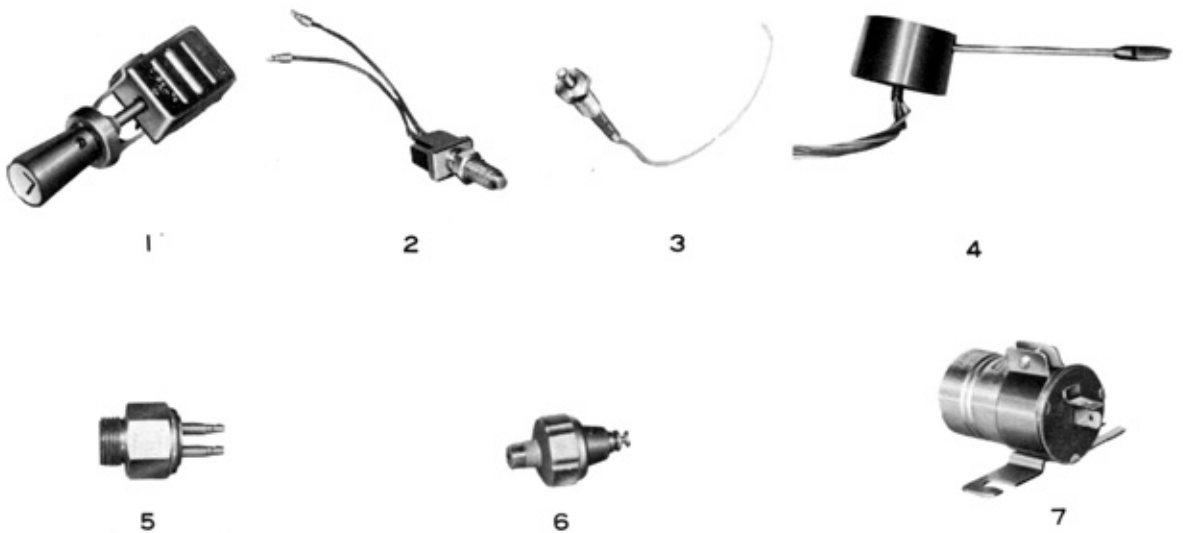
LIGHT & SWITCH



- |   |                                   |
|---|-----------------------------------|
| 1. Headlight shield beam                      | 4. Bulb (for indicator & warning) |
| 2. Front turn signal light<br>(Parking light) | 5. Room light                     |
| 3. Side turn signal light                     | 6. Rear combination light         |
|   | 7. License plate light            |

Fig.3-1 Lights

V0523 ~ V0529



- |                          |                         |
|--------------------------|-------------------------|
| 1. Lighting switch       | 5. Back-up light switch |
| 2. Stop light switch     | 6. Oil pressure switch  |
| 3. Courtesy light switch | 7. Turn signal flasher  |
| 4. Turn signal switch    |                         |

Fig.3-2 Switches

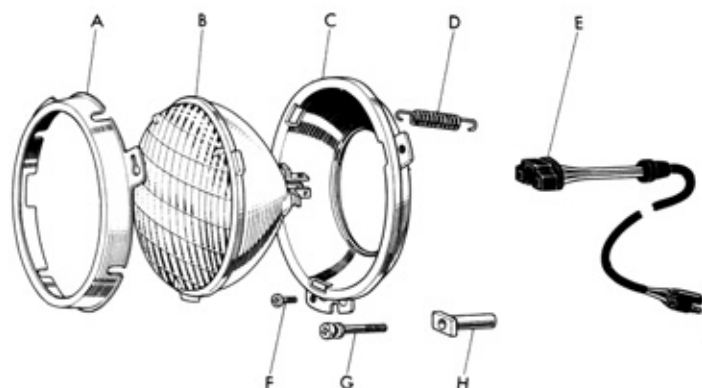
V0530 ~ V0536

## 3-2 BODY ELECTRICAL - Headlight

The bulbs used have the following capacities:

Headlight	50/40 W	Back-up light	15 W
Front turn signal light	25/ 8 W	License plate light	8 W
Side turn signal light	6 W	Room light	5 W
Rear turn signal light	25 W	Combination meter light	3 W
Stop & tail light	25/ 8 W	Illumination light for Radio	3 W

### HEADLIGHT



- |                               |                               |
|-------------------------------|-------------------------------|
| A. Sealed-beam retaining ring | E. Headlight socket & wire    |
| B. Sealed-beam unit           | F. Screw                      |
| C. Sealed-beam mounting ring  | G. Headlight adjusting screw  |
| D. Tension spring             | H. Headlight self locking nut |

Fig.3-3 Headlight Components

X5713

### Removal

1. Remove the attaching screws, and remove the headlight door.
2. Loosen the sealed-beam retaining ring attaching screws, and turn the sealed-beam retaining ring counterclockwise, then remove it.
3. Pull out the sealed-beam and disconnect the headlight socket and wire.
4. Loosen the headlight adjusting screws, and remove the tension spring, then remove the sealed-beam mounting.

### Installation

Follow the removal procedures in the reverse order.  
The headlight should be adjusted before installing the headlight door.

### Adjustment

The headlight adjustment should be made with all the tires inflated to the specified pressure (1.3 kg/cm<sup>2</sup> or 18 lb/in<sup>2</sup>), and the car unloaded. To align the headlights by means of a wall screen, select a level portion of the shop floor.

1. Position the car so that the aiming plane of the sealed-beam unit shall be located parallel to a vertical screen at a distance of 25 ft.
2. Draw a horizontal adjusting line 2 inches below parallel to the headlight horizontal centerline.
3. Draw the headlight vertical centerline, and get the intersection "f" of the adjusting line and vertical centerline.
4. Adjust the headlight by means of

adjusting screws so that the headlight high beam will come to "f".

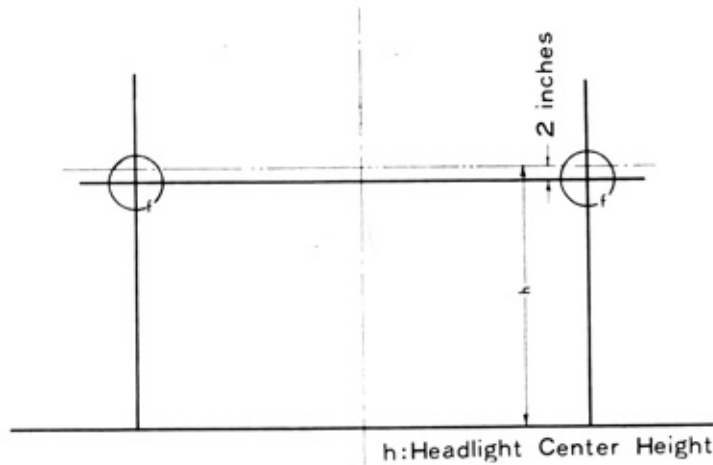
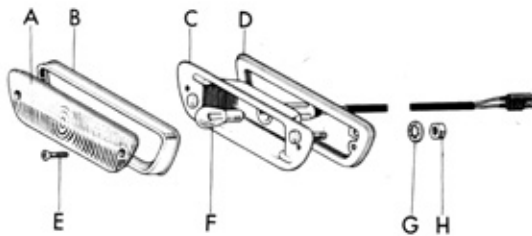


Fig.3-4 Headlight Adjustment

X4898

FRONT TURN SIGNAL LIGHT



- A. Front turn signal light lens
- B. Front turn signal light rim
- C. Front turn signal light body
- D. Front turn signal light gasket
- E. Screw
- F. Bulb
- G. Toothed washer
- H. Nut

Fig.3-5 Front Turn Signal Light Components X5713

Removal

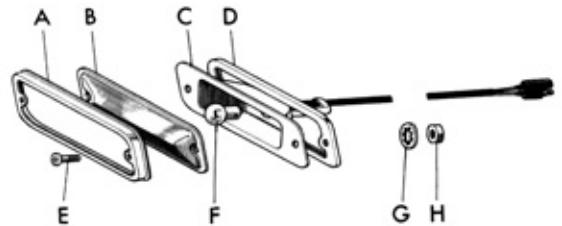
1. Remove the attaching screws and remove the light lens and light rim.
2. Turn the bulb counterclockwise while pushing it lightly, and remove the bulb.

3. Disconnect the wiring connector.
4. Remove the light body.

Installation

Follow the removal procedures in the reverse order.

SIDE TURN SIGNAL LIGHT



- A. Side turn signal light rim
- B. Side turn signal light lens
- C. Side turn signal light body
- D. Side turn signal light gasket
- E. Screw
- F. Bulb
- G. Toothed washer
- H. Nut

Fig.3-6 Side Turn Signal Light Components X5714

### 3-4 BODY ELECTRICAL - Rear Combination & License Plate Lights

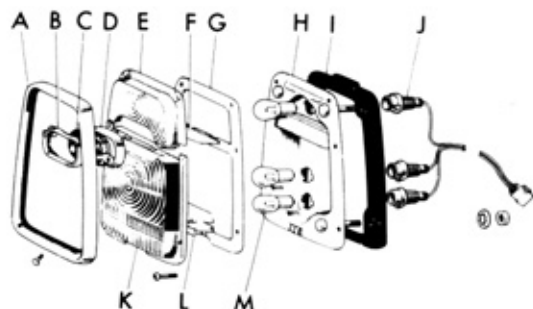
#### Removal

1. Remove the attaching screws and remove the light rim, light lens and light body.
2. Remove the bulb.
3. Disconnect the wiring connector.

#### Installation

1. Install the bulb to the light body.
2. Install the light gasket, light body, light lens and light rim in order.
3. Connect the wiring connector.

#### REAR COMBINATION LIGHT



- A. Rear combination light rim
- B. Rear combination light moulding
- C. Reflex reflector
- D. Reflex reflector seat
- E. Rear combination light lens No.2
- F. Rear combination light shade No.2
- G. Rear combination light lens gasket
- H. Rear combination light body
- I. Rear combination light body gasket
- J. Rear combination light socket & wire
- K. Rear combination light lens No.1
- L. Rear combination light shade No.1
- M. Bulb

Fig.3-7 Rear Combination Light Components Y2182

#### Removal

1. Remove the attaching screw and remove the light rim.

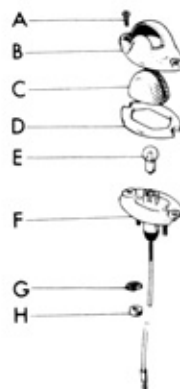
2. Remove the attaching screws and remove the light lens.
3. Remove the bulb.
4. Disconnect the wiring connector.
5. Remove the light body.

#### Installation

Follow the removal procedures in the reverse order.

To replace the bulbs, remove the socket with the bulb from the luggage compartment by turning the socket counterclockwise, and replace bulbs.

#### LICENSE PLATE LIGHT



- A. Screw
- B. License plate light cover
- C. License plate light lens
- D. License plate light gasket
- E. Bulb
- F. License plate light body
- G. Lock washer
- H. Nut

Fig.3-8 License Plate Light Components X5715

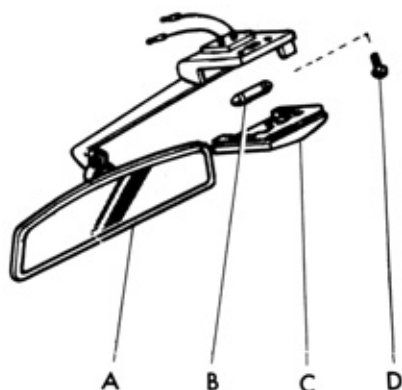
#### Removal

1. Remove the attaching screws, and remove the light cover, light lens and light gasket, then the bulb.
2. Disconnect the wiring connector.
3. Remove the bumper.
4. Remove the light body.

Installation

Follow the removal procedures in the reverse order.

ROOM LIGHT



- A. Inner rear view mirror with room light
- B. Bulb
- C. Room light lens
- D. Screw

Fig.3-9 Room Light Components X6023

Removal

1. Pull the lens to remove it, and remove the bulb.
2. Remove the attaching screws and remove the inner rear view mirror with the room light.
3. Disconnect the wiring connector.

Installation

Follow the removal procedures in the reverse order.

IGNITION SWITCH

Removal

1. Disconnect the wiring connector.
2. Remove the ignition switch from the rear of the instrument panel using the Switch Wrench 09802-12010.

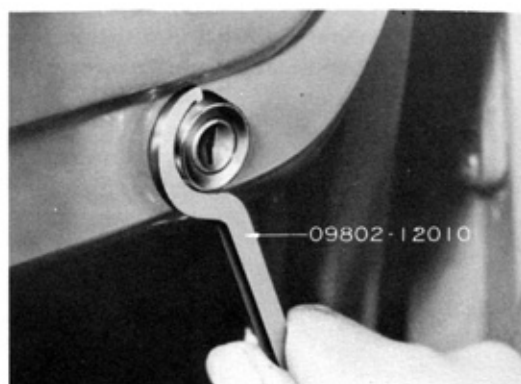


Fig.3-10 Ignition Switch Removal V0537

Installation

Follow the removal procedures in the reverse order.

LIGHTING & WIPER SWITCHES

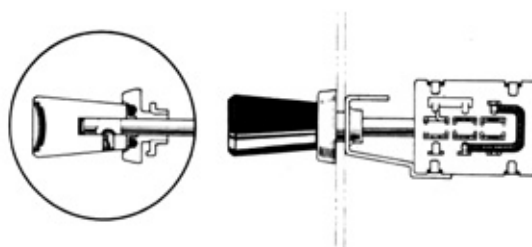


Fig.3-11 Lighting Switch X4899

Removal

1. Remove the lock screw, and remove the knob.

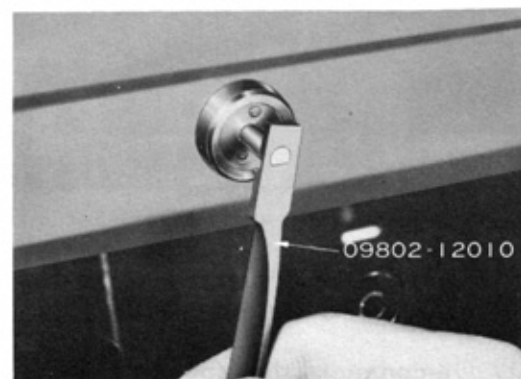


Fig.3-12 Lighting Switch Removal V0538

- Remove the switch from the inside of the instrument panel using the Switch Wrench 09802-12010.
- Disconnect the wiring connector, and remove the switch.

Installation

Follow the removal procedures in the reverse order.

BACK-UP LIGHT SWITCH

The back-up light switch is located on the rear of the transmission extension housing shift lever.

Removal

- Remove the front center floor mat, three screws and the shift lever boots.
- Remove the shift lever from the shift lever retainer using the Transmission Gear Shift Lever Remover 09305-12010. Then cover the shift lever retainer hole with a clean shop towel to prevent dropping any nut or others into the extension housing.



Fig.3-13 Shift Lever Removal V0288

Disconnect the connector of the back-up light switch near to the rear and right side of the engine.

- Disconnect the positive battery cable from the battery terminal.

- Remove the radiator inlet hose.
- Position the radiator fan horizontally.
- Remove the two nuts securing the exhaust pipe to the manifold.
- Jack up the vehicle and support the front and rear of the vehicle on stands.

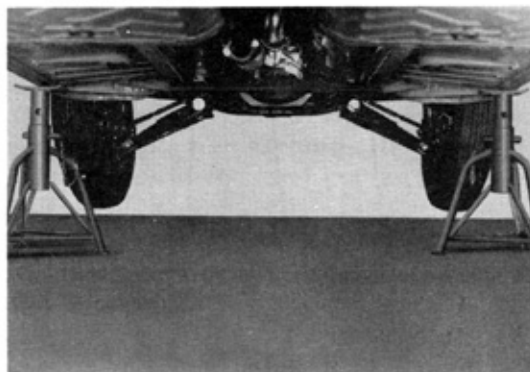


Fig.3-14 Front Supporting Position V0856

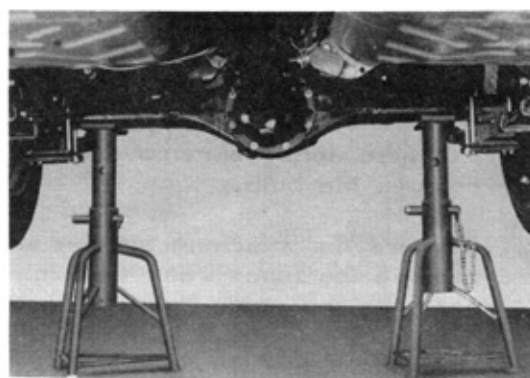


Fig.3-15 Rear Supporting Position V0857

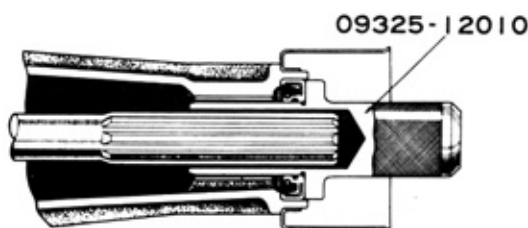


Fig.3-16 Transmission Oil Plug X4693

8. Disconnect the propeller shaft from the differential, and remove the propeller shaft, then insert the Transmission Oil Plug 09325-12012 into the transmission extension housing.
9. Remove the exhaust pipe support bracket and clamp attaching bolts (1), (2) in referring the figure 3-17.
10. Disconnect the speedometer drive cable(3) from the transmission extension housing in referring to the figure 3-17.  
Care should be taken not to lose the collar gasket.

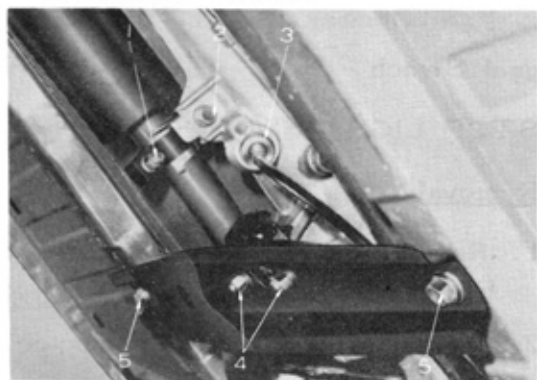


Fig.3-17 Engine Rear Support Member Removal V0290

11. Place a jack under the front side of the transmission, and support the transmission with the jack, then remove the two bolts(4) securing the engine mounting rear insulator to the engine rear support member.  
Do not loosen and remove the center bolt securing the engine mounting rear insulator to the transmission extension housing unless necessary.
12. Remove the two bolts(5) securing the engine rear support member to the body, and remove the engine rear support member from the body.
13. Lower the jack, and remove the

jack from the transmission to lower the transmission.

14. Disconnect the wiring connector.
15. Remove the back-up light switch.

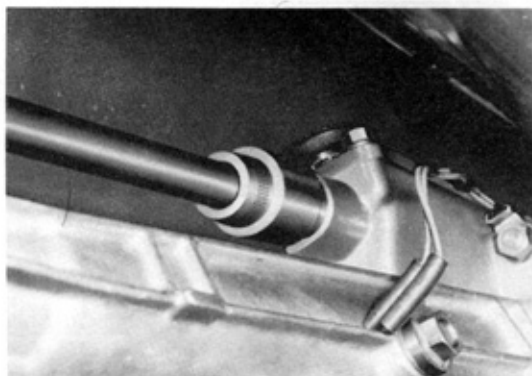


Fig.3-18 Back-Up Light Switch Removal V0539

#### Installation

Follow the removal procedures in the reverse order.

### COURTESY LIGHT SWITCH

#### Removal

Loosen the courtesy light switch and remove it by disconnecting the wiring connection.



Fig.3-19 Courtesy Light Switch Removal V0540

#### Installation

Follow the removal procedures in the reverse order.



TURN SIGNAL SWITCH

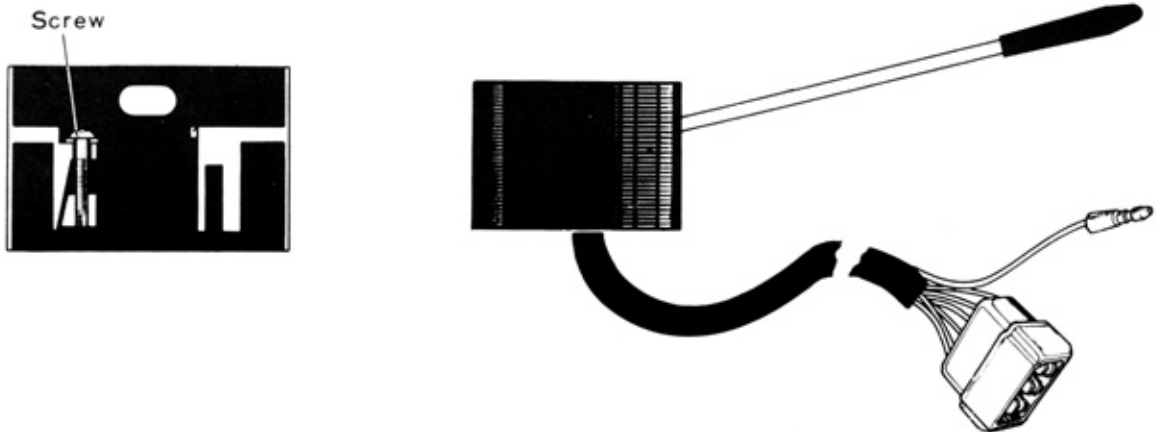


Fig.3-20 Turn Signal Switch

Y1140

Removal

1. Pull and remove the horn button, and remove the compression spring.
2. Remove the steering wheel tightening nut.
3. Remove the steering wheel using the Steering Wheel Puller 09609-20010.
4. Disconnect the wiring connector of the switch and horn.
5. Position the turn signal switch lever to the right position. After loosening and pushing down the switch attaching screw, remove the switch assembly from the steering column tube.
6. After loosening the steering housing attaching screws and removing the housing from the column tube, pull out the switch wiring connector from the housing.

Installation

Follow the removal procedures in the reverse order.

STOP LIGHT SWITCH

Removal

1. Remove the tension spring of the brake pedal.
2. Disconnect the wiring connector.
3. Remove the switch assembly by loosening the nut.

Installation

1. Install the switch assembly to the pedal bracket.
2. Inspect the brake pedal for height and free play, and lock the switch with the nut.
3. Connect the wiring connector and install the tension spring.
4. Ensure the operation of the switch.

OIL PRESSURE SWITCH

Removal

Disconnect the wiring connector and remove the oil pressure switch.

Installation

Follow the removal procedures in the reverse order.

TURN SIGNAL FLASHER

Flasher:

Voltage	12 volts
Type	Condenser relay
Polarity	Negative ground
Capacity	25+25+6+3 watts
Cycle	50 ~ 120 per minute

Removal

Disconnect the wiring connector and remove the flasher assembly.

Installation

Follow the removal procedures in the reverse order.

FUEL SENDING GAUGE

Removal

1. Disconnect the wiring connector.
2. Remove the sending gauge attaching screws.
3. Remove the fuel sending gauge.

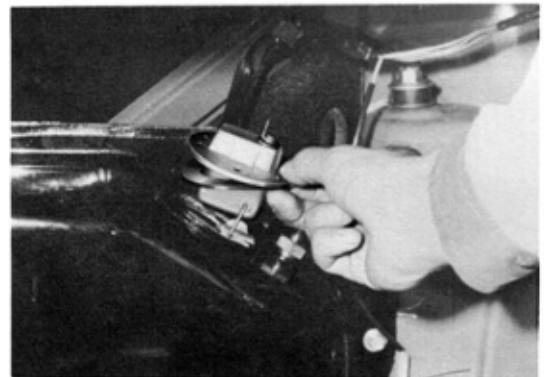


Fig.3-21 Fuel Sending Gauge Removal V0541

Installation

Follow the removal procedures in the reverse order.

WATER TEMPERATURE SENDING GAUGE

The water temperature sending gauge is located on the water outlet housing.

Removal

1. Disconnect the wiring connector.
2. Turn the water temperature gauge counterclockwise, and remove it.

Installation

Follow the removal procedures in the reverse order.

\* \* \* \* \*

LICENSE PLATE LIGHT (Corolla Van)

Removal

1. Remove the back door trim board.
2. Disconnect the license plate light, and remove the four attaching nuts, then remove the license plate light assembly.

Installation

Follow the removal procedures in the reverse order.

WINDSHIELD WIPER

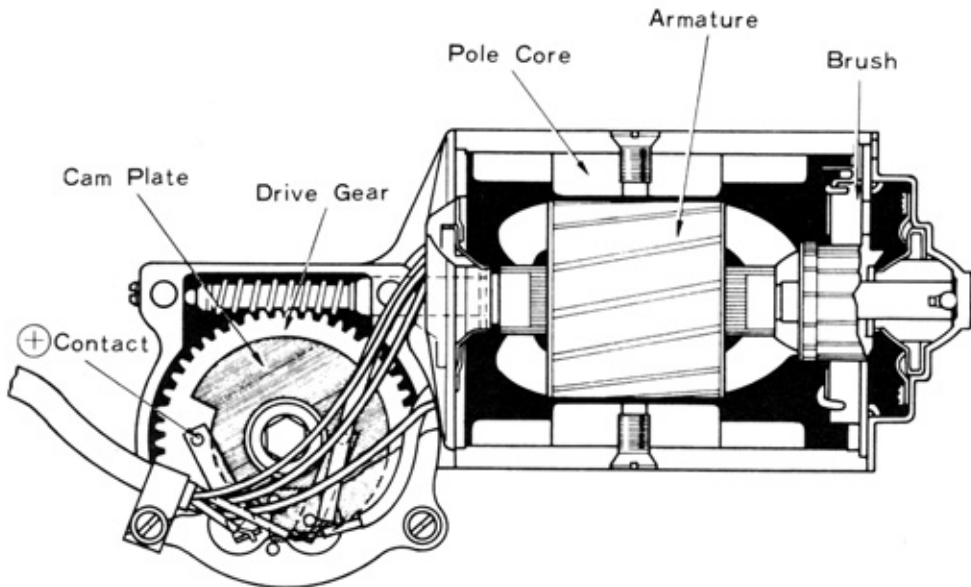


Fig.3-22 Windshield Wiper

X5717

Description

The windshield wiper composes of the electric motor and cranking mechanism. The cranking mechanism is provided with an electric brake for automatic stopping at the same position whenever the wiper motor is switched off. As the wiper arms are connected to the linkage shaft with serration, the adjustment of the wiping angle can be made easily.

Rated voltage	14 volts
Wiping angle Right	90 ~ 95 degrees
Left	97 ~ 103 degrees
Blade movement	Parallel
Arm connection	Serration
No load operating current	Less than 4.5 amperes
With load operating current	Less than 13.0 amperes
Blade shaft revolution	
at 6 cm-kg load	at high speed 60 ~ 75 rpm
or 5 in-lb load	at low speed 36 ~ 43 rpm
at 24 cm-kg load	at high speed more than 25 rpm
or 18 in-lb load	at low speed more than 20 rpm

Trouble Shooting

Symptom & Probable Causes	Remedies
Wiper motor does not operate	
1. Fuse burned or poor contacted	Repair or replace
2. Connector poor contacted	Repair
3. Wiper arm defective	Replace
4. Wiper switch defective	Replace
5. Wire in the motor broken or shorted	Repair or replace

- |                                 |                      |
|---------------------------------|----------------------|
| 6. Brush worn or poor contacted | Replace brush spring |
| 7. Commutator burned or dirty   | Repair               |
| 8. Bearing bushing stuck        | Repair or replace    |
| 9. Gear defective               | Replace              |

Wiper will not stop

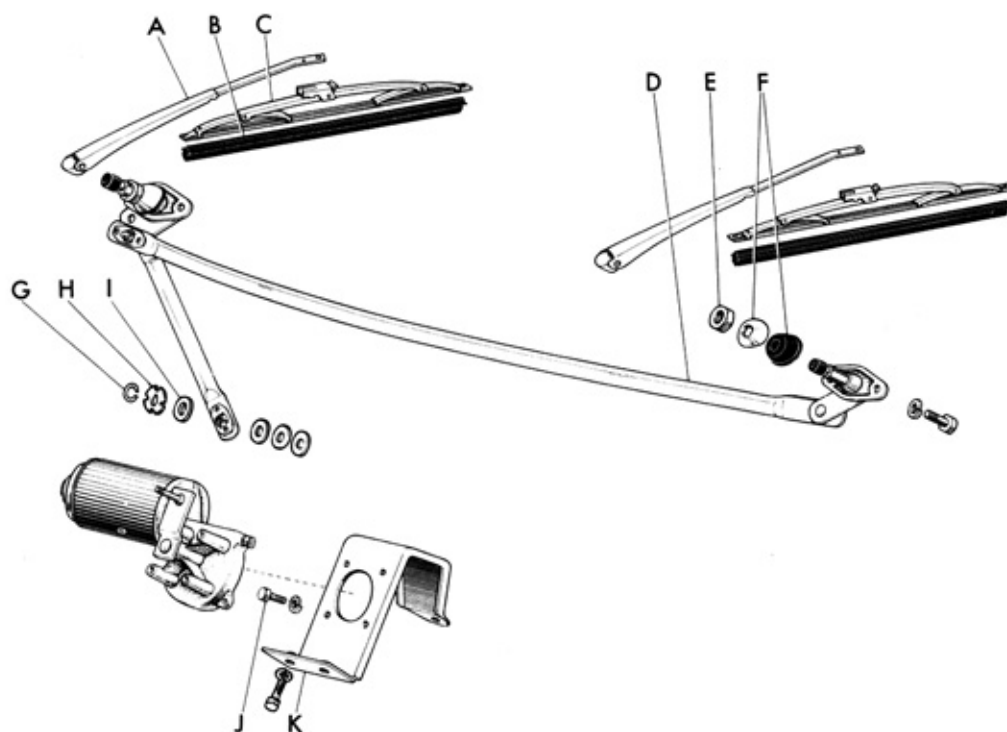
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|--------------------------------|-------------------|
| 1. Wiring connection incorrect | Correct           |
| 2. Wiper switch defective      | Replace           |
| 3. Electric brake defective    | Repair or replace |

Wiper blade stop improperly

- |                                   |         |
|-----------------------------------|---------|
| 1. Wiper arm improperly installed | Correct |
| 2. Contact point poor contacted   | Repair  |
| 3. Cam plate improperly installed | Repair  |

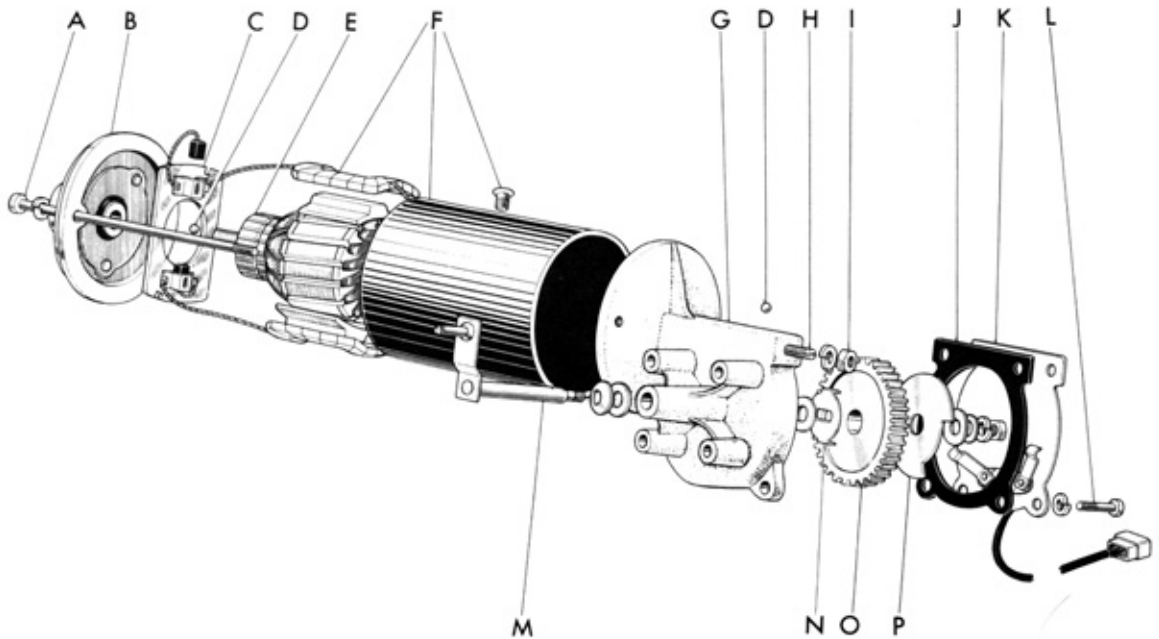
Inproper wiping

- |   |                   |
|---|-------------------|
| 1. Wiper blade pressure insufficient    | Repair or replace |
| 2. Oil on windshield glass              | Clean             |
| 3. Wiper blade rubber harden<br>or worn | Replace           |



- |   |                                   |
|---|-----------------------------------|
| A. Windshield wiper arm                               | F. W/packing cup washer           |
| B. Windshield wiper blade                             | G. Snap ring                      |
| C. Windshield wiper blade assembly                    | H. Washer                         |
| D. (including B)                                      | I. Plate washer                   |
| D. Windshield wiper link assembly<br>(including E, F) | J. Bolt                           |
| E. Nut  | K. Windshield wiper motor bracket |

Fig.3-23 Windshield Wiper Components



- |  |  |
|--|--|
| <p>A. Screw<br/>                 B. Wiper motor end frame<br/>                 C. Wiper motor brush holder<br/>                 D. Ball<br/>                 E. Armature<br/>                 F. Wiper motor stator<br/>                 G. Wiper motor gear housing<br/>                 H. Screw<br/>                 I. Nut</p> | <p>J. Wiper motor crank<br/>                 housing cover packing<br/>                 K. Wiper motor crank<br/>                 housing cover plate<br/>                 L. Screw<br/>                 M. Wiper motor crank arm<br/>                 N. Wiper motor shaft supporter<br/>                 O. Wiper motor gear<br/>                 P. Wiper motor cam plate</p> |
|--|--|

Fig.3-24 Wiper Motor Components

Y2185

Inspection before removal

Inspect the wiper arm for operation and stopping position. If incorrect, repair or replace it.

In this case, wet the wiper blade and windshield glass before operating the windshield wiper to prevent the glass from damaging.

1. The stopping position of the wiper arm should be 10 ~ 40 mm or 0.4 ~ 1.6" from the weatherstrip.

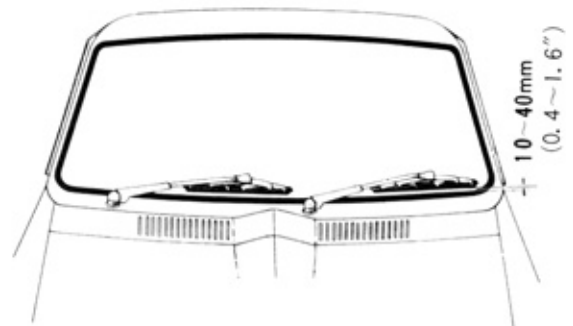


Fig.3-25 Wiper Arm Stopping Position

X5718

2. Measure the blade tension at the position pulled up 2 mm (0.08") as illustrated in the figure 3-26. The blade tension should be 240 to 320 g (530 ~ 700 lbs).

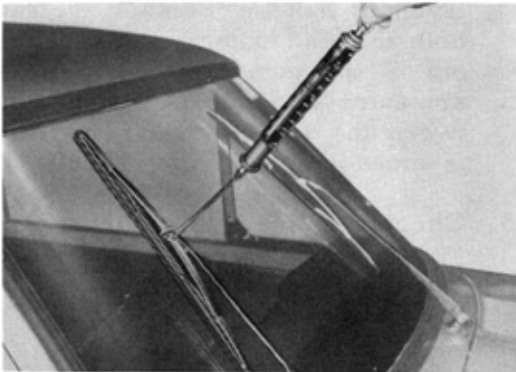


Fig.3-26 Wiper Blade Tension Measurement V0961

Removal

1. Remove the wiper arms with the blades.
2. Remove the nuts, washers and packings from the wiper link pivots.
3. Disconnect the wiring connector.
4. Remove the speedometer drive cable and defroster nozzle R.H.
5. Remove the pivot attaching bolts and wiper motor attaching bolts, then remove the motor with the bracket and link.



Fig.3-27 Motor Removal V0962

6. Remove the wiper link from the crank arm.

7. Remove the wiper motor bracket from the motor.

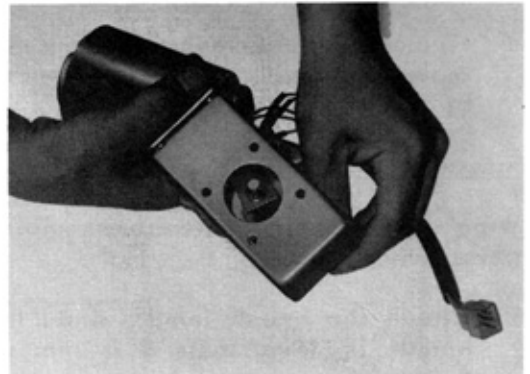


Fig.3-28 Wiper Motor Bracket Removal V0963

Disassembly

1. Remove the cover plate and packing from the gear housing.
2. Tap the wiper crank arm lightly, and remove the cam plate and gear by removing the gear tightening nut.

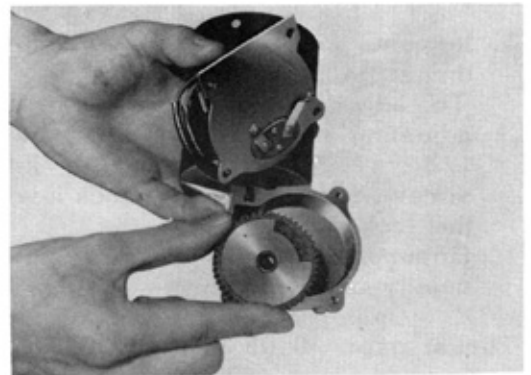


Fig.3-29 Gear Removal V0964



Fig.3-30 Armature Removal V0965

3. Remove the two screws, and remove the end frame.
4. Remove the armature, and remove the brush holder and brush by melting the solder.

Inspection

Wipe off grease from the disassembled parts with wastes.

1. Check the brush length, and if the length is less than 8.0 mm or 0.32", replace the brush.

Specified length: 12.5 mm (0.50")

2. Inspect the commutator for roughness, burned or scored surface, and if necessary, remove the roughness with a sand paper. The diameter of the commutator should not be less than 22.5 mm or 0.88".

Specified diameter: 23 mm (0.91")

3. Inspect and adjust the armature thrust gap.

To adjust the gap, screw in the adjusting screw fully, unscrew it 1/8 ~ 1/10 turn from the fully screwed position, and lock it with the lock nut.

Ensure that the motor rotates quietly and smoothly.

Thrust gap: 0.05 mm (0.002")

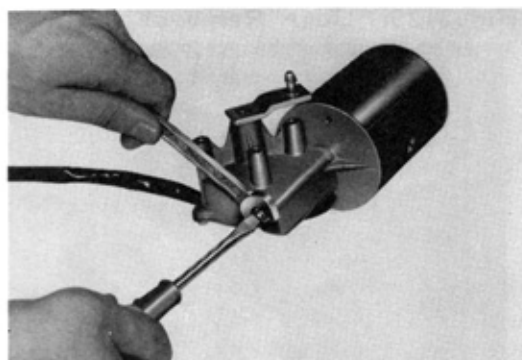


Fig.3-31 Armature Thrust Gap Adjustment V0966

4. Check if the armature is in contact with the pole core. If in contact, replace both the end frame and gear housing.

Even if not in contact, replace both the end frame and gear housing if the clearance between the armature and bushing installed between the armature and end frame is more than 0.1 mm (0.004").

5. Check the crank arm thrust play.

Specified thrust play:  
0.03 ~ 0.12 mm (0.001 ~ 0.005")

Assembly

Follow the disassembly procedures in the reverse order. Apply grease to the gear.

To install the cam plate, gear and crank arm to the correct positions, the cut portion of the cam plate should be located to the positive terminal with the crank arm positioned to the stopping position.

If installed as "A" in the figure 3-32, the crank arm will be positioned as "B" in the figure 3-32 at the stopping position.

Wiper Motor Test

After assembling the wiper motor, ensure that the crank arm stops at the stopping position.

In this case, to connect the wiring, use the wiring connector and switch of the vehicle, and ground the wiper motor surely.

Installation

Follow the removal procedures in the reverse order. Ensure that the wiper blade is positioned correctly.

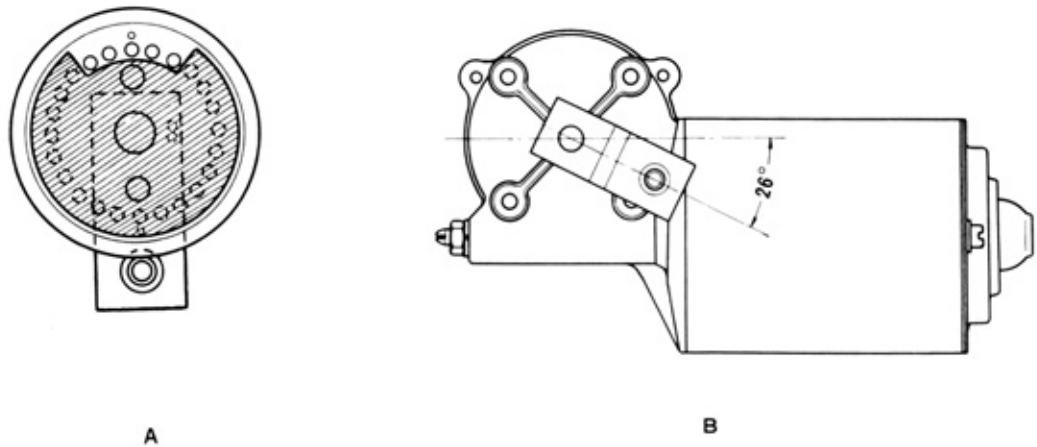


Fig.3-32 Cam Plate Installing Position X5719,X5720

WINDSHIELD WASHER

Description

The windshield washer switch is incorporated integrally in the wiper switch, and becomes ON when the switch knob is turned clockwise. The construction of the washer pump and washer motor are illustrated in the figures 3-33 and 3-34.

The windshield washer should not be operated without the washer fluid to prevent the over load of the motor, and also not be operated over 20 seconds continuously.

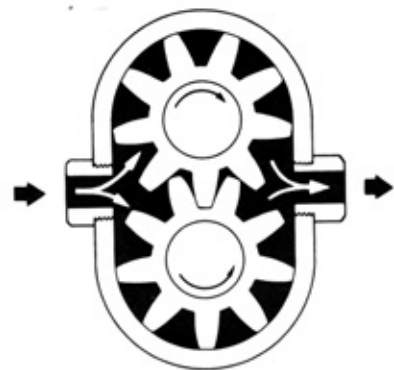


Fig.3-33 Washer Pump Construction X2144

- Motor : Magnet type
- Pump : Gear pump
- Rated voltage : 12 volts
- Operating current : Less than 3 amperes
- Time rating : 20 seconds
- Delivery pressure : 0.4 kg/cm<sup>2</sup> (5.7 psi)
- Delivery capacity : More than 100 cc/10 sec.
- Tank capacity : 1.2 liters (1.3 US qt., 1.1 Imp.qt)

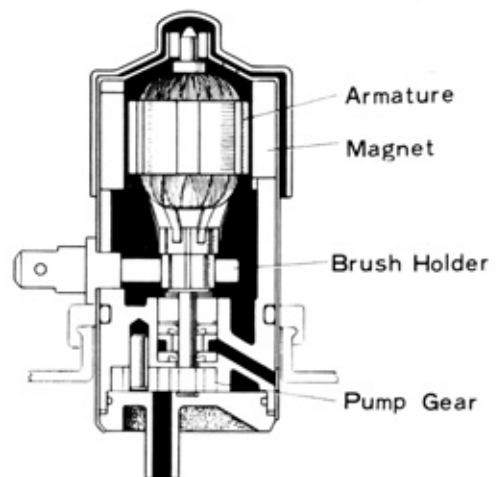


Fig.3-34 Washer Motor Construction X5931



Trouble Shooting

Symptoms & Probable Causes

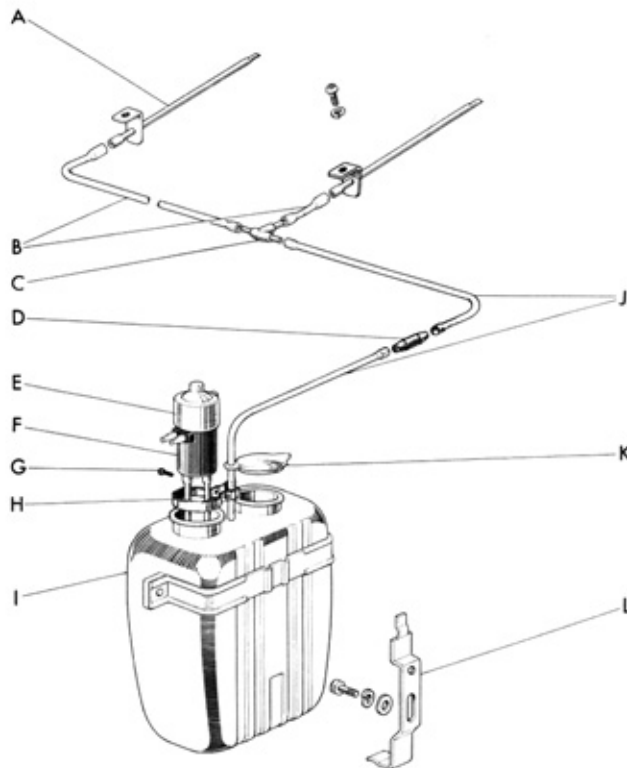
Remedies

Washer motor does not turn

- |                         |               |
|-------------------------|---------------|
| 1. Fuse burned out      | Replace       |
| 2. Wiring broken        | Repair        |
| 3. Switch defective     | Replace       |
| 4. Motor defective      | Replace       |
| 5. Armature shaft rusty | Replace motor |

Motor turns, but will not pump washer fluid

- |                     |               |
|---------------------|---------------|
| 1. Fluid lacking    | Replenish     |
| 2. Nozzle clogged   | Clean         |
| 3. Hose defective   | Replace       |
| 4. Wiring incorrect | Correct       |
| 5. Pump defective   | Replace motor |



- |  |                                    |
|--|------------------------------------|
| A. Windshield washer nozzle                | G. Screw                           |
| B. Hose                                    | H. Motor supporter                 |
| C. Joint "T"                               | I. Windshield washer tank assembly |
| D. Joint                                   | J. Hose                            |
| E. Cap                                     | K. Windshield washer cap           |
| F. Windshield washer motor & pump assembly | L. Windshield washer bracket       |

Fig.3-35 Windshield Washer Components

Inspection

1. Inspect the hose for twisted portion.
2. Adjust the injected position as illustrated in the figure 3-36.

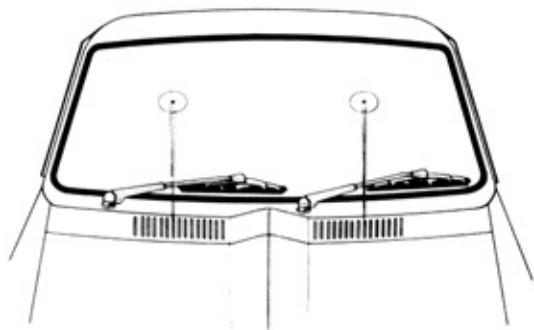


Fig.3-36 Injected Position X5721

\*\*\*\*\*

Removal

1. Remove the cowl ventilator louver .
2. Remove the nozzle and hose .
3. Disconnect the wiring connector .
4. Remove the motor & pump assembly .
5. Remove the hose from the pump .
6. Remove the washer tank from the bracket .

Installation

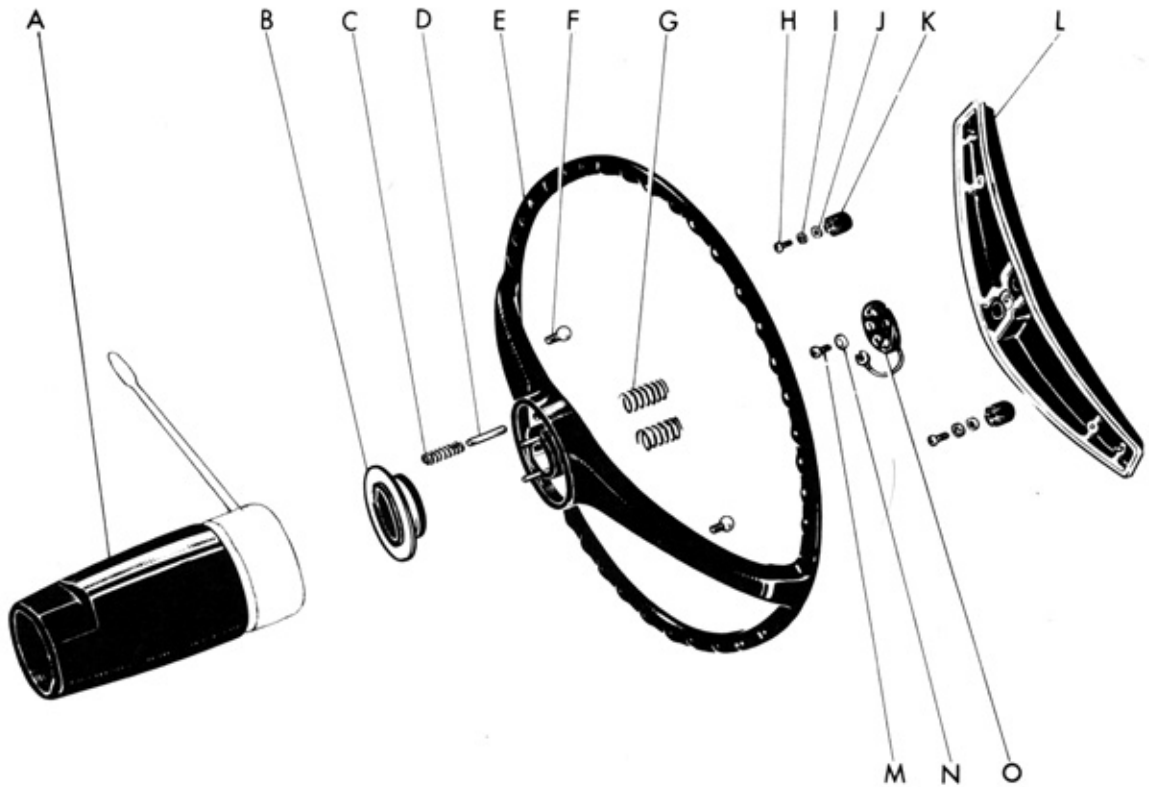
Follow the removal procedures in the reverse order .

HORN

Maker	Denso	Maruko
Rated voltage	12 volts	same
Current	1.5 ~ 2.5 amperes	same
Decibel	100 ~ 110 decibels	same
Frequency: high-pitched horn	405 ~ 435 cycles	415 ~ 445 cycles
low-pitched horn	325 ~ 355 cycles	343 ~ 373 cycles
Usable voltage range	9 ~ 15 volts	10 ~ 14 volts
Weight	About 0.5 kg (1.1 lbs)	same

Trouble Shooting

Symptoms & Probable Causes	Remedies
<b>Horns do not sound</b>	
1. Fuse burned out	Replace
2. Wire broken	Repair
3. Point wrong contacted with horn contact plate	Repair
4. Horn defective	Repair or replace
<b>Insufficient volume or improper tone</b>	
1. Wire loose	Repair
2. Wire incorrect	Repair
3. Horn switch poor contacted	Repair
4. Horn out of adjustment	Repair
5. Horn contact plate poor contacted	Repair
6. Condenser or resistor defective	Replace
7. Diaphragm defective	Replace



- A. Steering housing
- B. Horn contact plate
- C. Compression spring
- D. Straight pin
- E. Steering wheel
- F. Horn button ball joint
- G. Compression spring
- H. Screw
- I. Toothed washer
- J. Plate washer
- K. Horn button joint socket
- L. Horn button
- M. Screw
- N. Toothed washer
- O. Horn button contact ring

Fig.3-37 Horn Button Components

Y2187

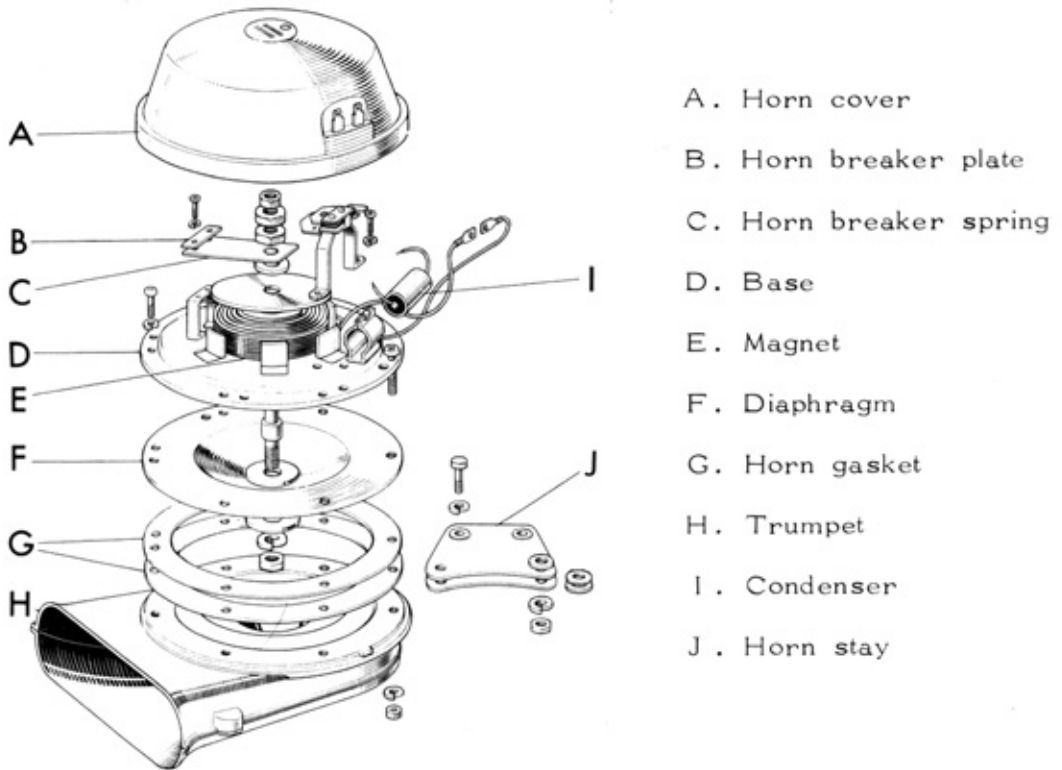


Fig.3-38 Horn Components (Denso Product)

Y2188

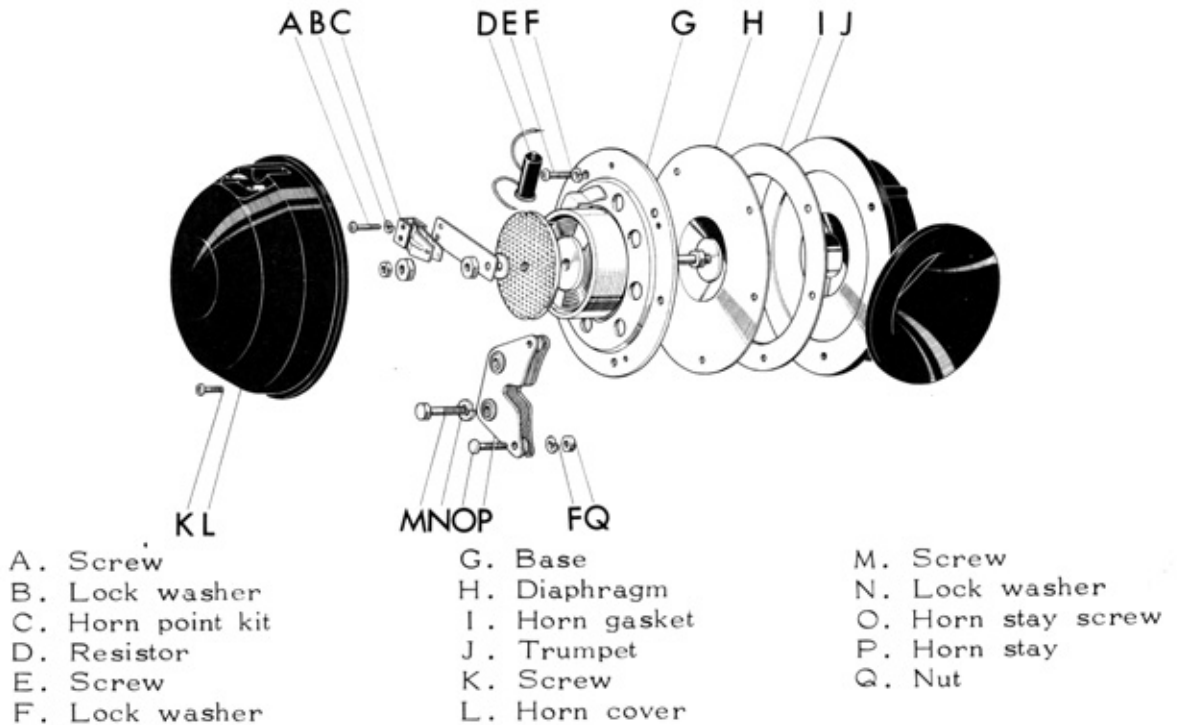


Fig.3-39 Horn Components (Maruko Product)

Y2189

Removal

1. Disconnect the wiring connector.
2. Remove the horn with the stay.

Disassembly

1. Remove the horn cover and point.
2. Remove the condenser or resistor.
3. Remove the base, diaphragm, gasket and horn stay from the trumpet.
4. Remove the magnet (for Denso Product only).

Assembly

Inspect the point and diaphragm, and follow the disassembly procedures in the reverse order.

Adjustment

1. Install an ammeter to the horn, and measure the amperage of the horn.

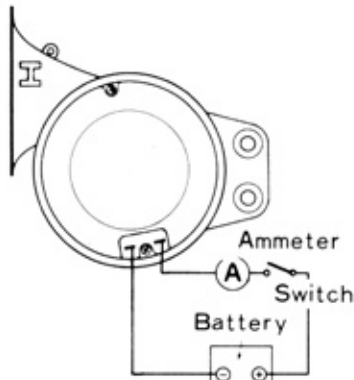


Fig.3-40 Horn Adjustment Y1141

To adjust the amperage of the horn, loosen the lock nut(1), and turn the adjusting nut to obtain the amperage of 2.5 amperes.

To increase the amperage, turn the adjusting nut counterclockwise, and to decrease the amperage turn the adjusting nut clockwise. After adjusting, tighten the lock nut(1).

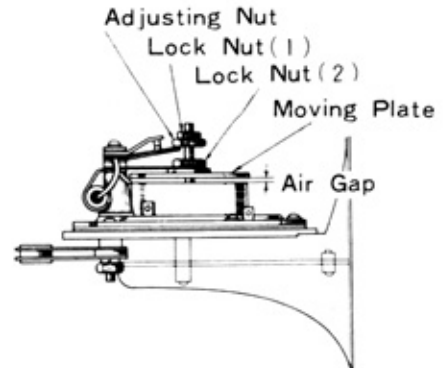


Fig.3-41 Horn Adjustment Y1141

2. To adjust the horn sound, loosen the lock nut(2), and turn the moving plate to obtain proper contact gap so that at 9 volts the horn will sound and at 15 volts the moving plate will not contact with the core.

To increase the gap, turn the moving plate counterclockwise, and to decrease the gap turn the moving plate clockwise.

After adjusting, tighten the lock nut(2).

Installation

Follow the removal procedures in the reverse order.

FUSE BOX

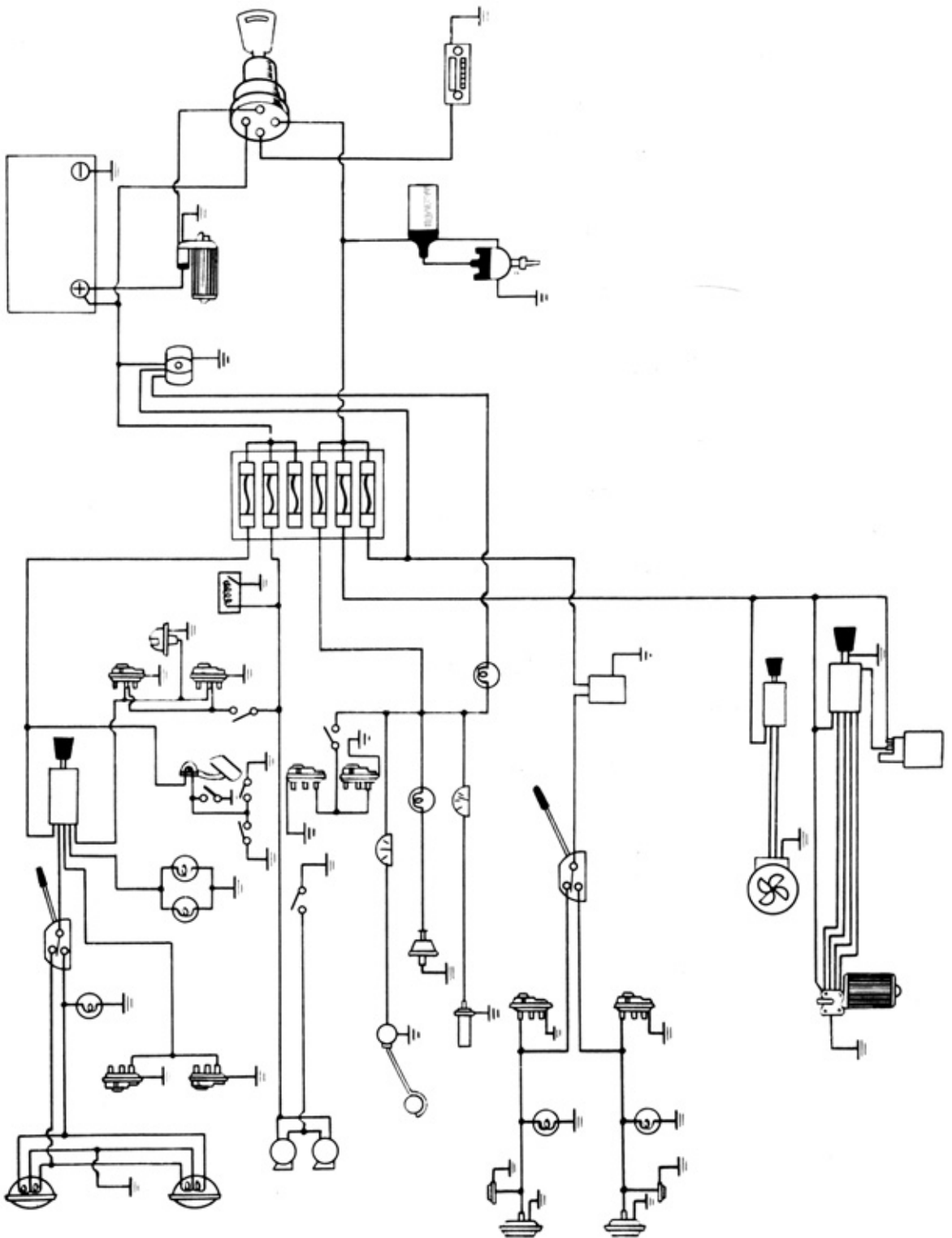


Fig.3-42 Fuse Box

WIRING HARNESS

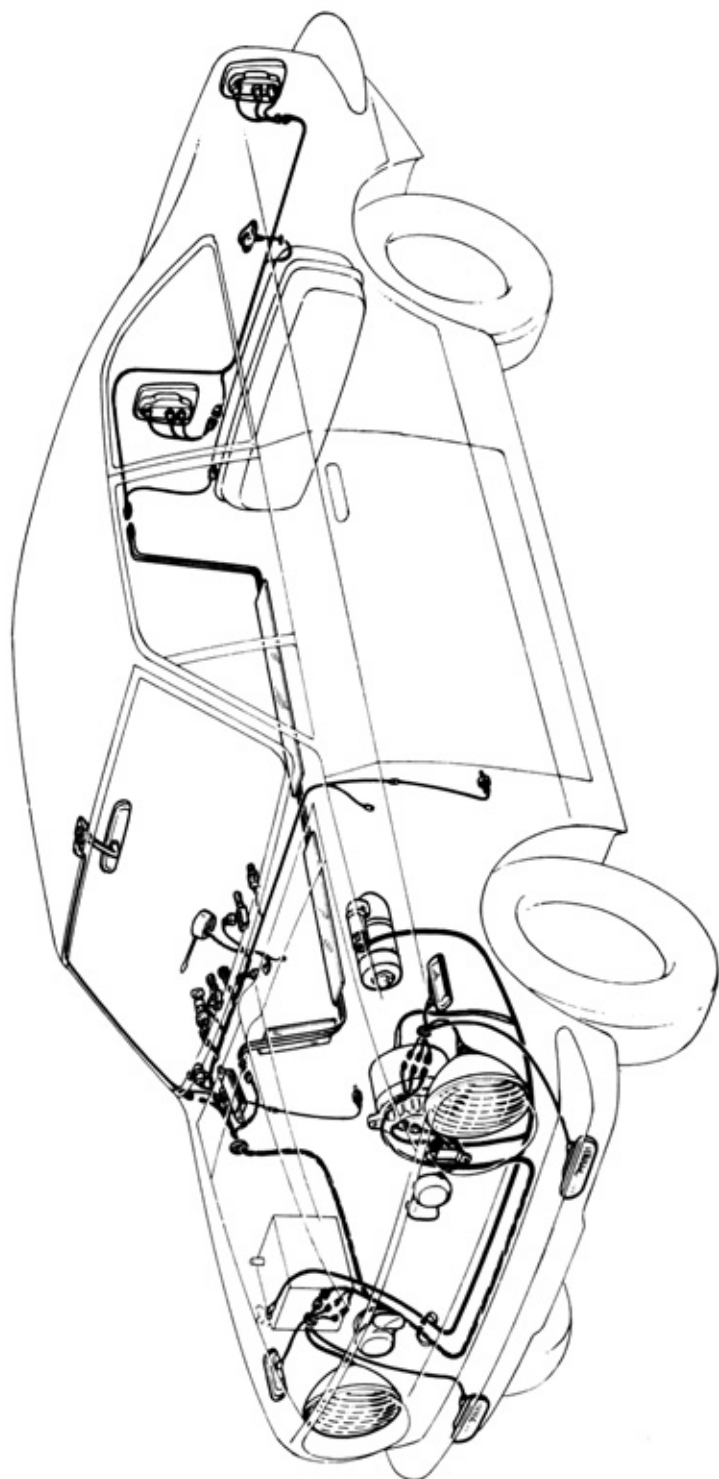


Fig.3-43 Wiring Harness

TO ALTERNATOR  
WIRING HARNESS

Removal

1. Remove the engine under cover.
2. Disconnect all the wiring connections.
3. Remove the wiring harness by loosening the wiring clamps.

Installation

Follow the removal procedures in the reverse order.

COWL TO HEADLIGHT  
WIRING HARNESS

Removal

1. Disconnect the battery cable.
2. Disconnect the hood lock control cable from the hood lock release lever.
3. Disconnect all the wirings.
4. Remove the wiring harness from the clamps.
5. Remove the cowl to headlight wiring harness to the engine room.

Installation

Reverse the removal procedures.

TO REAR LIGHT  
WIRING HARNESS

Removal

1. Remove the instrument under tray if installed.
2. Remove the cowl ventilator and heater attaching bolts, and remove the heater.
3. Remove the dash panel trim board attaching screws, and loosen the board.

4. Remove the rear seat cushion and floor mat.

5. Disconnect all the wiring connector, and remove the wiring harness.

Installation

Follow the removal procedures in the reverse order.

TO ROOM LIGHT  
WIRING HARNESS

Removal

1. Remove the room light.
2. Remove the sun visor at the right side.
3. Remove the right door opening trim.
4. Remove the headlining from the ports at the front side.
5. Remove the two headlining supports at the front side.
6. Disconnect the wiring connector, and remove the wiring harness from the room light attaching hole.
7. Remove the wires from the wiring harness.

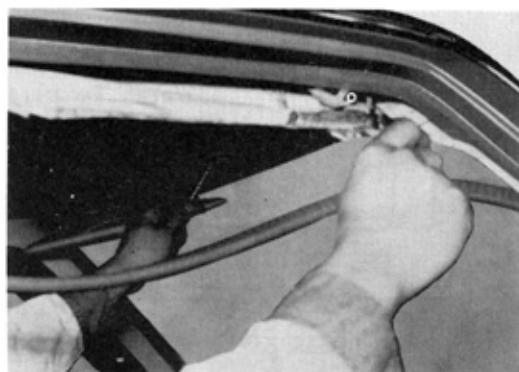


Fig.3-44 To Room Light Wiring Harness Removal V0967

Installation

Reverse the removal procedures.



ELECTRICAL WIRING DIAGRAM

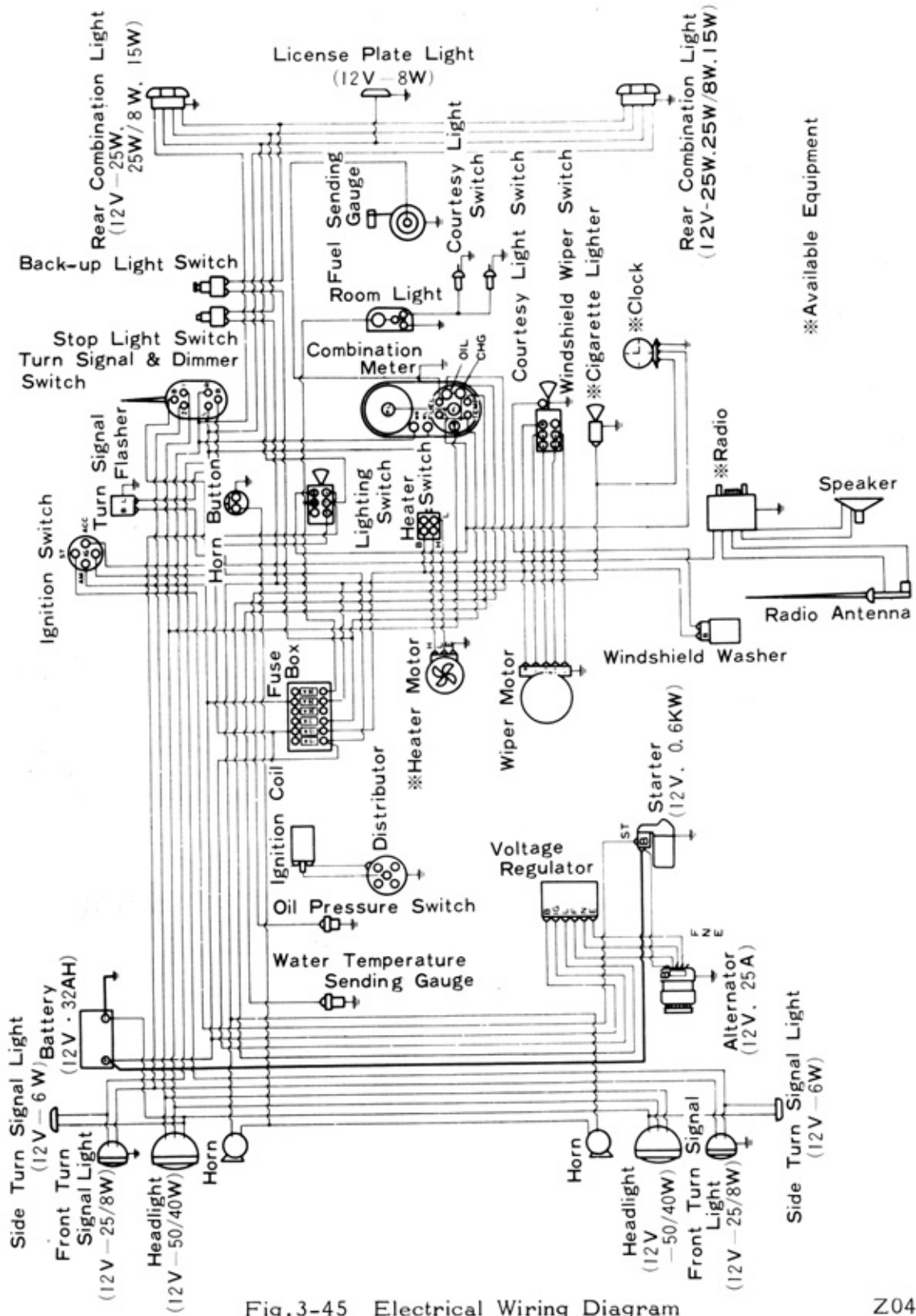


Fig. 3-45 Electrical Wiring Diagram

COWL TO HEADLIGHT WIRING HARNESS

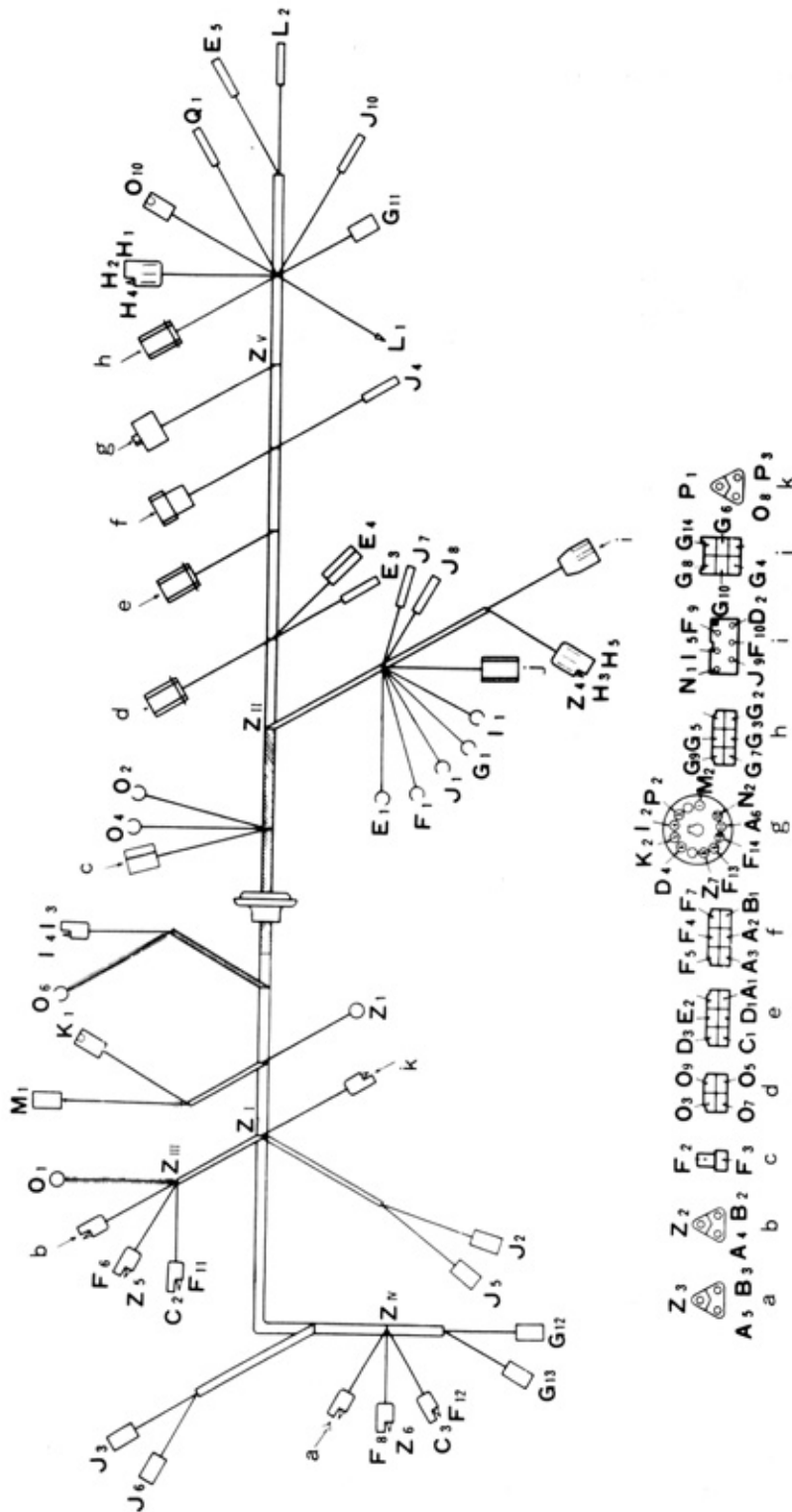


Fig.3-46 Cowl To Headlight Wiring Harness

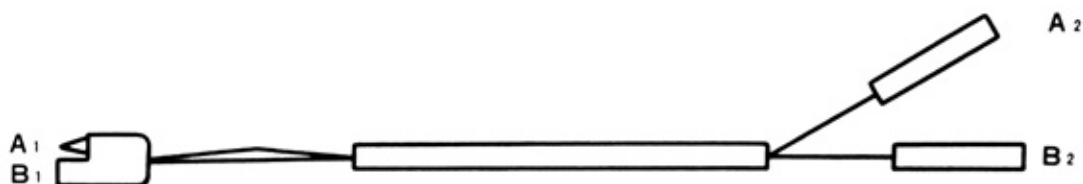
The first alphabet indicates the basic color of the wire, and the second alphabet indicates the spiral line color.

R is red, W is white, L is light purple, G is green,  
Y is yellow, B is black and O is orange.

Examples: RG<sub>1</sub> is for red and green line.  
RG<sub>1</sub>Y<sub>1</sub> is for red, and green and yellow lines.

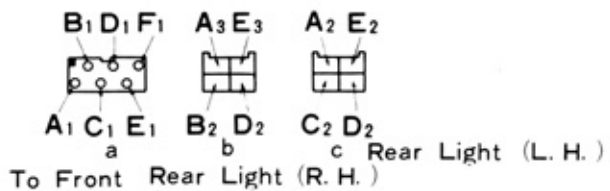
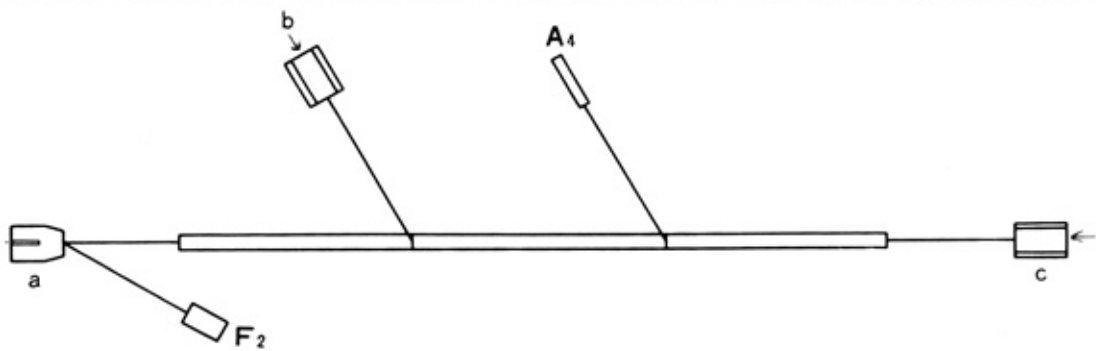
Keys	Connections		Color
A1 ~ A2	Lighting switch(H)	Dimmer switch(B)	RW1
A3 ~ A4	Dimmer switch(1)	Headlight Hi-beam(R)	RY1
Z1 ~ A5	A3 ~ A4 connected	Headlight Hi-beam(L)	RY1
A3 ~ A6	Dimmer switch(1)	Hi-beam indicator light	RY1
B1 ~ B2	Dimmer switch(2)	Headlight Lo-beam(R)	RG1
Z1 ~ B3	B1 ~ B2 connected	Headlight Lo-beam(L)	RG1
C1 ~ C2	Lighting switch(P)	Parking light(R)	GO1
Z1 ~ C3	C1 ~ C2 connected	Parking light(L)	GO1
D1 ~ D2	Lighting switch(T)	Tail light connection	G
D3 ~ D4	Lighting switch(M)	Meter pilot light	RB1
E1 ~ E2	Fuse box load side 20A	Lighting switch(B)	R
E2 ~ E3	Lighting switch(B)	Room light(B) connection	RG1
E4 ~ E5	Room light(-) connection	Door switch connection	RW1
F1 ~ F2	Fuse box load side 15A	Turn signal flasher(B)	GR1
F3 ~ F4	Turn signal flasher(L)	Turn signal switch	GL1
F5 ~ F6	Turn signal switch(R)	Side turn signal light(R)	GY1
F7 ~ F8	Turn signal switch(L)	Side turn signal light(L)	GB1
ZII ~ F9	F5 ~ F6 connected	Rear turn signal light(R) connection	GY1
ZII ~ F10	F7 ~ F8 connected	Rear turn signal light(L) connection	GB1
ZIII ~ F11	F5 ~ F6 connected	Front turn signal light(R)	GY1
ZIV ~ F12	F7 ~ F8 connected	Front turn signal light(L)	GB1
F5 ~ F13	Turn signal switch(R)	Turn signal indicator light(R)	GY1
F7 ~ F14	Turn signal switch(L)	Turn signal indicator light(L)	GB1
G1 ~ G2	Fuse box load side 15A	Wiper switch(B)	L
G3 ~ G4	Wiper switch(+1)	Wiper motor(+1)	LB1
G5 ~ G6	Wiper switch(+2)	Wiper motor(+2)	LO1
G7 ~ G8	Wiper switch(+3)	Wiper motor(+3)	LR1
G9 ~ G10	Wiper switch(+4)	Wiper motor(+4)	LW1
G11 ~ G12	Wiper switch(W)	Windshield washer(L)	LY1
G1 ~ G13	Fuse box load side 15A	Windshield washer(B)	L
G1 ~ G14	Fuse box load side 15A	Wiper motor(B)	L
G2 ~ H1	Wiper switch(B)	Heater switch(B)	LR1
H2 ~ H3	Heater switch(H)	Heater blower(H)	LB1
H4 ~ H5	Heater switch(L)	Heater blower(L)	LW1
I1 ~ I2	Fuse box load side 5A	Meter(IGN)	Y
I1 ~ I3	Fuse box load side 5A	Back-up light switch connection	RL1
I4 ~ I5	Back-up light switch	Back-up light connection	RL1
J1 ~ J2	Fuse box load side 20A	Horn	GW1
Z1 ~ J3	J1 ~ J2 connected	Horn	GW1
J4 ~ J5	Horn button	Horn	GR1
Z1 ~ J6	J4 ~ J5 connected	Horn	GR1

Keys	Connections		Color
J1 ~ J7	Fuse box load side 20A	Stop light switch	GW1
J8 ~ J9	Stop light switch	Stop light connection	GW1
J1 ~ J10	Fuse box load side 20A	Cigarette lighter	RB1
K1 ~ K2	Oil pressure sending gauge	Oil warning light	YB1
L1 ~ L2	Radio(M)	Antenna(M)	LR1
M1 ~ M2	Water temperature sending gauge	Water temperature receiving gauge	YG1
N1 ~ N2	Fuel sending gauge connection	Fuel receiving gauge	YR1
O1 ~ O2	Battery(+)	Fuse box battery side 20A	W
O2 ~ O3	Fuse box battery side 20A	Ignition switch(AM)	BR1
O4 ~ O5	Fuse box load side 15A	Ignition switch(IG)	BY1
O4 ~ O6	Fuse box load side 15A	Ignition coil(+)	BY1
O7 ~ O8	Ignition switch(ST)	Starter magnet connection	BW1
O9 ~ O10	Ignition switch(ACC)	Radio	LR1
P1 ~ P2	Voltage regulator(L) connection	Charge warning light	YW1
F1 ~ P3	Fuse box load side 15A	Voltage regulator(IG) connection	WR1
ZVI~ Q1	D3 ~ D4 connected	Clock pilot light	RB1
Z1 ~ Z2	Body ground	Headlight ground(R)	WB1
Z1 ~ Z3	Body ground	Headlight ground(L)	WB1
Z1 ~ Z4	Body ground	Heater blower ground	WB1
ZIII ~ Z5	Z1 ~ Z2 connected	Side turn signal light ground (R)	WB1
ZIII ~ Z6	Z1 ~ Z3 connected	Side turn signal light ground (L)	WB1
ZII ~ Z7	Z1 ~ Z4 connected	Meter ground	WB1



A1 ~ A2	Back-up light battery connection	Back-up light switch	RL1
B1 ~ B2	Back-up light connection	Back-up light switch	RL1

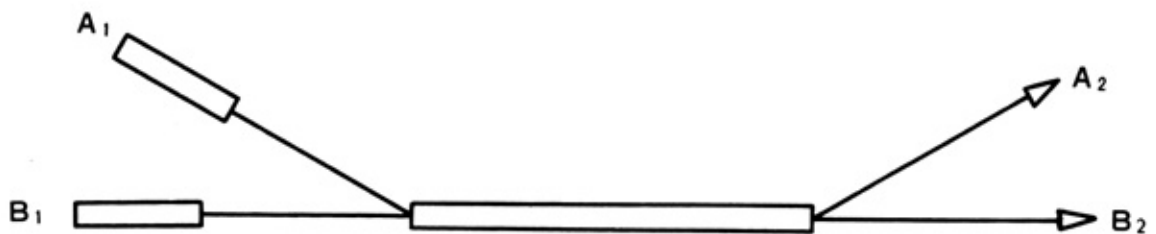
Fig.3-47 To Back-Up Light Wiring Harness



A1 ~ A2	Lighting switch (T) connection	Tail light (L)	G
ZI ~ A3	A1 ~ A2 connected	Tail light (R)	G
ZII ~ A4	A1 ~ A2 connected	License plate light	G
B1 ~ B2	Turn signal switch (R) connection	Rear turn signal light (R)	GY1
C1 ~ C2	Turn signal switch (L) connection	Rear turn signal light (L)	GB1
D1 ~ D2	Back-up light switch connection	Back-up light (L)	RL1
ZI ~ D3	D1 ~ D2 connected	Back-up light (R)	RL1
E1 ~ E2	Stop light switch connection	Stop light (L)	GW1
ZI ~ E3	E1 ~ E2 connected	Stop light (R)	GW1
F1 ~ F2	Fuel receiving gauge connection	Fuel sending gauge	YR1

Fig.3-48 To Rear Light Wiring Harness

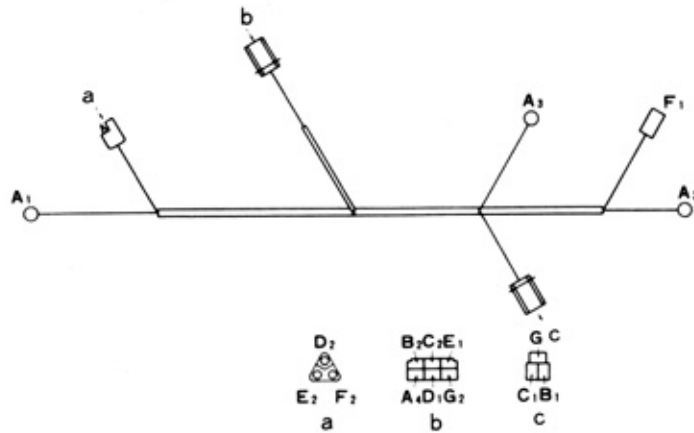
Y2192



A1 ~ A2	Room light (B)	Fuse box connection	RG1
B1 ~ B2	Room light (-)	Door switch connection	RW1

Fig.3-49 To Room Light Wiring Harness

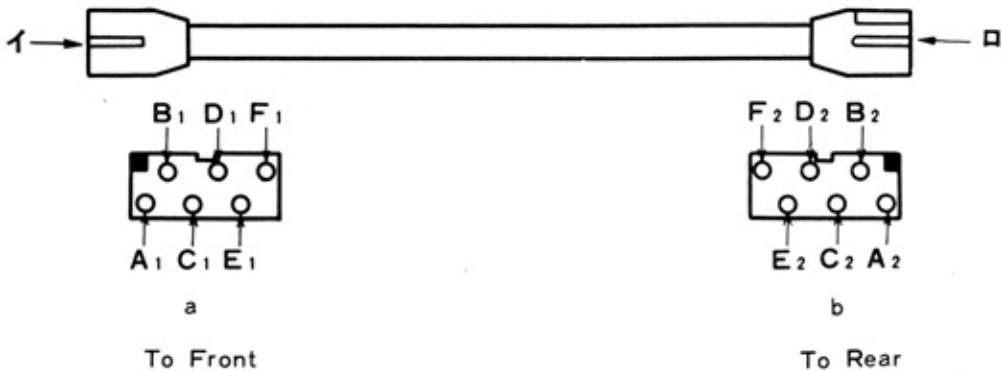
X5723



A1 ~ A2	Battery(+)	Starter(B)	B
A2 ~ A3	Starter(B)	Alternator(B)	W
A3 ~ A4	Alternator(B)	Voltage regulator(B)	W
B1 ~ B2	Alternator(F)	Voltage regulator(F)	WG1
C1 ~ C2	Alternator(N)	Voltage regulator(N)	WL1
D1 ~ D2	Voltage regulator(L)	Charge warning light connection	YW1
E1 ~ E2	Voltage regulator(IG)	Fuse box connection	WR1
F1 ~ F2	Starter magnet	Ignition switch(ST) connection	BW1
G1 ~ G2	Alternator(E)	Voltage regulator(E)	WB1

Fig.3-50 To Alternator Wiring Harness

Y2191



A1 ~ A2	Lighting switch(T) connection	Tail light connection	B
B1 ~ B2	Turn signal switch(R) connection	Turn signal light(R) connection	B
C1 ~ C2	Turn signal switch(L) connection	Turn signal light(L) connection	B
D1 ~ D2	Back-up light switch connection	Back-up light connection	B
E1 ~ E2	Stop light switch connection	Stop light connection	B
F1 ~ F2	Fuel receiving gauge connection	Fuel sending gauge connection	B

Fig.3-51 Chassis Wiring Harness

X5725