

SECTION 21

BODY ELECTRICAL EQUIPMENT

www.zukioffroad.com

CONTENTS

21-1.	COMBINATION METER	21-2
21-2.	HEAD LIGHT	21-4
21-3.	TURN SIGNAL LIGHT AND HAZARD WARNING LIGHT.....	21-7
21-4.	WINDSHIELD WIPER MOTOR	21-9
21-5.	WATER TEMPERATURE METER AND GAUGE.....	21-11
21-6.	FUEL LEVEL METER AND GAUGE	21-12
21-7.	BRAKE WARNING LAMP	21-13
21-8.	OIL PRESSURE LAMP	21-14
21-9.	4 WHEEL DRIVE LAMP	21-15
21-10.	SEAT BELT WARNING LAMP/BUZZER	21-15
21-11.	MAIN SWITCH KEY WARNING BUZZER.....	21-16
21-12.	ILUMINATION CONTROLLER.....	21-16
21-13.	REAR DEFOGGER (hard-top).....	21-16
21-14.	FUSE BOX.....	21-18
21-15.	WIRING HARNESS ROUTING	21-19
21-16.	WIRING DIAGRAM	21-22

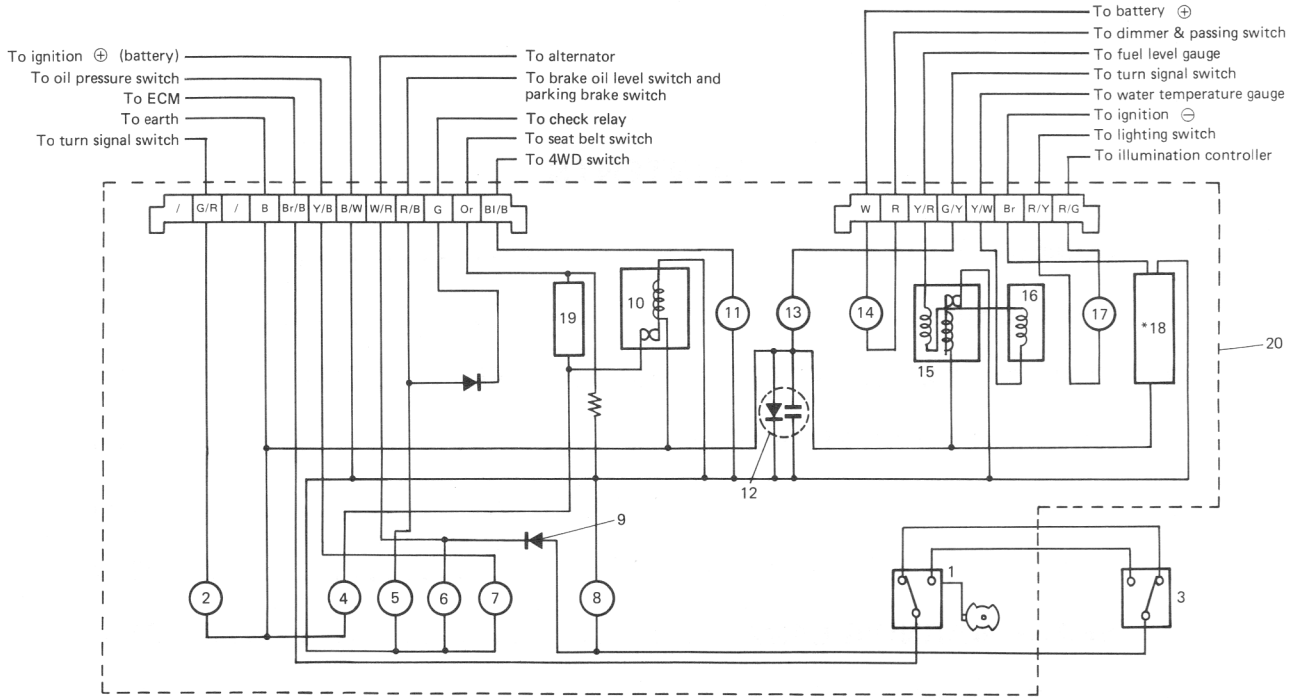
21-1. COMBINATION METER

COMBINATION METER CIRCUIT AND COMPONENTS

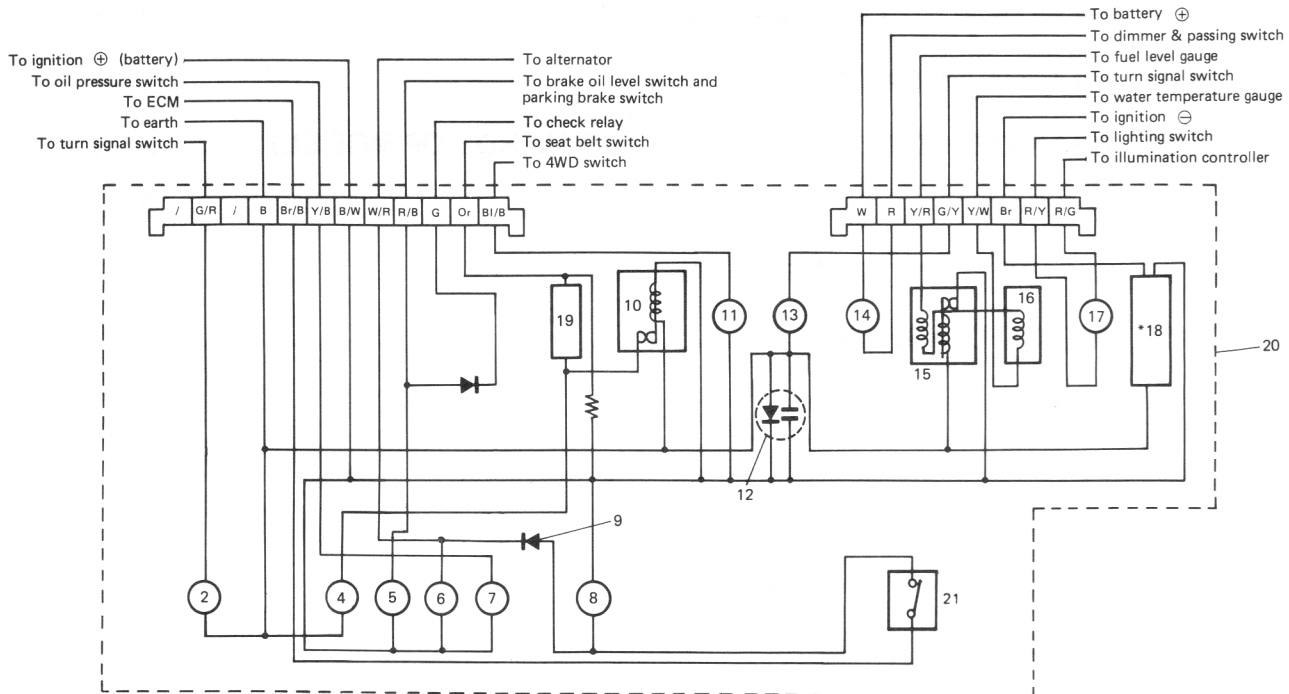
NOTE:

Whether equipped with * marked parts or not depends on vehicle specifications.

[U.S.A. specification vehicle]



[Canadian specification vehicle]

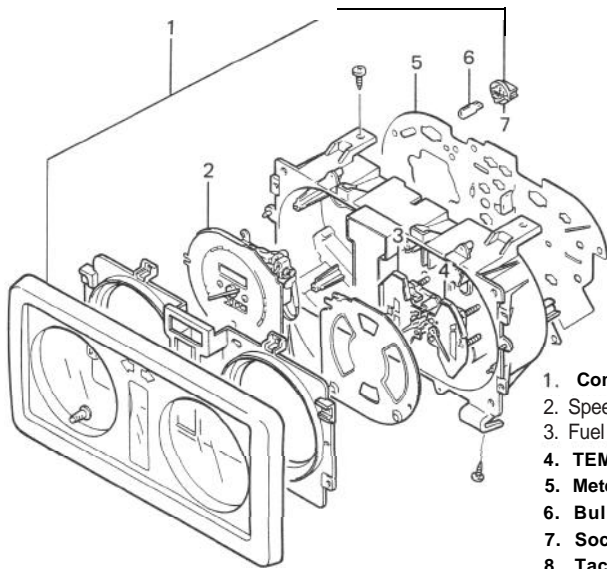


Wire color

G/R . . . Green/Red	Or . . . Orange
B Black	B1/B . Blue/Black
Br/B . . . Brown/Black	w . . . White
Y/B . . . Yellow/Black	Y/R . Yellow/Red
B/W . . . Black/White	G/Y . . Green/Yellow
W/R . . . White/Red	Y/W . . Yellow/White
R/B . . . Red/Black	R/Y . Red/Yellow
G Green	R/G . . . Red/Green

- | | |
|--|---------------------------------|
| 1. 50,000 mile, 80,000 mile and 100,000 mile sensor switch | 11. 4WD light |
| 2. Turn signal pilot light (L) | 12. Noise'suppressor |
| 3. Cancel switch | 13. Turn signal pilot light (R) |
| 4. Seat belt warning light | 14. Beam pilot light |
| 5. Brake oil level warning light and parking brake light | 15. Fuel level meter |
| 6. Charge light" | 16. Temp. meter |
| 7. Engine oil pressure light | 17. Illumination light |
| 8. "CHECK ENGINE" light | 18. Tachometer |
| 9. Diode | 19. Seat belt warning buzzer |
| 10. Seat belt relay | 20. Combination meter |
| | 21. Check switch |

[Combination meter without tachometer]



[Combination meter with tachometer]

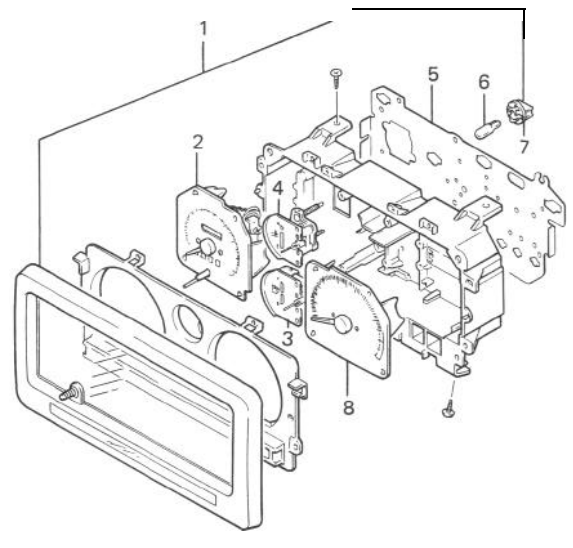


Fig. 21-1

REMOVAL AND INSTALLATION

1. Disconnect battery negative cable.
2. Remove instrument lower panel.
3. Lower steering column.
4. Remove combination meter cover.
5. Disconnect speedometer cable and wire harness coupler.
6. Remove combination meter.

7. To install combination meter, reverse above removal procedure.

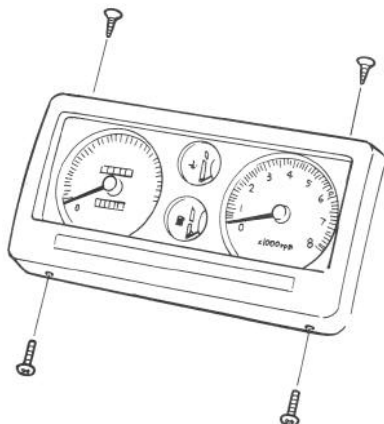


Fig. 21-2

21-2. HEAD LIGHT WIRING CIRCUIT

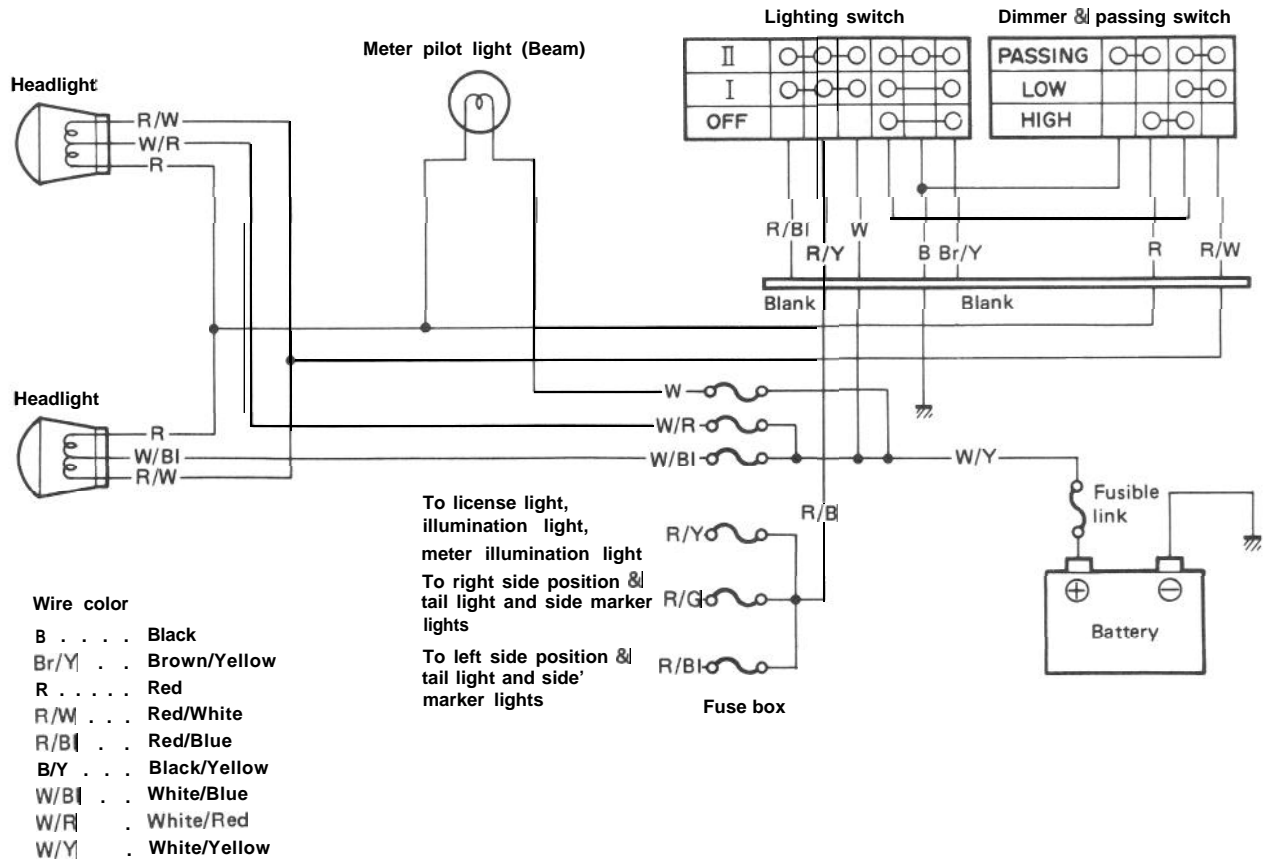


Fig. 21-3

HEADLIGHT INSPECTION

1. Lighting (Low beam, High beam, Passing)
2. Mounting
3. Dirt and cracks on lenses
4. Main beam axis direction and brightness

HEADLIGHT BEAM SETTING (STANDARD PROCEDURE)

Before setting the headlight beams, adjust air pressures of four tires to a specified value respectively. Move the vehicle up and down by hand to settle its attitude. Then move it over a flat surface. There are available a variety of headlight beams setting methods (e.g., the screen method using a focusing tester, etc.). However, the method described here does not use such tester.

Beam alignment

Unless otherwise obligated by the local regulations, align the headlight beams according to the following procedure. Place a blank wall 7.6 m (25 ft) ahead of the headlight. Check to see if the hot spot (high intensity zone) of each main (low) beam axis falls as illustrated below. The beam alignment should be carried out with one driver (68 kg, 150 lb) aboard.

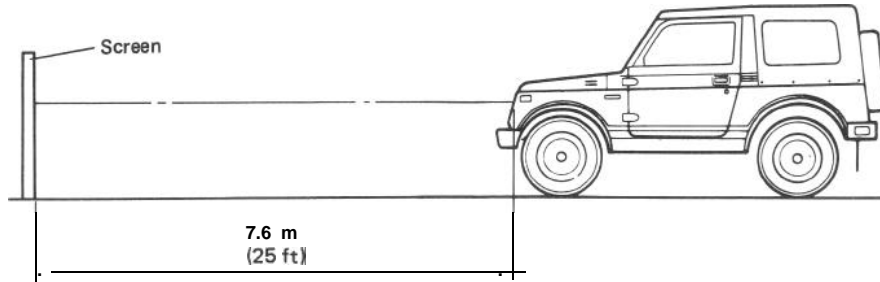
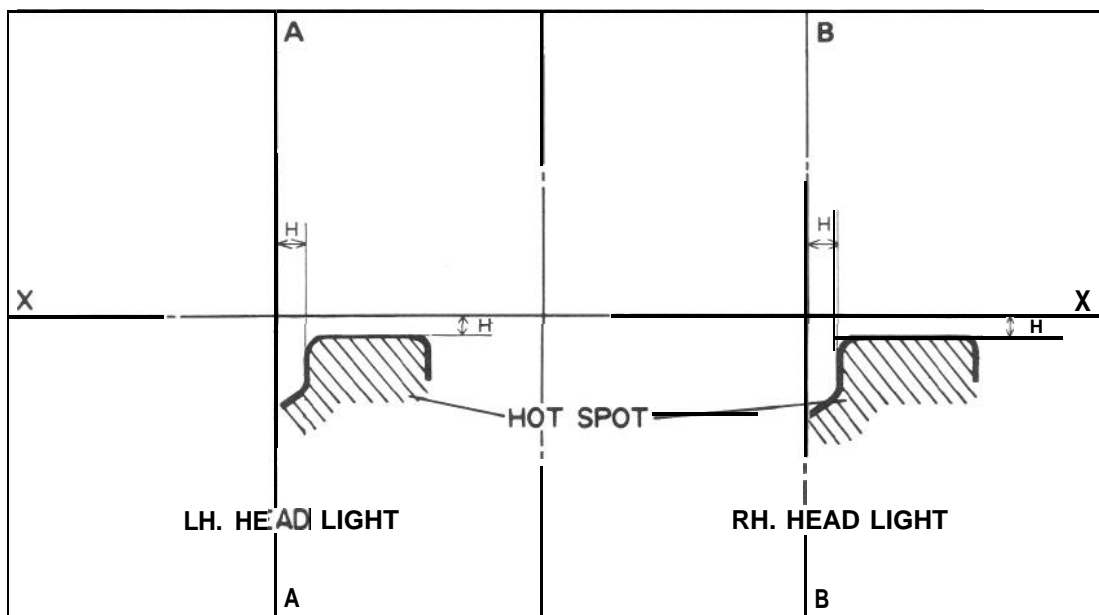


Fig. 21-4



- X - X : Horizontal center line of headlights
- A - A : Vertical center line of left headlight
- B - B : Vertical center line of right headlight
- H : 25 mm (0.98 in.)

Fig. 21-5

MAINTENANCE

(1) Headlight adjustment

There are two screws (1) and (2) which can be used for adjustment. Use these screws to adjust the headlight position for the vertical and horizontal alignment of each beam.

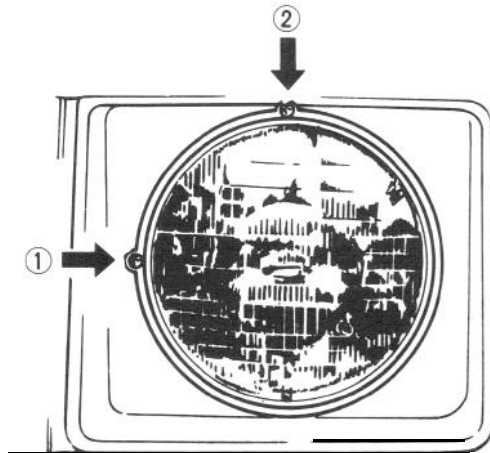
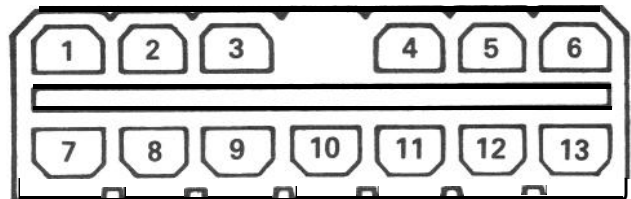


Fig. 21-6

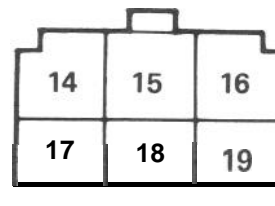
(2) Head light dimmer switch

Using circuit tester, check each circuit for continuity by putting tester probe pins to the terminals shown in Fig. 21-7. With switch kept in LOW BEAM position, tester should indicate continuity between terminals (7) and (18). Similarly, there should be continuity between terminals (8) and (18) when in HIGH BEAM position.

Switch connector



- | | |
|----------------------------|------------------|
| 1. Green/Red (Green/Black) | 8. Red |
| 2. Green/Yellow | 9. Blue/Green |
| 3. Green | 10. Brown/Yellow |
| 4. Yellow | 11. Red/Blue |
| 5. White/Blue | 12. Red/Yellow |
| 6. Yellow/Blue | 13. White |
| 7. Red/White | |



- | | |
|------------------|----------------|
| 14. Yellow/White | 17. Blue/Black |
| 15. Blue | 18. Black |
| 16. Blue/Red | 19. Blue/White |

Fig. 21-7

Combination switch (Lighting switch circuit)

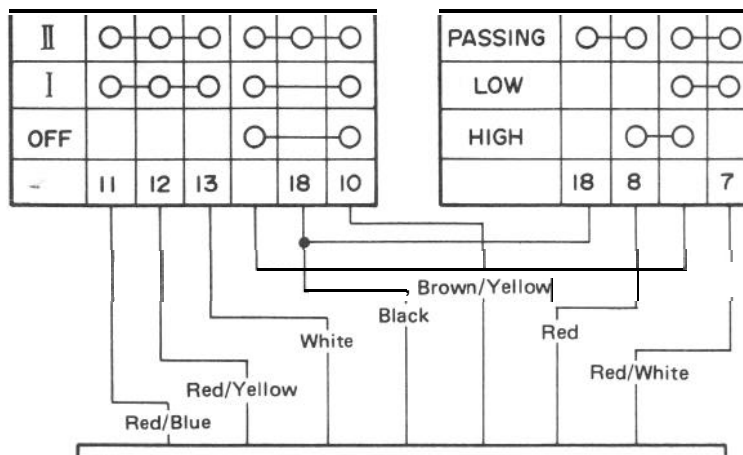
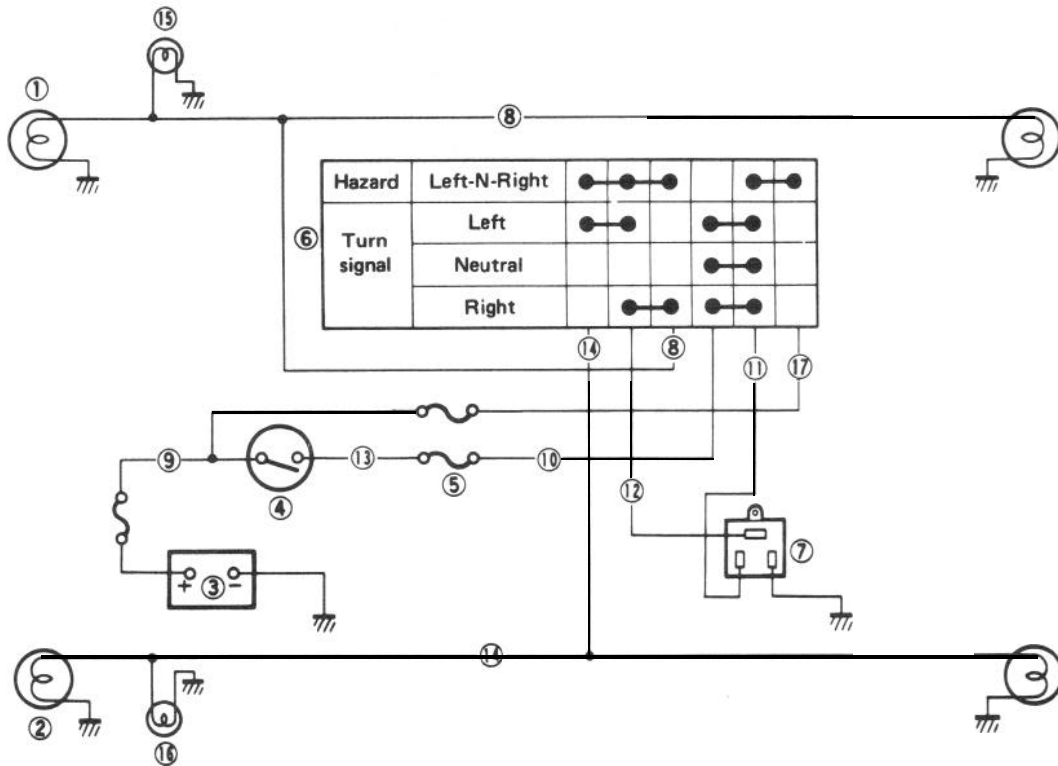


Fig. 27-8

21-3. TURN SIGNAL LIGHT AND HAZARD WARNING LIGHT CIRCUIT DESCRIPTION



- | | | |
|--|-----------------|-------------------------------|
| 1. Right turn signal | 8. Green/Yellow | 15. Meter pilot light (Right) |
| 2. Left turn signal | 9. White/Yellow | 16. Meter pilot light (Left) |
| 3. Battery | 10. Yellow | 17. White/Green |
| 4. Main switch | 11. Yellow/Blue | |
| 5. Fuse | 12. Green | |
| 6. Turn signal and hazard warning switch | 13. Black/Blue | |
| 7. Turn signal and hazard warning relay | 14. Green/Red | |

Fig. 21-9

When hazard warning switch is "OFF", Yellow lead ⑩ is connected to Yellow/Blue lead ⑪ |
 When the hazard warning switch is "ON", White/Green lead ⑰ is connected to Yellow/Blue lead ⑪ | and
 Green lead (12) to both Green/Yellow lead ⑧ | and Green/Red lead ⑭ |
 When Turn-signal switch is "ON" for right turn, Green lead ⑫ is connected to Green/Yellow lead ⑧ |
 When Turn-signal switch is "ON" for left turn, Green lead ⑫ is connected to Green/Red lead ⑭ |

INSPECTION

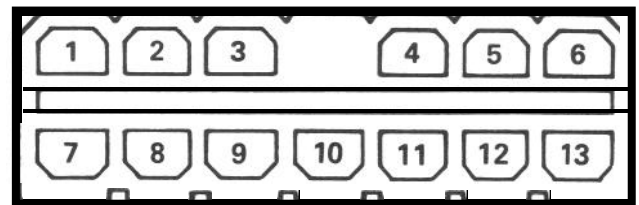
1) Trouble diagnosis

Symptom	Possible cause
1. Lights will not come on in either left or right group of light. 2. Hazard light comes on but turn signal lights will not. 3. No light comes on; or lights light up but do not flicker. 4. Turn signal lights are satisfactory, but hazard light will not come on. 5. Flickering frequency is erratic, or lights remain lit. 6. Turning on hazard warning switch lights up only one group of lights.	Fusible link is blown off. Open circuit (due to poor point contact) in turn signal dimmer switch. Defective relay unit. Open circuit in hazard warning switch. Light bulbs are defective or improperly grounded. Defective contact in dimmer switch.

2) Turn signal switch

Using circuit tester, check for continuity between each pair of terminals by referring to the chart given below and figure at the right for each position of turn signal switch lever. Discontinuity means that contact points are burnt or otherwise defective in the switch. For example, switch is in sound condition if continuity is noted between terminals 2 and 3, with lever in right-turn position, and between terminals 1 and 3, with lever in left-turn position.

Switch connector



- | | |
|----------------------------|------------------|
| 1) Green/Red (Green/Black) | 8. Red |
| 2. Green/Yellow | 9. Blue/Green |
| 3. Green | 10. Brown/Yellow |
| 4. Yellow | 11. Red/Blue |
| 5. White/Blue | 12. Red/Yellow |
| 6. Yellow/Blue | 13. White |
| 7. Red/White | |

Fig. 21-10

3) Hazard warning switch

Disconnect, lead wire of the hazard warning switch at its coupler. Set switch to ON position and check for continuity with circuit tester between each of the following pairs of terminals; 2 and 3, 1 and 3, 5 and 6 among those shown in Fig. 21-10. The switch is in sound condition if continuity is noted between each pair.

Turn signal & hazard warning switch

		1 (Green/Red or Green/Black)	3 (Green)	2 (Green/Yellow)	4 (Yellow)	6 (Yellow/Blue)	5 (White/Blue)
Hazard warning	Left-N-Right	●	●	●		●	●
Turn signal	Left	●	●		●	●	
	Neutral				●	●	
	Right		●	●	●	●	

21-4. WINDSHIELD WIPER MOTOR

CIRCUIT DESCRIPTION

The circuit is designed so that, when the Wiper Switch is turned "OFF", the blade will automatically return to the horizontal position. In Fig. 21-11, when the Wiper Switch is turned "ON" while the Main Switch is "ON", current is supplied to the Wiper Motor from the Battery, the motor rotates and the blade moves. The gear mechanism which converts rotational movement of the motor into swinging movement of the blade has a cam on the final gear shaft. The cam switches the contacts of P0 and P2 every revolution. (At the blade stop position, the contact is switched from P2 to P1.)

Repeated contact making and breaking is independent of the wiper motor rotation. When the Wiper Switch is turned "OFF" while the blade is in a position other than the rest position, motor current path is changed (i.e. BI/W → BI → MOTOR). Therefore, the motor keeps rotating even though the wiper switch is turned "OFF", and the blade will return to the rest position.

When the blade returns to the rest position, the cam contact is changed from P2 to P1 and motor current is shunted. When supply to the motor is cut off, a counter electromotive force is generated in the armature. As a result of this counter electromotive force, current flows through the motor and shunt circuit and the motor stops and the wiper blade stays in the specified position.

[INTERVAL WIPER RELAY CIRCUIT (OPTIONAL)]

When the wiper switch is set to the interval position with the ignition switch ON (the condenser is charged at this time), current from the battery flows through the yellow/blue wire, generates magnetic force in the coil in the relay and causes the switch in the relay to turn ON. Then current is transmitted in the sequence of yellow/blue, relay, wiper switch and blue and causes the wiper motor to rotate (meanwhile, the condenser discharges). By the time the wiper motor makes one rotation and the cam in the motor comes to the automatic stop position P1, the condenser in the relay has finished discharging (no magnetic force in the coil in the relay). Then the switch in the relay turns OFF and the wiper stops. They remain that way until the condenser is fully charged. As soon as the condenser begins discharging after being fully charged, magnetic force generated in the coil in the relay causes the switch to turn ON. As described above, interval operation of the wiper motor is controlled by charging and discharging of the condenser.

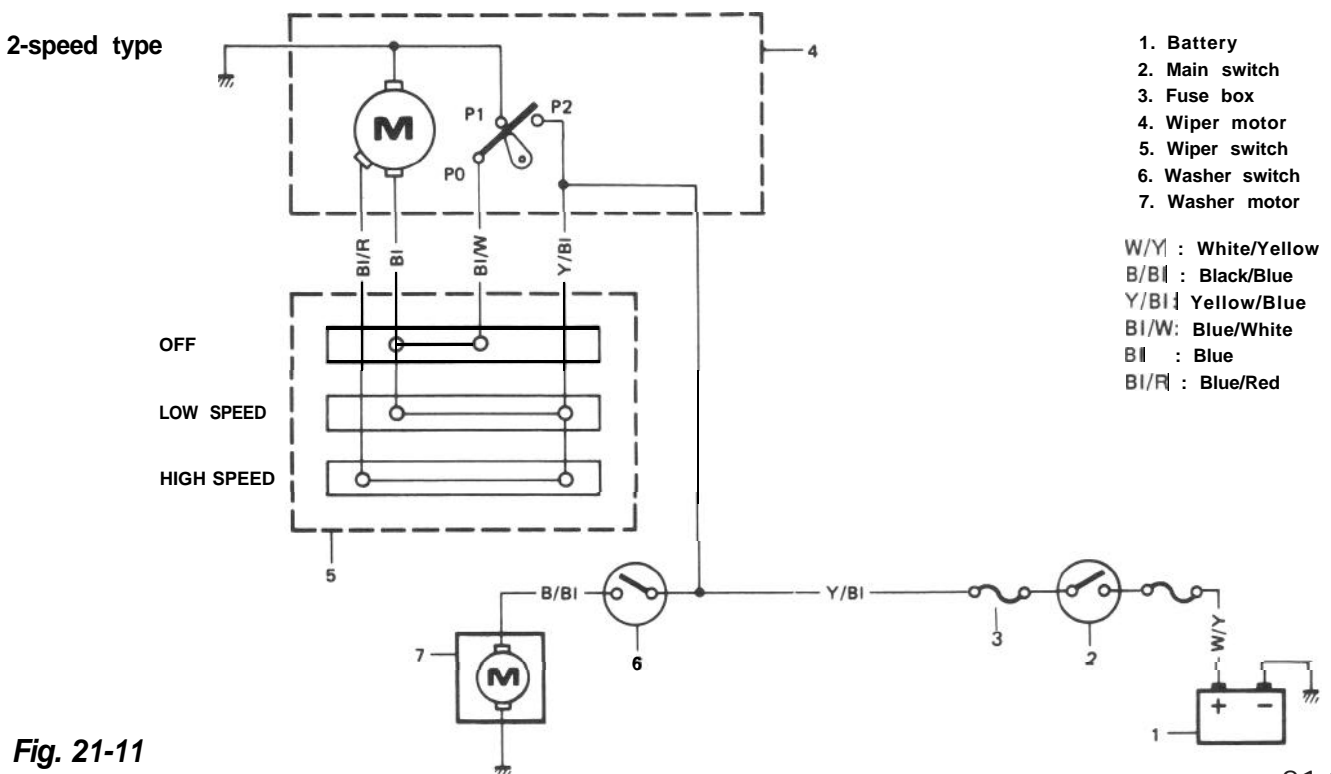


Fig. 21-11

3-speed type

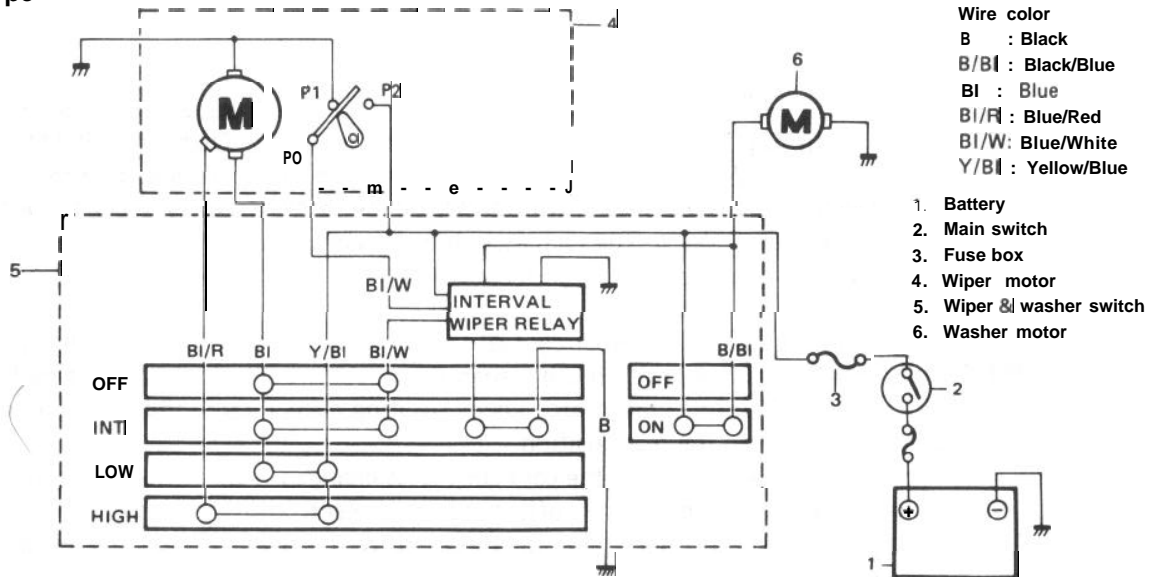


Fig. 21-12

MAINTENANCE

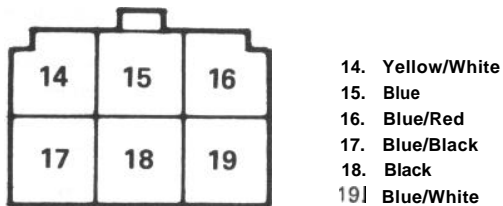
1) Wiper trouble diagnosis

When wiper motor does not start even if Wiper Switch is turned "ON", check lead connections and coupler connections. Then, check the following.

- Fuse blown or mounted incorrectly.
- Wiper switch:

To check wiper switch: remove couplers and check continuity between following terminals by using circuit tester.

Switch connector



2-speed type

	Yellow/white	Blue	Blue/red	Blue/white
High speed	●	●	●	
Low speed	●	●		
OFF		●	●	●

Wiper switch

3-speed type

	Yellow/white	Blue/white	Blue	Blue/red	To replay	Black
OFF		●	●			
Interval		●	●		●	●
Low speed	●		●			
High speed	●			●		

Wiper switch

c) Break in wiper motor armature or poor commutator brush contact:

To check these, check continuity between Blue lead and ground, and Blue/Red wire and ground respectively.

2) No-load run test

As shown in Fig. 21-13, using a 12V battery, connect positive battery terminal to Blue terminal and the negative terminal to motor. If motor rotates at 45 – 57 r/min, this is acceptable (for Low-speed check). For High-speed check, connect the positive terminal to Blue/Red terminal and negative terminal to motor. If motor rotates at 67 – 81 r/min, this is acceptable.

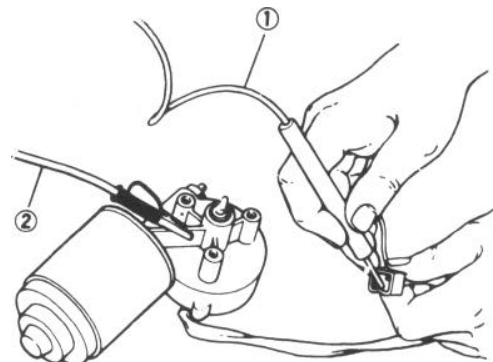


Fig. 21-13 Testing motor

- Positive terminal
- Negative terminal

3) Automatic stop action test

Connect yellow terminal of motor to positive (+) battery terminal, and put a jumper between Blue/White (Blue/Black) and Blue terminals to see if motor output shaft comes to a halt at a certain, not just any, angular position. That position corresponds to starting position of the blade. Using jumper, stop motor a number of times to make sure that motor stops at the same position each time.

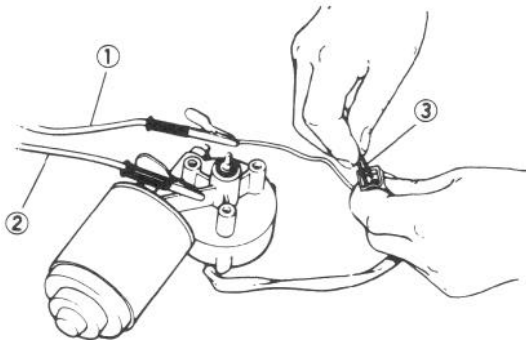


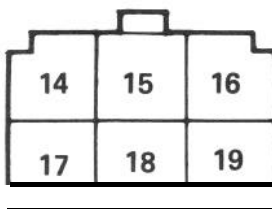
Fig. 21-14 Testing motor

1. Positive terminal
2. Negative terminal
3. Put a jumper between Blue/White (Blue/Black) and Blue

4) Internal wiper relay test

1. Disconnect wiper & washer switch coupler.
 2. Turn wiper switch to "I NT" position.
 3. Connect positive battery terminal to Yellow/White coupler terminal and negative battery terminal to Black terminal.
- If an operating sound is heard, the relay is at work properly.

Switch connector



14. Yellow/White
15. Blue
16. Blue/Red
17. Blue/Black
18. Black
19. Blue/White

Fig. 21-15

21-5. WATER TEMPERATURE METER AND GAUGE

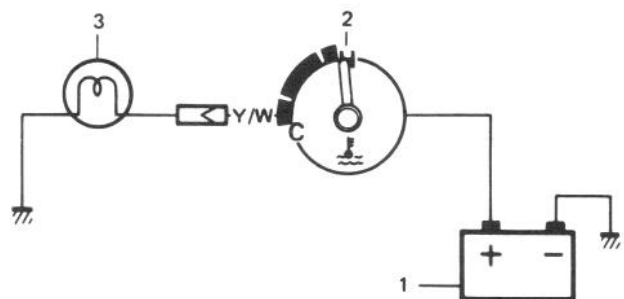
The water temperature meter is located in the combination meter and its gauge unit on the inlet manifold.

The gauge unit shows different resistance values depending on the coolant temperature. This causes a current flowing through the temperature meter coil to change, controlling the meter pointer. That is, when the coolant temperature is raised, the gauge unit resistance is decreased with more current flowing through the meter coil, raising the meter pointer upward from the "C" position.

INSPECTION

[Water temperature meter]

1. Disconnect Y/W (Yellow/White) lead wire going to gauge unit installed to intake manifold.
 2. Use a bulb (12V 3.4W) in position to ground above wires as illustrated.
 3. Turn main switch ON, Confirm that the bulb is lighted and meter pointer fluctuates several seconds thereafter.
- If meter is faulty, replace it.



1. Battery
 2. Water temperature meter
 3. Test lamp (12V, 3.4W)
- YIW: Yellow/White

Fig. 21-16

[Gauge unit]

Warm up gauge unit. Thus make sure its resistance is decreased with increase of temperature. Temperature and resistance relationship can be plotted in a graph as shown below.

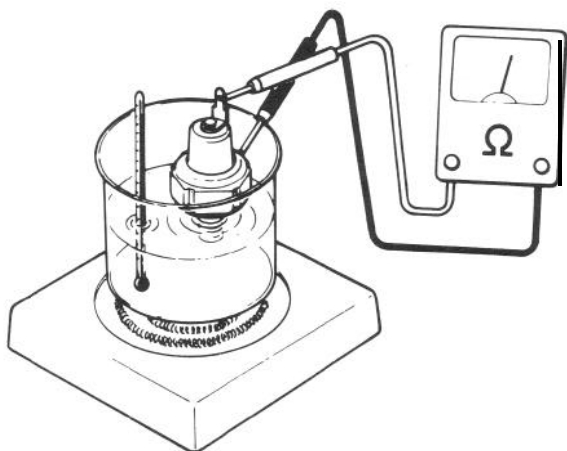


Fig. 21-17

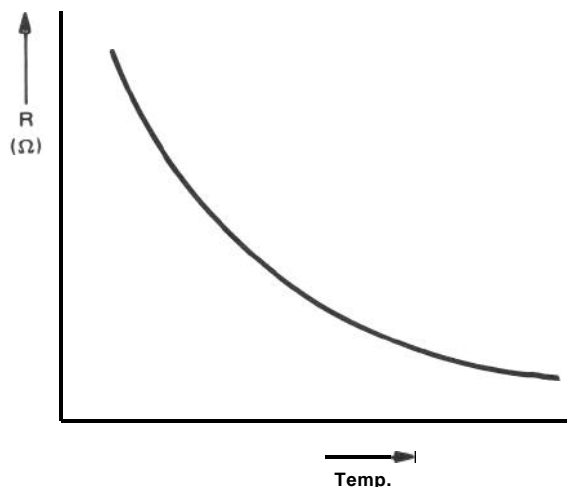


Fig. 21-18 Resistance- Temp. Relationship

Temperature	Resistance
50°C (122°F)	133.9 – 178.9 Ω
80°C (176°F)	47.5 – 56.8 Ω
100°C (212°F)	26.2 – 29.3 Ω

NOTE:

Wind sealing tape on screw threads of gauge before installing gauge to intake manifold.

21-6. FUEL LEVEL METER AND GAUGE

The fuel level meter circuit consists of the fuel level meter installed inside the combination meter and the fuel level gauge installed to the fuel tank.

Current flowing through the meter coil is changed to control the meter pointer. That is, when fuel is full, the fuel level gauge unit resistance is decreased with more current flowing into the meter coil, causing the meter pointer to point at the “F” position.

INSPECTION

[Fuel level meter]

1. Disconnect Y/R (Yellow/Red) lead wire going to gauge unit.
2. Use a bulb (12V 3.4W) in position to ground above lead wire as illustrated.
3. Turn ignition switch ON.
Make sure the bulb is lighted and meter pointer fluctuates several seconds thereafter. If meter is faulty, replace it.

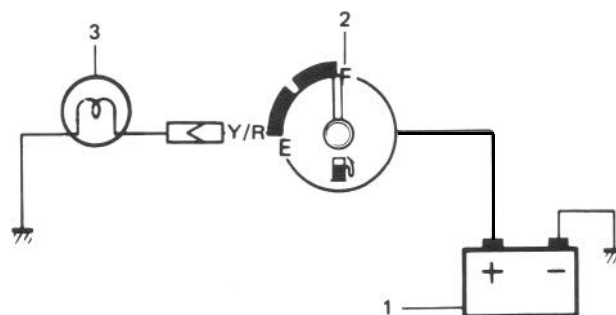


Fig. 21-19

1. Battery
 2. Fuel level meter
 3. Test lamp (12V, 3.4W)
- Y/R : Yellow/Red

[Gauge unit]

Use ohmmeter to confirm that level gauge unit changes in resistance with change of the float position. Float position-to-resistance relationship can be plotted in a graph as shown below.

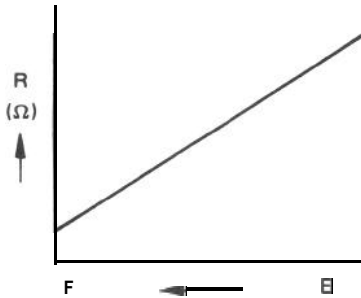
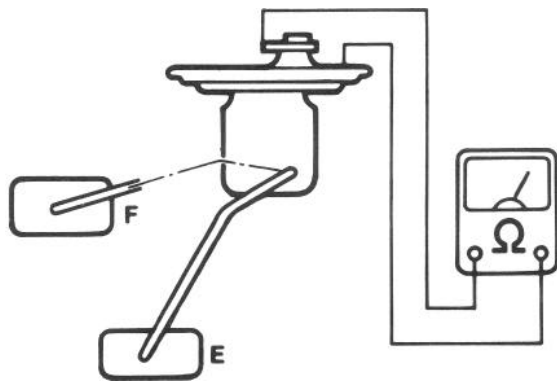


Fig. 21-20 Resistance-Fuel Level Relationship



F : Full
E : Empty

Fig. 21-21

Position	Resistance
E	$110 \pm 7 \Omega$
F	$3 \pm 2 \Omega$
1/2	$32.5 \pm 4 \Omega$

21-7. BRAKE WARNING LAMP

The brake warning lamp system consists of the brake fluid level switch installed to the master cylinder reservoir and the lamp inside the combination meter.

This circuit includes a parking brake switch which gives a warning for unreleased parking brake.

OPERATION

Brake fluid level warning lamp circuit consists of brake fluid level switch installed in master cylinder reservoir, brake fluid level warning lamp in gage cluster and check relay.

Also, this circuit is additionally provided with parking brake switch which warns that parking brake is applied. when engine is stopped, warning lamp comes on, if ignition switch is turned ON and parking brake is applied.

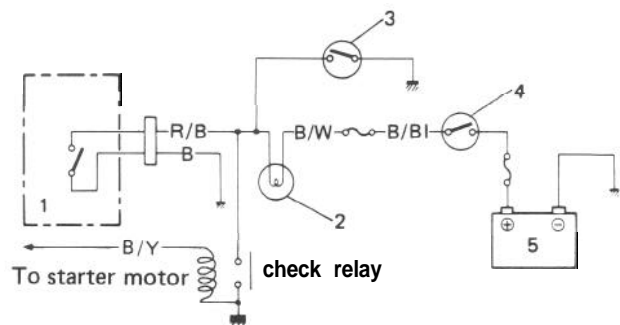
For bulb check, warning lamp comes on briefly during engine starting regardless of brake fluid level position and parking brake operation.

Because point of check relay is closed.

After engine is started, release parking brake.

If lamp goes off, brake fluid level is adequate.

When warning lamp does not operate, use circuit diagram as reference to check bulb, wiring, etc.



B/Y : Black/Yellow
R/B : Red/Black
B : Black
B/W : Black/White
B/Bl : Black/Blue

1) Fluid level switch
2. Warning lamp
3. Parking brake switch
4. Main switch
5. Battery

Fig. 27-22

INSPECTION

[Brake fluid level switch]

Use ohmmeter to check switch for resistance and continuity.

If found defective, replace switch.

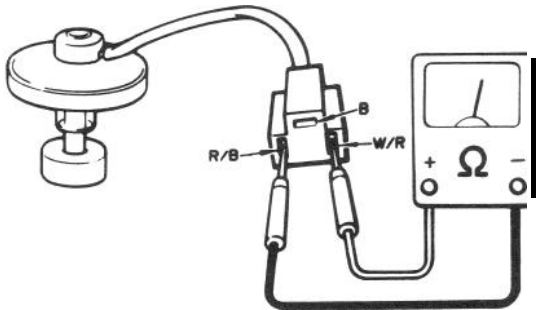


Fig. 21-23

W/R : White/Red
 B : Black
 R/B : Red/Black

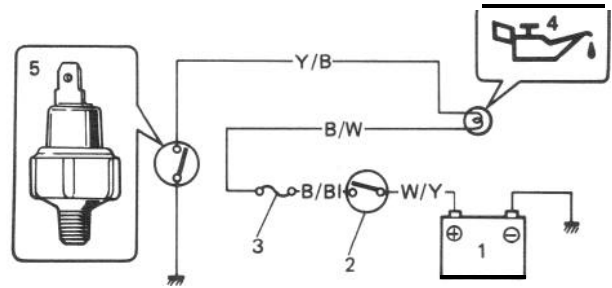
R/B – B Resistance	
OFF position (float up)	∞
ON position (float down)	Several Ω

R/B – W/R Continuity	
R/B to W/R	Continuity obtained
W/R to R/B	No continuity obtained

21-8. OIL PRESSURE LAMP

The oil pressure lamp circuit consists of the oil pressure switch installed to the cylinder block and the lamp (warning lamp) inside the combination meter.

The oil pressure switch so operates that it is switched OFF when oil pressure is produced by the started engine and then fed to switch.



- 1. Battery
- 2. Main switch
- 3. Fuse
- 4. Oil pressure lamp
- 5. Oil pressure switch

B/B : Black/Blue
 B/W : Black/White
 Y/B : Yellow/Black
 W/Y : White/Yellow

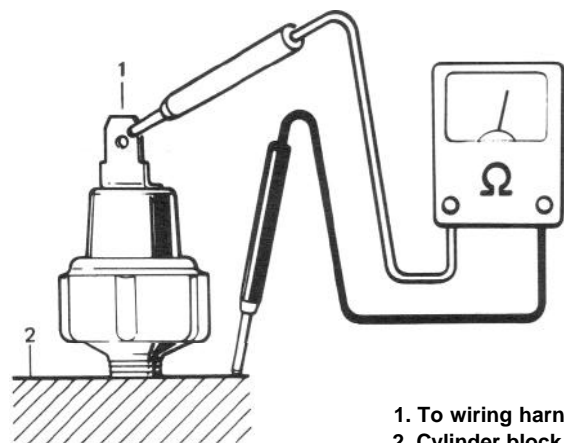
Fig. 21-24

INSPECTION

[Oil pressure switch]

Use a ohmmeter to check the switch continuity.

During engine Running	No continuity obtained ($\infty \Omega$)
At Engine Stop	Continuity obtained (0Ω)



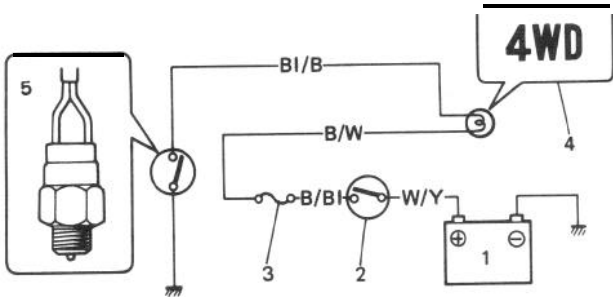
1. To wiring harness
 2. Cylinder block

Fig. 21-25

21-9. 4 WHEEL DRIVE LAMP

The 4 wheel drive lamp circuit consists of the 4 wheel drive indicator lamp switch installed to the transfer and the lamp inside the combination meter.

The 4WD switch so operates that it is switched ON when transfer gear shift control lever is shifted to "4H" or "4L" position.



- 1. Battery
- 2. Main switch
- 3. Fuse
- 4. 4WD lamp
- 5. 4WD switch

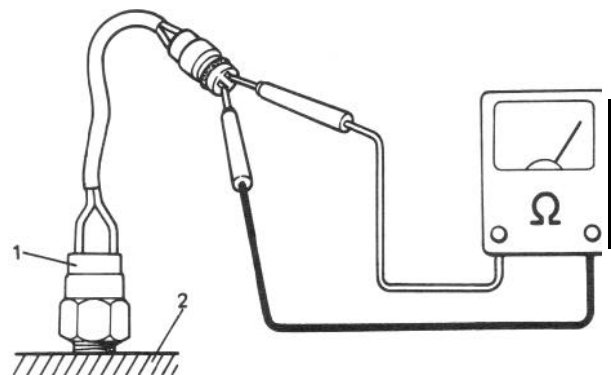
- B/B : Black/Blue
- B/W : Black/White
- BI/B : Blue/Black
- W/Y : White/Yellow

Fig. 21-26

INSPECTION [4WD switch]

Use a ohmmeter to check the switch continuity.

"4H" on "4L" position	Continuity obtained (0 Ω)
"2H" on "N" position	No continuity obtained (∞ Ω)

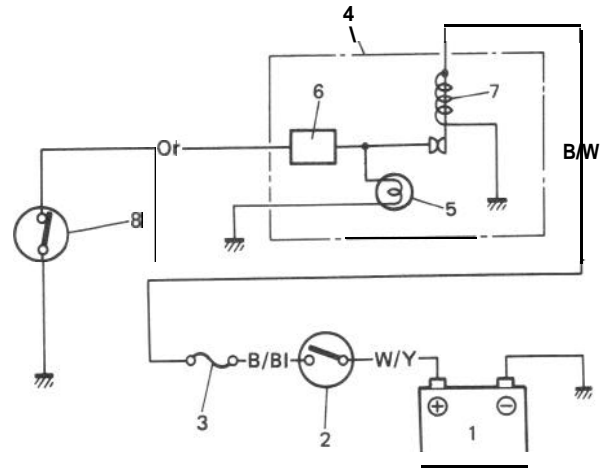


- 1. 4WD switch
- 2. Transfer

Fig. 21-27

21-10. SEAT BELT WARNING LAMP/ BUZZER

The seat belt warning lamp/buzzer circuit is a system to light and sound the lamp and buzzer respectively for several seconds, urging the driver to wear his seat belt. After several seconds passed, the lamp goes OFF and the buzzer stops sounding whether the seat belt is worn or not.



- 1. Battery
- 2. Main switch
- 3. Fuse
- 4. Combination meter
- 5. Warning lamp
- 6. Warning buzzer
- 7. Bi-metal
- 8. Warning switch

- W/Y : White/Yellow
- B/B : Black/Blue
- B/W : Black/White
- Or : Orange

Fig. 21-28

INSPECTION

When the warning lamp/buzzer do not make lighting/sounding, use the above Circuit Diagram as reference to check the bulb, buzzer, wiring, etc.

21-11. MAIN SWITCH KEY WARNING BUZZER

The main switch key warning buzzer circuit is a system to sound the buzzer if the driver leaves the car with the main switch key inserted in place, urging him to take it out of place.

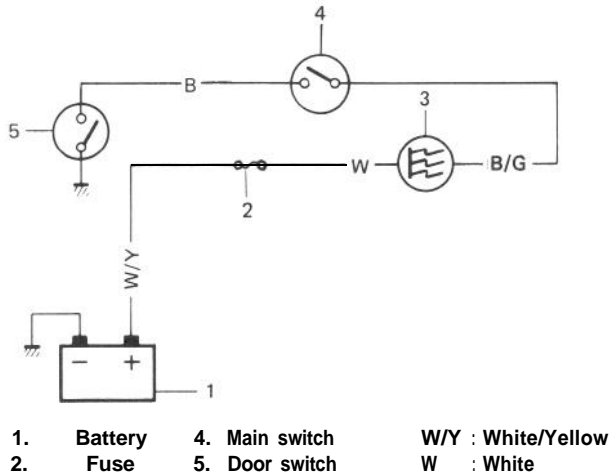


Fig. 21-29

INSPECTION

If the main switch key warning buzzer does not sound, use the above Wiring Diagram as reference to check the buzzer.

21-12. ILLUMINATION CONTROLLER

INSPECTION

Use a test lamp to wire as illustrated below.

Make sure that the illumination controller knob is turned rightwise to brighten the test lamp, leftwise to darken it.

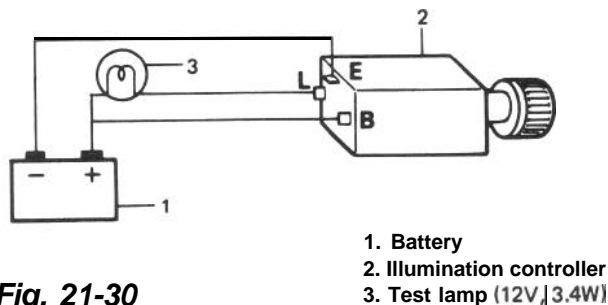
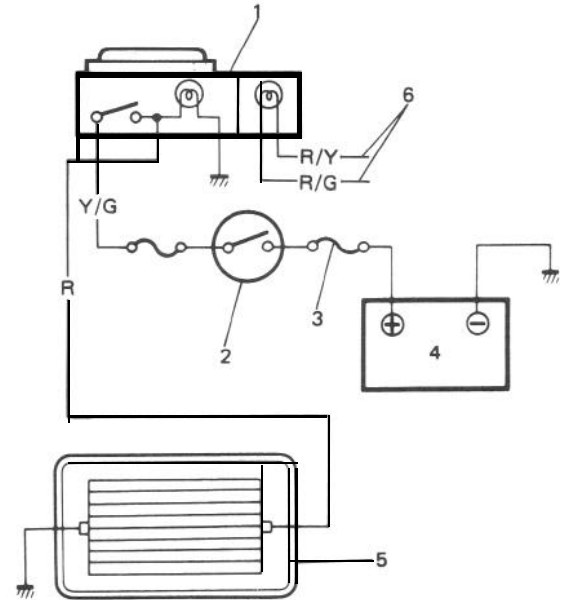


Fig. 21-30

1. Battery
2. Illumination controller
3. Test lamp (12V, 3.4W)

21-13. REAR DEFOGGER (OPTIONAL FOR HARD TOP MODEL)

The Defogger circuit for the rear window glass heating wires is as follows:



1. Defogger switch
2. Main switch
3. Fusible link
4. Battery
5. Rear window glass with embedded heating wire
6. To illumination controller

- Y/G : Yellow/Green
 B : Black
 R : Red
 R/Y : Red/Yellow
 R/G : Red/Green

Fig. 21-31

To check function of Defogger Switch, check continuity between Yellow/Green wire and Red wire when Defogger Switch is "ON"

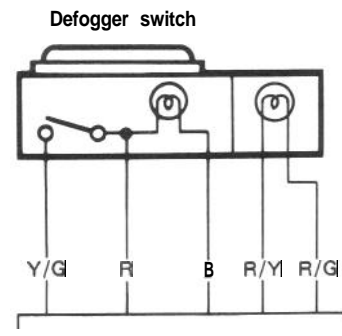


Fig. 21-32

- Y/G : Yellow/Green
 R : Red
 B : Black
 R/Y : Red/Yellow
 R/G : Red/Green

DEFOGGER WIRE

NOTE:

- When cleaning the rear window glass, use a dry cloth to wipe it along the wire direction.
- When cleaning the glass, do not use detergent or abrasive-containing glass cleaner.
- When measuring wire voltage, use a tester with the negative probe wrapped with a tin foil which should be held down on the wire by finger pressure.

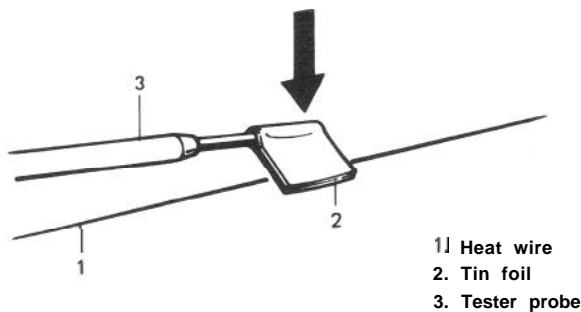


Fig. 21-33

1) Checking wire damage

- Turn the main switch ON.
- Turn the defogger switch ON.
- Use a voltmeter to check the voltage at the center of each heat wire, as illustrated.

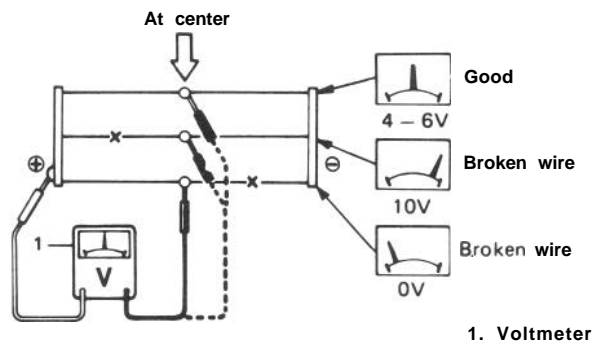


Fig. 21-34

Voltage	Criteria
Approx. 5V	Good (No break in wire)
Approx. 10V or 0V	Broken wire

If the obtained voltage is 10V, the wire must be damaged between its center and positive end. If the voltage is zero, the wire must be damaged between its center and earth.

2) Checking wire for damaged place

- Set the voltmeter positive (+) lead to the heat wire positive terminal end.

- Set the voltmeter negative (-) lead with a foil strip to the heat wire positive terminal end to then move it along the wire to the negative terminal end.
- The place which causes the voltmeter to fluctuate from zero to several volts is a damaged place.

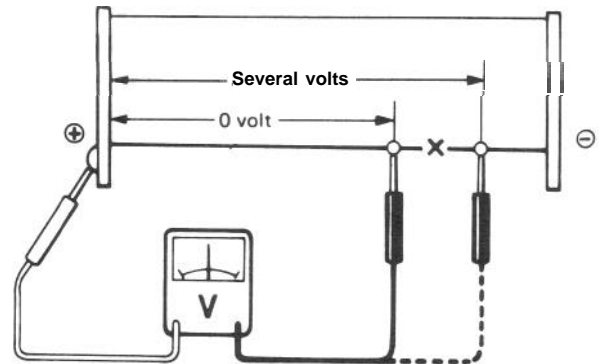


Fig. 21-35

NOTE:

If the heat wire is free from damage, the voltmeter should point 12V at the heat wire positive terminal end with its indication gradually decreased toward zero to thus equal 0V at the other terminal (earth) end.

REPAIR

[Defogger circuit]

- Use white gasoline for cleaning.
- Apply a masking tape at both the upper and lower sides of a heat wire to be repaired.

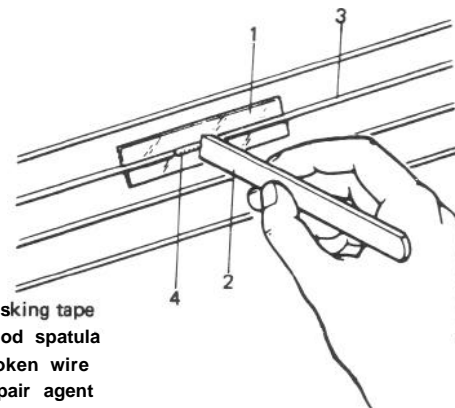
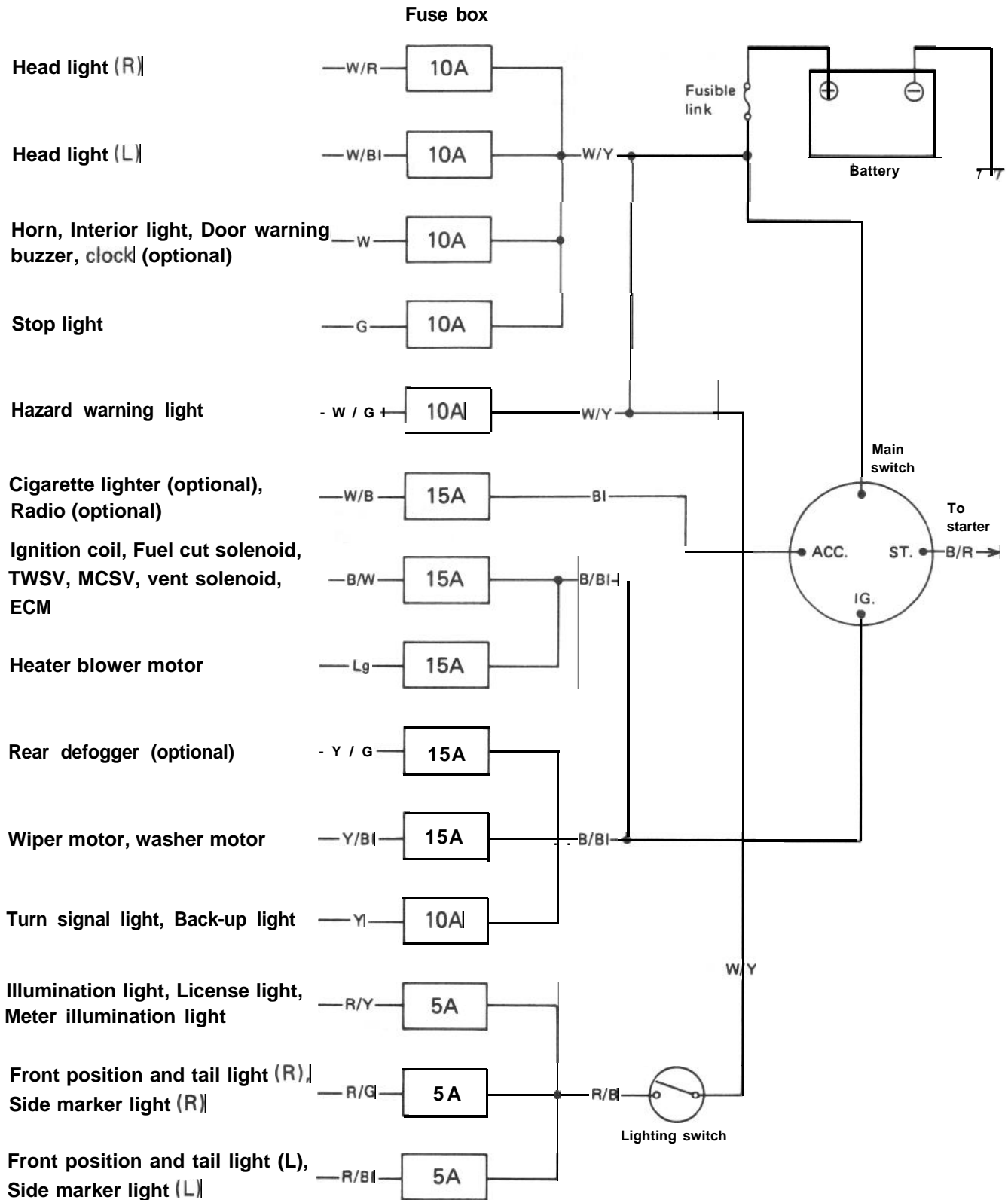


Fig. 21-36

- Apply commercially-available repair agent with a fine-tip brush.
- Two to three minutes later, remove the masking tapes previously applied.
- Leave the repaired heat wire as it is for at least 24 hours before operating the defogger again.

21-14. FUSE BOX

The fuses in the fuse box is wired as follows.

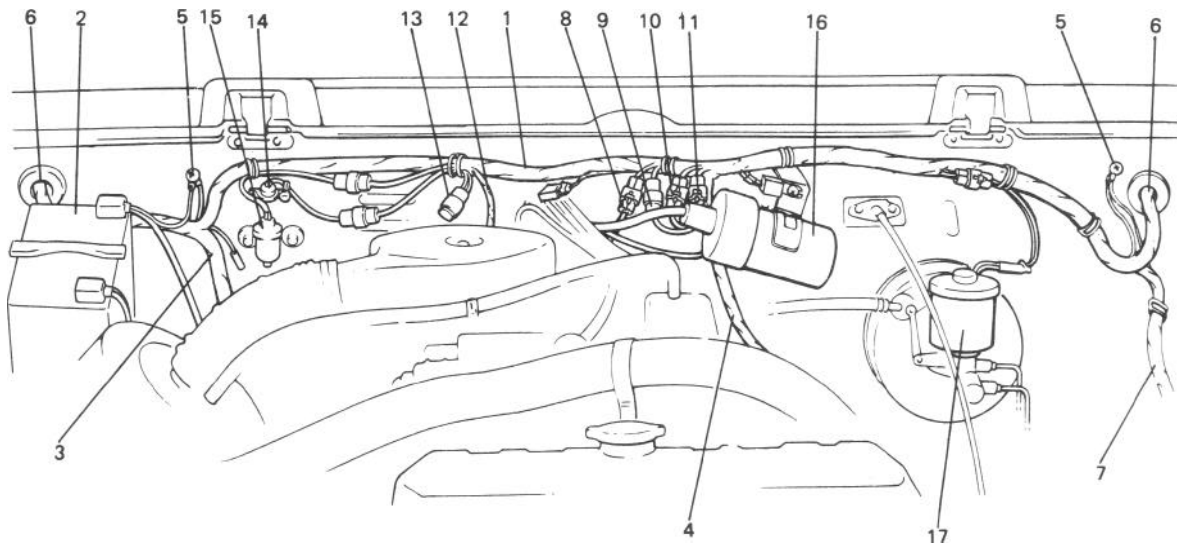


21-15. WIRING HARNESS ROUTING

When reinstalling wire harness, be careful for the following.

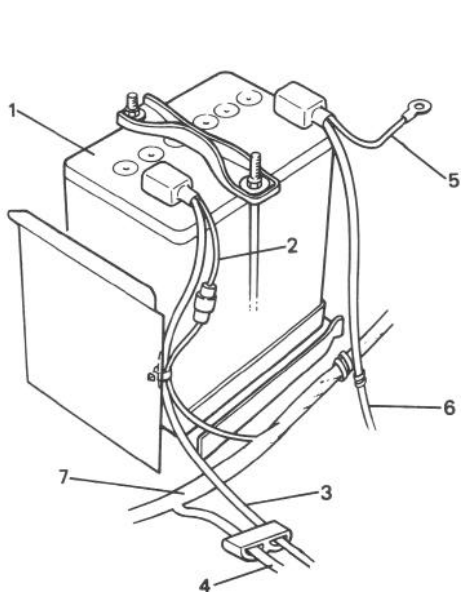
- 1 When doing wiring harness related work, make always sure to disconnect battery negative cable from battery.
 - 1 Clamp wire harness securely at prescribed positions.
 - 1 Try to route wire harness so as to avoid contact with other parts as much as possible. Use special care not to let it contact sharp edges of body or other parts.
- Connect connectors securely.

Engine Room Wiring

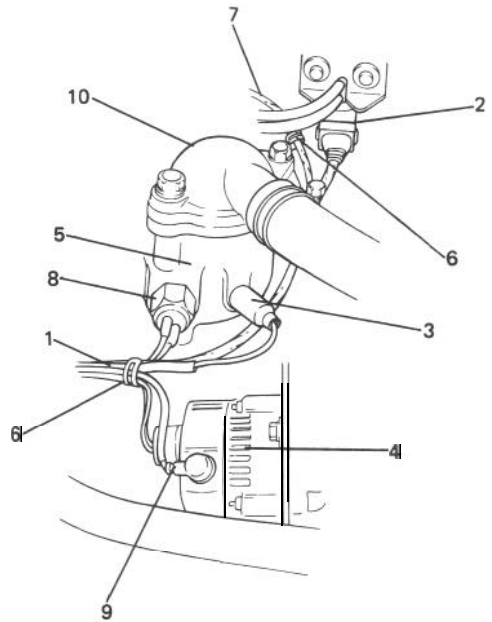


- | | |
|---|--------------------------------|
| 1. Wire harness No. 2 | 12. To TWSV |
| 2. Battery | 13. Duty check coupler |
| 3. To starter, alternator, head light, small light, horn and etc. | 14. Thermal engine room switch |
| 4. To license light, stop/tail light, 4WD switch | 15. HAC |
| 5. Earth | 16. Ignition coil |
| 6. To wiring harness No. 1 | 17. Brake fluid reservoir |
| 7. To head light, small light, etc. | |
| 8. To distributor | |
| 9. To ignition coil | |
| 10. To back up light switch | |
| 11. To fifth switch | |

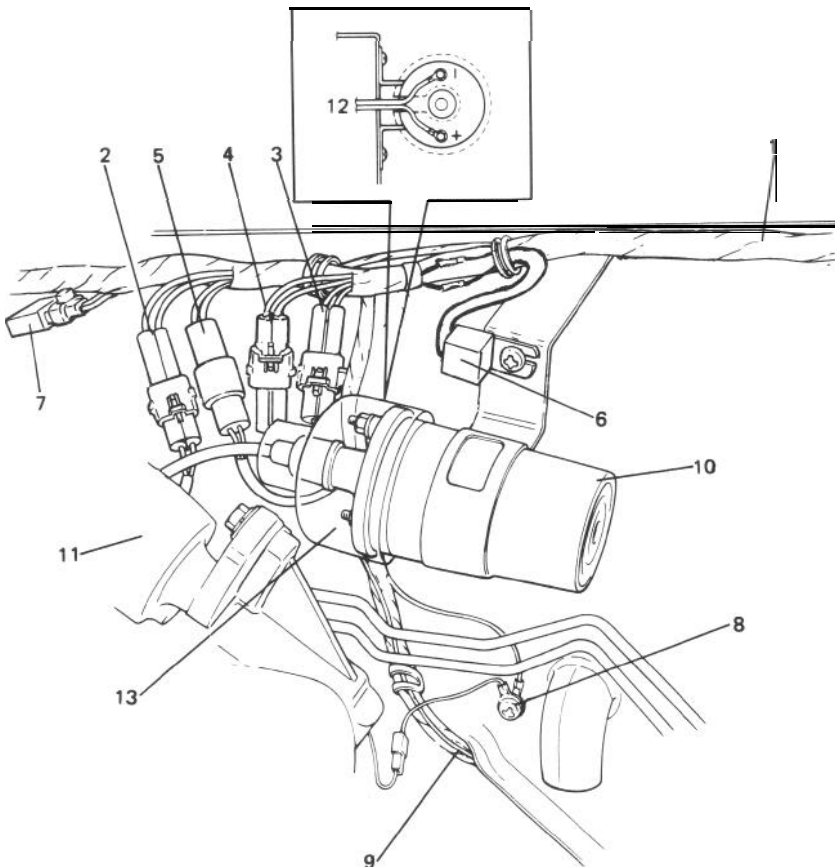
Fig. 27-37



- 1) Battery
- 2) Fusible link
- 3) To starter
- 4) To starter, alternator, etc
- 5. Earth
- 6) Earth (To starter mounting bolt)
- 7) Wiring harness No. 2

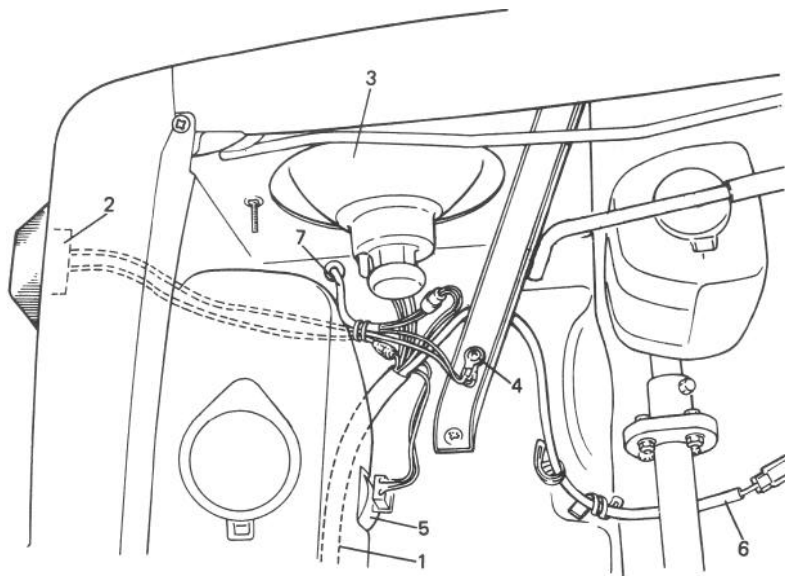


- 1. From wire harness No. 2
- 2) TWSV (Three way solenoid valve)
- 3) Water temperature gauge
- 4) Alternator
- 5) Intake manifold
- 6) Clamp
- 7) To VSV
- 8) Thermal switch
- 9) Mount this terminal horizontally as shown
- 10) Thermostat cap



- 1) Wire harness No. 2
- 2) To distributor
- 3) To fifth switch
- 4) To back up light switch
- 5) To ignition coil
- 6) Condenser
- 7. Noise suppressor filter (Clamp it toward engine room so as to prevent it from contacting dash panel edge.)
- 8) Earth
- 9) To license light stop/tail light 4WD switch
- 10) Ignition coil
- 11) Distributor
- 12) To wire harness No. 2
- 13) Ignition coil cap

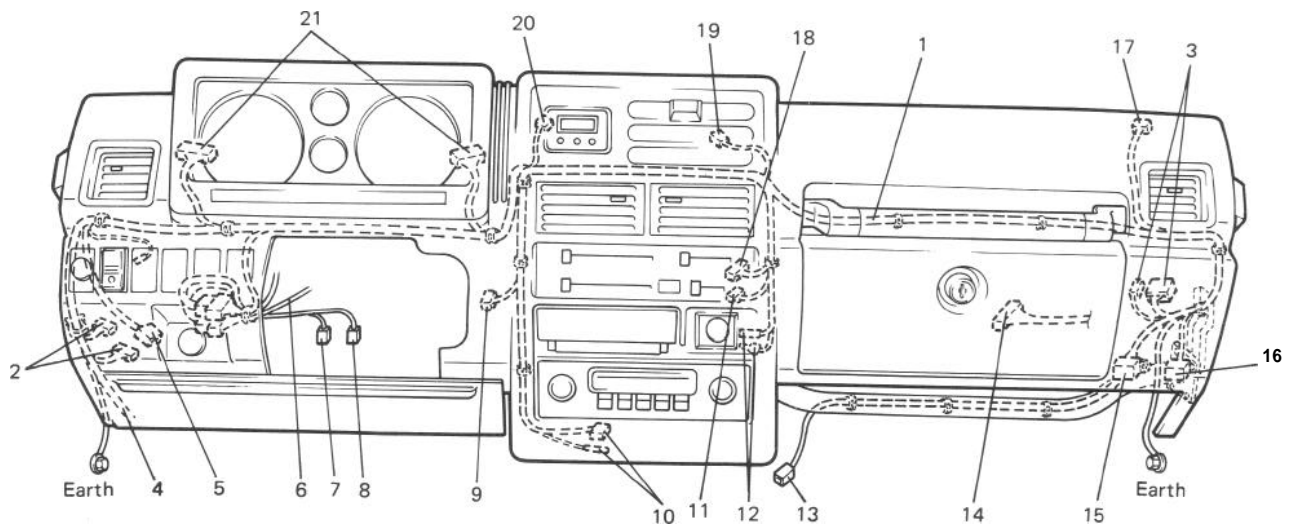
Fig. 21-38



1. Wire harness No. 2
2. Side marker light
3. Head light
4. Earth
5. Washer motor
6. To oil pressure gauge
7. To combination light

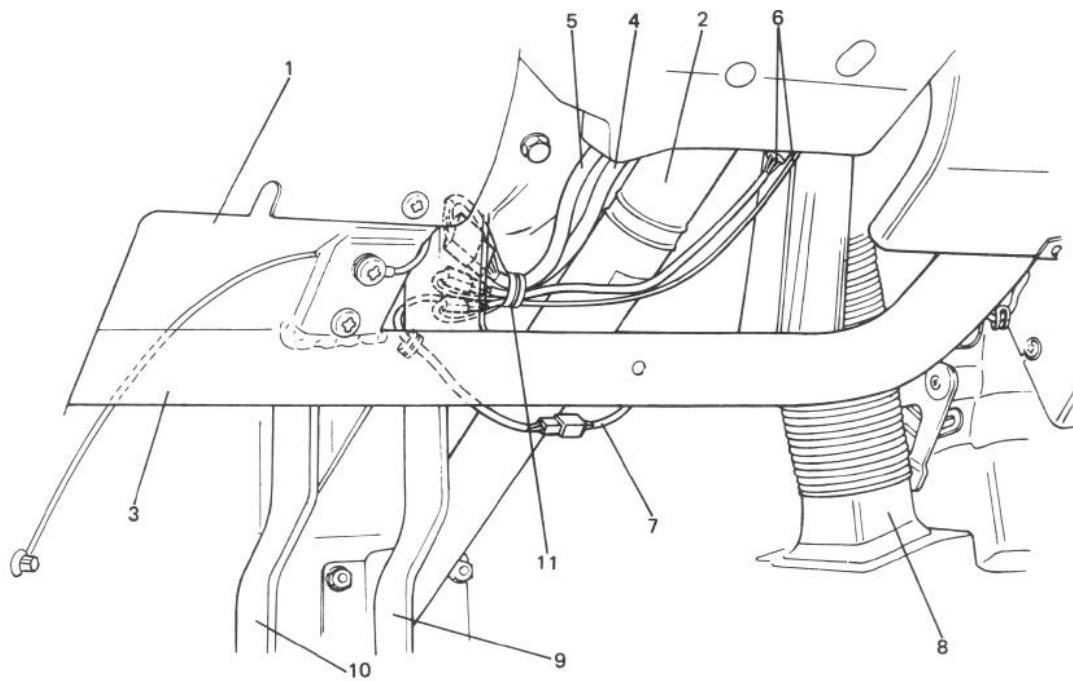
Fig. 21-39

Instrument Panel Wiring



- | | | |
|--------------------------|---------------------------|--------------------------|
| 1. Wire harness No. 1 | 8. To stop lamp switch | 15. Door warning buzzer |
| 2. To wire harness No. 2 | 9. To heater blower motor | 16. Check relay |
| 3. To wire harness No. 2 | 10. To radio | 17. To wiper motor |
| 4. To fuse box | 11. To heater fan switch | 18. To illumination lamp |
| 5. Horn relay | 12. To cigar light | 19. To optional meter |
| 6. To combination switch | 13. To radio | 20. To clock |
| 7. To clutch switch | 14. To ECM | 21. To meter |

Fig. 21-40



- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Instrument panel 2. Steering column 3. Steering column holder 4. Wiring harness No. 1 5. To combination switch 6. To ignition switch 7. To clutch switch | <ul style="list-style-type: none"> 8. Defroster hose 9. Brake pedal 10. Clutch pedal 11. Clamp lead wires of ignition switch and combination switch, using care not to allow lead wires to contact the edge of steering column bracket. |
|---|---|

Fig. 21-41

21-16. WIRING DIAGRAM

Wiring diagrams are attached at the end of this manual.