

SECTION BR

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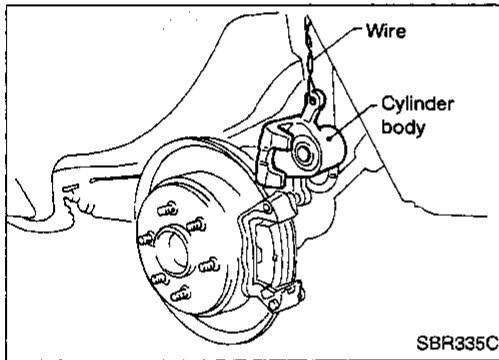
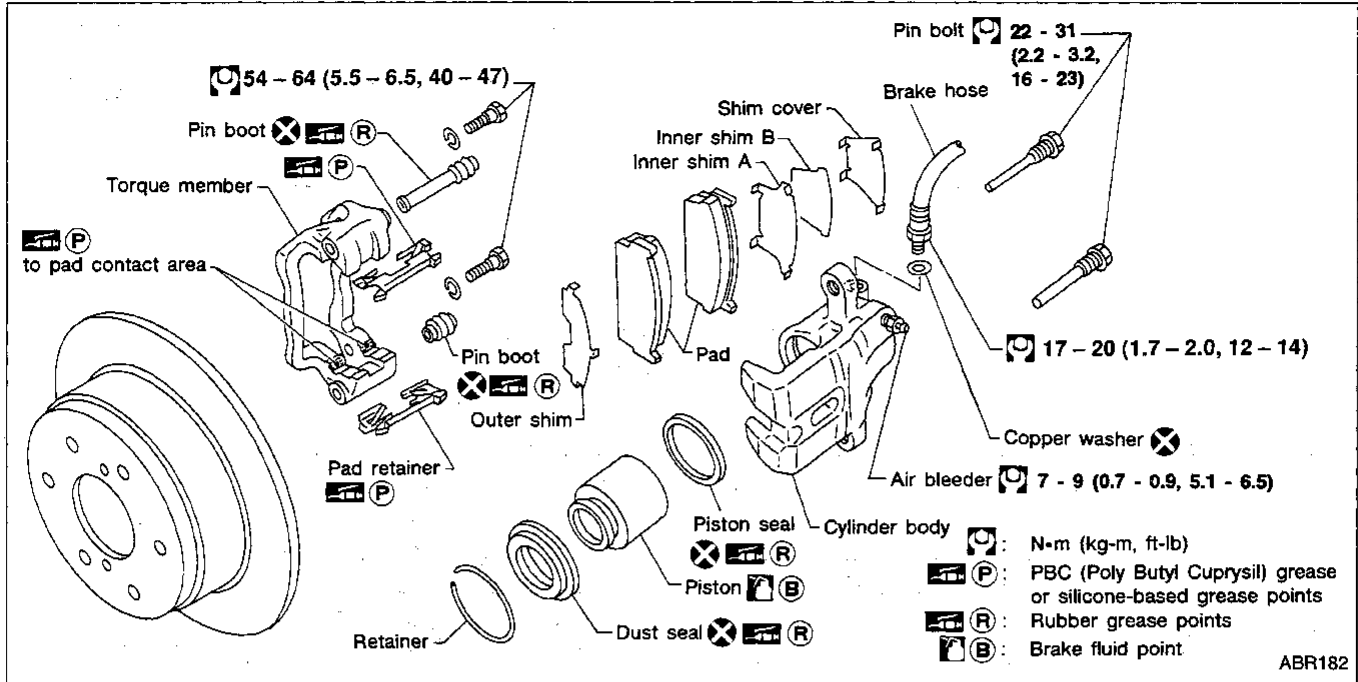
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REAR DISC BRAKE

AD14VB



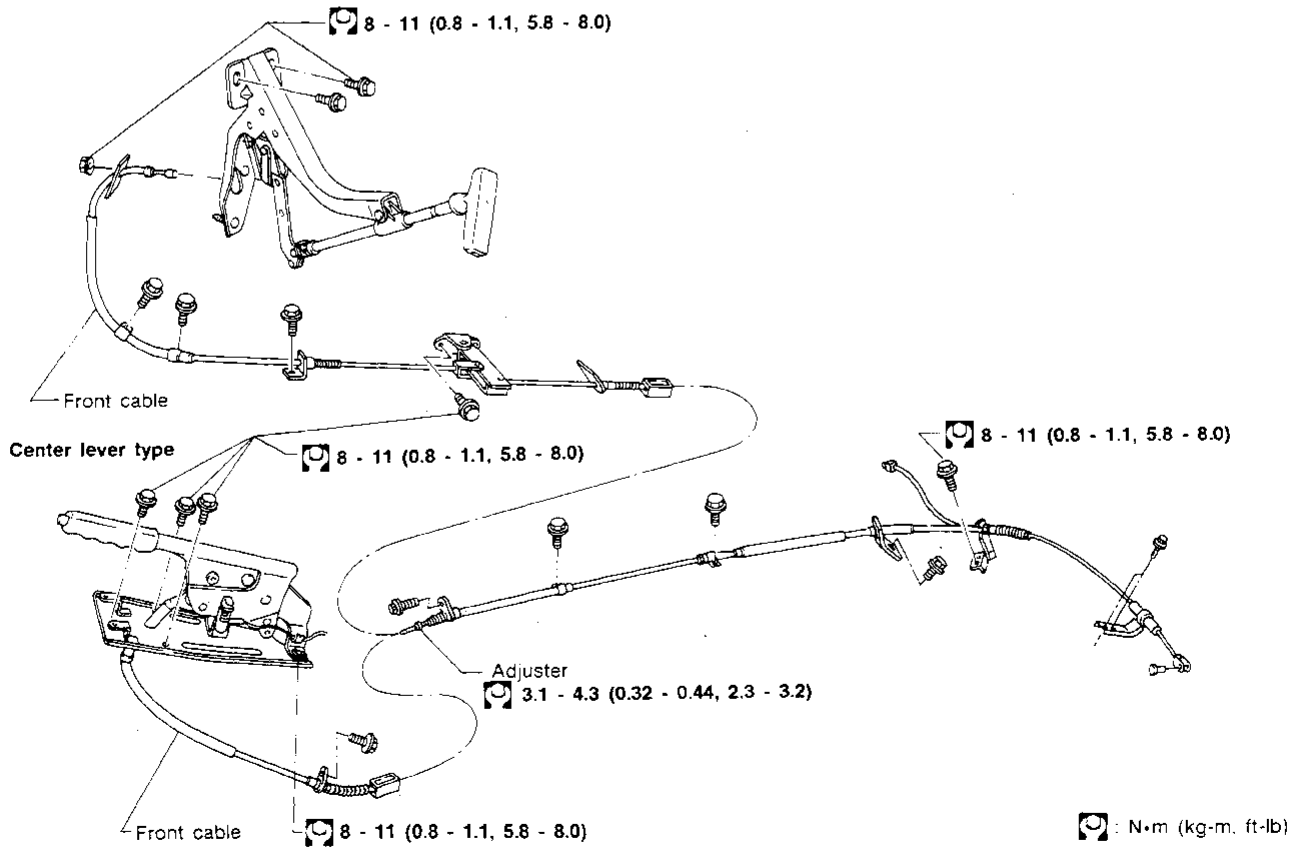
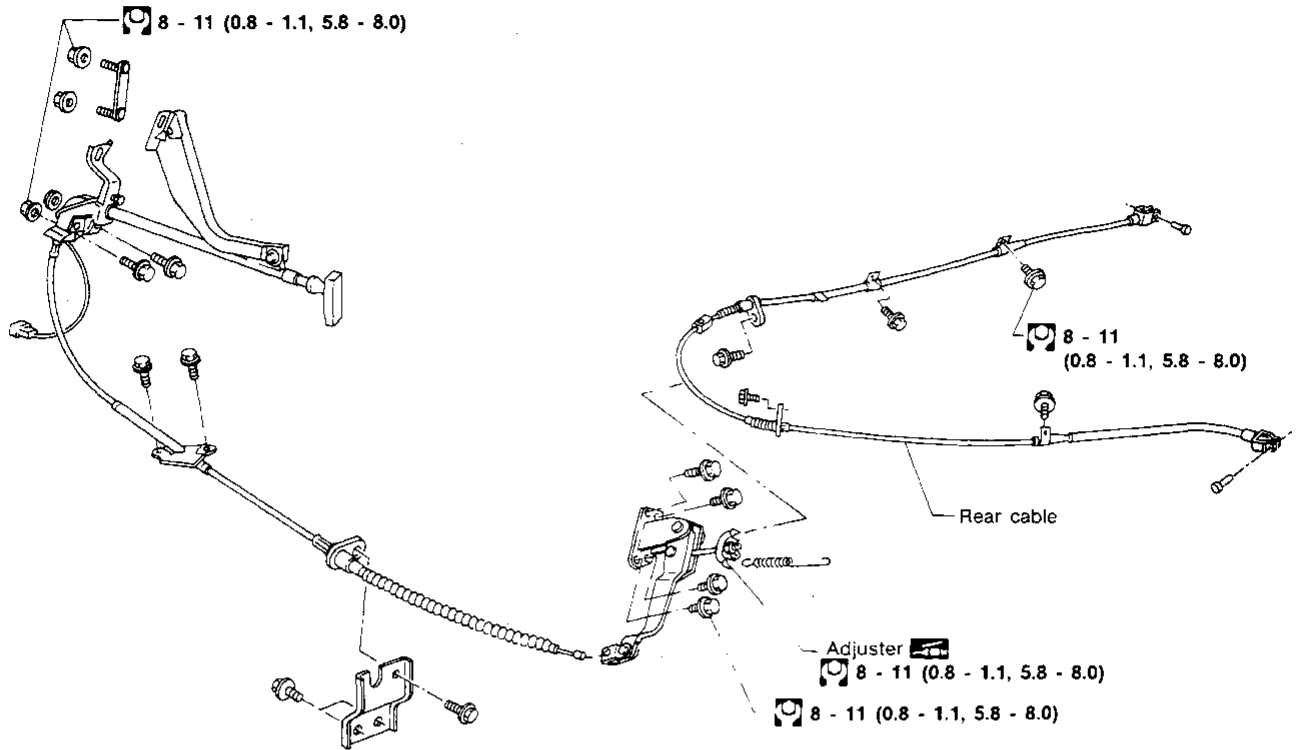
Pad Replacement

1. Remove guide pin.
2. Swing cylinder body upward. Then remove pad retainer and inner and outer shims.

CAUTION:

- When cylinder body is swung up, do not depress brake pedal because piston will pop out.
- Be careful not to damage dust seal or get oil on rotor. Always replace shims when replacing pads.

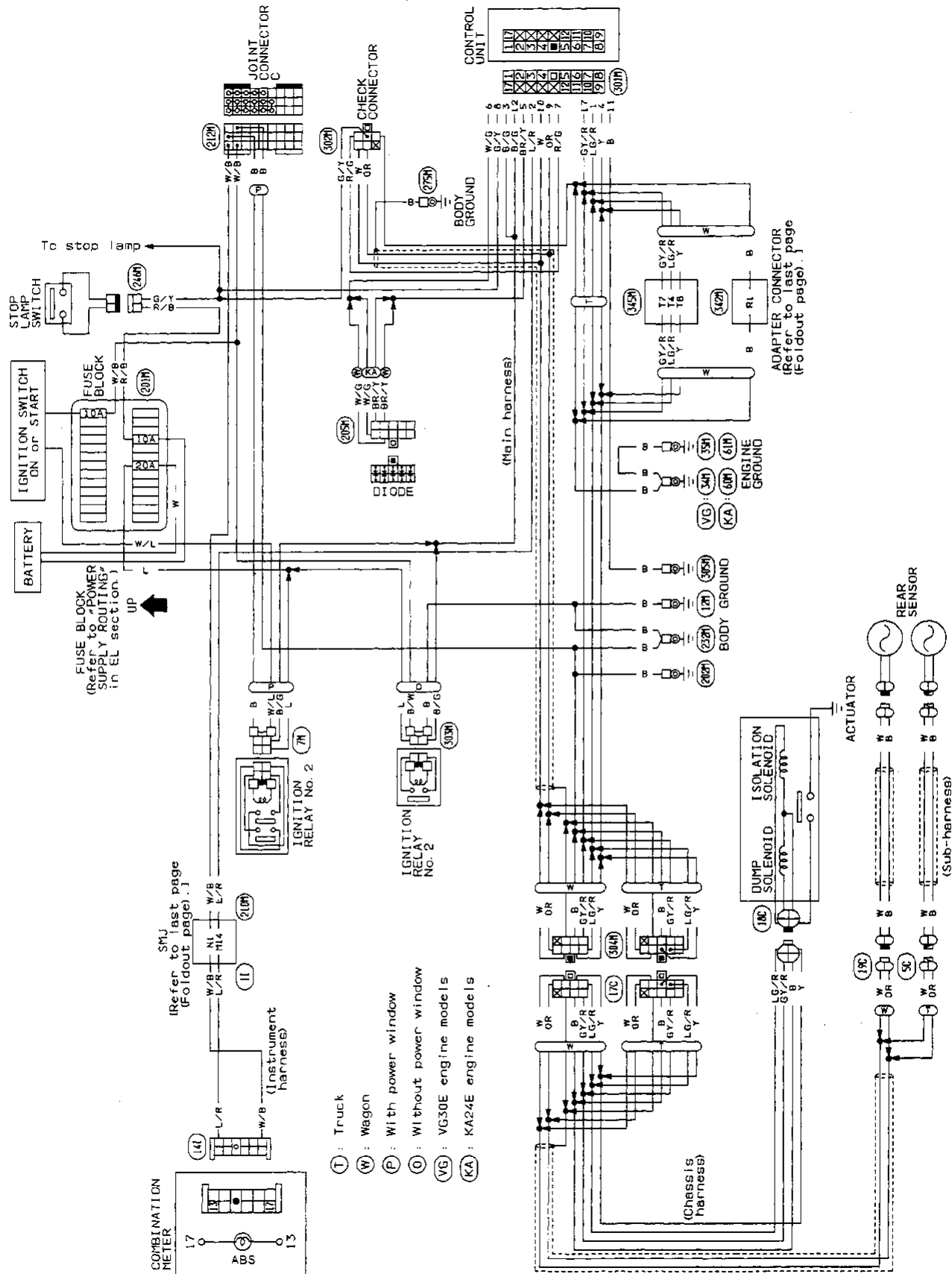
PARKING BRAKE CONTROL



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REAR WHEEL ANTI-LOCK BRAKE SYSTEM

Wiring Diagram



REAR WHEEL ANTI-LOCK BRAKE SYSTEM

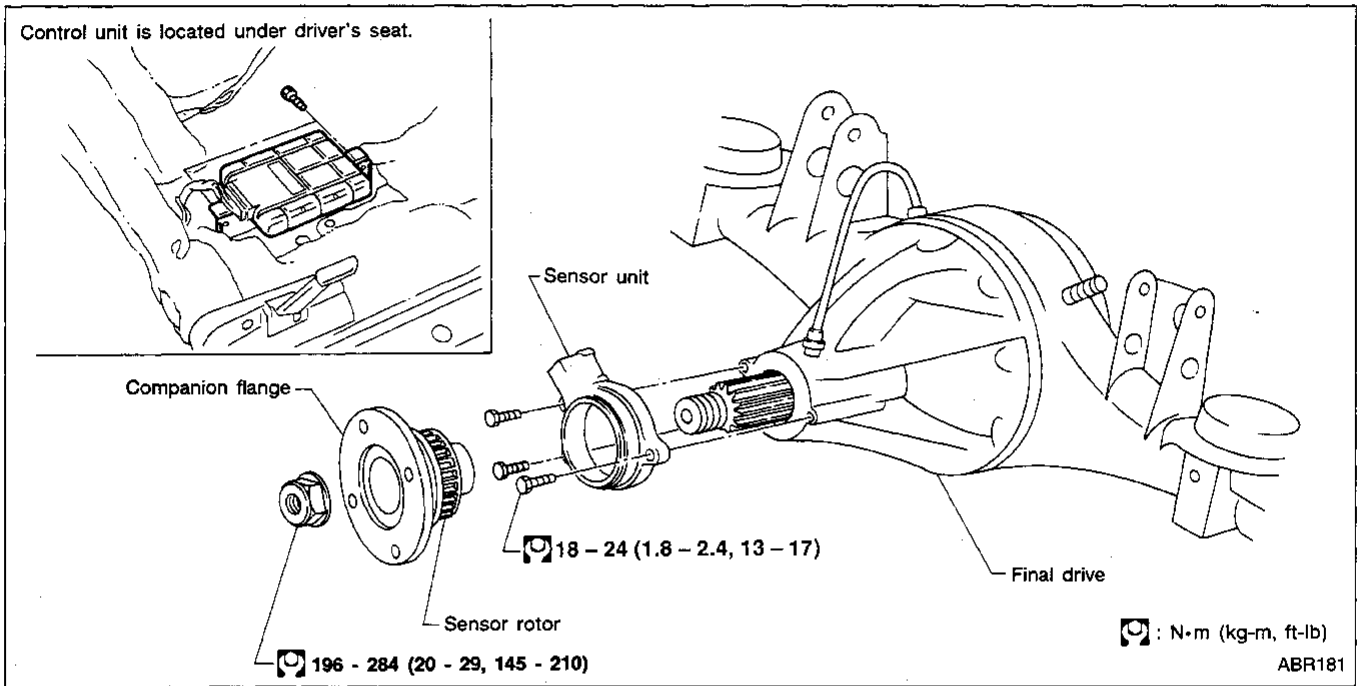
Removal and Installation

CAUTION:

Be careful not to damage sensor edge and sensor rotor teeth.

In case the final drive assembly needs to be removed, disconnect the ABS sensor from the assembly and move it away. Failure to do so may result in damage to the sensor wires making the sensor inoperative.

REAR SENSOR AND CONTROL UNIT



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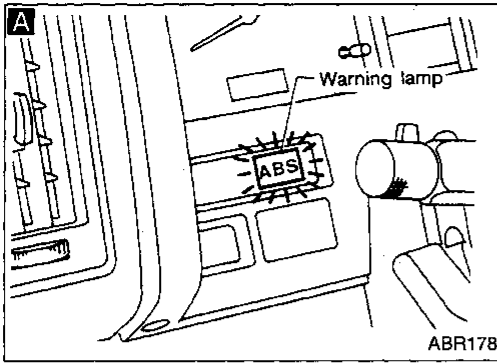
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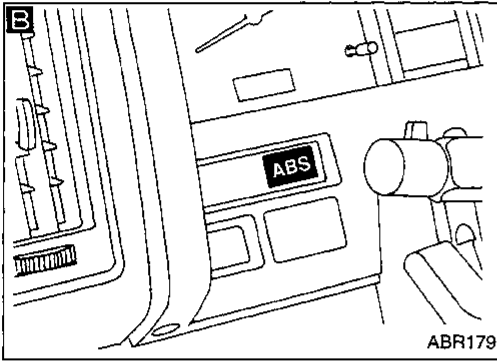
Preliminary Check 1



A

- 1) Turn ignition switch on.
- 2) Check warning lamp activation.
When ignition switch is turned on, warning lamp should turn on.

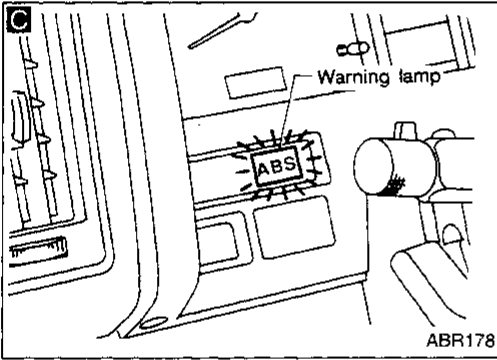
No → Go to "Diagnostic Procedure 6", BR-9 in this Supplement.
If OK, replace control unit.



B

Check warning lamp deactivates within a few seconds.

No → Go to Preliminary Check 2 below.



C

Check warning lamp reactivation.

Yes → Go to Preliminary Check 2 below.

No

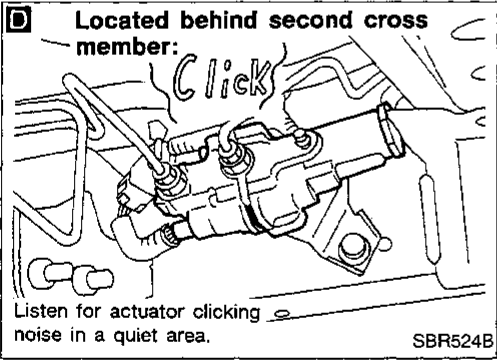
- 1) Drive vehicle with 2WD for 1 minute or more at 40 km/h (25 MPH) or more.
- 2) Check warning lamp reactivation.

Yes → Go to Preliminary Check 2 below.

D

- 1) Stop engine.
- 2) Turn ignition switch on again.
Check actuator clicking noise, when warning lamp turns off.

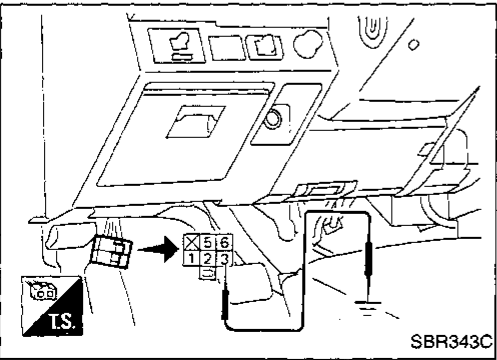
OK → Self-operating function is OK.



NG

Check actuator.
Refer to "Electrical Components Inspection" in the Service Manual.

Preliminary Check 2



- 1) Start engine.
- 2) Ground the check terminal of check connector.
- 3) Check the warning lamp flashing.

No → Check brake fluid level.
Go to "Diagnostic Procedure 6" BR-9 in this Supplement.

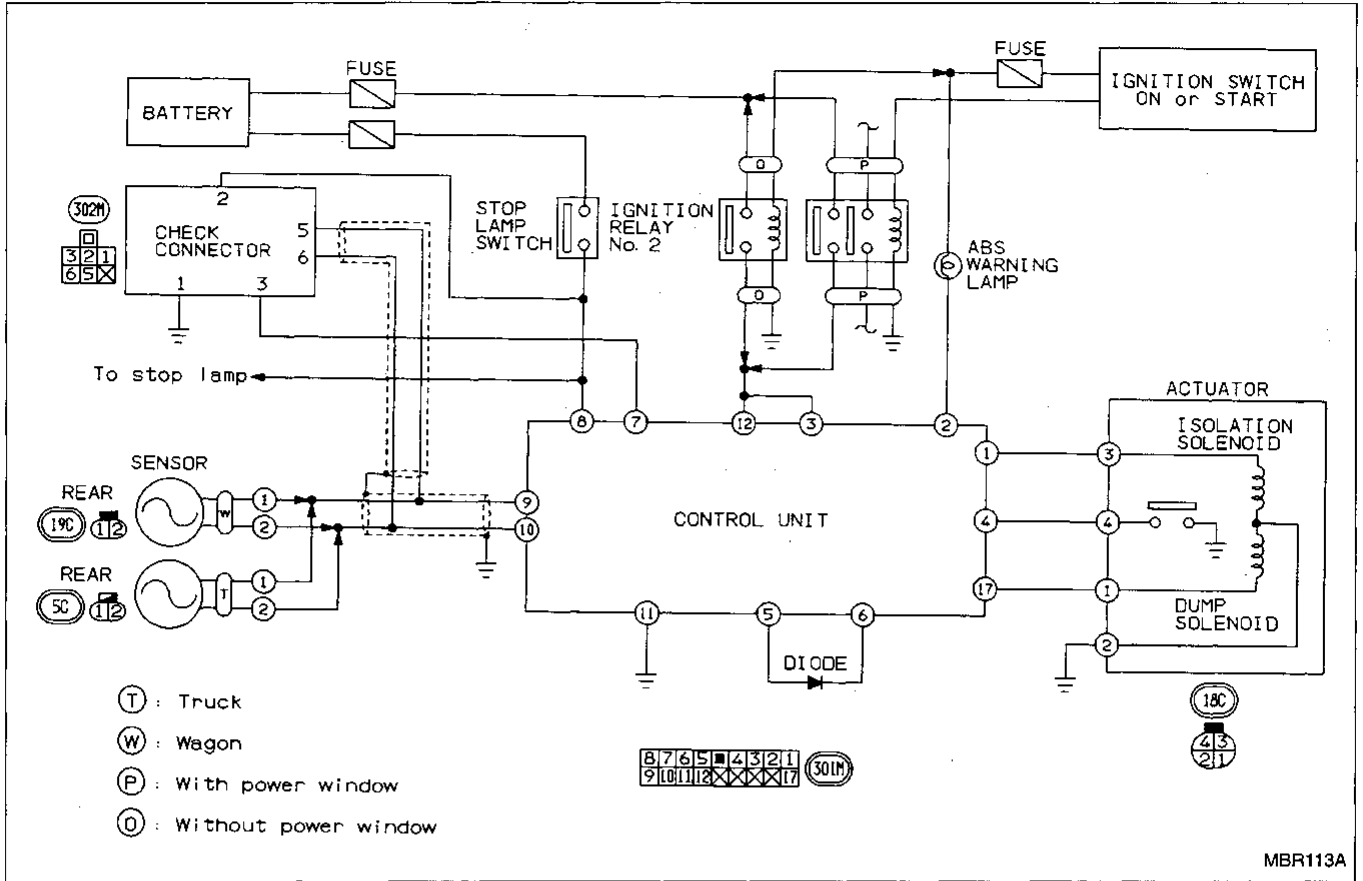
Yes

Count the number of flashes.
Refer to "Self-diagnosis" in the Service Manual.

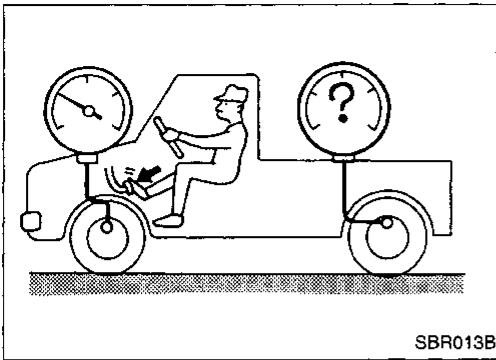
OK → Replace control unit.

TROUBLE DIAGNOSES

Circuit Diagram for Quick Pinpoint Check

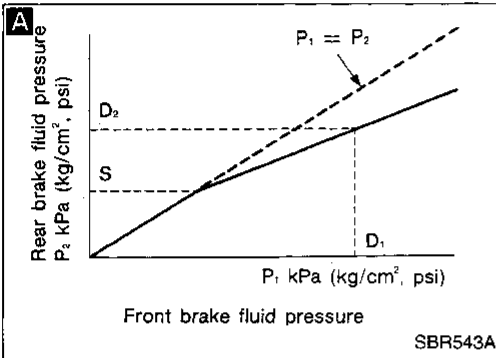


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Diagnostic Procedure 5

SYMPTOM: R-ABS works frequently.



A

CHECK BRAKE FLUID PRESSURE.
Check whether brake fluid pressure distribution is normal.

D_2/D_1 : kPa (kg/cm², psi)

2WD TRUCK (KA24E)

1,765 - 2,550

(18 - 26, 256 - 370)/

6,865 (70, 995)

2WD TRUCK (VG30F)

2,158 - 2,942

(22 - 30, 313 - 427)/

6,865 (70, 995)

4WD TRUCK (Standard Wheel)

2,942 - 3,727

(30 - 38, 427 - 540)/

6,865 (70, 995)

4WD TRUCK (Long Wheelbase)

3,432 - 4,217

(35 - 43, 498 - 611)/

6,865 (70, 995)

Standard Van & Wagon

4,021 - 4,805

(41 - 49, 583 - 697)/

6,865 (70, 995)

Van & Wagon Option for

SE grade

4,904 - 5,688

(50 - 58, 711 - 825)/

6,865 (70, 995)

NG

Replace master cylinder.

OK

Perform usual brake inspection.

NG

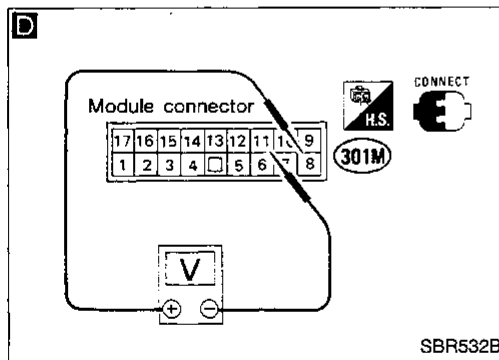
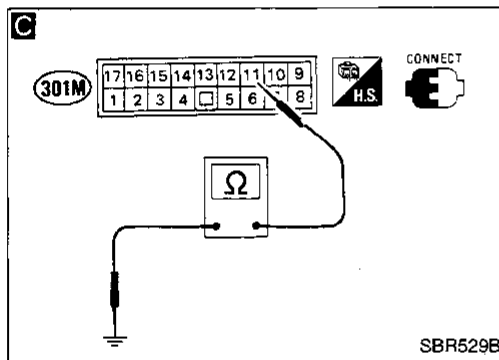
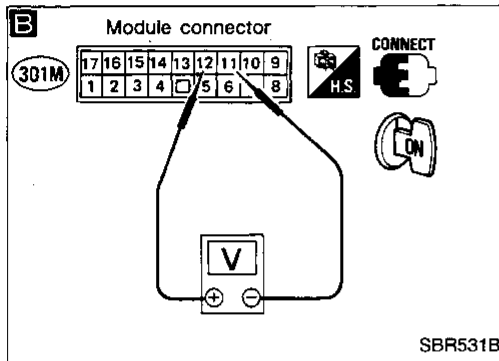
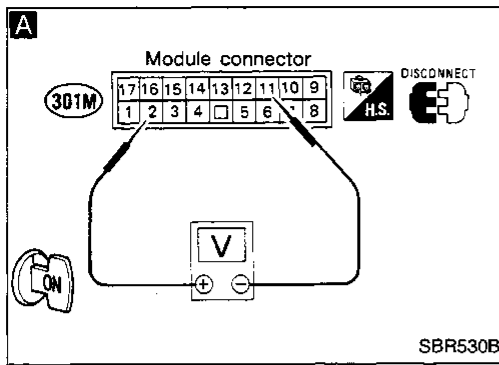
Remedy.

OK

When wheel lock occurs frequently due to hard braking operation, the R-ABS operates at each occurrence of wheel lock. Accordingly, frequent R-ABS operation is normal under severe braking conditions where wheel lock would occur frequently due to braking.

Diagnostic Procedure 6

MAIN POWER SUPPLY AND GROUND CIRCUIT (Not self-diagnostic item)



A

CHECK WARNING LAMP POWER SUPPLY.

- 1) Connect battery cable and confirm battery voltage is 12V.
- 2) Disconnect control unit connector.
- 3) Turn ignition switch "on".
- 4) Check voltage between control unit connector terminals (2) and (11).

Voltage:
Approximately 12V

C

CHECK GROUND CIRCUIT.

Check harness continuity, between R-ABS control unit terminal (11) and suitable body ground. Continuity should exist.

OK →

NG → Repair harness or connectors.

Check and replace fuse, warning lamp or relays if necessary, or Repair ignition line harness, relay and connectors warning lamp.

B

CHECK R-ABS RELAY POWER SUPPLY.

- 1) Connect control unit connector.
- 2) Turn ignition switch "on".
- 3) Check voltage between control unit connector terminals (12) and (11).

Voltage:
Approximately 12V

NG → Check and replace fuse or R-ABS relay, or repair related harness and connectors.

D

CHECK STOP LAMP SWITCH POWER SUPPLY.

- 1) Depress brake pedal.
- 2) Check voltage between control unit connector terminals (8) and (11).

Voltage:
Approximately 12V

NG → Adjust brake switch installation if necessary. Replace brake switch, if necessary or repair harness or connectors.

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SERVICE DATA AND SPECIFICATIONS (SDS)

General Specifications

Applied model	Truck				Pathfinder	
	2WD		4WD		Standard	Option for SE grade
	KA24E	VG30E	Standard	Long		
Front brake						
Brake model	CL28VA		CL28VD			
Cylinder bore diameter x number of pistons mm (in)	60.6 (2.386) x 1		42.8 (1.685) x 2			
Pad length x width x thickness mm (in)	IN: 126.5 x 43 x 11 (4.98 x 1.69 x 0.43) OUT: 129 x 43 x 11 (5.08 x 1.69 x 0.43)		146.6 x 48.5 x 10 (5.77 x 1.909 x 0.39)			
Rotor outer diameter x thickness mm (in)	250 x 22 (9.84 x 0.87)	260 x 26 (10.24 x 1.02)	277 x 26 (10.91 x 1.02)			
Rear brake						
Brake model	LT26B		LT30A	LT26B	AD14VB	
Cylinder bore diameter x number of pistons mm (in)	22.22 (7/8)		20.64 (13/16)		42.83 (1.6862)	
Lining or pad length x width x thickness mm (in)	249.6 x 50.5 x 5.5 (9.83 x 1.99 x 0.217)		296 x 50 x 6.1 (11.65 x 1.97 x 0.240)	249.6 x 50 x 5.5 (9.83 x 1.97 x 0.217)	99.8 x 33.5 x 10.0 (3.929 x 1.319 x 0.394)	
Drum inner diameter or rotor outer diameter x thickness mm (in)	260.0 (10.24)		295.0 (11.61)	260.0 (10.24)	286 x 18 (11.26 x 0.71)	
Parking brake						
Brake model	—				DS19HB	
Lining length x width x thickness mm (in)	—				182.3 x 30 x 3 (7.18 x 1.18 x 0.12)	
Drum inner diameter mm (in)	—				190.0 (7.48)	
Master cylinder						
Bore diameter mm (in)	25.40 (1)					
Control valve						
Valve model	Linkage type load sensing valve		Proportioning valve within master cylinder			
Split point [kPa (kg/cm ² , psi)] x reducing ratio	(Variable) x 0.23		2,452 (25, 356) x 0.2	2,942 (30, 427) x 0.2	2,452 (25, 356) x 0.2	3,923 (40, 569) x 0.4
Brake booster						
Booster model	M195T		M215T			
Diaphragm diameter mm (in)	Pri.: 205 (8.07) Sec.: 180 (7.09)		Pri.: 230 (9.06) Sec.: 205 (8.07)			
Recommended brake fluid	DOT 3					