

DTC 4-1 (Right-front), 4-2 (Left-front), 4-4 (Right-rear), 4-8 (Left-rear): Wheel Sensor

The ABS control unit monitors the wheel sensor signal during the regular diagnosis (at speeds of 6 mph (10 km/h) or more). This diagnosis is not performed when the parking brake signal is ON. The ABS control unit turns the ABS indicator light on if it detects that there is no wheel sensor signal from the wheel.

Possible causes:

- Open circuit, internal short or short to body ground in the wheel sensor
- Open circuit or short to body ground in the positive (+) wire between the wheel sensor and ABS control unit
- Open circuit or short to body ground in the negative (-) wire between the wheel sensor and ABS control unit
- Positive (+) wire shorted to the negative (-) wire between the wheel sensor and ABS control unit
- Loose connector or poor contact of terminals
- Improper wheel sensor air gap
- Faulty ABS control unit
- Missing or damaged pulser
- Modulator does not decrease pressure properly
- Wheel lock by downshift

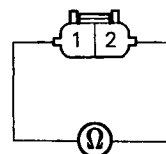
- When vehicle is driven, ABS indicator light is ON.
- With the SCS service connector connected (see page 19-40), DTCs 4-1, 4-2, 4-4 and/or 4-8 are indicated.

Check the wheel sensor resistance:

1. Disconnect the appropriate wheel sensor* 2P connector.
2. Measure the resistance between the No. 1 and No. 2 terminals.

DTC	Appropriate Wheel Sensor
4-1	Right-front
4-2	Left-front
4-4	Right-rear
4-8	Left-rear

WHEEL SENSOR 2P CONNECTOR



Wire side of female terminals

Is the resistance as specified?
— Front: 700-1,100 Ω
— Rear: 1,400-2,000 Ω

NO

Replace the appropriate wheel sensor.

YES

Check the continuity of the wheel sensor:

Check for continuity between the appropriate wheel sensor 2P connector terminal No. 2 and body ground.

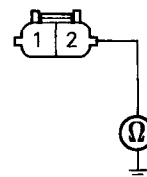
Is there continuity?

YES

Replace the appropriate wheel sensor.

NO

(To page 19-66)



(cont'd)

Troubleshooting

DTC 4-1 (Right-front), 4-2 (Left-front), 4-4 (Right-rear), 4-8 (Left-rear): Wheel Sensor (cont'd)

(From page 19-65)

Check for a short to body ground in the wheel sensor positive (+) circuit:

1. Disconnect the ABS control unit 22P connector.
2. Check for continuity between the appropriate wheel sensor positive (+) circuit terminal* and body ground.

Is there continuity?

YES

Repair short to body ground in the positive (+) circuit wire between the ABS control unit and appropriate wheel sensor.

NO

Check for a short to body ground in the wheel sensor negative (-) circuit:

Check for continuity between the appropriate wheel sensor negative (-) circuit terminal* and body ground.

Is there continuity?

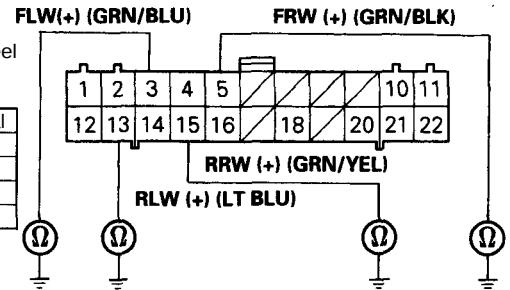
YES

Repair short to body ground in the negative (-) circuit wire between the ABS control unit and appropriate wheel sensor.

NO

(To page 19-67)

ABS CONTROL UNIT 22P CONNECTOR

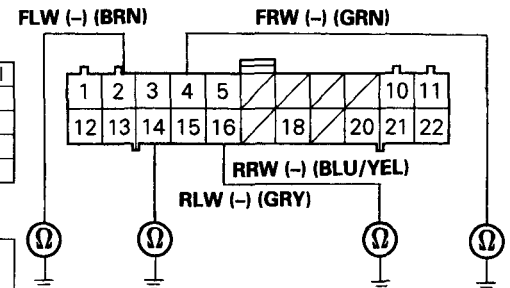


Wire side of female terminals

NOTE: Check with the appropriate wheel sensor 2P connector disconnected.

DTC	Appropriate Terminal
4-1 (Right-front)	No. 5: FRW (+)
4-2 (Left-front)	No. 3: FLW (+)
4-4 (Right-rear)	No. 15: RRW(+)
4-8 (Left-rear)	No. 13: RLW (+)

DTC	Appropriate Terminal
4-1 (Right-front)	No. 4: FRW (-)
4-2 (Left-front)	No. 2: FLW (-)
4-4 (Right-rear)	No. 16: RRW (-)
4-8 (Left-rear)	No. 14: RLW (-)



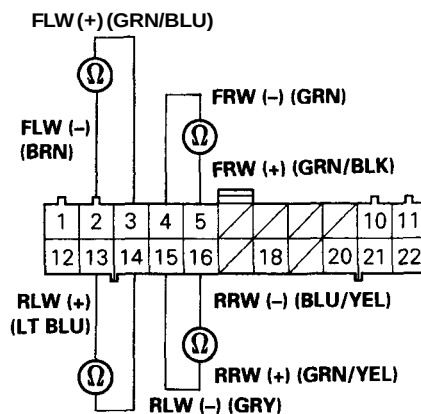
(From page 19-66)

Check the wheel sensor resistance:

1. Connect the wheel sensor 2P connector.
2. Measure the resistance between the ABS control unit 22P connector positive side and negative side terminals of the appropriate wheel sensor*.

DTC	Appropriate Terminal	
	Positive Side	Negative Side
4-1 (Right-front)	No. 5: FRW (+)	No. 4: FRW (-)
4-2 (Left-front)	No. 3: FLW (+)	No. 2: FLW (-)
4-4 (Right-rear)	No. 15: RRW (+)	No. 16: RRW (-)
4-8 (Left-rear)	No. 13: RLW (+)	No. 14: RLW (-)

*

ABS CONTROL UNIT 22P CONNECTOR

Wire side of female terminals

NOTE: Check with the ABS control unit 22P connector disconnected.

Is the resistance as specified?

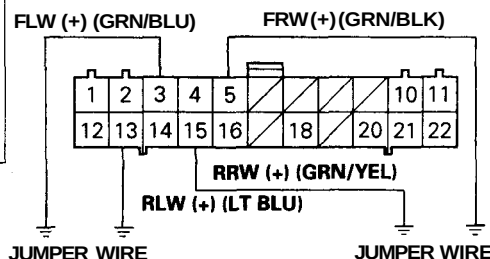
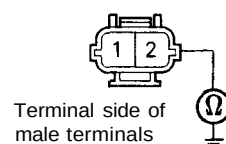
- Front: 700- 1,100 Ω
- Rear: 1,400-2,000 Ω

NO

YES

Check for an open in the wheel sensor circuit:

1. Connect the ABS control unit 22P connector appropriate positive side terminal* to body ground with a jumper wire.
2. Disconnect the appropriate wheel sensor* 2P connector.
3. Check for continuity between terminal No. 2 and body ground.

**WHEEL SENSOR 2P CONNECTOR**

Terminal side of male terminals

Is there continuity?

NO

YES

Repair open in the positive (+) circuit wire between the ABS control unit and appropriate wheel sensor.

Measure the appropriate wheel sensor air gap (see page 19-103).

Repair open in the negative (-) circuit wire between the ABS control unit and appropriate wheel sensor.

Is the air gap OK?

NO

YES

Correct the appropriate wheel sensor air gap.

Check the ABS function (see page 19-95).