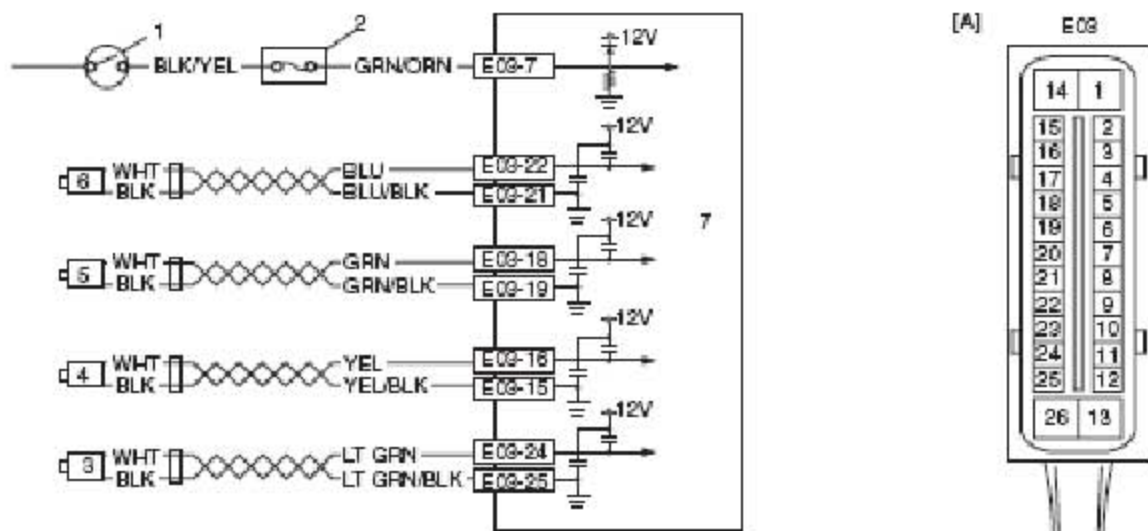


DTC C1021, C1022 / C1025, C1026 / C1031, C1032 / C1035, C1036: Right-Front / Left-Front / Right-Rear / Left-Rear Wheel Speed Sensor Circuit or Encoder

Wiring Diagram



[A]: ABS hydraulic unit / control module connector (viewed from terminal side)	3. Right-rear wheel speed sensor	6. Left-front wheel speed sensor
1. Ignition switch	4. Left-rear wheel speed sensor	7. ABS hydraulic unit / control module assembly
2. Circuit fuse (in junction block assembly)	5. Right-front wheel speed sensor	

DTC Detecting Condition

The ABS control module monitors the voltage at the terminal of each sensor

while the ignition switch is ON. When the voltage is not within the specified range, an applicable DTC will be set. Also, when no sensor signal is inputted at running, an applicable DTC will be set.

NOTE

When the vehicle was operated in any of the following ways, one of these DTCs may be set even when the sensor is in good condition. If such possibility is suspected, clear DTC once referring to "DTC Clearance: " and then performing the driving test as described in Step 2 of "ABS Check: ", check whether or not any abnormality exists.

- The vehicle was driven with parking brake pulled.
- Wheel spin occurred while driving.
- Wheel(s) was turned while the vehicle was jacked up.
- The vehicle was stuck

DTC Troubleshooting

Step	Action	Yes	No
1	Was "ABS Check" performed?	Go to Step 2.	Go to "ABS Check: ".
2	1) Turn ignition switch OFF. 2) Disconnect ABS hydraulic unit / control module connector. 3) Check for proper connection to ABS control module at each sensor terminal. 4) If OK, then turn ignition switch ON and measure voltage between applicable sensor terminal of module connector and vehicle body ground. Is it 0 V?	Go to Step 4.	ABS wheel speed sensor circuit shorted to power.

Step	Action	Yes	No
3	1) Disconnect applicable ABS wheel speed sensor coupler with ignition switch OFF. 2) Measure resistance between the following points. <ul style="list-style-type: none"> • Both ABS hydraulic unit / control module connector(1) terminals a pair of applicable sensor terminals. This check result should be no continuity. • Between applicable sensor terminal of ABS hydraulic unit / control module connector and vehicle body ground. This check result should be no continuity. • Between applicable sensor terminal of module connector and corresponding terminal of ABS wheel speed sensor connector (2) in main harness (for front sensor) or floor harness (for rear sensor). This check result should be continuity. 	Go to Step 4.	Circuit open or short to ground.
4	1) Remove applicable ABS wheel speed sensor. 2) Check sensor for damage or foreign material attached. Is it in good condition?	Go to Step 5.	Clean, repair or replace.
5	Check front and/or rear encoder for the following (remove front and/or rear drive shaft): <ul style="list-style-type: none"> • Encoder surface neither crack nor damaged • No foreign material being attached • Encoder not being eccentric • Wheel bearing free from excessive play Are they in good condition?	Go to Step 6.	Clean, repair or replace wheel hub assembly.

Step	Action	Yes	No
6	1) Install ABS wheel speed sensor to knuckle. 2) Tighten sensor bolt to specified torque and check that there is no clearance between sensor and knuckle. Is it OK?	Go to Step 7.	Replace ABS wheel speed sensor.
7	Refer to "Front Wheel Speed Sensor On-Vehicle Inspection:" and/or "Rear Wheel Speed Sensor On-Vehicle Inspection:", check output voltage or waveform. Is specified voltage and/or waveform obtained?	Substitute a known-good ABS hydraulic unit / control module assembly and recheck.	Replace sensor and recheck.

LAUNCH