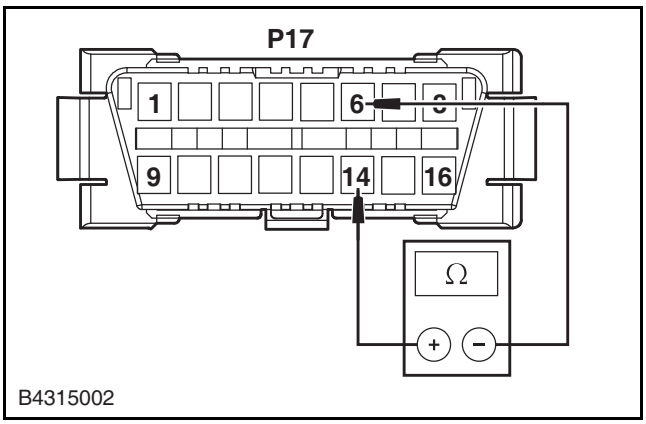
CAN Bus Integrity Inspection

1. Disconnect the battery power supply.
2. Measure resistance between terminals 6 and 14 of DLC.

Standard value: 55 ~ 63 Ω



3. If displayed resistance is between 110 ~ 125 Ω or there is no continuity, it indicates that there is a fault in CAN bus. Check the EMS wiring harness connector (check BCM for body CAN) in order, and repair it if there is an open circuit or poor connection.

Symptom Diagnosis and Testing

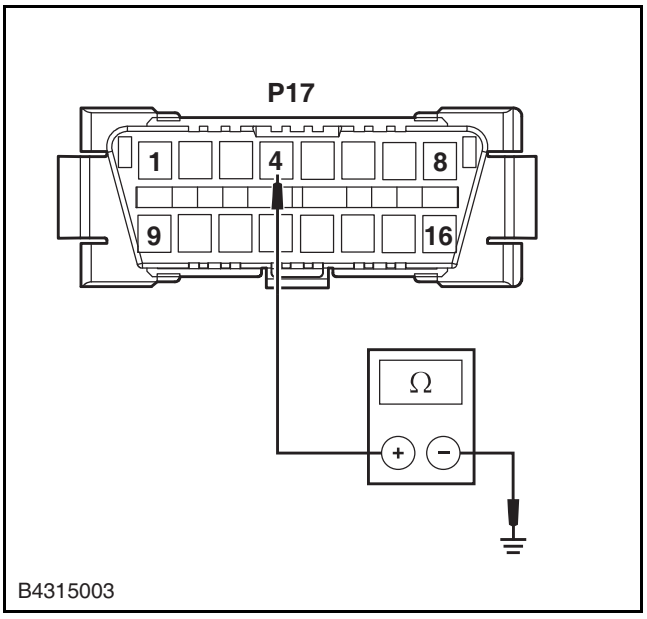
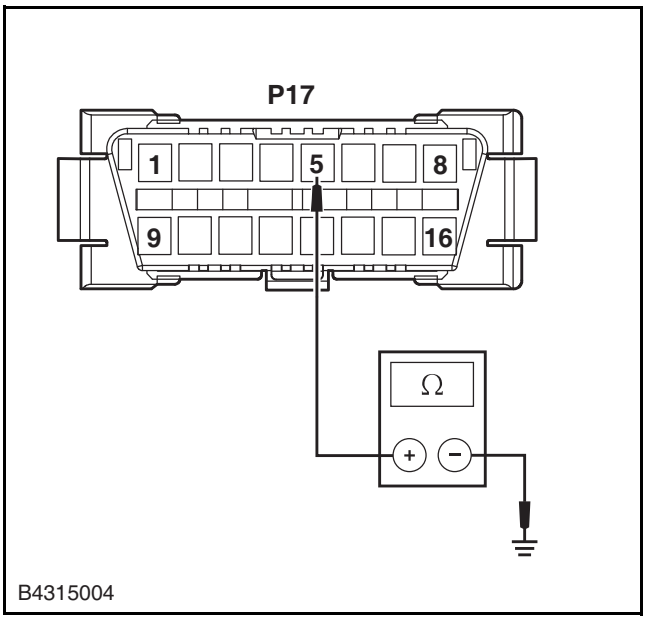
Symptom Chart

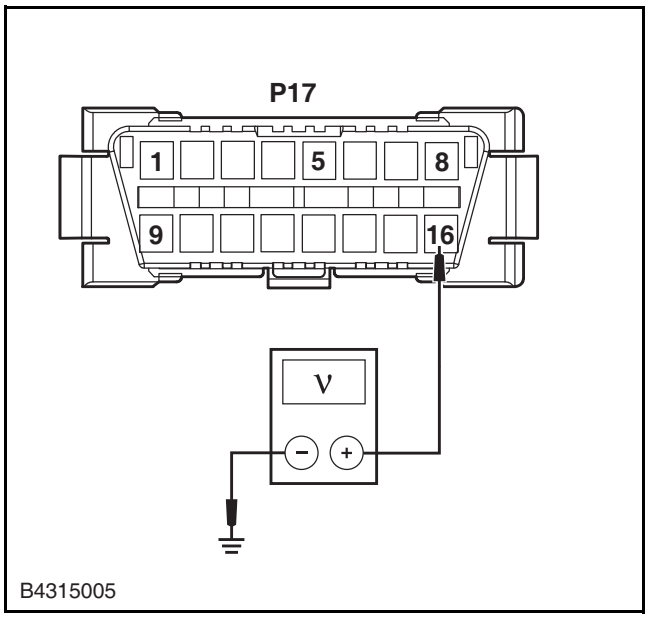
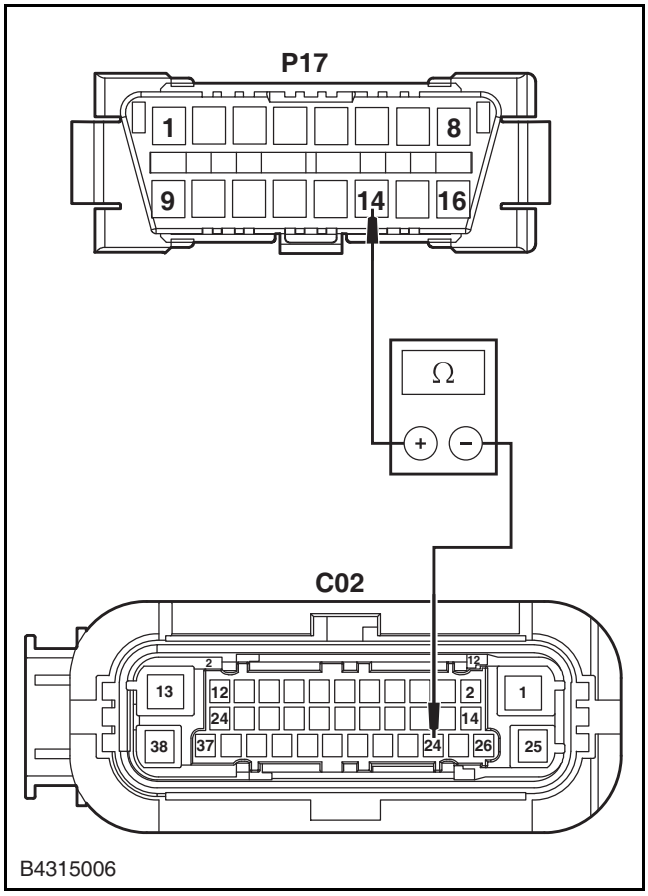
If the fault occurs, but there is no Diagnosis Trouble Code (DTC) stored in the control unit for this fault, and cannot confirm the cause by basic inspection, diagnose and repair it in order listed in the following table.

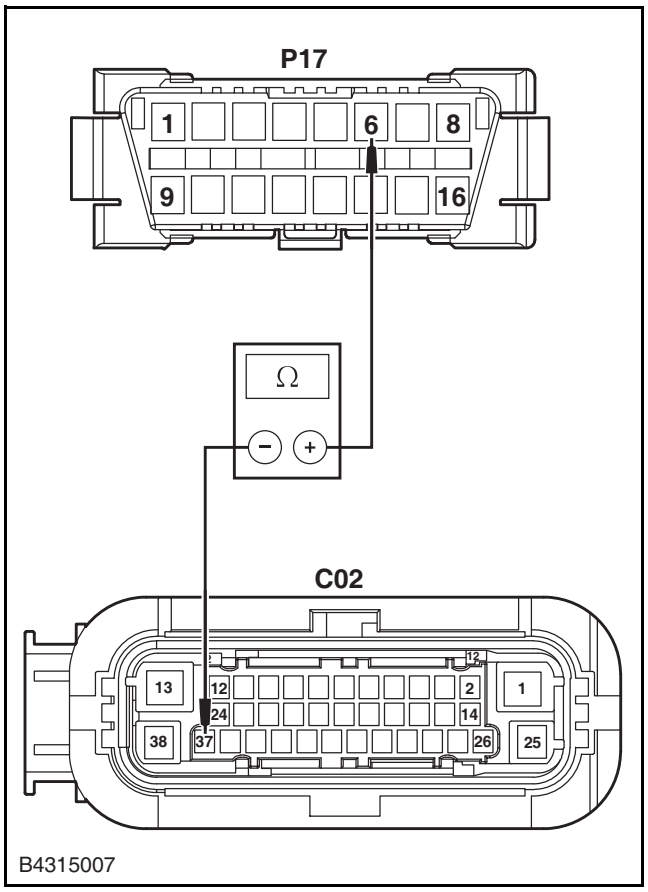
Symptom	Possible Causes	Solutions
Diagnostic tool cannot communicate with EMS	• Diagnostic tool • Circuit • EMS	• Malfunction diagnosis procedure is similar to ESP. **Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**
Diagnostic tool cannot communicate with TCU	• Diagnostic tool • Circuit • TCU	• Malfunction diagnosis procedure is similar to ESP. **Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**
Diagnostic tool cannot communicate with ESP	• Diagnostic tool • Circuit • ESP	**Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**
Diagnostic tool cannot communicate with SRS	• Diagnostic tool • Circuit • SRS	• Malfunction diagnosis procedure is similar to ESP. **Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**
Diagnostic tool cannot communicate with EPS	• Diagnostic tool • Circuit • EPS	• Malfunction diagnosis procedure is similar to ESP. **Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**

Symptom	Possible Causes	Solutions
Diagnostic tool cannot communicate with IP	• Diagnostic tool • Circuit • IP	• Malfunction diagnosis procedure is similar to ESP. **Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**
Diagnostic tool cannot communicate with BCM	• Diagnostic tool • Circuit • BCM	• Malfunction diagnosis procedure is similar to ESP. **Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**
Diagnostic tool cannot communicate with ESCL	• Diagnostic tool • Circuit • ESCL	• Malfunction diagnosis procedure is similar to ESP. **Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**
Diagnostic tool cannot communicate with AC	• Diagnostic tool • Circuit • AC	• Malfunction diagnosis procedure is similar to ESP. **Refer to: Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP.**

Diagnosis Procedure for Disabled Communication Between Diagnostic Tool and ESP

Test Conditions	Details/Results/Actions
1. Verify fault symptom	
	A. Use a normal vehicle. B. Try to communicate with ESP. Is communication with ESP normal? **Yes** Go to step 2. **No** Replace with a new diagnostic tool.
2. Inspect if diagnosis circuit to ground is normal	
 B4315003  B4315004	A. Vehicle power is in OFF position. B. Measure resistance between terminals 4 and 5 of DLC wiring harness connector P17 and reliable ground. **Standard value: Less than 1 Ω** Is resistance normal? **Yes** Go to step 3. **No** Inspect if terminals 4 and 5 of DLC wiring harness connector P17 to ground is normal.

Test Conditions	Details/Results/Actions
3. Inspect if diagnosis circuit to power supply is normal.	
	A. Vehicle power is in OFF position. B. Measure voltage between terminal 16 of DLC wiring harness connector P17 and reliable ground. **Standard value: 9 V - 16 V** Is voltage normal? **Yes** Go to step 4. **No** Inspect if terminal 16 of DLC wiring harness connector P17 to power supply is normal.
4. Inspect diagnosis circuit CAN-L and ESP circuit	
	A. Disconnect the ESP/ABS wiring harness connector C02. B. Measure resistance between terminal 24 of ESP/ABS wiring harness connector C02 and terminal 14 of DLC P17. **Standard value: Less than 5 Ω** Is resistance normal? **Yes** Go to step 5. **No** Inspect and repair open circuit between terminal 24 of ESP/ABS wiring harness connector C02 and terminal 1 of DLC P17.

Test Conditions	Details/Results/Actions
5. Inspect diagnosis circuit CAN-H and ESP/ABS circuit	
	A. Disconnect the ESP/ABS wiring harness connector C02. B. Measure resistance between terminal 37 of ESP/ABS wiring harness connector C02 and terminal 6 of DLC P17. **Standard value: Less than 5 Ω** Is resistance normal? **Yes** Go to step 6. **No** Inspect and repair open circuit between terminal 37 of ESP/ABS wiring harness connector C02 and terminal 6 of DLC P17.
6. Inspect ESP/ABS power supply circuit	
	A. Inspect the ESP power supply circuit. **Refer to: Brake System ESP Diagnosis and Testing.** Is power supply circuit normal? **Yes** Go to step 7. **No** Repair the faulty part.
7. Replace ESP/ABS and confirm that fault is repaired	