

- 6. Clear the DTCs using the HDS (see page 19-45).
- 7. Disconnect the HDS from the 16P DLC.
- 8. Cycle the igniton switch OFF, ON (II), and OFF.
- Test-drive the vehicle at speeds above 19 mph (30 km/h).

Does the ABS indicator come on?

YES—Check for a loose VSA control unit 47P connector. If necessary, substitute a known-good VSA modulator-control unit, and recheck.■

NO – Replace the original wheel sensor, encoder, or pulser (see page 19-99). ■

DTC 25: Yaw Rate Sensor

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle around a number of corners.
- 5. Verify the DTC.

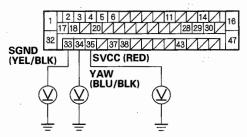
Is DTC 27 or 64 indicated?

YES — Do the appropriate troubleshooting for the DTC. ■

NO-Go to step 6.

- 6. Turn the ignition switch OFF.
- Disconnect the VSA control unit 47P connector, steering angle sensor 5P connector and yaw rate-lateral acceleration sensor 5P connector.
- 8. Turn the ignition switch ON (II).
- Measure the voltage between body ground and the VSA control unit 47P connector terminal No. 33, No. 34, and No. 35 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there 1 V or more?

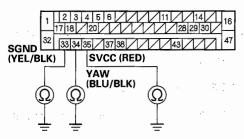
YES – Repair short to power in the wire between the VSA control unit, the yaw rate-lateral acceleration sensor and the steering angle sensor.■

NO-Go to step 10.

DTC Troubleshooting (cont'd)

- 10. Turn the ignition switch OFF.
- Check for continuity between body ground and the VSA control unit 47P connector terminal No. 33, No. 34, and No. 35 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

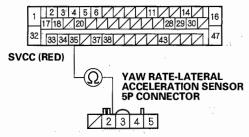
Is there continuity?

YES — Repair short to body ground in the wire between the VSA control unit, the yaw rate-lateral acceleration sensor and the steering angle sensor. ■

NO-Go to step 12.

 Check for continuity between the VSA control unit 47P connector terminal No. 35 and yaw rate-lateral acceleration sensor 5P connector terminal No. 2.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

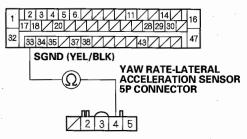
Is there continuity?

YES-Go to step 13.

NO – Repair open in the wire between the VSA control unit and the yaw rate-lateral acceleration sensor. ■

 Check for continuity between the VSA control unit 47P connector terminal No. 33 and yaw rate-lateral acceleration sensor 5P connector terminal No. 4.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

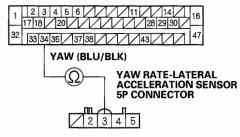
Is there continuity?

YES-Go to step 14.

NO — Repair open in the wire between the VSA control unit and the yaw rate-lateral acceleration sensor. ■

 Check for continuity between the VSA control unit 47P connector terminal No. 34 and yaw rate-lateral acceleration sensor 5P connector terminal No. 3.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there continuity?

YES-Go to step 15.

NO — Repair open in the wire between the VSA control unit and the yaw rate-lateral acceleration sensor. ■



- 15. Substitute a known-good yaw rate-lateral acceleration sensor.
- 16. Reconnect all of the disconnected connectors.
- 17. Clear the DTC using the HDS (see page 19-45).
- 18. Disconnect the HDS from the 16P DLC.
- 19. Turn the ignition switch OFF, then turn it ON (II) again.
- 20. Test-drive the vehicle around a number of corners.
- 21. Verify the DTC.

Is DTC 25 indicated?

YES—Check for loose connector terminals and repair if necessary. Replace the VSA modulator-control unit (see page 19-96). ■

NO—Replace the original yaw rate-lateral acceleration sensor (see page 19-93). ■

DTC 26: Lateral Acceleration Sensor

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- 3. Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle around a number of corners.
- 5. Verify the DTC.

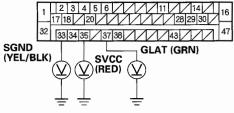
Is DTC 64 indicated?

YES – Do the appropriate troubleshooting for the DTC. \blacksquare

NO-Go to step 6.

- 6. Turn the ignition switch OFF.
- Disconnect the VSA control unit 47P connector, steering angle sensor 5P connector and yaw rate-lateral acceleration sensor 5P connector.
- 8. Turn the ignition switch ON (II).
- Measure the voltage between body ground and the VSA control unit 47P connector terminal No. 33, No. 35, and No. 37 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there 1 V or more?

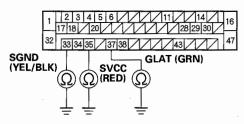
YES — Repair short to power in the wire between the VSA control unit, the yaw rate-lateral acceleration sensor and the steering angle sensor. ■

NO-Go to step 10.

DTC Troubleshooting (cont'd)

- 10. Turn the ignition switch OFF.
- Check for continuity between body ground and the VSA control unit 47P connector terminal No. 33, No. 35, and No. 37 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

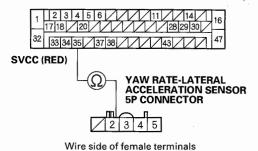
Is there continuity?

YES — Repair short to body ground in the wire between the VSA control unit, the yaw rate-lateral acceleration sensor and the steering angle sensor. ■

NO-Go to step 12.

 Check for continuity between the VSA control unit 47P connector terminal No. 35 and yaw rate-lateral acceleration sensor 5P connector terminal No. 2.

VSA CONTROL UNIT 47P CONNECTOR



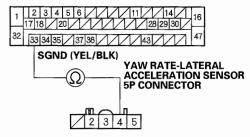
Is there continuity?

YES-Go to step 13.

NO — Repair open in the wire between the VSA control unit and the yaw rate-lateral acceleration sensor. ■

 Check for continuity between the VSA control unit 47P connector terminal No. 33 and yaw rate-lateral acceleration sensor 5P connector terminal No. 4.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there continuity?

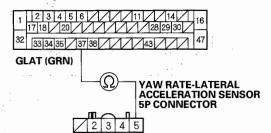
YES-Go to step 14.

NO – Repair open in the wire between the VSA control unit and the yaw rate-lateral acceleration sensor. ■



 Check for continuity between the VSA control unit 47P connector terminal No. 37 and yaw rate-lateral acceleration sensor 5P connector terminal No. 5.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there continuity?

YES - Go to step 15.

NO—Repair open in the wire between the VSA control unit and the yaw rate-lateral acceleration sensor. ■

- 15. Substitute a known-good yaw rate-lateral acceleration sensor.
- 16. Reconnect all of the disconnected connectors.
- 17. Clear the DTC using the HDS (see page 19-45).
- 18. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 20. Test-drive the vehicle around a number of corners.
- 21. Verify the DTC.

Is DTC 25 indicated?

YES – Check for loose terminals and repair if necessary. Replace the VSA modulator-control unit (see page 19-96). ■

NO—Replace the original yaw rate-lateral acceleration sensor (see page 19-93). ■

DTC 27: Steering Angle Sensor

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle around a number of corners.
- 5. Verify the DTC.

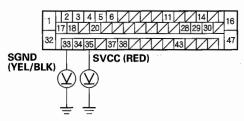
Is DTC 64 indicated?

YES — Do the appropriate troubleshooting for the DTC. ■

NO-Go to step 6.

- 6. Turn the ignition switch OFF.
- Disconnect the VSA control unit 47P connector, steering angle sensor 5P connector and yaw rate-lateral acceleration sensor 5P connector.
- 8. Turn the ignition switch ON (II).
- Measure the voltage between body ground and the VSA control unit 47P connector terminal No. 33, No. 35 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there 1 V or more?

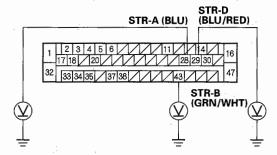
YES — Repair short to power in the wire between the VSA control unit, the steering angle sensor and the yaw rate-lateral acceleration sensor. ■

NO-Go to step 10.

DTC Troubleshooting (cont'd)

 Measure the voltage between body ground and the VSA control unit 47P connector terminal No. 28, No. 29, and No. 43 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

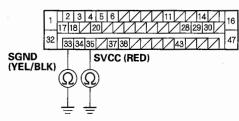
Is there 1 V or more?

YES — Repair short to power in the wire between the VSA control unit, the steering angle sensor and the yaw rate-lateral acceleration sensor. ■

NO-Go to step 11.

- 11. Turn the ignition switch OFF.
- Check for continuity between body ground and the VSA control unit 47P connector terminal No. 33, No. 35 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

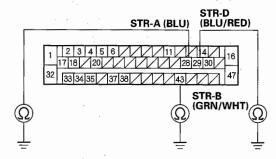
Is there continuity?

YES — Repair short to body ground in the wire between the VSA control unit, the steering angle sensor and the yaw rate-lateral acceleration sensor.■

NO - Go to step 13.

 Check for continuity between body ground and the VSA control unit 47P connector terminal No. 28, No. 29, and No. 43 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

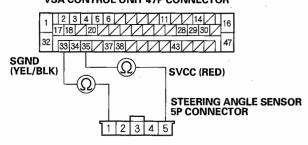
Is there continuity?

YES — Repair short to body ground in the wire between the VSA control unit, the steering angle sensor and the yaw rate-lateral acceleration sensor. ■

NO-Go to step 14.

14. Check for continuity between the VSA control unit 47P connector terminal No. 33, No. 35 and steering angle sensor 5P connector terminal No. 1, No. 5 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there continuity?

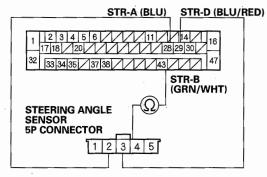
YES-Go to step 15.

NO—Repair open in the wire between the VSA control unit and the steering angle sensor.■



 Check for continuity between the VSA control unit 47P connector terminal No. 28, No. 29, No. 43 and steering angle sensor 5P connector terminal No. 2, No. 3, No. 4 individually.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there continuity?

YES-Go to step 16.

NO – Repair open in the wire between the VSA control unit and the steering angle sensor. ■

- 16. Substitute a known-good steering angle sensor.
- 17. Reconnect all of the disconnected connectors.
- 18. Clear the DTC using the HDS (see page 19-45).
- 19. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 21. Test-drive the vehicle around a number of corners.
- 22. Verify the DTC.

Is DTC 27 indicated?

YES—Check for loose terminals and repair if necessary. Replace the VSA modulator-control unit (see page 19-96). ■

NO—Replace the original steering angle sensor (see page 19-92). ■

DTC 31, 32, 33, 34, 35, 36, 37, 38: ABS Solenoid

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Turn the ignition switch ON (II).
- 3. Verify the DTC.

Does the ABS indicator come on, and are DTCs 31, 32, 33, 34, 35, 36, 37, and/or 38 indicated?

YES — Check for loose terminals in the VSA control unit 47P connector. If necessary, substitute a known-good VSA modulator-control unit, and recheck. ■

NO-The system is OK at this time. ■

DTC Troubleshooting (cont'd)

DTC 41, 42, 43, 44: Wheel Lock

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- Test-drive the vehicle, and check for brake drag by duplicating city driving at speeds over 30 mph (50 km/h). Use the brakes often.

Do the brakes drag?

YES-Repair the brake drag. ■

NO-Go to step 2.

 Check the installation of the appropriate wheel sensor and the pulser or magnetic encoder for damage, debris, or excessive air gap (see page 19-98).

DTC	Appropriate Wheel Sensor
41	Right-front
42	Left-front
43	Right-rear
44	Left-rear

Is it correct?

YES — If the DTC does not reappear, the most probable cause for the DTC is that the vehicle might have lost traction in poor weather and spun around. ■

NO — Reinstall or replace the wheel sensor (see page 19-99). ■

DTC 51: Motor Lock

DTC 52: Motor Stuck OFF

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle around a number of corners.
- Check the No. 17 (30A) fuse in the under-hood fuse/ relay box.

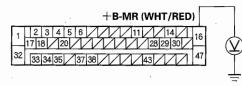
Is the fuse OK?

YES - Reinstall the fuse, and go to step 6.

NO - Replace the fuse, and recheck. ■

- 6. Disconnect the VSA control unit 47P connector.
- Measure the voltage between the VSA control unit 47P connector terminal No. 16 and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there battery voltage?

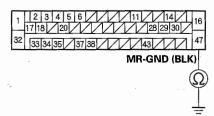
YES-Go to step 8.

NO—Repair open in the wire between the No. 17 (30A) fuse and the VSA modulator-control unit. ■



Measure resistance between the VSA control unit 47P connector terminal No. 47 and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there less than 1 Ω ?

YES-Go to step 9.

NO – Repair open or high resistance in the wire between the VSA modulator-control unit and body ground (G203). ■

- 9. Reconnect the VSA control unit 47P connector.
- 10. Clear the DTC using the DTC (see page 19-45).
- 11. Turn the ignition switch OFF, then turn it ON (II) again.
- 12. Test-drive the vehicle at 10 mph (15 km/h) or more.

Does the ABS indicator come on, and is DTC 51 or 52 indicated?

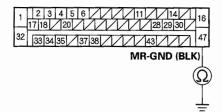
YES – Check for loose terminals and repair if necessary. Replace the VSA modulator-control unit (see page 19-96). ■

NO—The system is OK at this time. ■

DTC 53: Motor Stuck ON

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- 3. Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle around a number of corners.
- 5. Disconnect the VSA control unit 47P connector.
- Measure resistance between the VSA control unit 47P connector terminal No. 47 and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there less than 1 Ω ?

YES-Go to step 7.

NO—Repair open or high resistance in the wire between the VSA modulator-control unit and body ground (G203). ■

7. Reconnect the VSA control unit 47P connector.

DTC Troubleshooting (cont'd)

- 8. Clear the DTC using the HDS (see page 19-45).
- 9. Turn the ignition switch OFF, then turn it ON (II) again.
- 10. Test-drive the vehicle.

Does the ABS indicator come on, and is DTC 53 indicated?

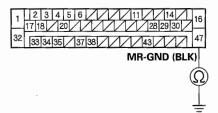
YES—Check for loose connector terminals and repair if necessary. Replace the VSA modulator-control unit (see page 19-96). ■

NO-The system is OK at this time. ■

DTC 54: Fail-safe Relay

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- 3. Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle around a number of corners.
- 5. Disconnect the VSA control unit 47P connector.
- Measure resistance between the VSA control unit 47P connector terminal No. 47 and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there less than 1 Ω ?

YES-Go to step 7.

NO—Repair open or high resistance in the wire between the VSA modulator-control unit and body ground (G203). ■

7. Reconnect the VSA control unit 47P connector.



1. 网络克尔克

- 8. Clear the DTC using the HDS (see page 19-45).
- Turn the ignition switch OFF, then turn it ON (II) again.
- 10. Test-drive the vehicle.

Does the ABS indicator come on, and is DTC 54 indicated?

YES – Check for loose connector terminals and repair if necessary. Replace the VSA modulator-control unit (see page 19-96). ■

NO - The system is OK at this time. ■

DTC 61, 62: High/Low Voltage

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle around a number of corners.
- 5. Clear the DTC using the HDS (see page 19-45).
- 6. Turn the ignition switch ON (II).

Does the ABS indicator come on?

YES—Go to step 7.

NO - The system is OK at this time. ■

7. Verify the DTC.

Is DTC 61 or 62 indicated?

YES—Check the battery (see page 22-74) and the charging system (see page 4-25). ■

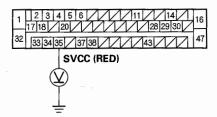
NO — Do the appropriate troubleshooting for the DTC indicated. ■

DTC Troubleshooting (cont'd)

DTC 64: Sensor Power Voltage

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle around a number of corners.
- 5. Disconnect the VSA control unit 47P connector.
- 6. Start the engine.
- Measure the voltage between the VSA control unit 47P connector terminal No. 35 and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

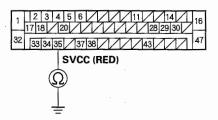
Is there 1 V or more?

YES — Repair short to power in the wire between the VSA modulator-control unit and yaw rate-lateral acceleration sensor and steering angle sensor. ■

NO-Go to step 8.

Check for continuity between the VSA control unit 47P connector terminal No. 35 and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there continuity?

YES — Repair short to ground in the wire between the VSA modulator-control unit and yaw rate-lateral acceleration sensor and steering angle sensor. ■

NO-Go to step 9.

- 9. Clear the DTC using the HDS (see page 19-45).
- 10. Test-drive the vehicle.

Does the ABS indicator come on, and is DTC 64 indicated?

YES – Replace the VSA modulator-control unit (see page 19-96). ■

NO – Intermittent failure, the system is OK at this time. Check connections at the VSA control unit 47P connector and G203. ■



DTC 65: Brake Fluid Level

1. Check the brake fluid level.

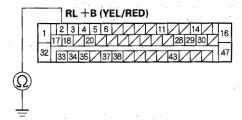
Is the level correct?

YES - Go to step 2.

NO - Refill the brake fluid, and recheck. ■

- 2. Disconnect the gauge assembly connector A (30P), and brake fluid level switch 2P connector.
- Check for continuity between terminal No. 2 of the gauge assembly connector A.(30P) and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there continuity?

YES – Repair short to ground in the wire between the gauge assembly connector A and the brake fluid level switch. ■

NO-Go to step 4.

4. Check the brake fluid level switch (see page 19-12).

Is the switch OK?

YES – Do the troubleshooting for the gauge control module (see page 22-262). ■

NO-Replace the brake fluid level switch. ■

DTC 66: VSA Pressure Sensor (Inside of VSA Modulator-Control Unit)

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Remove the HDS from the 16P DLC.
- 3. Turn the ignition switch OFF, then turn it ON (II).
- 4. Test-drive the vehicle.

Does the ABS indicator come on, and is DTC 25, 26, 27, or 64 indicated?

YES – Do the appropriate troubleshooting for the DTC.

NO-Go to step 5.

- Do the VSA sensor neutral position memorization (see page 19-94).
- 6. Clear the DTC using the HDS (see page 19-45).
- 7. Disconnect the HDS from the 16P DLC.
- 8. Turn the ignition switch OFF, then turn it ON (II).
- 9. Test-drive the vehicle.

Does the ABS indicator come on, and is DTC 66 indicated?

YES—Check for loose connector terminals and repair if necessary. Replace the VSA modulator-control unit (see page 19-96). ■

NO—The system is OK at this time. ■

DTC Troubleshooting (cont'd)

DTC 68: Brake Pedal Position Switch

1. Check for other DTCs in the PGM-FI system.

Are other DTCs indicated?

YES — Do the appropriate troubleshooting for the DTCs. ■

NO-Go to step 2.

Check the brake pedal position switch (see page 19-12).

Is the switch OK?

YES-Go to step 3.

NO – Adjust the brake pedal position switch (see page 19-6). ■

- 3. Clear the DTC using the HDS (see page 19-45).
- 4. Disconnect the HDS from the 16P DLC.
- 5. Turn the ignition switch OFF, then turn it ON (II).
- 6. Test-drive the vehicle.

Does the ABS indicator come on, and is DTC 68 indicated?

YES-Go to step 7.

NO - The system is OK at this time. ■

7. Troubleshoot the brake pedal position switch circuit (see page 19-11).

Is the brake pedal position switch circuit OK?

YES—Substitute a known-good ECM/PCM and recheck.

- If the problem is gone, replace the original ECM/ PCM.
- If the problem continues, replace the VSA modulator-control unit (see page 19-96).

NO—Repair the brake pedal position switch circuit. ■

DTC 71: Different Diameter Tire

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle.

Does the ABS indicator come on, and is DTC 71 indicated?

YES-Go to step 5.

NO – Intermittent failure; confirm that tire inflation is set to spec. The vehicle is OK at this time. ■

Check that all four tires are the specified size and are inflated to the proper specification.

Are all four tires the correct size and properly inflated?

YES-Go to step 6.

NO – Install the correct tires or set the tires to the correct inflation, and retest. ■

- With the vehicle on level ground, mark each tire with a small spot of grease. Roll the vehicle until each of the tires makes two grease spots on the floor.
- Measure and record the distance between the two grease spots.

Is the difference between the shortest and the longest measurement more than 10 %?

YES — Replace the tire/tires that is smaller or larger than the others. ■

NO — Replace the VSA modulator-control unit (see page 19-96). ■



DTC 81: Central Processing Unit (CPU)

1. Check for other DTCs.

Is another DTC indicated?

YES – Do the appropriate troubleshooting for the DTC. ■

NO-Go to step 2

- 2. Clear the DTC using the HDS (see page 19-45).
- 3. Disconnect the HDS from the 16P DLC.
- 4. Turn the ignition switch OFF, then turn it ON (II) again.
- 5. Test-drive the vehicle.

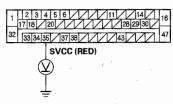
Does the ABS indicator come on, and is DTC 81 indicated?

YES-Go to step 6.

 $\mbox{NO-}\mbox{Intermittent failure;}$ the vehicle is OK at this time. \blacksquare

- 6. Disconnect the VSA control unit 47P connector.
- 7. Start the engine.
- Measure the voltage between the VSA control unit 47P connector terminal No. 35 and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

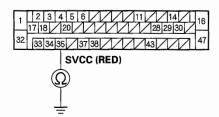
Is there 1 V or more?

YES — Repair short to power in the wire between the VSA modulator-control unit, the yaw rate-lateral acceleration sensor, and the steering angle sensor. ■

NO-Go to step 9.

Check for continuity between the VSA control unit 47P connector terminal No. 35 and body ground.

VSA CONTROL UNIT 47P CONNECTOR



Wire side of female terminals

Is there continuity?

YES — Repair short to body ground in the wire between the VSA modulator-control unit, the yaw rate-lateral acceleration sensor, and the steering angle sensor. ■

NO—Check for loose terminals in the VSA control unit 47P connector. If necessary, substitute a known-good VSA modulator-control unit, and recheck (see page 19-96). ■

DTC Troubleshooting (cont'd)

DTC 83: ECM/PCM

1. Check the DTC.

Is DTC 86 indicated?

YES – Do the troubleshooting for DTC 86 (see page 19-83). ■

NO - Go to step 2.

- 2. Clear the DTC using the HDS (see page 19-45).
- 3. Disconnect the HDS from the 16P DLC.
- 4. Turn the ignition switch OFF, then turn it ON (II).
- 5. Test-drive the vehicle.

Do the VSA and VSA activation indicators come on, and is DTC 83 indicated?

YES - Go to step 6.

NO - The system is OK at this time. ■

6. Check the PGM-FI system.

Does the MIL indicator come on or is ECM/PCM's DTC indicated?

YES – Do the applicable troubleshooting for ECM/PCM. ■

NO - Go to step 7.

7. Check the gear position.

Does the D indicator come on while neutral position (N) is selected or is ECM/PCM's DTC indicated?

YES – Do the applicable troubleshooting for ECM/PCM. ■

NO—Check for loose terminals at the ECM/PCM connectors, and go to step 8.

- 8. Clear the DTC using the HDS (see page 19-45).
- 9. Turn the ignition switch OFF, then turn it ON (II).
- 10. Test-drive the vehicle.

Is DTC 83 indicated and no ECM/PCM's DTC?

YES—Substitute a known-good PCM, and rechec^K
If the code returns, replace the VSA modulatorcontrol unit (see page 19-96). ■

NO – The system is OK at this time. ■

DTC 84: VSA Sensor Neutral Position

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle.

Does the VSA indicator come on, and is DTC 84 indicated?

YES-Go to step 5.

NO-The system is OK at this time. ■

5. Check for other DTCs.

Are any other DTCs indicated?

YES-Troubleshoot the appropriate DTC. ■

NO-Go to step 6.

- 6. Do the VSA sensor neutral position memorization (see page 19-94).
- 7. Clear the DTC using the HDS (see page 19-45).
- 8. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 10. Test-drive the vehicle.

Does the VSA indicator come on, and is DTC 84 indicated?

YES – Replace the VSA modulator-control unit (see page 19-96). ■

NO-The system is OK at this time.■



DTC 86: F-CAN Communication

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Start and run the engine for at least 5 seconds then turn the engine off.
- 3. Check for DTCs using the HDS.

Is DTC 86 indicated?

YES-Go to step 4.

NO—Intermittent failure, the F-CAN communication line is OK at this time. ■

4. Check for DTCs in the ECM/PCM.

Are any DTCs indicated?

YES-Troubleshoot the ECM/PCM DTCs. ■

NO—Replace the VSA modulator-control unit (see page 19-96). ■

DTC 107: TCS Operation

DTC 108: VSA Operation

NOTE: The ABS/VSA indicators do not come on by memorizing the DTC 107 or 108.

- 1. Clear the DTC using the HDS (see page 19-45).
- 2. Disconnect the HDS from the 16P DLC.
- Turn the ignition switch OFF, then turn it ON (II) again.
- 4. Test-drive the vehicle.

Is DTC 107 or DTC 108 indicated?

YES — Check for loose terminals in the VSA control unit 47P connector. If necessary, substitute a known-good VSA modulator-control unit (see page 19-96), and recheck. ■

 $\mbox{NO-}\mbox{Intermittent failure; the system is OK at this time.$ $<math display="inline">\blacksquare$