

TEST TC-27A - AUTO SHUTDOWN RELAY CONTROL CIRCUIT

NOTE: Perform **TEST TC-1A** before proceeding with this test. For connector terminal identification, see **CONNECTOR IDENTIFICATION** at beginning of article. For wiring diagrams, see **WIRING DIAGRAMS** at the end of this article. Perform **TEST VER-2A** after each repair.

1. Using scan tool, actuate Auto Shutdown (ASD) relay. If ASD relay is clicking, go to next step. If ASD relay is not clicking, go to step 5).
2. Condition required to set trouble code is not present at this time. AUTO SHUTDOWN RELAY CONTROL CIRCUIT trouble code sets if an open or short is detected in Auto Shutdown (ASD) relay control circuit. Possible causes are: open or short in ASD relay coil, open or short in ASD relay ignition feed, open or shorted ASD relay control circuit, failed PCM driver, PCM failure, or defective or damaged connector terminals or wires. Go to next step.
3. Inspect all related wiring and connectors and repair as necessary. If no problems were found with wiring and connectors, go to next step.
4. While still actuating ASD relay, wiggle wiring harness from ASD relay to Powertrain Control Module (PCM). If engine dies, repair wiring as necessary. If engine did not die, see **INACTIVE DTC CONDITION** in this article. Test is complete.
5. Remove ASD relay and ensure connector is clean and not damaged. Using scan tool in voltmeter mode, check voltage on ASD relay connector, fused ignition feed circuit (Dark Blue wire on XJ body, White/Yellow wire on YJ body or Light Blue/Red wire on ZJ body). If voltage is more than 10 volts, go to next step. If voltage is less than 10 volts, repair open in fused ignition feed circuit (Dark Blue wire on XJ body, White/Yellow wire on YJ body or Light Blue/Red wire on ZJ body).
6. Turn ignition off. Disconnect PCM 60-pin connector and ensure connector is clean and not damaged. Using scan tool in ohmmeter mode, check resistance of ASD relay connector, relay control circuit (Dark Blue/Yellow wire on XJ and YJ bodies or Pink wire on ZJ body). If resistance is more than 5 ohms, go to next step. If resistance is less than 5 ohms, repair short to ground in Dark Blue/Yellow wire on XJ and YJ bodies or Pink wire on ZJ body.
7. Using an external ohmmeter, check resistance of ASD relay control circuit (Dark Blue/Yellow wire on XJ and YJ bodies or Pink wire on ZJ body) between ASD relay connector and PCM connector terminal No. 51. If resistance is more than 5 ohms, repair open in Dark Blue/Yellow wire on XJ and YJ bodies or Pink wire on ZJ body. If resistance is less than 5 ohms, replace PCM.