DTC	C0273/13	Open in ABS Motor Relay Circuit
DTC	C0274/14	Short to B+ in ABS Motor Relay Circuit
DTC	C1361/91	Short Circuit in ABS Motor Fail Safe Relay Cir- cuit

### DESCRIPTION

If a DTC related to the motor line is stored, the VSC FAIL (fail-safe) relay cuts off the power supply to the VSC MTR relay and performs the fail-safe operation.

While the ABS, TRC, VSC, or BA is operating, the skid control ECU turns the VSC FAIL relay on and activates the pump motor in the ABS and TRACTION actuator.

These DTCs may be stored if the motor relay (+BM) voltage becomes lower than the DTC detecting condition due to insufficient output from the battery or alternator.

DTC No.	DTC Detection Condition	Trouble Area
C0273/13	<ul> <li>When either condition below is met:</li> <li>All of following conditions continue for 0.12 seconds or more. <ul> <li>(a) IG1 terminal voltage between 9.5 V and 17.2 V.</li> <li>(b) During initial check or ABS/TRC/VSC/BA.</li> <li>(c) Relay contact open when relay on.</li> </ul> </li> <li>Both of following conditions continue for 0.12 seconds or more. <ul> <li>(a) IG1 terminal voltage 9.5 V or less.</li> <li>(b) Relay contact remains open when relay on.</li> </ul> </li> </ul>	<ul> <li>ABS1 H-fuse</li> <li>VSC MTR relay</li> <li>VSC MTR relay circuit</li> <li>VSC FAIL relay</li> <li>VSC FAIL relay circuit</li> <li>ABS and TRACTION actuator</li> </ul>
C0274/14	Despite motor relay (VSC MTR relay) off, motor relay remains closed for 4 seconds or more.	<ul> <li>ABS1 H-fuse</li> <li>VSC MTR relay</li> <li>VSC MTR relay circuit</li> <li>VSC FAIL relay</li> <li>VSC FAIL relay circuit</li> <li>ABS and TRACTION actuator</li> </ul>
C1361/91	Immediately after ignition switch ON, motor fail-safe relay (VSC FAIL relay) contact closed for 4 seconds when motor fail-safe relay (VSC FAIL relay) off.	<ul> <li>ABS1 H-fuse</li> <li>VSC MTR relay</li> <li>VSC MTR relay circuit</li> <li>VSC FAIL relay</li> <li>VSC FAIL relay circuit</li> <li>ABS and TRACTION actuator</li> </ul>

#### HINT:

DTCs C0273/13, C0274/14 and C1361/91: The skid control ECU begins to detect these DTCs when the vehicle speed exceeds 6 km/h (4 mph).

BC

#### BC-84

#### WIRING DIAGRAM



## **INSPECTION PROCEDURE**

#### **1** PERFORM ACTIVE TEST BY INTELLIGENT TESTER (MOTOR RELAY)

(a) Select the ACTIVE TEST, generate a control command, and then check that the ABS motor relay operates.

# Skid control ECU

Item (Display)	Test Details	Diagnostic Note
MOTOR RELAY	Turns ABS motor relay ON / OFF	Operating sound of motor can be heard

OK:

The operation sound of the ABS motor can be heard.









REPLACE ABS AND TRACTION ACTUATOR ASSEMBLY