

C1140 ACTUATOR RELAY SYSTEM

Description

Activates or deactivates each solenoid valve according to the signals transmitted by the ABS actuator and electric unit (control unit).

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
C1140	ACTUATOR RLY	During the actuator relay operating with OFF, when the actuator relay turns ON, or when the control line for the relay is shorted to the ground	<ul style="list-style-type: none"> • Harness or connector • ABS actuator and electric unit (control unit)
		During the actuator relay operating with ON, when the actuator relay turns ON, or when the control line for the relay is open.	

DTC CONFIRMATION PROCEDURE

- 1). Turn the ignition switch ON.
- 2). Perform ABS actuator and electric unit (control unit) self-diagnosis.
- 3). Is DTC "C1140" detected?
 - YES >> Proceed to diagnosis procedure.
 - NO >> INSPECTION END

Diagnosis Procedure

- 1). CHECK CONNECTOR
 - A). Turn the ignition switch OFF.
 - B). Disconnect ABS actuator and electric unit (control unit) connector.
 - C). Check terminal for deformation, disconnection, looseness, etc.
 - D). Is the inspection result normal?
 - YES >> GO TO 2.
 - NO >> Replace or repair damaged parts.

- 2).CHECK SOLENOID, VDC SWITCH-OVER VALVE AND ACTUATOR RELAY POWER SUPPLY CIRCUIT
 - A).Check the voltage between ABS actuator and electric unit (control unit) harness connector and ground.
 - B).Is the inspection result normal?
YES >> GO TO 3.
NO >> Repair or replace damaged parts.

- 3).CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) GROUND CIRCUIT
 - A).Check the continuity between ABS actuator and electric unit (control unit) harness connector and ground.
 - B).Is the inspection result normal?
YES >> Replace ABS actuator and electric unit (control unit).
NO >> Repair or replace damaged parts. (Check ABS each bolt for tightness and corrosion.)

Component Inspection

- 1).CHECK ACTIVE TEST
- 2).On "ACTIVE TEST", select "ABS MOTOR".
- 3).Touch "On" and "Off" on screen. Make sure motor relay and actuator relay operates as shown in table below.
- 4).Is the inspection result normal?
YES >> INSPECTION END
NO >> Proceed to diagnosis procedure.

Special Repair Requirement

- 1).ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION, CALIBRATION OF YAW RATE/SIDE/DECEL G SENSOR AND CALIBRATION OF PRESSURE SENSOR.
- 2).After removing/replacing an ABS actuator and electric unit (control unit), be sure to perform the following procedure.