ANTI–LOCK BRAKE SYSTEM (ABS)

Description
- The ABS is a brake system which controls the wheel cylinder hydraulic pressure of all four wheels during sudden braking and braking on slippery road surfaces, preventing the wheels from locking. This ABS provides the following benefits:
  (1) Enables steering round an obstacle with a greater degree of certainly even when panic braking.
  (2) Enables stopping in a panic brake while keeping effect upon stability and steerability to a minimum, even on curves.
- The function of the ABS is to help maintain directional stability and vehicle steerability on most road conditions. However, the system cannot prevent the vehicle from skidding if the cornering speed limit is exceeded.
- The ABS has a longitudinal deceleration sensor to match braking characteristics to the full–time four–wheel drive. (For 4WD)
- In case a malfunction occurs, a diagnosis function and fail–safe system have been adopted for the ABS to increase serviceability.

FUNCTION OF COMPONENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Speed Sensor</td>
<td>Detects the wheel speed of each of the left and right front wheels.</td>
</tr>
<tr>
<td>Rear Speed Sensor</td>
<td>Detects the wheel speed of each of the left and right rear wheels.</td>
</tr>
<tr>
<td>Deceleration Sensor (For 4WD)</td>
<td>Detects the deceleration speed of the vehicle and sends a signal accordingly to the ABS ECU.</td>
</tr>
<tr>
<td>ABS Warning Lamp</td>
<td>Lights up to alert the driver when trouble has occurred in the Antilock Brake System.</td>
</tr>
<tr>
<td>Actuator</td>
<td>Controls the brake fluid pressure to each disc brake cylinder through signals from the ECU.</td>
</tr>
<tr>
<td>ABS ECU</td>
<td>From the wheel speed signals from each sensor, it calculates acceleration, deceleration and slip values and sends signals to the actuator to control brake fluid pressure.</td>
</tr>
</tbody>
</table>
LOCATION OF SYSTEM PARTS

2WD

ABS Warning Light
Sensor Rotor
ABS ECU (Coupe and Liftback)
Front Speed Sensor
ABS Actuator
ABS ECU (Convertible)
Control Relay
Sensor Rotor (Drive Shaft)
Data Link Connector 1

4WD

ABS Warning Light
Sensor Rotor (Drive Shaft)
Front Speed Sensor
ABS ECU
Deceleration Sensor
ABS Actuator
Control Relay
Rear Speed Sensor
Data Link Connector 1
Sensor Rotor (Drive Shaft)
CONNECTORS (2WD)

ABS Actuator CONNECTOR A

CONNECTOR B

Rear Speed Sensor (LH)

Front Speed Sensor (LH)

Front Speed Sensor (RH)

Rear Speed Sensor (RH)

Control Relay

Service Connector (Wire Harness Side)

A6S ECU
