## 11. General Diagnostic Table

## A: SYMPTOMS AND PROBABLE CAUSES

Symptom		Probable faulty units/parts
Vehicle instability during braking	Vehicle pulls to either side.	ABSCM&H/U (solenoid valve)     ABS sensor     Brake (caliper & piston, pads)     Wheel alignment     Tire specifications, tire wear and air pressures     Incorrect wiring or piping connections     Road surface (uneven, camber)
	Vehicle spins.	<ul> <li>ABSCM&amp;H/U (solenoid valve)</li> <li>ABS sensor</li> <li>Brake (pads)</li> <li>Tire specifications, tire wear and air pressures</li> <li>Incorrect wiring or piping connections</li> </ul>
Poor braking	Long braking/stopping distance	<ul> <li>ABSCM&amp;H/U (solenoid valve)</li> <li>Brake (pads)</li> <li>Air in brake line</li> <li>Tire specifications, tire wear and air pressures</li> <li>Incorrect wiring or piping connections</li> </ul>
	Wheel locks.	<ul> <li>ABSCM&amp;H/U (solenoid valve, motor)</li> <li>ABS sensor</li> <li>Incorrect wiring or piping connections</li> </ul>
	Brake dragging	<ul> <li>ABSCM&amp;H/U (solenoid valve)</li> <li>ABS sensor</li> <li>Master cylinder</li> <li>Brake (caliper &amp; piston)</li> <li>Parking brake</li> <li>Axle &amp; wheels</li> <li>Brake pedal play</li> </ul>
	Long brake pedal stroke	Air in brake line     Brake pedal play
	Vehicle pitching	<ul> <li>Suspension play or fatigue (reduced damping)</li> <li>Incorrect wiring or piping connections</li> <li>Road surface (uneven)</li> </ul>
	Unstable or uneven braking	<ul> <li>ABSCM&amp;H/U (solenoid valve)</li> <li>ABS sensor</li> <li>Brake (caliper &amp; piston, pads)</li> <li>Tire specifications, tire wear and air pressures</li> <li>Incorrect wiring or piping connections</li> <li>Road surface (uneven)</li> </ul>
Vibration and/or noise (while driving on slippery roads)	Excessive pedal vibration	<ul><li>Incorrect wiring or piping connections</li><li>Road surface (uneven)</li></ul>
	Noise from ABSCM&H/U	ABSCM&H/U (mount bushing)     ABS sensor     Brake piping
	Noise from front of vehicle	<ul> <li>ABSCM&amp;H/U (mount bushing)</li> <li>ABS sensor</li> <li>Master cylinder</li> <li>Brake (caliper &amp; piston, pads, rotor)</li> <li>Brake piping</li> <li>Brake booster &amp; check valve</li> <li>Suspension play or fatigue</li> </ul>
	Noise from rear of vehicle	<ul> <li>ABS sensor</li> <li>Brake (caliper &amp; piston, pads, rotor)</li> <li>Parking brake</li> <li>Brake piping</li> <li>Suspension play or fatigue</li> </ul>

## **BRAKES**

## **B: CHECKING THE HYDRAULIC UNIT OPERATION**

11B1: PREPARING THE BRAKE TESTER.

(CHECK): Is the brake tester available?

(YES) : CHECKING THE HYDRAULIC UNIT ABS OPERATION WITH BRAKE

TESTER <Ref. to 4-4 [W14C2].>

(NO) : CHECKING THE HYDRAULIC UNIT ABS OPERATION BY PRESSURE

GAUGE < Ref. to 4-4 [W14C1].>

4-4 BRAKES

MEMO: