

General Diagnostic Table

VEHICLE DYNAMICS CONTROL (VDC) (DIAGNOSTICS)

14. General Diagnostic Table

A: INSPECTION

Symptom		Main probable cause	Other probable cause
Poor brake performance	Long braking/stopping distance	VDCH/M VDCCM Brake pad Air in brake line Tire specifications, tire wear and air pressure Incorrect wiring or piping	ABS wheel speed sensor or clearance of sensor malfunction Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Master cylinder Brake caliper Disc rotor Brake pipe Brake booster
	Wheels lock-up.	VDCH/M VDCCM ABS wheel speed sensor or clearance of sensor malfunction Incorrect wiring or piping	Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Brake caliper Brake pipe
	Brake drag	VDCH/M VDCCM ABS wheel speed sensor or clearance of sensor malfunction Master cylinder Brake caliper Parking brake Axle & wheels Brake pedal play	Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Brake pad Brake pipe
	Brake pedal stroke is large.	Air in brake line Brake pedal play	VDCH/M Master cylinder Brake caliper Brake pad Brake pipe Brake booster
	Vehicle pitching	VDCH/M VDCCM Uneven road surface Suspension play or fatigue (Decreased damping force) Incorrect wiring or piping	ABS wheel speed sensor or clearance of sensor malfunction Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction
Poor brake performance	Unbalance braking or unbalanced braking effect	VDCH/M VDCCM ABS wheel speed sensor or clearance of sensor malfunction Brake caliper Brake pad Uneven road surface Tire specifications, tire wear and air pressure Incorrect wiring or piping	ABS wheel speed sensor or clearance of sensor malfunction Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Master cylinder Disc rotor Brake pipe Axle & wheels Crown shaped road/road with banks Suspension play or fatigue (Decreased damping force)

General Diagnostic Table

VEHICLE DYNAMICS CONTROL (VDC) (DIAGNOSTICS)

Symptom		Main probable cause	Other probable cause
Vibration and noise • When braking suddenly • When accelerating suddenly • When driving on slippery road surfaces	Excessive brake pedal vibration	Uneven road surface Incorrect wiring or piping	VDCH/M Brake booster Suspension play or fatigue (Decreased damping force)
	Noise from VDCH/M	VDCH/M (mount bushing) ABS wheel speed sensor or clearance of sensor malfunction Brake pipe	VDCCM Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction
	Noise from the front side of vehicle	VDCH/M (mount bushing) ABS wheel speed sensor or clearance of sensor malfunction Master cylinder Brake caliper Brake pad Disc rotor Brake pipe Brake booster Suspension play or fatigue (Decreased damping force)	Axle & wheels Tire specifications, tire wear and air pressure
	In-vehicle noise		VDCCM Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction
	Noise from the rear side of vehicle	ABS wheel speed sensor or clearance of sensor malfunction Brake caliper Brake pad Disc rotor Parking brake Brake pipe Suspension play or fatigue (Decreased damping force)	Axle & wheels Tire specifications, tire wear and air pressure
Engine speed does not increase, or engine stalls when suddenly accelerated or driving on slippery road surface.	VDCH/M VDCCM ABS wheel speed sensor or clearance of sensor malfunction Master cylinder Brake caliper Parking brake Incorrect wiring or piping	Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Brake pad Brake pipe	

General Diagnostic Table

VEHICLE DYNAMICS CONTROL (VDC) (DIAGNOSTICS)

Symptom		Main probable cause	Other probable cause
Poor straight directional stability of TCS	Wanders to left or right from straight forward direction.	VDCH/M VDCCM ABS wheel speed sensor or clearance of sensor malfunction Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Brake caliper Brake pad Wheel alignment Uneven road surface Crown shaped road/road with banks Tire specifications, tire wear and air pressure Incorrect wiring or piping	Disc rotor Brake pipe Axle & wheels Suspension play or fatigue (Decreased damping force)
	Vehicle spin	VDCH/M VDCCM ABS wheel speed sensor or clearance of sensor malfunction Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Brake pad Tire specifications, tire wear and air pressure Incorrect wiring or piping	Brake caliper Brake pipe
Steering wheel drags when driving.		VDCH/M VDCCM ABS wheel speed sensor or clearance of sensor malfunction Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Incorrect wiring or hose connections Power steering system	Brake caliper Brake pad Disc rotor Wheel alignment Uneven road surface Crown shaped road/road with banks Suspension play or fatigue (Decreased damping force) Tire specifications, tire wear and air pressure
VDC operates while driving normally.		VDCH/M VDCCM ABS wheel speed sensor or clearance of sensor malfunction Defective steering angle sensor or improper neutral position Yaw rate & lateral G sensor installation malfunction Wheel alignment Uneven road surface Crown shaped road/road with banks Suspension play or fatigue (Decreased damping force) Tire specifications, tire wear and air pressure Incorrect wiring or piping Power steering system	—

General Diagnostic Table

VEHICLE DYNAMICS CONTROL (VDC) (DIAGNOSTICS)

Symptom	Main probable cause	Other probable cause
VDC warning light/VDC OFF indicator light does not come on when the VDC OFF switch is depressed. NOTE: When pressing the VDC OFF switch for more than 10 seconds while the engine is running, the VDC OFF indicator lights go off and the switch cannot be operated any more. To recover VDC operation, turn the ignition switch from OFF ON again.	Harness VDC warning light/VDC OFF indicator light bulb VDC OFF switch	—

BRAKE

BR

	Page
1. General Description	2
2. Front Brake Pad	15
3. Front Disc Rotor	17
4. Front Disc Brake Assembly	18
5. Rear Brake Pad	21
6. Rear Disc Rotor	22
7. Rear Disc Brake Assembly	24
8. Rear Drum Brake Shoe	26
9. Rear Drum Brake Drum	29
10. Rear Drum Brake Assembly	30
11. Master Cylinder	33
12. Brake Booster	35
13. Proportioning Valve	40
14. Brake Fluid	41
15. Air Bleeding	43
16. Brake Hose	45
17. Brake Pipe	47
18. Brake Pedal	48
19. Stop Light Switch	51
20. Hill Holder	52
21. General Diagnostic Table	54