

11. General Diagnostics Table

⊙: Primary expected causes ○: Secondary expected causes

| Symptoms | | Trouble conditions | Hydraulic unit | | Speed sensor | P valve | Master cylinder | Calipers and piston | Pad | Rotor | Hand brake | Piping | Mixture of air | Brake booster and check valve | Axle and wheel | Alignment | Play of pedal | Rough road surface | Semicylindrical road surface | Loose or worn suspension | Tire | Wrong connection and wiring | Stroke sensor | |
|---|---|---------------------------------|----------------|-------|--------------|---------|-----------------|---------------------|-----|-------|------------|--------|----------------|-------------------------------|----------------|-----------|---------------|--------------------|------------------------------|--------------------------|------|-----------------------------|---------------|------------|
| | | | Solenoid valve | Motor | | | | | | | | | | | | | | | | | | | | Mount bush |
| ABS function | Directional stability cannot be obtained when braking. | Vehicle turns to right or left. | ⊙ | | ⊙ | ○ | | ⊙ | ⊙ | ○ | | ○ | | | ○ | ⊙ | | ⊙ | ⊙ | ○ | ⊙ | ⊙ | | |
| | | Vehicle spins. | ⊙ | | ⊙ | ○ | | ○ | ⊙ | | | ○ | | | | | | | | | | ⊙ | ⊙ | |
| | Out-of-order brakes | Long braking distance | ⊙ | ○ | ○ | ○ | ○ | ○ | ⊙ | ○ | | ○ | ⊙ | ○ | | | | | | | | ⊙ | ⊙ | |
| | | Brakes lock. | ⊙ | ○ | ⊙ | ○ | | ○ | | | | ○ | | | | | | | | | | | ⊙ | |
| | | Brakes drag. | ⊙ | | ⊙ | ○ | ⊙ | ⊙ | ○ | | ⊙ | ○ | | | ⊙ | | ⊙ | | | | | | | |
| | | Long pedal stroke | ○ | | | ○ | ○ | ○ | ○ | | | ○ | ⊙ | ○ | | | | ○ | | | | | | |
| | | Abnormal vehicle pitching | ○ | | ○ | | | | | | | | | | | | | | ⊙ | | ⊙ | | ⊙ | |
| Unstable braking force. One-side brake refuses to work. | ⊙ | | ⊙ | | | ○ | ⊙ | ⊙ | ○ | | ○ | | | ○ | ○ | | ⊙ | ○ | ○ | ⊙ | ⊙ | ⊙ | | |
| TCS function | When accelerating abruptly, directional stability cannot be obtained when traveling on a slippery road surface. | Vehicle moves unsteadily. | ⊙ | | ⊙ | | | ⊙ | ⊙ | | | ○ | | | | ⊙ | | ⊙ | | ○ | ⊙ | ⊙ | | |
| | | Handle refuses to work. | ⊙ | | ⊙ | | | ⊙ | ⊙ | | | ○ | | | | | | | | | | ⊙ | ⊙ | |
| | | Handle loses control. | ⊙ | | ⊙ | | | ⊙ | ⊙ | ○ | | ○ | | | | | ○ | | ⊙ | ○ | ○ | ⊙ | ⊙ | |
| Bad acceleration, engine stalling (In addition to the causes listed here, check the ECM specifications.) | Engine stalls. Engine speed fails to increase. | ⊙ | | ⊙ | | ⊙ | ⊙ | | | | ○ | | | | | | | | | | | ⊙ | | |
| | Engine speed increases suddenly. | ⊙ | | ⊙ | | ⊙ | ⊙ | ⊙ | ○ | ⊙ | ○ | ⊙ | | | | | | | | | | ⊙ | ⊙ | |
| Vibration occurs and abnormal noise is produced. ● When applying brakes abruptly. ● When accelerating abruptly. ● When driving on a slippery road surface. | Brake pedal heavily vibrates when applying brakes. | ○ | ○ | | | ○ | | | | | | | | ○ | | | | ⊙ | | ○ | | ⊙ | ⊙ | |
| | Loud hydraulic unit operating noise | ○ | ○ | ⊙ | ⊙ | | | | | | | ⊙ | | | | | | | | | | | | |
| | Noise is produced from front of vehicle. | ○ | | ⊙ | ⊙ | | ⊙ | ⊙ | ⊙ | ⊙ | | ⊙ | | ⊙ | ○ | | | | | ⊙ | ○ | | | |
| | Noise is produced from rear of vehicle. | | | | ⊙ | | | ⊙ | ⊙ | ⊙ | ⊙ | | | | ○ | | | | | ⊙ | ○ | | | |

NOTE:
This list includes no engine failure and transmission failure.