

# 11. General Diagnostics Table

⊙: Primary expected causes ○: Secondary expected causes

| Symptoms  | Trouble conditions  | Hydraulic unit                                 |       |            |              | 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 | Speed sensor |         |                 |                     |     |       |            |        |                |                               |                |           |               |                    |                              |                          |      |                             |               |
| 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.<br>● When applying brakes abruptly.<br>● When accelerating abruptly.<br>● 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.