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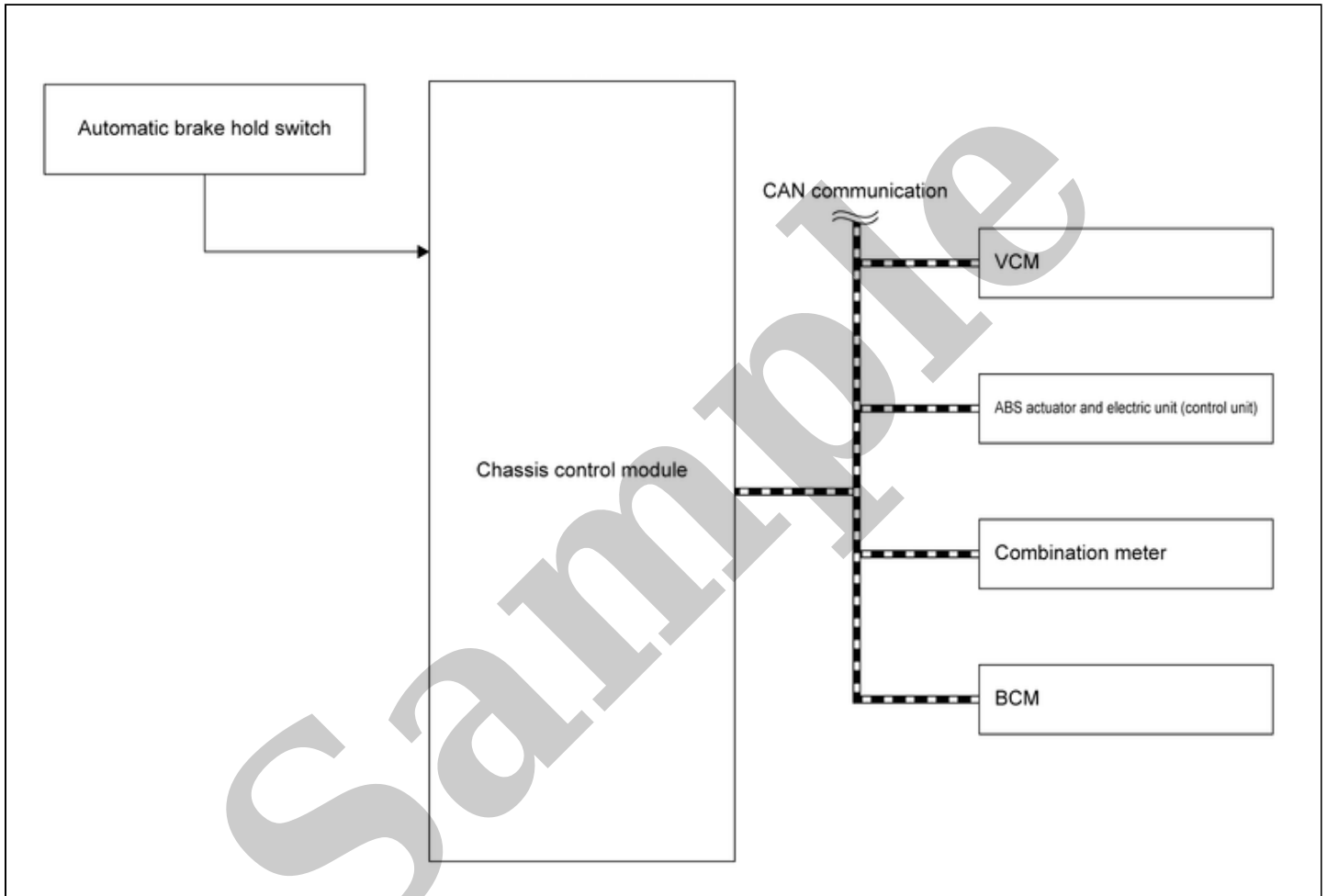
FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2003 NISSAN Maxima OEM Service and Repair Workshop Manual

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- Automatic brake hold function is used for holding the brakes automatically when the vehicle is stopped by a brake operation.
- Automatic brake hold function is used to reduce continuous brake pedal operations by the driver.
- Automatic brake hold function is controlled by chassis control module.
- Chassis control module receives information required for controlling via CAN communication and from each switch to control automatic brake hold function.

SYSTEM DIAGRAM



SIEMD-7262747-01-000382432

Component	Signal description
VCM	<p>Mainly transmits the following signals to chassis control module via CAN communication.</p> <ul style="list-style-type: none"> • Accelerator pedal position signal • Traction motor torque signal • Shift position signal
ABS actuator and electric unit (control unit)	<p>Mainly transmits the following signals to chassis control module via CAN communication.</p> <ul style="list-style-type: none"> • Brake hold status signal • Brake fluid pressure signal • Front LH wheel speed signal • Front RH wheel speed signal

Component	Signal description
	<ul style="list-style-type: none"> • Rear LH wheel speed signal • Rear RH wheel speed signal • VDC malfunction signal • Decel G sensor signal • Electric parking brake malfunction signal • Electric parking brake operation signal (switch) • Electric parking brake status signal
Combination meter	<p>Mainly receives the following signals from chassis control module via CAN communication.</p> <ul style="list-style-type: none"> • Automatic brake hold indicator lamp signal • Meter display signal
BCM	<p>Mainly transmits the following signals to chassis control module via CAN communication.</p> <ul style="list-style-type: none"> • Brake pedal status signal • Seat belt buckle switch (driver side) signal

OPERATION

Automatic Brake Hold Function ON (Operation Permitted)

If automatic brake hold switch is pressed when Automatic brake hold function is OFF, automatic brake hold function turns ON. In addition, automatic brake hold switch indicator illuminates.



NOTE:

Automatic brake hold function retains the last state until the driver changes the option even if the power switc turned OFF.

Automatic Brake Hold Function OFF (Operation Not Permitted)

If automatic brake hold switch is pressed when automatic brake hold function is ON, automatic brake hold function turns OFF. In addition, automatic brake hold switch indicator turns OFF. [If automatic brake hold indicator lamp (white or green) is ON, it turns OFF.]



NOTE:

To turn OFF automatic brake hold function while the brakes are held by automatic brake hold function, press automatic brake hold switch while depressing brake pedal.

Standby

When all of the following conditions are satisfied, automatic brake hold function enters in the standby state, and automatic brake hold indicator lamp (white) illuminates.

- Seat belt (driver side) is fastened

- Electric parking brake is released
- Shift position is not in the P
- Automatic brake hold switch is ON

Operation

If all of the following conditions are satisfied in the standby state, automatic brake hold function operates, and the color of automatic brake hold indicator lamp changes from white to green. In addition, automatic brake hold display appears.



NOTE:

Although the conditions are satisfied in the standby state, automatic brake hold function may not operate depending on how far brake pedal is depressed. When automatic brake hold function does not operate, depress brake pedal far enough until automatic brake hold indicator lamp (green) turns on.

- Vehicle speed: 0 km/h (0 MPH)
- Brake pedal is depressed
- Automatic brake hold function is in the standby state [automatic brake hold switch indicator and automatic brake hold indicator lamp (white) are illuminated]
- Not on a steep slope
- Seat belt (driver side) is fastened
- Electric parking brake is released
- Shift position is not in the P

Release (Starting Vehicle)

If the following condition is satisfied while automatic brake hold function is being applied, automatic brake hold function is released. (The color of automatic brake hold indicator lamp changes from green to white.)

- The vehicle is started.



NOTE:

- **Shift position is not in the P and N.**
- **Automatic brake hold function is operated by applying sufficient braking force to hold the vehicle in its place, so there are cases when this hold function is maintained even if the accelerator pedal is depressed. In this situation, it is advised to depress the brake pedal first, then to turn OFF automatic brake hold switch. This will cancel the hold function.**

Release (Automatic Brake Hold Switch)

If the following condition is satisfied while automatic brake hold function is being applied, automatic brake hold function is released. (Automatic brake hold indicator lamp turns OFF.)

- Operate automatic brake hold switch while depressing brake pedal.

Release (Changing to Electric Parking Brake)

If any of the following conditions are met while automatic brake hold function is being applied, electric parking brake is operated automatically, and automatic brake hold function is released. (Automatic brake hold indicator lamp turns OFF.)

- Operation of Automatic brake hold function is continued for approximately 3 minutes

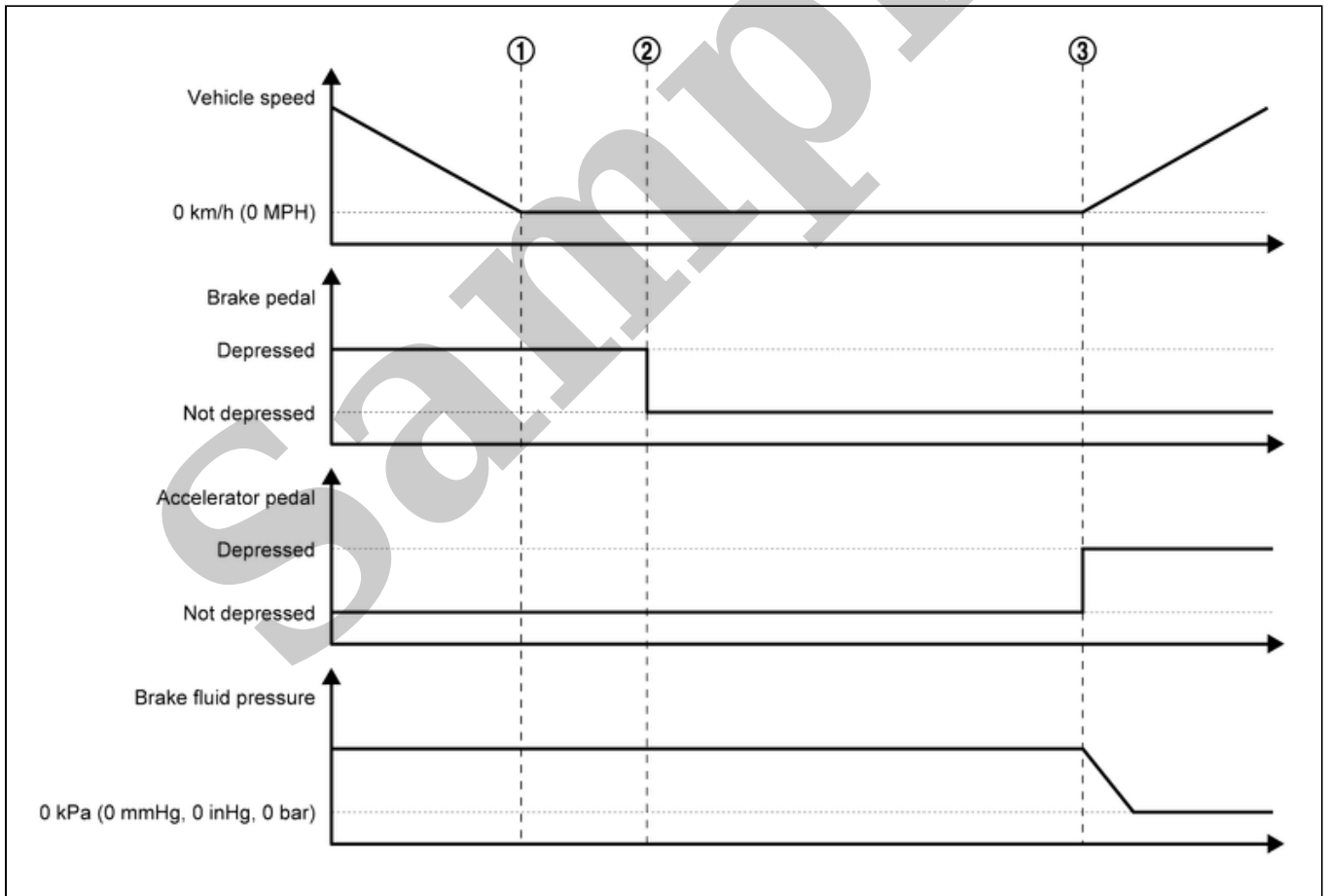
- Shift position is in the P
- The electric parking brake is applied manually
- Seat belt (driver side) is unfastened
- Door (driver side) is opened
- Power switch OFF
- A malfunction is detected in automatic brake hold function

Parking

- If shift position is in the P while automatic brake hold function is being applied, automatic brake hold function is released. (Automatic brake hold indicator lamp turns OFF.)
- If electric parking brake is applied while automatic brake hold function is being applied, automatic brake hold function is released. (Automatic brake hold indicator lamp turns OFF.)

Timing Chart

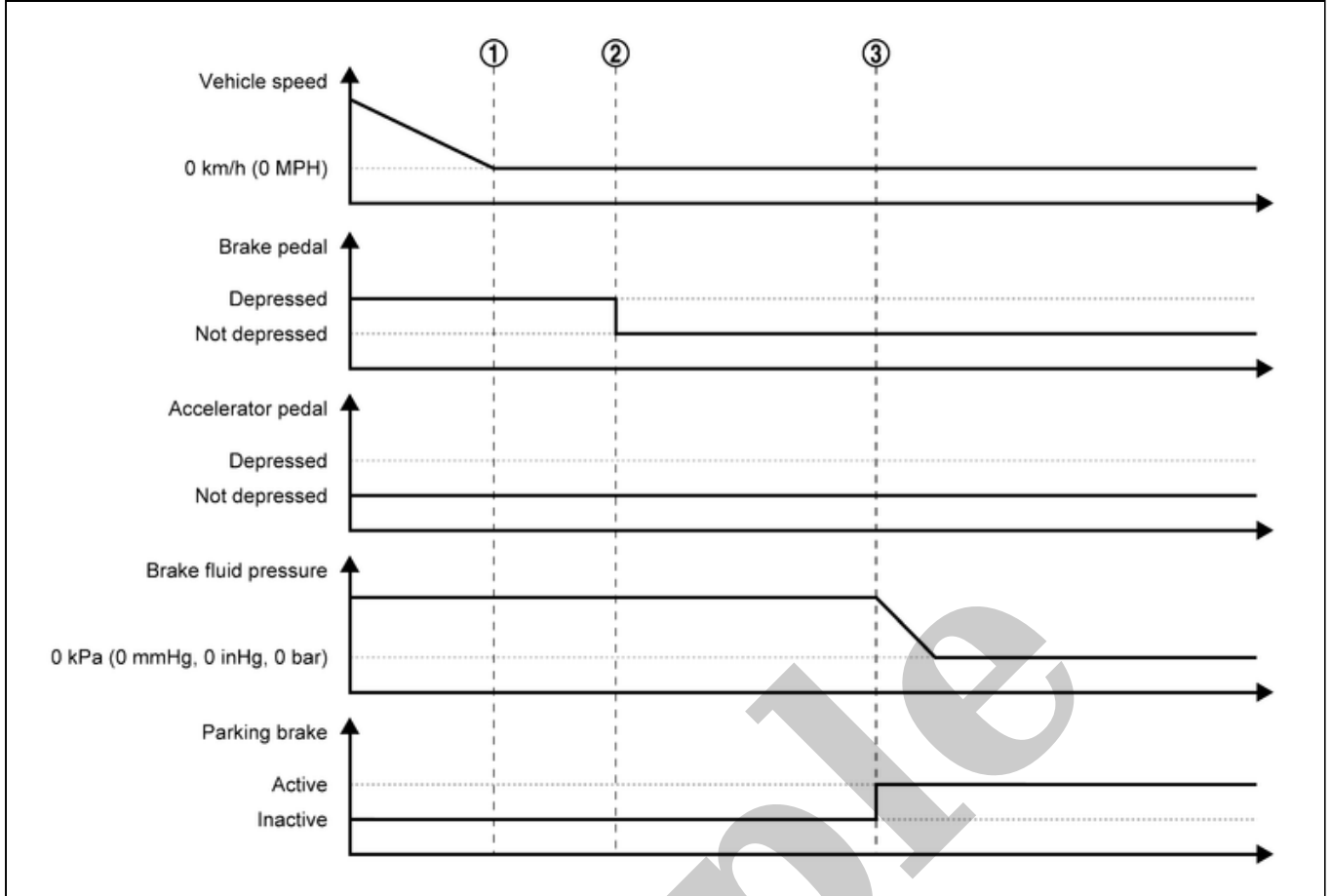
- The vehicle is started while automatic brake hold function is being applied



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①	When the vehicle is stopped by a brake operation by the driver, maintaining of brake fluid pressure is started.
②	Automatic brake hold function is applied (this function holds brake fluid pressure even after the driver has released brake pedal).
③	When the driver performs starting operation, automatic brake hold function is released (brake fluid pressure is decreased).

- Changing the vehicle holding method to electric parking brake while automatic brake hold function is being applied



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①	When the vehicle is stopped by a brake operation by the driver, maintaining of the brake fluid pressure is started.
②	Automatic brake hold function is applied (this function holds brake fluid pressure even after the driver has released brake pedal).
③	If the conditions for changing to electric parking brake are satisfied while automatic brake hold function is being applied, the method of holding the vehicle stopped is automatically changed to electric parking brake.

Circuit Diagram

Refer to [Circuit Diagram](#).


Sample

Refer to [Fail-safe](#).

Sample

Warning / Indicator / Chime List

SIEMD-7262763

Name	Design	Layout/Function
Automatic brake hold indicator lamp		For layout: Refer to Design .
		For function: Refer to Automatic Brake Hold Indicator Lamp .

Sample

Refer to [System Description](#).

Sample