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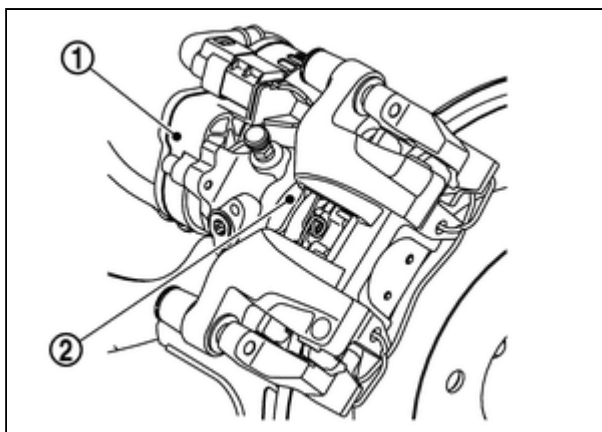
FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2003 NISSAN Skyline Coupe OEM Service and Repair Workshop Manual

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4. REMOVE PARKING BRAKE ACTUATOR

Remove parking brake actuator ① from rear brake caliper assembly ②.



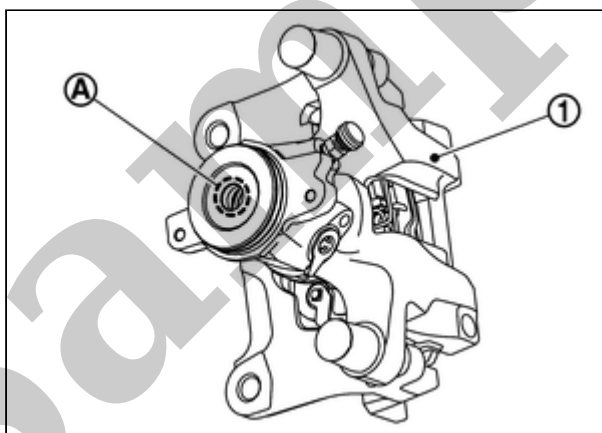
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[GO TO 5.](#)

5. RELEASE OF PARKING BRAKE

Rotate the rear brake caliper assembly ① spindle part ① clockwise.



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Is the parking brake released?

YES>>

[GO TO 6.](#)

NO>>

Check the rear brake caliper assembly. Refer to [REAR BRAKE CALIPER ASSEMBLY : Inspection.](#)

6. REPLACE REAR CALIPER ASSEMBLY

Replace the rear caliper assembly. Refer to [REAR BRAKE CALIPER ASSEMBLY : Removal & Installation.](#)

CAUTION:

Never reuse the parking brake actuator.

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End of work.

The parking brake braking force is low and the vehicle moves backward when parked on an incline.

1. REAPPLY THE PARKING BRAKE (1)

1. Pull the parking brake switch, and apply the parking brake.
2. Pull the parking brake switch again for 2 seconds or more.

Is the vehicle moving backward?

YES>>

[GO TO 2.](#)

NO>>

Normal

2. PERFORM THE SELF-DIAGNOSIS

 With CONSULT

Perform self-diagnosis for “ABS”.

Is any DTC detected?

YES>>

Check the DTC. Refer to [DTC Index](#).

NO>>

[GO TO 3.](#)

3. CHECK REAR DISC BRAKE SYSTEM

Check the rear disc brake system.

- Rear brake pad: Refer to [REAR BRAKE PAD : Inspection](#).
- Rear brake caliper (and parking brake actuator): Refer to [REAR BRAKE CALIPER ASSEMBLY : Inspection](#).
- Rear disc rotor: Refer to [REAR DISC ROTOR : Periodic Maintenance Operation](#).

Is the inspection result normal?

YES>>

[GO TO 4.](#)

NO>>

Repair or replace error-detected parts.

- Rear brake pad: Refer to [REAR BRAKE PAD : Removal & Installation](#).
- Rear brake caliper (and parking brake actuator): Refer to [REAR BRAKE CALIPER ASSEMBLY : Removal & Installation](#).
- Rear disc rotor: Refer to [REAR BRAKE CALIPER ASSEMBLY : Removal & Installation](#).

4. REAPPLY THE PARKING BRAKE (2)

Pull the parking brake switch again.

Is the vehicle moving backward?

YES>>

Replace ABS actuator and electric unit (control unit). Refer to [ABS ACTUATOR AND ELECTRIC UNIT \(CONTROL UNIT\): Removal & Installation](#).

NO>>

Normal

Sample

The parking brake breaking force is too high.

1. PERFORM THE SELF-DIAGNOSIS

 With CONSULT

Perform self-diagnosis for “ABS”.

Is any DTC detected?

YES>>

Check the DTC. Refer to [DTC Index](#).

NO>>

[GO TO 2.](#)

2. CHECK REAR DISC BRAKE SYSTEM (1)

Check if the rear disc brake is dragging. Refer to [REAR DISC ROTOR : Periodic Maintenance Operation](#).

Is the rear disc brake dragging?

YES>>

Check the rear disc brake system. Refer to [REAR BRAKE CALIPER ASSEMBLY : Inspection](#).

NO>>

[GO TO 3.](#)

3. CHECK REAR DISC BRAKE SYSTEM (2)

1. Depress the brake pedal 3 times or more.
2. Drive the vehicle at 30 km/h (19 MPH) or more.
3. Stop the vehicle.
4. Depress the brake pedal 3 times or more again.

Is the braking force of parking brake is high?

YES>>

Replace the rear brake caliper assembly. Refer to [REAR BRAKE CALIPER ASSEMBLY : Removal & Installation](#).

NO>>

INSPECTION END

DESIGN/PURPOSE

- Warns the driver of the necessity of depressing the brake pedal.
- Warns the driver of the necessity of releasing the electric parking brake.

Warning Message

Design	Warning Message
—	Press brake pedal
—	Release parking brake

SYNCHRONIZATION WITH MASTER WARNING LAMP

Applicable

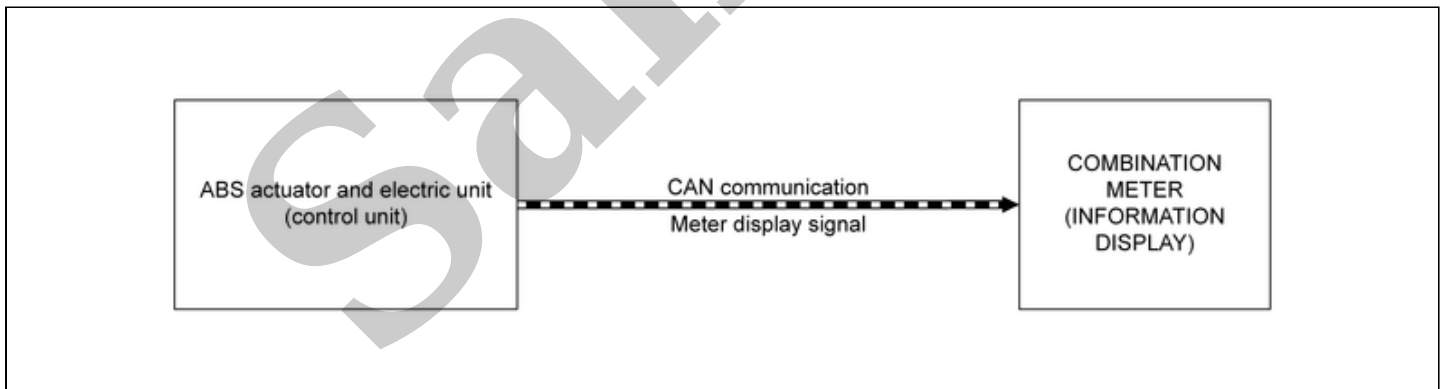
Refer to [Master Warning Lamp](#).

SYNCHRONIZATION WITH WARNING CHIME

Applicable

Refer to [System Description](#).

SYSTEM DIAGRAM



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SIGNAL PATH

The ABS actuator and electric unit (control unit) transmits a signal to the combination meter via CAN communication under the conditions below:

- When necessary to depress the brake pedal.
- When necessary to release the parking brake.

WARNING/INDICATOR OPERATING CONDITION

When the following conditions are satisfied (power switch ON)

- The parking brake switch is pushed without depressing the brake pedal.
- The electric parking brake is operated with the parking brake switch kept pulled during driving.

- The electric parking brake braking force is insufficient (vehicle is moving backward).
- The vehicle moved while the electric parking brake is being applied.

Sample

- The electric parking brake system uses the signal from the parking brake switch to have the ABS actuator and electric unit (control unit) operate the parking brake actuator to apply and release the parking brake.
- The parking brake switch is placed in the instrument lower panel so that it can be operated close at hand (applied/released).
- When the parking brake is operated, the electric parking brake warning lamp in the combination meter and the parking brake switch indicator turn ON.
- When the parking brake is released, the electric parking brake warning lamp in the combination meter and the parking brake switch indicator turn OFF.
- When a malfunction occurs in the electric parking brake system, brake system warning lamp turn ON, electric parking brake warning lamp turn ON/OFF (depends on the electric parking brake system) or blink, and parking brake switch indicator turn ON/OFF (depends on the electric parking brake system) or blink, and the function for entering the fail-safe status is held.
- When a malfunction occurs in the electric parking brake system, the parking brake can be mechanically released. Refer to [Work Procedure](#).

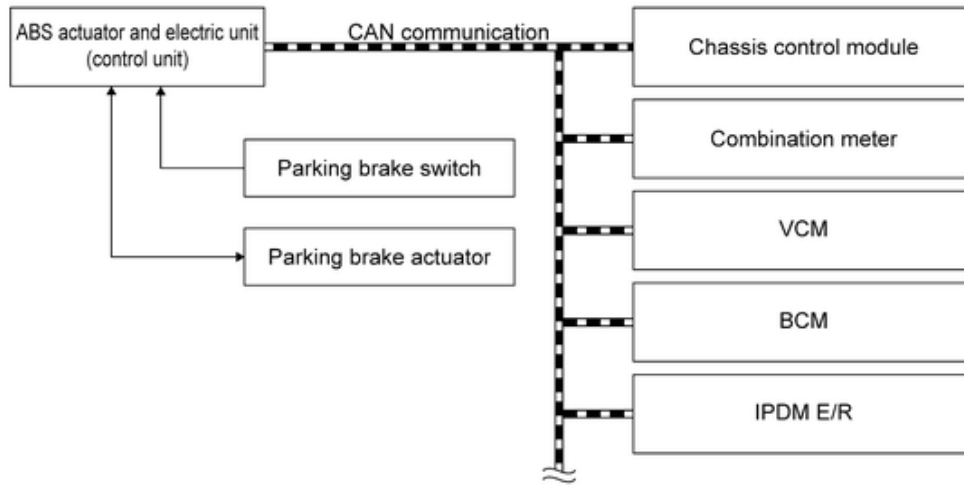
OPERATION

- When the parking brake switch is pulled, a parking brake operation signal is transmitted from the ABS actuator and electric unit (control unit) to the parking brake actuator.
- When the parking brake actuator receives a parking brake operation signal, it activates the motor in the parking brake actuator.
- When the motor is operated, rotating torque is generated, and the force is arose to press against the piston of the rear brake caliper assembly via gears.
- The piston is pushed out by the rotating torque, and the electric parking brake operates by pressing the brake pad against the disc rotor.

RELEASE

- When the parking brake switch is pushed, a parking brake release signal is transmitted from the ABS actuator and electric unit (control unit) to the parking brake actuator.
- When parking brake actuator receives electric parking brake release request signal, the motor in parking brake actuator operates (reverse rotation against operation).
- When to motor is operated, rotating torque is released, and the force is released to press against the piston of the rear brake caliper assembly via gears.
- Electric parking brake is released by separating brake pad and disc rotor.

SYSTEM DIAGRAM



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INPUT SIGNAL AND OUTPUT SIGNAL

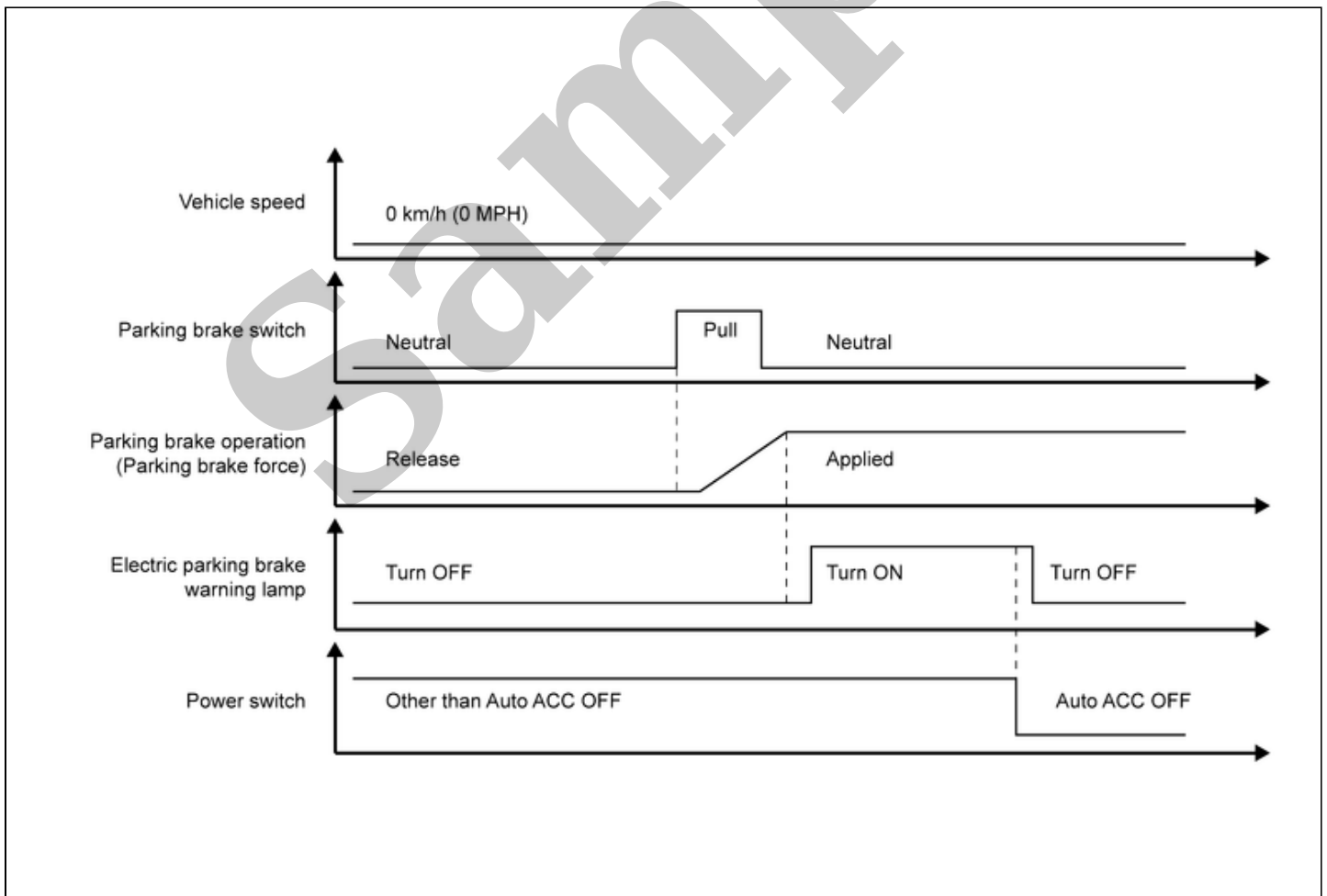
Major signal transmission between each unit via communication lines is shown in the following table.

Component	Signal description
ABS actuator and electric unit (control unit)	Refer to Component Description .
Parking brake actuator	Refer to Component Description .
Parking brake switch	Refer to Component Description .
Chassis control module	<p>Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication.</p> <ul style="list-style-type: none"> • Electric parking brake operation request signal • Electric parking brake release request signal <p>Mainly receives the following signals from ABS actuator and electric unit (control unit) via CAN communication.</p> <ul style="list-style-type: none"> • Electric parking brake status signal • Electric parking brake operation signal (switch)
Combination meter	<p>Mainly receives the following signals from ABS actuator and electric unit (control unit) via CAN communication.</p> <ul style="list-style-type: none"> • Electric parking brake warning lamp signal • Buzzer output signal • Meter display signal • Brake system warning lamp signal
VCM	<p>Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication.</p> <ul style="list-style-type: none"> • Traction motor status signal • Accelerator pedal position signal

Component	Signal description
	<ul style="list-style-type: none"> • Traction motor torque signal • Shift position signal
BCM	<p>Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication.</p> <ul style="list-style-type: none"> • Seat belt buckle switch (driver side) signal • Vehicle status signal • Door switch (driver side) signal • Brake pedal status signal
IPDM E/R	<p>Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication.</p> <ul style="list-style-type: none"> • Power switch ON signal

ELECTRIC PARKING BRAKE OPERATION

Normal Operation



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- When the parking brake switch is pulled while the vehicle is stopped, the electric parking brake operates. (The motor in the parking brake actuator starts generating rotating torque.)
- When the electric parking brake braking force reaches the prescribed value (rotating torque generated by the motor in the parking brake actuator), the electric parking brake warning lamp turns ON.