

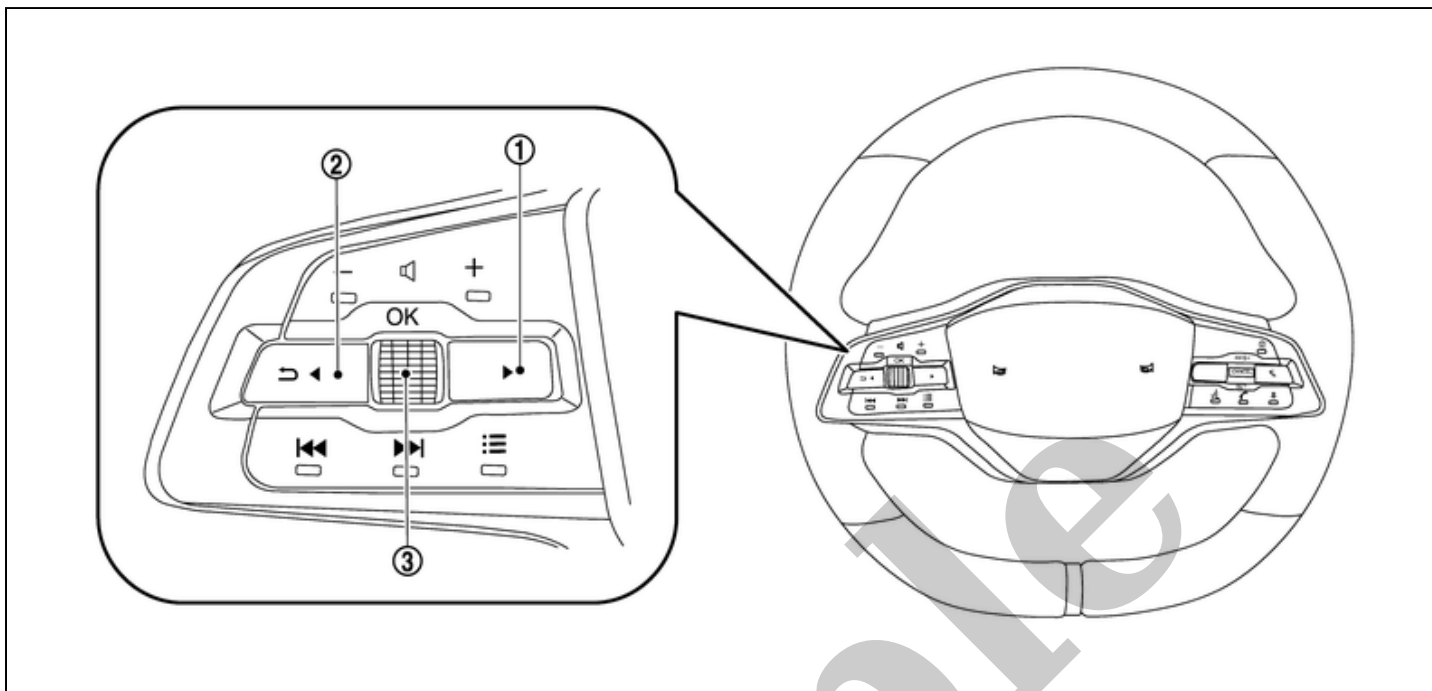
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2003 NISSAN Patrol LWB OEM Service and Repair Workshop Manual

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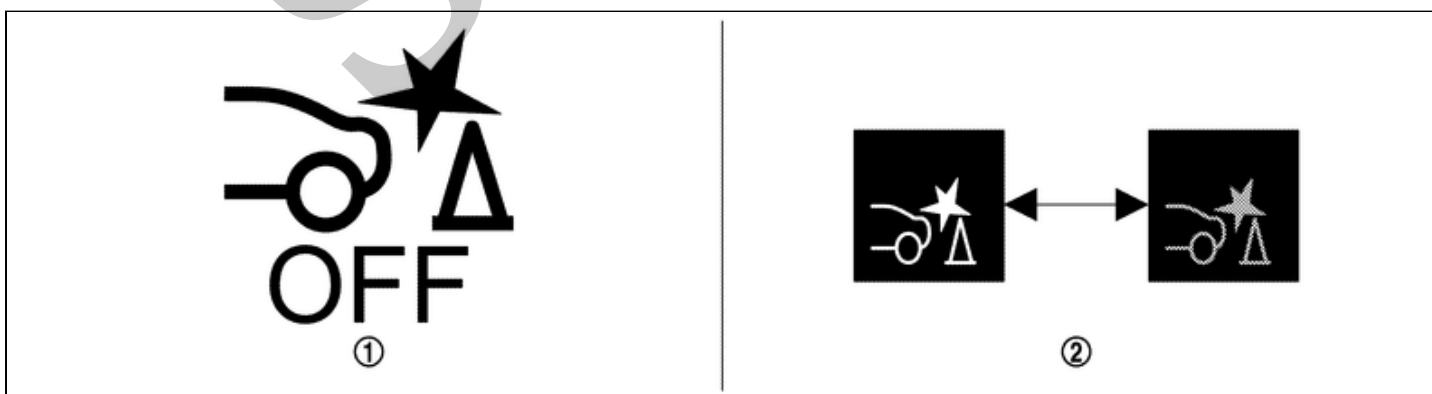
SWITCH NAME AND FUNCTION



SIEMD-7106202-01-000430602

No.	Switch name	Description
①	RIGHT SW	1. Using the steering switch, select the [Settings] menu in the information display 2. Select the [Driver Assistance] menu 3. Select the [Emergency Brake] menu 4. Select the [Rear] item to turn the system ON/OFF
②	LEFT/BACK SW	
③	OK SW/Jog dial	

SYSTEM DISPLAY

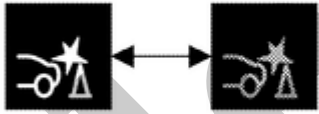


SIEMD-7106202-02-000306866

No.	Switch name	Description
①	RAB warning lamp	<ul style="list-style-type: none"> • RAB warning lamp indicates that an malfunction condition is present in RAB system • When the RAB system turns OFF, the RAB warning lamp will illuminate.
②	RAB indicator	Blinks when there is a possibility of a collision with the object backward

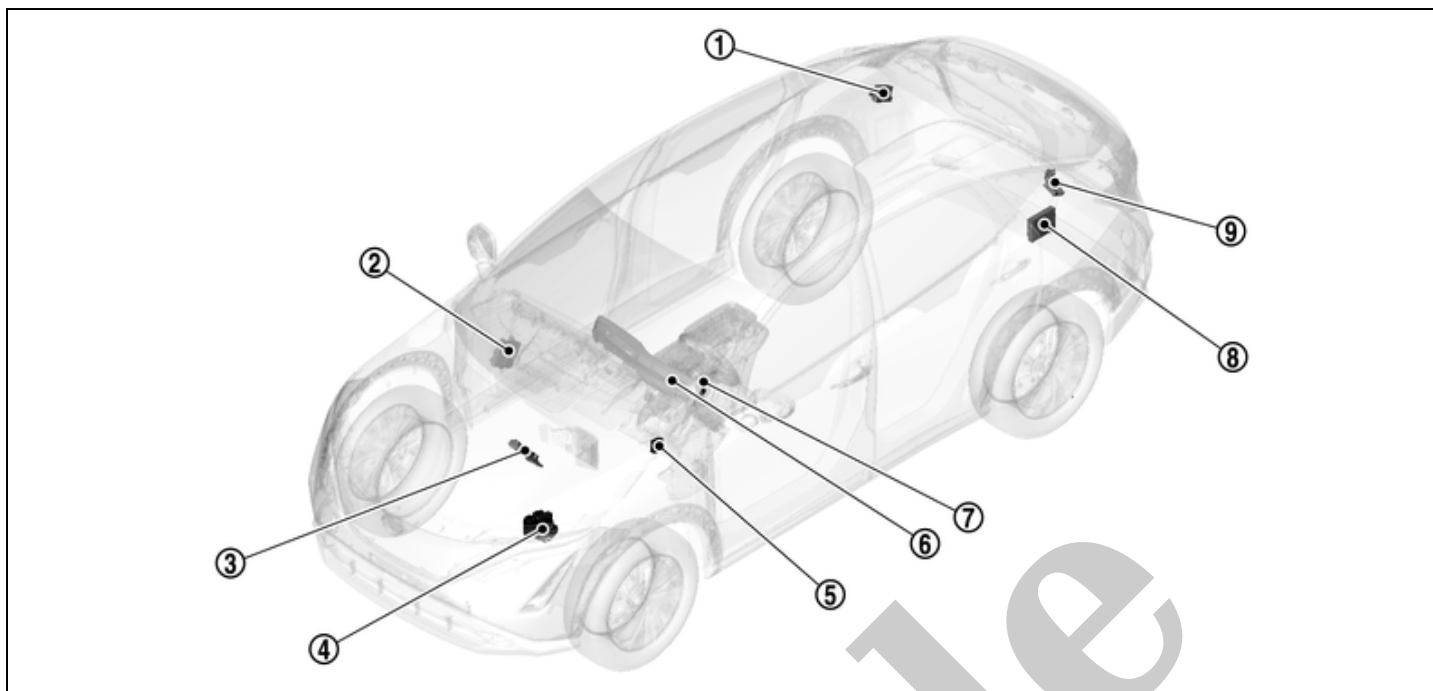
DISPLAY AND WARNING

System Display

Condition		Action	Display on information display	Warning lamp	Buzzer
RAB OFF		—	—	ON	OFF
RAB ON	There is not a possibility of a collision with the object backward	—	—	OFF	OFF
	There is a possibility of a collision with the object backward	Operates brake	<p>White⇔Red</p>  <p>SIEMD-7106202-0000000015426510-MD-4727096-02-0-A0744467-000226596</p>	OFF	Beep
RAB system malfunction		The RAB system is automatically canceled*	<p>Malfunction</p> <p>See Owner's Manual</p>	ON	Beep
When RAB system cannot be operated temporarily		The RAB system is automatically canceled*	—	Blink	OFF

Component Parts Location

SIEMD-7106199



SIEMD-7106199-01-000386288

<p>① ADAS control unit 2</p> <p>Refer to Component Parts Location for detailed installation location.</p>	<p>② BCM</p> <p>Refer to Component Parts Location for detailed installation location.</p>	<p>③ VCM</p> <p>Refer to Component Parts Location or detailed installation location.</p>
<p>④ ABS actuator and electric unit (control unit)</p> <p>Refer to Component Parts Location for detailed installation location.</p>	<p>⑤ Chassis control module</p> <p>Refer to Component Parts Location for detailed installation location.</p>	<p>⑥ Combination meter</p> <p>Refer to Component Parts Location for detailed installation location.</p>
<p>⑦ Steering angle sensor</p> <p>Refer to Component Parts Location for detailed installation location.</p>	<p>⑧ Around view monitor control unit</p> <p>Refer to Component Parts Location for detailed installation location.</p>	<p>⑨ Sonar control unit</p> <p>Refer to Component Parts Location for detailed installation location.</p>

PRECAUTIONS FOR REAR SONAR SENSORS

- Always keep the rear sonar sensors clean.
- If the rear sonar sensors are dirty, wipe them off with a soft cloth while being careful to not damage them.
- Do not subject the area around the rear sonar sensors to strong impact.
- Do not install any stickers (including transparent stickers) or accessories on the rear sonar sensors and their surrounding areas. This may cause a malfunction or improper operation.

PRECAUTIONS FOR RAB

Failure to follow the warnings and instructions for proper use of the RAB system could result in serious injury or death.

- The RAB system is a supplemental aid to the driver. It is not a replacement for proper driving procedures. Always use the side and rear mirrors and turn and look in the direction to move before and while backing up. Never rely solely on the RAB system. It is the driver's responsibility to stay alert, drive safely, and be in control of the vehicle at all times.
- There is a limitation to the RAB system capability. The RAB system is not effective in all situations.

Listed below are the system limitations for the RAB system. Failure to follow the warnings and instructions for proper use of the RAB system could result in serious injury or death.

- When the vehicle approaches an obstacle while the accelerator or brake pedal is depressed, the function may not operate or the start of the operation may be delayed. The RAB system may not operate or may not perform sufficiently due to vehicle conditions, driving conditions, the traffic environment, the weather, road surface conditions, etc. Do not wait for the system to operate. Operate the brake pedal as soon as necessary.
- If it is necessary to override RAB operation, strongly press the accelerator pedal.
- Always check surroundings and turn to check what is behind the vehicle before and while backing up. The RAB system detects stationary objects behind the vehicle. The RAB system does not detect the following objects:
 - Moving objects
 - Low objects
 - Narrow objects
 - Wedge-shaped objects
 - Complex-shaped objects
 - Multiple object in close
 - Objects close to the bumper (less than approximately 1 ft [30 cm])
 - Objects that suddenly appear
 - Thin objects such as rope, wire, chain, etc.
- The RAB system may not operate for pedestrians or animals.
- The RAB system may not operate for the following obstacles:
 - Obstacles located high off the ground
 - Obstacles in a position offset from the vehicle
 - Obstacles, such as spongy materials or snow, that have soft outer surfaces and can easily absorb a sound wave
- The RAB system may not operate in the following conditions:
 - There is rain, snow, ice, dirt, etc., attached to the sonar sensors.

- A loud sound is heard in the area around the vehicle.
- The surface of the obstacle is diagonal to the rear of the vehicle.
- The sonar sensors or the area around them are extremely hot or cold.
- The RAB system may unintentionally operate in the following conditions:
 - There is overgrown grass in the area around the vehicle.
 - There is a structure (e.g., a wall, toll gate equipment, a narrow tunnel, a parking lot gate) near the side of the vehicle.
 - There are bumps, protrusions, or manhole covers on the road surface.
 - The vehicle is driving through a draped flag or a curtain.
 - The vehicle is driving on a steep hill.
 - There is an accumulation of snow or ice behind the vehicle.
 - An ultrasonic wave source, such as another vehicle's sonar, is near the vehicle.
- Once the automatic brake control operates, it does not operate again if the vehicle approaches the same obstacle.
- The automatic brake control can only operate for a short period of time. Therefore, the driver must depress the brake pedal.
- In the following situations, the RAB system may not operate properly or may not function sufficiently:
 - The vehicle is driven in bad weather (rain, fog, snow, etc.).
 - The vehicle is driven on a steep hill.
 - The vehicle's posture is changed (e.g., when driving over a bump).
 - The vehicle is driven on a slippery road.
 - The vehicle is turned sharply by turning the steering wheel fully.
 - Snow chains are used.
 - Wheels or tires other than NISSAN recommended are used.
 - The brakes are cold at low ambient temperatures or immediately after driving has started.
 - The braking force becomes poor due to wet brakes after driving through a puddle or washing the vehicle.
- Turn the RAB system off in the following conditions to prevent the occurrence of an unexpected accident resulting from sudden system operation:
 - The vehicle is towed.
 - The vehicle is carried on a flatbed truck.
 - The vehicle is on the chassis dynamometer.
 - The vehicle drives on an uneven road surface.
 - Suspension parts other than those designated as genuine parts are used. (If the vehicle height or the vehicle body inclination is changed, the system may not detect an obstacle correctly.)
- Excessive noise (e.g., audio system volume, an open vehicle window) interferes with the chime sound, and it may not be heard.

CONSULT Function (ICC/ADAS 2)

SIEMD-7106190

Refer to [CONSULT Function \(ICC/ADAS 2\)](#).

Sample

List of ECU Reference

SIEMD-7106191

ECU	Reference
ADAS control unit 2	Reference Value
	Fail-safe (ADAS Control Unit 2)
	DTC Inspection Priority Chart
	DTC Index

Sample

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

RDE-001897898

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collisions.

Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" sections of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

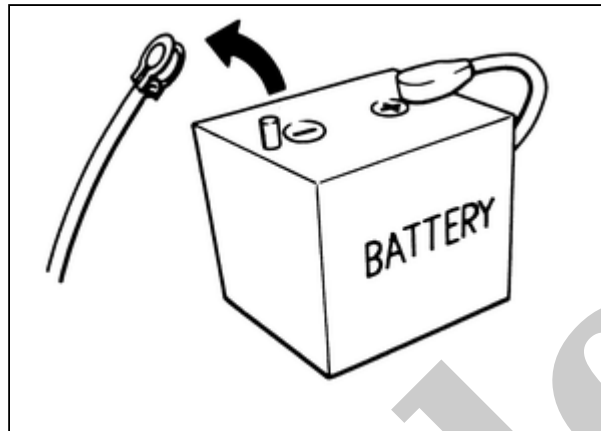
Always observe the following items for preventing accidental activation:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition/power switch ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition/power switch OFF, disconnect the 12V battery or batteries, and wait at least 3 minutes before performing any service.

Precautions for Removing Battery Terminal

RDE-001897900

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the Intelligent Key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is in the OFF position, i.e. ACC power is supplied for a certain fixed time.
- When disconnecting the 12V battery terminal, place the ignition switch in the OFF position before disconnecting the 12V battery terminal, observing "How to disconnect 12V battery terminal" described below.



RDE-001833817-01-EF289H



NOTE:

Some ECUs operate for a certain fixed time even after ignition switch is in the OFF position and ignition power supply is stopped. If the battery terminal is disconnected before ECU stops, accidental DTC detection or ECU data damage may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before placing the ignition switch in the ON position.



NOTE:

If the ignition switch is in the ON position with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.



NOTE:

The removal of 12V battery may cause a DTC detection error.

HOW TO DISCONNECT 12V BATTERY TERMINAL

Disconnect 12V battery terminal according to instruction described below.

1. Open the hood.
2. Place the ignition switch in the ON position.
3. Place the ignition switch in the OFF position with the driver side door opened.
4. Get out of the vehicle and close the driver side door.
5. Wait at least 3 minutes.

CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.