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2004 NISSAN Altima OEM Service and Repair Workshop Manual

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PRECAUTIONS CONCERNING ON-BOARD SERVICING OF EV SYSTEMS

RDE-002027128

CAUTION:

When hood is opened, power supply (charge) to 12V battery is stopped even during power switch ON state. Therefore, never leave hood opened for long time with power switch ON, when servicing vehicle.

Also, lock hood unless necessary to prevent 12V battery voltage from dropping.



NOTE:

During READY state, power is supplied (charged) to 12V battery even if hood is opened.

Sample

PRECAUTIONS FOR SUPPLEMENTAL RESTRAINT SYSTEM (SRS) AIR BAG AND SEAT BELT PRE-TENSIONER : Precautions

RDE-001825014

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.

Wiring Diagram

Click Link to [Wiring Diagram](#).

Sample

**NOTE:**

- When steering column assembly and steering gear assembly are replaced, RES reset (steering angle learning value reset) is performed.
- When the toe-in is adjusted, RES reset (steering wheel turning angle learning value reset) is performed.

1. RES RESET

With CONSULT

1. Set the vehicle to READY.
2. Select "EPS/DIRECT ADAPTIVE STEERING 3", "Work support", and "Rack end value reset" in the order.
3. Touch "Start".
4. Touch "End".

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2. RES LEARNING

With CONSULT

1. The steering wheel from full left stop to full right stop.
2. Select "EPS/DIRECT ADAPTIVE STEERING 3" and "Data monitor" in the order.
3. Select "Rack end learning status (Left)" and "Rack end learning status (Right)", and check that the display is "Completed".

Is the inspection result normal?

YES>>

[GO TO 3.](#)

NO>>

There is a possibility that resetting and learning have not been performed correctly, so start over from Step 1. [GO TO 1.](#)

3. ERASE SELF DIAGNOSTIC RESULT

With CONSULT

1. Record or print self-diagnosis results and freeze frame data (FFD).
2. Erase self-diagnostic results for "EPS/DIRECT ADAPTIVE STEERING 3".

Is the memory erase completed?

YES>>

INSPECTION END

NO>>

Check the items displayed in the self-diagnosis.

DETAILED FLOW

1. INTERVIEW FROM THE CUSTOMER

Clarify customer complaints before inspection. First of all, perform an interview utilizing [Diagnostic Work Sheet](#), and reproduce symptoms as well as fully understand it. Ask customer about his/her complaints carefully. Check symptoms by driving vehicle with customer, if necessary.

CAUTION:

Customers are not professional. Never guess easily like “maybe the customer means that...,” or “maybe the customer mentions this symptom”.

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2. CHECK SYMPTOM

Reproduce the symptom that is indicated by the customer, based on the information from the customer obtained by interview. Also check that the symptom is not caused by protection function. Refer to [Protection Function](#).

CAUTION:

When the symptom is caused by normal operation, fully inspect each portion and obtain the understanding of customer that the symptom is not caused by a malfunction.

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[GO TO 3.](#)

3. PERFORM SELF DIAGNOSTIC RESULT

 CONSULT

Select “Self Diagnostic Result” mode of “EPS/DAST 3”.

Is any DTC detected?

YES>>

Record or print DTC and freeze frame data (FFD). [GO TO 4.](#)

NO>>

[GO TO 6.](#)

4. RECHECK SYMPTOM

 CONSULT

1. Erase “Self Diagnostic Result” mode of “EPS/DAST 3”.
2. Perform DTC confirmation procedures for the malfunctioning system.

**NOTE:**

If some DTCs are detected at the same time, determine the order for performing the diagnosis based on [DTC Inspection Priority Chart](#).

Is any DTC detected?

YES>>

[GO TO 5.](#)

NO >>

Check harness and connectors based on the information obtained by interview. Refer to [Diagnostic Work Sheet](#).

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

 CONSULT

- Repair or replace malfunctioning parts.
- Reconnect part or connector after repairing or replacing.
- When DTC is detected, erase “Self Diagnostic Result” mode of “EPS/DAST 3”.

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6. IDENTIFY MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Estimate malfunctioning system based on symptom diagnosis and perform inspection.

Can the malfunctioning system be identified?

YES>>

[GO TO 7.](#)

NO >>

Check harness and connectors based on the information obtained by interview. Refer to [Diagnostic Work Sheet](#).

7. FINAL CHECK

 CONSULT

1. Check the reference value for EPS control unit.
2. Recheck the symptom and check that symptom is not reproduced on the same conditions.

Is the symptom reproduced?

YES>>

[GO TO 3.](#)


NO>>

Inspection End.

Vehicle specification needs to be written with CONSULT because it is not written after replacing the power steering control module.

For details the operation, refer to "CONSULT Operation Manual".

1. WRITING VEHICLE SPECIFICATION

 With CONSULT

Perform writing vehicle specification to power steering control module according to "Replace ECU" in CONSULT Operation Manual.

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WORK END

Sample

Vehicle specification needs to be written with CONSULT because it is not written after replacing the power steering control module.

For details the operation, refer to “CONSULT Operation Manual”.

1. WRITING VEHICLE SPECIFICATION

 With CONSULT

Perform writing vehicle specification to power steering control module according to "Replace ECU" in CONSULT Operation Manual.

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2. PERFORM NECESSARY WORK

 With CONSULT

1. Perform configuration. [Work Procedure](#).
2. Perform adjustment of steering angle sensor neutral position. [Work Procedure](#).
3. Perform steering torque calibration. [Wrok procedure](#).
4. Perform rack reset. [Work Procedure](#).
5. Perform self-diagnosis for “EPS/DIRECT ADAPTIVE STEERING 3”.
6. Erase the memory of self-diagnosis results.

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WORK END