

# Your Ultimate Source for OEM Repair Manuals

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# 1996 NISSAN D21 Repair Manual

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### CAUTION:

When performing the following operations, always use CONSULT (It cannot be performed by any means other than CONSULT.), for performing "INITIALIZATION POSITION ADJUSTMENT" of "Work support".

×: Required —: not required

Procedure	Initialization position adjustment
Removing/ installing ABS actuator and electric unit (control unit)	_
Replacing ABS actuator and electric unit (control unit)	×
Removing/ installing rear brake pad (When not pressing piston of rear brake caliper assembly)	_
Removing/ installing rear brake pad (When pressing piston of rear brake caliper assembly)	×
Replacing rear brake pad	×
Removing/ installing rear brake caliper assembly	-
Replacing rear brake caliper assembly	×
Replacing rear disc rotor	×
Removing/ installing parking brake switch	_
Replacing parking brake switch	_

### **CAUTION:**

When performing the following operations, always use CONSULT. (It cannot be performed by any means other than CONSULT.)

# 1. PERFORM INITIALIZATION POSITION ADJUSTMENT

1. Select "ABS", "Work support", and "Initialization position adjustment" according to this order.

**CAUTION:** 

- Never operate the parking brake switch.
- Never depress the brake pedal.

2. Touch "START".

>>

### <u>GO TO 2</u>.

# 2. PERFORM THE SELF-DIAGNOSIS

# (E) With CONSULT

- 1. Power switch OFF (Auto ACC function ON).
- 2. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

3. Power switch ON without depressing the brake pedal.

## CAUTION: Never set the vehicle to READY.

- 4. Erase self-diagnosis results for "ABS".
- 5. Pull parking brake switch to activate electric parking brake.
- 6. Push parking brake switch to release electric parking brake.
- 7. Perform self-diagnosis for "ABS".

### Is malfunction detected?

YES>>

Check the DTC. Refer to <u>DTC Index</u>.

NO>>

INSPECTION END

# **DETAILED FLOW**

# **1. INTERVIEW FROM THE CUSTOMER**

Clarify customer complaints before inspection. First of all, perform an interview utilizing diagnostic work sheet and reproduce the symptom as well as fully understand it. Ask customer about his/her complaints carefully. Check symptoms by driving vehicle with customer, if necessary. Refer to <u>Diagnostic Work Sheet</u>.

#### CAUTION:

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

>>

<u>GO TO 2</u>.

# **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 fail-safe mode. Refer to <u>Fail-safe</u>.

#### **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.

>>

#### <u>GO TO 3</u>.

# **3. PERFORM THE SELF-DIAGNOSIS**

With CONSULT

- 1. Power switch OFF (Auto ACC is ON).
- 2. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

#### CAUTION: Never operate the vehicle.

3. Power switch ON without depressing the brake pedal.

## CAUTION: Never set the vehicle to READY.

4. Perform self-diagnosis for "ABS".

#### Is DTC detected?

YES>>

Record or print self-diagnosis results and freeze frame data (FFD). GO TO 4.

NO>>

# 4. PERFORM DTC DIAGNOSIS PROCEDURE

# (B) With CONSULT

- 1. Erase self-diagnostic results for "ABS".
- 2. Power switch OFF (Auto ACC is ON).
- 3. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

# CAUTION: Never operate the vehicle.

- 4. Power switch ON without depressing the brake pedal.
- 5. Perform confirmation procedures for the error-detected system.

# **WNOTE:**

If some DTCs are detected at the same time, determine the order for performing the diagnosis based on Refer to DTC Inspection Priority Chart.

## Is DTC detected?

## YES>>

# <u>GO TO 5</u>.

NO>>

Check harness and connectors based on the information obtained by interview. Refer to Intermittent Incident.

# 5. REPAIR OR REPLACE ERROR-DETECTED PART

# With CONSULT

- 1. Repair or replace error-detected parts.
- 2. Reconnect part or connector after repairing or replacing.
- 3. When DTC is detected, erase self-diagnostic result for "ABS".

### CAUTION:

- Power switch OFF  $\rightarrow$  ON  $\rightarrow$  OFF after erase self-diagnosis result.
- Be sure to wait of 10 seconds after power switch OFF or ON.

>>

### <u>GO TO 7</u>.

# 6. IDENTIFY ERROR-DETECTED SYSTEM BY SYMPTOM DIAGNOSIS

Estimate error-detected system based on symptom diagnosis and perform inspection.

Can the error-detected system be identified?

## <u>GO TO 7</u>.

NO>>

Check harness and connectors based on the information obtained by interview. Refer to Intermittent Incident.

# 7. FINAL CHECK

# (B) With CONSULT

- 1. Check the reference value for "ABS".
- 2. Recheck the symptom and check that the symptom is not reproduced on the same conditions.

Is the symptom reproduced?

YES>>

<u>GO TO 3</u>.

NO>>

INSPECTION END

# Description

- In general, customers have their own criteria for a problem. Therefore, it is important to understand the symptom and status well enough by asking the customer about his/her concerns carefully. To systemize all the information for the diagnosis, prepare the interview sheet referring to the interview points.
- In some cases, multiple conditions that appear simultaneously may cause a DTC to be detected.

# **INTERVIEW SHEET SAMPLE**

Interview sheet					
Customer name	MR/MS	Registration number	Initial year registration		
		Vehicle type	VIN		
Storage date		Engine / Traction motor	Mileage	km (Mile)	
		□ Does not operate (		) function	
		□ Warning lamp turns ON.			
Symptom		PARK_(())			
		□ Other (		)	
		$\Box$ Noise (Location: ) $\Box$ Vi	bration (Location: )		
		🗆 Other (		)	
First occurrence	First occurrence $\Box$ Recently $\Box$ Other (			)	
Frequency of occ	urrence	□ Always □ Under a certain conditions of □ Sometimes ( time(s)/day)		)/day)	
		Irrelevant			
Climate	Weather	$\Box$ Fine $\Box$ Cloud $\Box$ Rain $\Box$ Snow $\Box$ Others (		)	
conditions	Temperature	$\Box$ Hot $\Box$ Warm $\Box$ Cool $\Box$ Cold $\Box$ Temperature [Approx.		°C (°F)]	
	Relative humidity	$\Box$ High $\Box$ Moderate $\Box$ Low			
Road conditions		□ Ordinary road □ Highway □ Mountainous road (uphill or downhill) □ Rough road			
Operating condition, etc.		□ Irrelevant			
		□ When engine/traction motor starts □ During idling			
		$\Box$ During driving $\Box$ During acceleration $\Box$ At constant speed driving			
		□ During deceleration			
		□ Immediately before stop [Vehicle speed: Approx. km/h (MPH)]			
		□ During cornering (right curve or left curve)			
		$\Box$ When steering wheel is steered (to right or to left)			
Other VDC setting status $\Box$ On $\Box$		$\Box$ On $\Box$ Off			
conditions	Use of other functions				
(ex. ICC)			)		

Interview sheet						
Customer name	MR/MS	Registration number		Initial year registration		
		Vehicle type		VIN		
Storage date		Engine / Traction motor		Mileage	km (Mile)	
	Presence of non-genuine parts installation	□ Yes □ No (			)	
Memo						

# Work Procedure

×: Required —: Not required

Procedure	Adjust the neutral position of steering angle sensor
Removing/ installing ABS actuator and electric unit (control unit)	—
Replacing ABS actuator and electric unit (control unit)	—
Removing/installing steering angle sensor	×
Replacing steering angle sensor	×
Removing/installing steering components	×
Replacing steering components	×
Removing/installing front suspension components	×
Replacing front suspension components	×
Removing/installing tire	
Replacing tire	-
Tire rotation	-
Adjusting front wheel alignment.	×

### **CAUTION:**

Always use CONSULT when adjusting the neutral position of steering angle sensor. (It cannot be adjusted other than with CONSULT.)

# 1. CHECK THE VEHICLE STATUS (1)

Stop vehicle with front wheels in the straight-ahead position.

Does the vehicle stay in the straight-ahead position?

YES>>

<u>GO TO 2</u>.

NO>>

Steer the steering wheel to the straight-ahead position. Stop the vehicle.

# 2. ADJUST NEUTRAL POSITION OF STEERING ANGLE SENSOR

# With CONSULT

1. Set the vehicle to READY.

### **CAUTION:**

To prevent a flat battery, set the vehicle to READY.

- 2. Select "ABS", "Work support" and "Steering angle sensor adjustment" in this order.
- 3. Select "START".

### **CAUTION:**

Never touch steering wheel while adjusting steering angle sensor.

- 4. After approximately 10 seconds, select "END".
- 5. Power switch OFF, and then turn it ON again.

CAUTION: Be sure to perform the operation above.

>>

## <u>GO TO 3</u>.

# **3. CHECK DATA MONITOR (1)**

# With CONSULT

- 1. The vehicle is either pointing straight ahead, or the vehicle needs to be moved. Stop when it is pointing straight ahead.
- 2. Select "ABS", "Data monitor", and "Steering angle" in the order. Check that the signal is within the specified value. Refer to <u>Values On The Diagnosis Tool</u>.

### Is the inspection result normal?

YES>>

<u>GO TO 10</u>.

NO>>

<u>GO TO 4</u>.

# 4. CHECK STEERING COMPONENT PARTS

Check the installation condition of steering component parts. Refer to STEERING WHEEL : Periodic Maintenance Operation.

Is the inspection result normal?

YES>>

### <u>GO TO 5</u>.

NO>>

Repair or replace error-detected parts. GO TO 5.

# 5. CHECK FRONT SUSPENSION COMPONENT PARTS

Check the installation condition of front suspension component parts. Refer to <u>FRONT SUSPENSION ASSEMBLY : Periodic</u> <u>Maintenance Operation</u>.

Is the inspection result normal?

YES>>

<u>GO TO 6</u>.