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2004 NISSAN Titan King Cab OEM Service and Repair Workshop Manual

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- 7. Get out of the vehicle and close all doors.
- 8. Wait 65 seconds or more.



- Check to make sure that the parking brake switch indicator is turned OFF.
- If the rear brake calipers are hot, wait up to an hour until parking brake switch indicator on the switch turns OFF. Once indicator on the switch turns OFF, move to next step.
- 9. Set the vehicle to READY.

CAUTION: Never drive the vehicle.

10. Perform self-diagnosis for "EPS/DIRECT ADAPTIVE STEERING 3".

Is DTC "C1634-86" detected?

YES>>

Replace the power steering control module. Refer to <u>Removal and Installation</u>.

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms		DTC detection condition		
		Advanced Driver Assistance System	1	Diagnosis condition	When power switch is ON.	
				Signal (terminal)	CAN communication signal	
				Threshold	When a malfunction is detected in ADAS control unit 2.	
C163A	86			Diagnosis delay time	2 seconds or more	
C163A			2	Diagnosis condition	When power switch is ON.	
				Signal (terminal)	CAN communication signal	
				Threshold	When a malfunction is detected in chassis control module.	
				Diagnosis delay time	2 seconds or more	

POSSIBLE CAUSE

- CAN communication line
- ADAS control unit 2
- Chassis control module
- Power steering control module

FAIL-SAFE

Normal state

1. PRECONDITIONING

1. Pull the parking brake switch.

WNOTE: Check to make sure that the parking brake switch indicator is turned ON.

- 2. Power switch OFF.
- 3. Get out of the vehicle and close all doors.
- 4. Wait 65 seconds or more.



• If the rear brake calipers are hot, wait up to an hour until parking brake switch indicator on the switch turns OFF. Once indicator on the switch turns OFF, move to next step.

>>

<u>GO TO 2</u>.

2. DTC REPRODUCTION PROCEDURE

With CONSULT

- 1. Power switch ON.
- 2. Perform self-diagnosis for "EPS/DIRECT ADAPTIVE STEERING 3".

Is DTC "C163A-86" detected?

YES>>

Proceed to diagnosis procedure. Refer to DTC Diagnosis Procedure.

NO-1>>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2>>

Confirmation after repair: INSPECTION END

1. PERFORM ADAS CONTROL UNIT 2 MODULE SELF-DIAGNOSIS

With CONSULT

- 1. Power switch OFF to ON.
- 2. Perform self-diagnosis for "ICC/ADAS 2".

Is any DTC detected?

YES>>

Check the DTC. Refer to DTC Index.

NO>>

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<u>GO TO 2</u>.
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2. PERFORM CHASSIS CONTROL MODULE SELF-DIAGNOSIS

With CONSULT

- 1. Power switch OFF to ON.
- 2. Perform self-diagnosis for "CHASSIS CONTROL".

Is any DTC detected?

YES>>

Check the DTC. Refer to DTC Index.

NO>>

<u>GO TO 3</u>.

3. CHECK CONNECTOR AND TERMINAL

- 1. Power switch OFF.
- 2. Disconnect chassis control module harness connector.
- 3. Disconnect ADAS control unit 2 harness connector.
- 4. Disconnect power steering control module harness connector.
- 5. Check the connector for disconnection or looseness.
- 6. Check the terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES>>

<u>GO TO 4</u>.

NO>>

Repair or replace harness, connector, or terminal, securely lock the connector.

4. PERFORM SELF-DIAGNOSIS

(E) With CONSULT

- 1. Connect ADAS control unit 2 harness connector.
- 2. Connect chassis control module harness connector.
- 3. Connect power steering control module harness connector.
- 4. Power switch OFF to ON.
- 5. Erase self-diagnostic results for "EPS/DIRECT ADAPTIVE STEERING 3".
- 6. Pull the parking brake switch.

WNOTE:

Check to make sure that the parking brake switch indicator is turned ON.

- 7. Power switch OFF.
- 8. Get out of the vehicle and close all doors.
- 9. Wait 65 seconds or more.



- Check to make sure that the parking brake switch indicator is turned OFF.
- If the rear brake calipers are hot, wait up to an hour until parking brake switch indicator on the switch turns OFF. Once indicator on the switch turns OFF, move to next step.
- 10. Set the vehicle to READY.

CAUTION: Never drive the vehicle.

11. Perform self-diagnosis for "EPS/DIRECT ADAPTIVE STEERING 3".

Is DTC "C163A-86" detected?

YES>>

Replace the power steering control module. Refer to Removal and Installation.

NO>>

INSPECTION END

CAUTION:

Disconnect 12V battery negative terminal before starting operations.

Do not remove EPS control unit from steering column assembly. When replacing EPS control unit, replace steering column assembly. Refer to <u>Removal and Installation</u>.

DTC Index

DTC	Items	Power steering warning lamp	Reference	
		ON ^{*1}		
C1601-16	Battery voltage	OFF ^{*2}	DTC Description.	
S1301 48		ON ^{*1}	DTC Description	
C1601-17	Battery voltage	OFF ^{*2}	DTC Description.	
C1604-96	TORQUE SENSOR	ON	DTC Description.	
C1608-43	Control unit	OFF	DTC Description	
C1608-46	Control unit	ON	DTC Description.	
C1608-49	Control unit	ON	DTC Description.	
C1608-52	Control unit	OFF	DTC Description	
C1608-54	Control unit	ON	DTC Description	
C1615- 4B	Control unit over heat	OFF	DTC Description	
C161A- 82	Anti-lock braking system	OFF	DTC Description.	
C161A- 83	Anti-lock braking system	OFF	DTC Description	
C161A- 86	Anti-lock braking system	OFF	DTC Description	
C161B- 82	Anti-lock braking system	OFF	DTC Description	
C161B- 83	Anti-lock braking system	OFF	DTC Description.	
C161B- 86	Anti-lock braking system	OFF	DTC Description.	
C161C- 82	Steering angle sensor system	OFF	DTC Description.	
C161C- 83	Steering angle sensor system	OFF	DTC Description.	
C161C- 86	Steering angle sensor system	OFF	DTC Description.	
C161E-82	Anti-lock braking system	OFF	DTC Description.	
C161E-83	Anti-lock braking system	OFF	DTC Description.	
C161E-86	Anti-lock braking system	OFF	DTC Description.	
C161F-86	AV system	OFF	DTC Description.	
C1620-82	Chassis control system	OFF	DTC Description.	
C1620-83	Chassis control system	OFF	DTC Description.	
C1621-86	Body control module system	OFF	DTC Description.	
C1622-86	Body control module system	OFF	DTC Description.	
C1623-86	Engine control module system	OFF	DTC Description.	

DTC	Items	Power steering warning lamp	Reference	
		ON^{*1}		
C1624-00	Signal connector	OFF ^{*2}	DTC Description.	
C162A- 87	Advanced Driver Assistance System	OFF	DTC Description.	
C1632-86	VDC system	OFF	DTC Description.	
C1633-86	Vehicle dynamics control system	OFF	DTC Description.	
C1634-86	Steering angle sensor system	OFF	DTC Description.	
C1636-87	AV system	OFF	DTC Description.	
C163A- 64	Advanced Driver Assistance System	OFF	DTC Description.	
C163A- 82	Advanced Driver Assistance System	OFF	DTC Description.	
C163A- 83	Advanced Driver Assistance System	OFF	DTC Description.	
C163A- 86	Advanced Driver Assistance System	OFF	DTC Description.	
C163D- 86	Advanced Driver Assistance System	OFF	DTC Description.	
C163E-86	ADAS system	OFF	DTC Description.	
U0076-00	Control module communication Bus D Off	OFF	DTC Description.	
U1321-55	Configuration data error	ON	DTC Description.	
U2140-87	Controller area network communication error (Engine control module)	OFF	DTC Description.	
U2148-87	CAN communication error brake control unit	OFF	DTC Description.	
U214F-87	CAN communication error (BCM)	OFF	DTC Description.	
U2152-87	CAN communication error advanced driver assistant systems control unit	OFF	DTC Description.	
U2154-87	CAN communication error multimedia interface unit	OFF	DTC Description.	
U2156-87	CAN communication error steering angel sensor	OFF	DTC Description.	
U215B- 87	CAN communication error (IPDM E/R)	OFF	DTC Description.	
U2176-87	CAN communication error (chassis control module/steering angle sensor)	OFF	DTC Description.	

WNOTE: If some DTCs are displayed at the same time, refer to <u>DTC Inspection Priority Chart</u>.

PHYSICAL VALUES

Without Pro PILOT Assist 2.0

Tern (Wir	ninal No. e Color)	Description		Condition	Value
+	-	Signal name	Input/Output		
1 (G)	—	CAN-L	Input/Output	_	_
2 (GR)	_	CAN-H	Input/Output	_	_
4 (Y)	Ground	ACC POWER SUPPLY	Input	switch: ON switch: OFF	10.5 – 16 V Approx. 0 V
7 (R)	Ground	12V battery power supply	Input	Always	10.5 – 16 V
8 (B)	Ground	Ground		Always	Approx. 0 V

With Pro PILOT Assist 2.0

Terminal No.		During	Condition	Value	
(Wire Color)		Description			
+	-	Signal name	Input/Output		
1 (R)	_	12V battery power supply	Input	Always	10.5 – 16 V
2 (B)	Ground	Ground		Always	Approx. 0 V
3 (R)	Ground	12V battery power supply	Input	Always	10.5 – 16 V
4 (B)	Ground	Ground	_	Always	Approx. 0 V
5 (G)	_	CAN-L	Input/Output	_	—
6 (GR)	_	CAN-H	Input/Output	-	—
8 (Y)	Ground	ACC POWER SUPPLY	Input	switch: ON switch: OFF	10.5 – 16 V Approx. 0 V
11 (v)	_	CAN-L	Input/Output	_	_
12	_	CAN-H	Input/Output	_	—