



SERVICE BULLETIN

Classification: TF04-002	Reference: NTB04-129	Date: November 4, 2004
-----------------------------	-------------------------	---------------------------

2003 - 2004 MURANO: AWD TRANSFER CASE NOISE WITH DAMAGED GEARS AND/OR CRACKED CASE

APPLIED VEHICLES: 2003 – 2004 Murano (Z50) with AWD

IF YOU CONFIRM:

The AWD Transfer Case needs to be replaced because:

- The case is cracked, and/or
- Internal gears are damaged.

NOTE: Damage, if it occurs, may have been caused by operating the AWD system in the LOCK mode on dry pavement.

ACTIONS:

1. Replace the following:

- Transfer Case.
- AWD Lock Switch with the new one listed in the Parts Information.
- AWD Control Unit with the new one Listed in the Parts Information.

NOTE: Refer to the ESM for component replacement information.

2. **IMPORTANT:** Attach pages 3 and 4 of this bulletin to the customer's copy of the repair order and make sure the customer is handed these pages.

- Pages 3 and 4 of this bulletin contain revised Owner Information for "USING ALL WHEEL DRIVE (AWD)".

3. Inform the customer that the installation of these new parts upgrades the operation of the AWD Lock Switch. The AWD Lock switch will now operate like a 2005 Murano.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

PARTS INFORMATION

DESCRIPTION	PART #	QUANTITY
AWD Transfer Case Assembly	33100-CA000	1
AWD Lock Switch	25535-CB800	1
AWD Control Unit	41650 CB020	1

CLAIMS INFORMATION

Submit a Primary Failed Part (PP) line claim using the following claims coding:

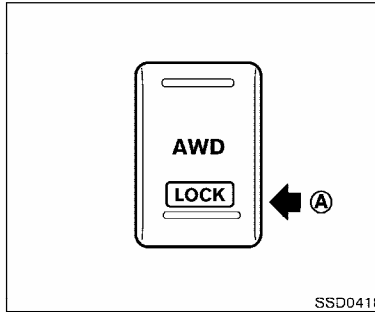
DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
R&I AWD Transfer Case Assy	(1)	KA01AA	ZL	32	(2)
RPL AWD Transfer Case Assy		KA021A			(2)
RPL AWD Lock Switch		LB86AA			(2)
RPL AWD Control Unit		KA66AA			(2)

1. Reference the Parts Information Table and use the indicated AWD Transfer Case Assy P/N as the PFP.
2. Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.

IMPORTANT OWNER INFORMATION:

Your All WHEEL DRIVE (AWD) system has been upgraded. After you start the vehicle, the AWD LOCK switch will function as before. However, each time you re-start your vehicle, if Lock Mode is desired, you will need to operate the AWD LOCK switch again. The Lock Mode should only be used under special conditions. For more detail, refer to this revised Owner Information. Read it carefully and keep it in the vehicle.

USING ALL WHEEL DRIVE (AWD) (if so equipped)



WARNING

A vehicle equipped with AWD (All-Wheel Drive) should never be tested using a two wheel dynamometer, similar to the dynamometers used by some states for emissions testing, or similar equipment. Make sure you inform the test facility personnel that your vehicle is an AWD equipped vehicle before it is placed on a dynamometer. Failure to do so may result in transmission damage

or unexpected vehicle movement which could result in serious vehicle damage or personal injury.

AWD LOCK SWITCH OPERATIONS

The AWD LOCK switch located in front of the shift lever is used to select AUTO/LOCK depending on the driving conditions.

Each time you push the lower part of the switch, the AWD mode will switch: AUTO → LOCK → AUTO.

The AWD system electronically controls the coupling.

Push the lower part of the AWD LOCK switch (A) to select the AUTO or LOCK mode depending on the driving conditions.

LOCK mode

Push the lower part of the switch (A) when the vehicle is stopped or driving under approximately 10 km/h (6 MPH).

The AWD LOCK indicator light will come on.

AUTO mode

Push the lower part of the switch (A). The AWD LOCK indicator light will go off.

Starting and driving

TP040784

AWD mode	Wheel driven	AWD LOCK indicator light	Use conditions
AUTO	Distribution of torque to the front and rear wheels changes automatically, depending on road conditions encountered [100:0]←→[50:50]. This results in improved driving stability.*1	Goes off.	For driving on paved or slippery roads
LOCK	All wheel drive*2, *3	AWD LOCK	For driving on rough roads

*1: When the rotation difference between the front and rear wheels is large, the AWD mode may change from AUTO to LOCK for a while, however, this is not a malfunction.

*2: LOCK mode will change to AUTO mode automatically when the vehicle is accelerated or the vehicle speed is over approximately 10 km/h (6 MPH). The AWD LOCK indicator light does not go off.

LOCK mode will change to AUTO mode automatically when the vehicle has been driven for a long period at a high speed. The AWD LOCK indicator light goes off.

*3: LOCK mode will automatically be cancelled when the ignition switch is turned to the OFF position.

- If the AWD LOCK switch is operated while accelerating or decelerating, or if the ignition switch is turned off, you may feel a jerk. This is normal.
- The oil temperature of power train parts will increase if the vehicle is continuously operated under conditions where the difference in rotation between the front and rear wheels is large (wheel slip), such as when driving the vehicle on rough roads through sand, mud or freeing a stuck vehicle. In these cases, the AWD warning light blinks rapidly and the AWD mode changes to 2WD condition to protect the power train parts. If you stop driving with the engine idling and wait until the warning light stops blinking, the AWD returns to the AUTO mode.




WARNING

- Do not place an AWD equipped vehicle on a two wheel dynamometer or raise two wheels off the ground and shift the transmission to any D (drive) or R (reverse) position. Doing so may result in transmission damage or unexpected vehicle movement which could result in serious vehicle damage or personal injury.
- When driving straight, shift the AWD lock switch to AUTO. Do not operate the AWD lock switch when making a turn or backing up.
- Do not operate the AWD lock switch with the front wheel spinning.
- Engine idling speed is high while warming up the engine. Be especially careful when starting or driving on slippery surfaces with the AWD lock switch set in AUTO or LOCK.
- When turning the vehicle in ON/LOCK mode on paved roads, you

Starting and driving

TP040785

may feel a braking effect. This is a normal condition of the AWD model.

Warning light	Comes on or blinks when
 Comes on	There is a malfunction in the all wheel drive system.
 Blinks rapidly	The power-train oil temperature rises abnormally.
 Blinks slowly	The difference in wheel rotation is large.

SSD0314A

AWD WARNING LIGHT

The AWD warning light is located in the meter.

The AWD warning light comes on when the ignition switch is turned to ON. It turns off soon after the engine is started.

If any malfunction occurs in the AWD system when the ignition switch is ON, the warning light will remain illuminated.

High-temperature power-train oil due to continuous operation of the vehicle to free a stuck vehicle makes the warning light blink rapidly (about twice per second). The driving mode may change to 2 wheel drive condition. AUTO mode may change to LOCK mode before the warning light blinks. This is normal. If the warning light blinks rapidly during operation, stop the vehicle with the engine idling in a safe place immediately. Then if the light goes off after a while, you can continue driving.

A large difference between the diameters of front and rear wheels will make the warning light blink slowly (about once per two seconds). Pull off the road in a safe area, and idle the engine. Check that all tire sizes are the same, tire pressure is correct and tires are not worn.

WARNING

Do not attempt to test an AWD equipped vehicle with two wheels on a two wheel dynamometer and the other two wheels raised. Doing so may result

Starting and driving

TP040786

in transmission damage or unexpected vehicle movement which could result in serious vehicle damage or personal injury.

CAUTION

- If the warning light comes on while driving, AUTO or LOCK mode will be changed to 2 wheel drive condition. Reduce the vehicle speed and have your vehicle checked by a NISSAN dealer as soon as possible.
- When the warning light comes on, the 2 wheel condition may be engaged even if the driving mode is in AUTO or LOCK. Be especially careful when driving.
- Never drive on dry hard surface roads in the LOCK mode, as this will overload the power-train and may cause a serious malfunction.
- If the warning light is still on after the above operation, have your vehicle

checked by a NISSAN dealer as soon as possible.

- The power-train may be damaged if you continue driving with the warning light blinking rapidly.

Starting and driving

TP040787