



SERVICE BULLETIN

Classification: AT16-018b	Reference: NTB16-109b	Date: May 17, 2018
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INFORMATION TO PREVENT CVT REPLACEMENT DUE TO MISDIAGNOSIS OF NOISE

This bulletin has been amended. The publication date has been revised to include the latest models and model years. No other changes have been made. Please discard previous versions of this bulletin.

APPLIED VEHICLES: All Nissan equipped with CVT

SERVICE INFORMATION

With the engine running and the vehicle on a hoist, noise heard from the CVT may be louder (in Park, Neutral, Drive, or Reverse) than a non-CVT type transmission.

CVT transmissions are much louder without drive load, which may lead to misdiagnosis.

Do NOT judge CVT noise as abnormal due only to noise on a hoist (with or without the wheels turning).

CVTs replaced for a noise issue may be requested for return. CVTs that do not have a defect will be charged back to the dealer.

Refer to the information in this bulletin before replacing a CVT for a noise issue.

- General noise descriptions from front of vehicle when driving/idling – commonly blamed on CVT: Page 2.
 - Bearing Noise Diagnosis: Page 3.
 - Bearing Noise From Front of Vehicle Flow Chart: Page 4.
 - CVT Replacement For Noise – Check Sheet: Page 5.
- **This check sheet must be completed and attached to the repair order before replacing a CVT for a noise issue.**

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.

General Noise Description - from front of vehicle when driving/idling

Noise Descriptions Commonly Blamed on CVT	Explanation
Cabin booming (low frequency) noise or steering vibration at lowest rpm after CVT torque converter lockup (about 1200 engine rpm and about 30 mph).	CVT is designed to allow very low engine rpm with torque converter locked to improve fuel economy. This is normal behavior and not warrantable. If noise or vibration is worse than a known good vehicle, check for exhaust contact with body due to incorrect installation or impact damage.
For Sentra, Versa Sedan, Versa Note only: Slight whine noise and "shift feeling" at low to moderate speed.	Sentra and Versa CVT has a single gear shift that can occur between 20-50 mph, depending on the throttle opening. A slight whine noise during that shift is normal behavior and not warrantable unless it is much louder than a known good vehicle.
Warbling/whining noise in Drive when moving, but is not heard in Drive when stopped.	If noise only occurs when in motion, check for noise from wheel bearings and propeller shaft bearings (refer to Bearing Noise Diagnosis on page 3). If a CVT is replaced for noise and follow up repair of front wheel bearing is performed due to improper noise diagnosis, CVT repair may be charged back.
Slight whining noise when coming to a stop while braking.	A slight whine noise when coasting or braking to a stop at less than 10 mph may occur. This is normal, and is not warrantable. If noise is worse than a known good vehicle, check for contact between CVT and body.
Slight whining noise idle and accelerating, any gear position.	A slight whine noise when idling or accelerating can be due to engine oil pump, H-EPS power steering pump (if equipped), or CVT oil pump. This is normal and not warrantable. If noise is worse than a known good vehicle, unplug the H-EPS pump (if equipped) to see if noise goes away, or use chassis ears to isolate the source of the noise.

General Noise Description - from front of vehicle when driving/idling (continued)

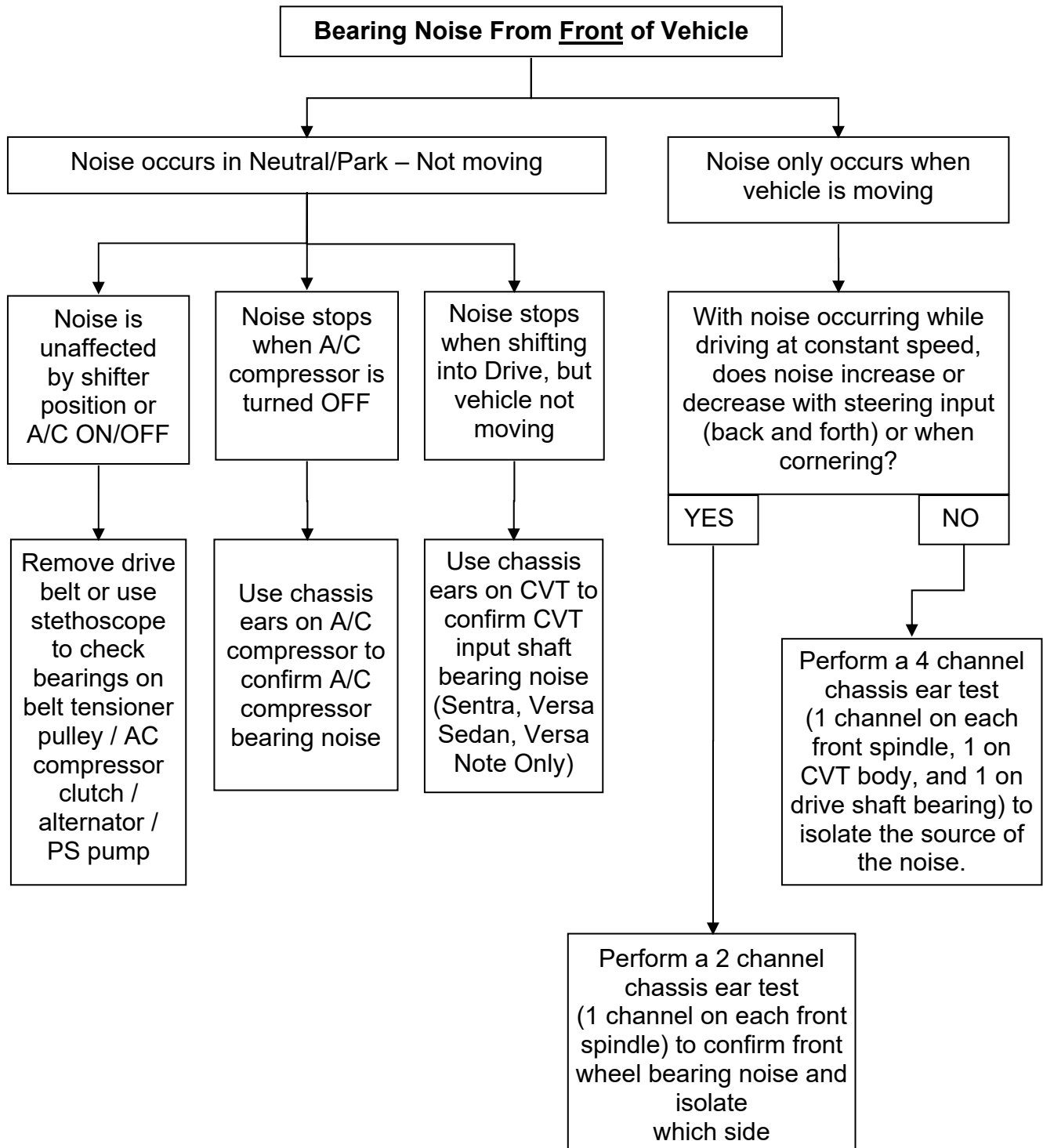
Noise Descriptions Commonly Blamed on CVT	Explanation
Rattle noise that increases/decreases with engine rpm, but may not increase/decrease with vehicle speed.	Generally caused by an exhaust heat shield that is loose or contacting the exhaust.

Bearing Noise Diagnosis

- General bearing noise description: A warbling noise that increases frequency with vehicle speed or engine speed.

General Noise Location	Action
Noise direction from Front of vehicle.	Proceed to <u>Bearing Noise From Front of Vehicle Flow Chart</u> on the next page.
Noise direction from Rear of vehicle.	Perform a 2 channel chassis ear test, one on each rear spindle, to confirm rear bearing noise. (If AWD, perform a 3 channel test and include rear propeller shaft bearing.)
Noise direction cannot be determined.	Perform a 2 channel chassis ear test, one on each rear spindle, to confirm rear bearing noise. (If AWD, perform a 3 channel test and include rear propeller shaft bearing.) If no abnormal noise is isolated with chassis ears, proceed to <u>Bearing Noise From Front of Vehicle Flow Chart</u> on the next page.

Bearing Noise From Front of Vehicle Flow Chart



CVT Replacement for Noise – Check Sheet

- **Print a copy of this page and attach it to the repair order.**
- Before replacing a CVT for a noise issue, perform diagnostics to confirm the noise is coming from the CVT.
- Place a check mark in each box below to confirm the diagnosis for that item has been done.

Noise was confirmed with customer on road test (test drive), not on hoist

Noise IS much louder than known good vehicle

Noise is NOT a wheel bearing

Noise is NOT a driveshaft/axle or propeller shaft bearing

Noise is NOT engine oil pump noise

Noise is NOT engine accessory (idler pulley/alternator/AC compressor)

Noise is NOT H-EPS Pump or power steering pump

Noise is NOT an exhaust heat shield rattle