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<b>Subject:</b> UNUSUAL NOISE FROM EXHAUST PIPE SEAL RING	<b>Bulletin No:</b> 01-012/13
	<b>Last Issued:</b> 03/18/2013

## APPLICABLE MODEL(S)/VINS

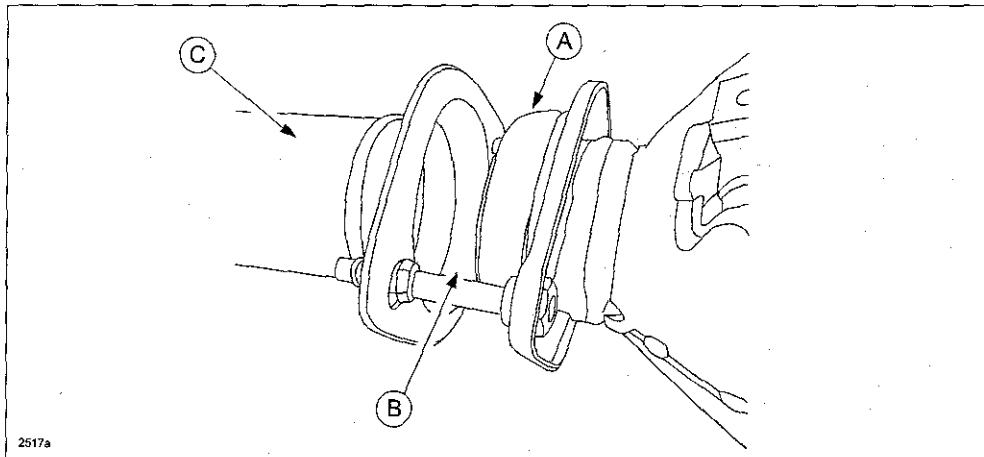
2011-2013 Mazda2

## DESCRIPTION

Some vehicles may exhibit an unusual squeak noise when the engine is idling, or just at the moment when the engine is shut off. The noise may be audible from inside the vehicle if one or more windows are open, or if any passenger is opening a door to exit the vehicle.

Due to engine vibration and a lack of seal ring lubrication, the mesh in the seal ring (A) rides in the flared portion (B) of the catalytic converter (C) resulting in a slight noise from the exhaust system while the engine is running. **The friction between the exhaust system parts and the resulting slight noise are normal.** This friction does not cause breakage, gas leakage, or other functional problems with the vehicle's exhaust system.

During normal vehicle aging, the noise level may change as the surface of the metal flange deteriorates. Usually this noise cannot be heard when the engine is running, however the noise may be heard in a quiet environment when the customer is outside the vehicle or when a door or window is open.



Customers having this concern should have their vehicle repaired using the following repair procedure.

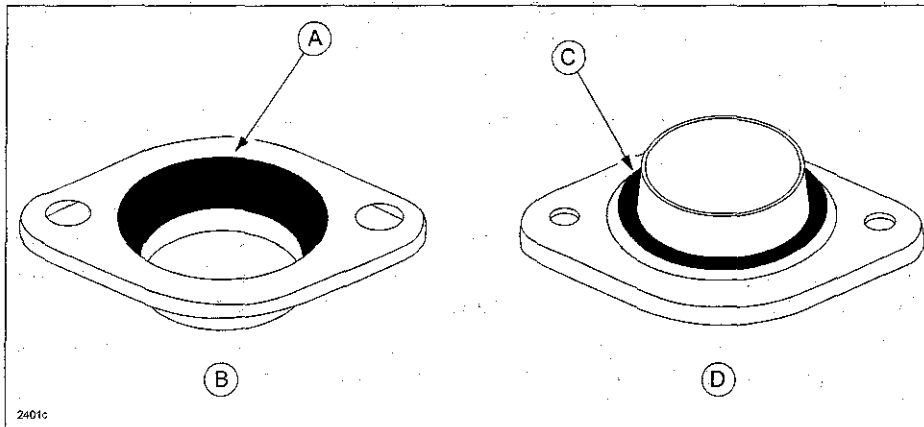
## REPAIR PROCEDURE

**WARNING:** A hot engine and exhaust system can cause severe burns. Wait until they are cool before beginning the repair.

**NOTE:** Be sure to follow the repair procedure precisely, including all notes and cautions, otherwise, the symptom will recur. Recommend to the customer that they drive gently for approximately 125 miles (200 km) in order to properly seat the seal ring to the round surface of the exhaust manifold flange.

1. Verify customer concern.
2. Safely lift vehicle on hoist.
3. Remove seal ring from exhaust manifold. Refer to the MS3 online instructions or Workshop Manual (section 01-15A EXHAUST SYSTEM REMOVAL/INSTALLATION [MZR 1.5]).
4. Stuff a cloth into exhaust manifold and catalytic converter to prevent dust or debris from entering.
5. Polish the flared portion (A) of catalytic converter-side (B) using a nylon brush or sandpaper (#60) for twenty (20) minutes, then use (#600) for three (3) minutes until bare metal is exposed.
6. Degrease (A) using ethanol for thirty (30) seconds.
7. Remove stains from the seal ring installed location (C) in exhaust manifold (D).
8. Degrease (C) using ethanol for thirty (30) seconds.

**NOTE:** Make sure the polished surface is free from seal ring residue, debris, or wear marks.

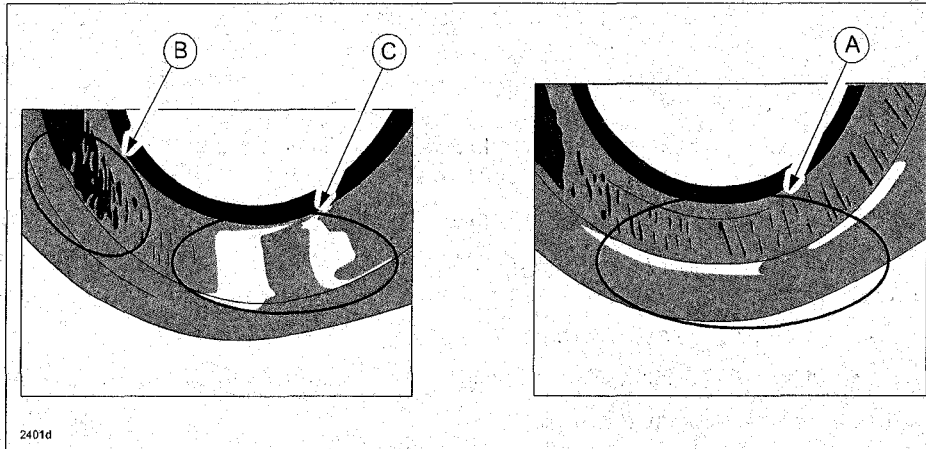


9. Run your finger over seal ring installed location (flange) of exhaust manifold. If surface feels rough, use #80 sandpaper until rough surface is gone, then use fine sandpaper until bare metal is exposed.

**NOTE:** Do not use air tools.

10. If severe damage appears on round surface of catalytic converter-side flared flange (A), replace catalytic converter.

**NOTE:** If the catalytic converter is replaced and a black coating (B) remains on the round surface of the flared flange, the white coating of the seal ring will stick to the black coating, which may cause noise. Be sure to sufficiently polish the flange (C).



11. Using a piece of cloth including organic solvent (acetone, methanol) or a piece of cloth free of oil content, wipe off any debris or grease from polished area.

12. Remove cloth from exhaust manifold.

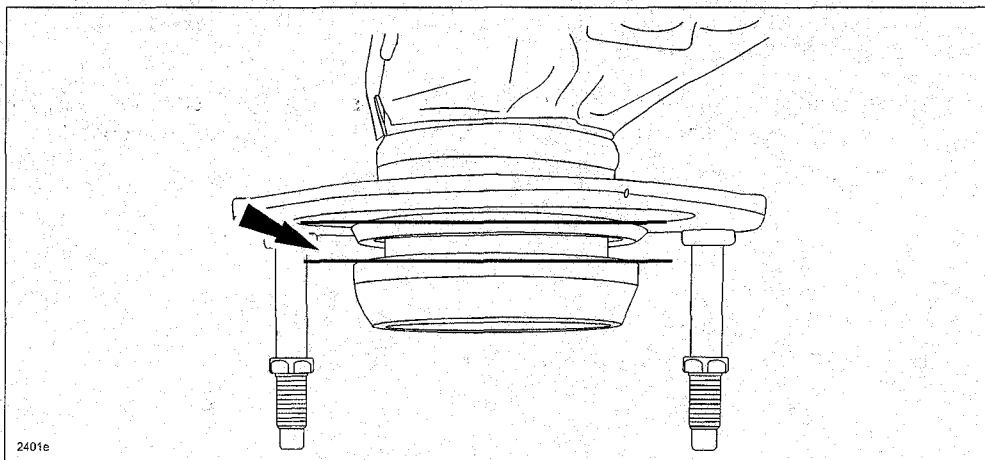
**NOTE:** During cloth removal, be careful not to allow any foreign substances into the pipe.

13. Replace old seal ring with new seal ring.

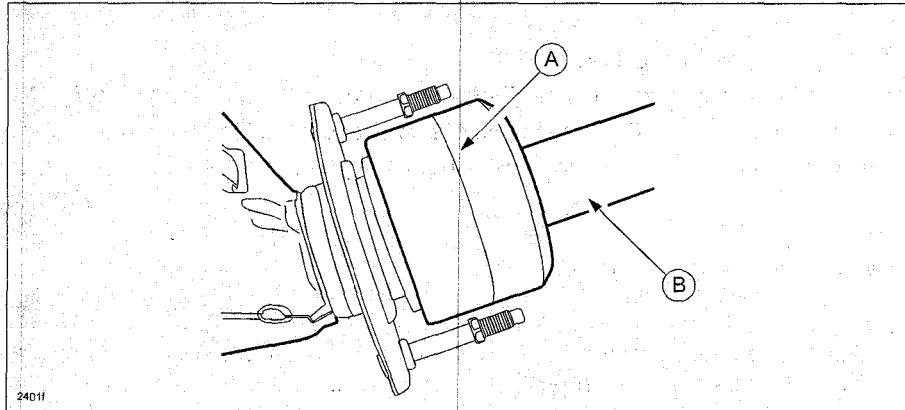
**NOTE:**

- Make sure seal ring fits straight and does not fall off when you remove your hand from the ring.
- Make sure seal ring fits straight, if not, there is a possibility the lubrication on the inner surface will be damaged when the seal ring is press-fitted with the special service tool.

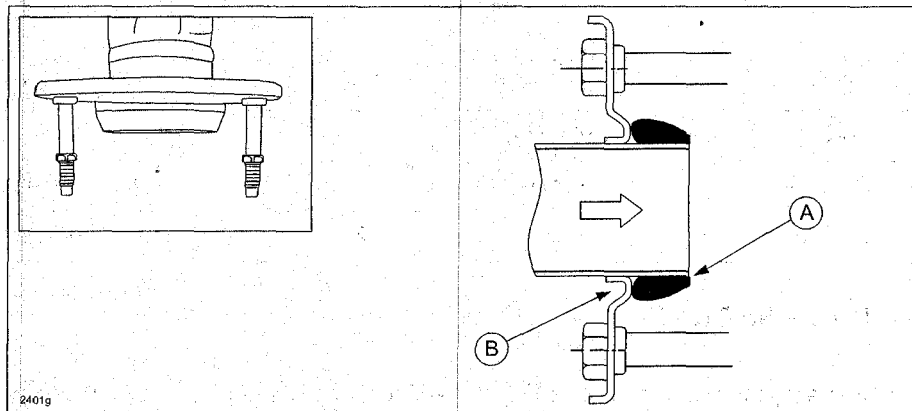
**CAUTION:** DO NOT APPLY any type of grease to the seal ring as it will harmfully effect the lubricant performance originally applied on the seal ring and the noise will recur.



14. Install the special service tool (SST) to the seal ring so that the SST is even with the flange.  
A: Installer (49 G040 004)  
B: Handle (49 G040 001)



15. Seat seal ring by lightly tapping end of special service tool with a rubber hammer.  
16. Push in seal ring (A) until edge of it contacts flange (B).



17. Assemble converter to seal ring according to the Workshop Manual or MS3 online instructions (section 01-15A EXHAUST SYSTEM REMOVAL/INSTALLATION [MZR 1.5]).

**NOTE:** Failure to follow the instructions may result in rattle noise due to misalignment of exhaust system.

18. Tighten the stud nuts.

**Tightening torque: 38-52 Nm (3.9-5.3 kgf-m, 29-38 ft-lbf)**

19. In case where the catalytic converter is replaced:

- a. Temporarily assemble the TWC with the manifold by hand tightening the stud nuts.

**NOTE:** Do not allow any damage on the round surface of the flare and seal ring.

- b. Install the hanger rubber of the TWC.

- c. Tighten the TWC and manifold together. (Tightening torque: 38 – 52 N.m (3.9-5.3 kgf-m, 29-38 ft-lbf)).

- d. Temporarily assemble the TWC and main silencer by hand tightening the stud nuts.

- e. Tighten the TWC and main silencer together. (Tightening torque: 38 – 52 N.m (3.9-5.3 kgf-m, 29-38 ft-lbf))

- f. Install the tunnel member.

- g. Check the exhaust system routing.

20. Verify repair.

**WARNING:** Exhaust leaks can allow carbon monoxide into the vehicle and cause injury or death, please go over the system and be sure there are no gas leaks at any point before returning the vehicle to the customer.

## PARTS INFORMATION

Part Number	Description	Qty.	Notes
ZYY5-40-581	Seal Ring	1	---
ZJ21-40-305A	Gasket	1	Non reusable part
9994-61-000	Nut	2	Non reusable part

## WARRANTY INFORMATION

### NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	82
Damage Code	9G
Part Number Main Cause	ZYY5-40-581 (Seal Ring)
Quantity	1
Operation Number / Labor Hours:	XXJ39XRX / 0.9 Hrs