

# Technical Service Bulletin

Mazda North American Operations  
Irvine, CA 92618-2922



<b>Subject:</b>  CHIRP NOISE FROM AUTOMATIC TRANSAXLE ON 3-4 UPSHIFT	<b>Bulletin No.:</b> 05-005/23
	<b>Last Issued :</b> 11/14/2023

## BULLETIN NOTES

This bulletin supersedes the previously issued bulletin(s) listed below. The changes are noted in Red.

Previous TSBs:	Date(s) Issued:
05-005/23	10/31/23

## APPLICABLE MODEL(S)/VINS

**NOTE:** Vehicles with cylinder deactivation have a "M" as the 8th digit in the VIN for the 2.5L with cylinder deactivation.

- 2017-2024 CX-5 (2.5L with cylinder deactivation and 6AT)
- 2018-2021 Mazda6 (2.5L with cylinder deactivation and 6AT)
- 2019-2024 Mazda3 (2.5L with cylinder deactivation and 6AT)
- 2020-2024 CX-30 (2.5L with cylinder deactivation and 6AT)

## DESCRIPTION

Some vehicles may exhibit a chirp noise (stick-slip noise) from the automatic transaxle (AT) when shifting from 3 to 4 while driving. This may be caused by the automatic transaxle fluid (ATF) being contaminated by iron powder due to excessive wearing of the lock up clutch in the torque converter.

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

## NOTE:

- **IMPORTANT:** The parts to complete a torque converter repair are available on the Limited Parts Order screen in eMDCS.
- MNAO is in the process of increasing the PDC torque converter supply and normal ordering will be available when MNAO has sufficient supply.
- Contact the DAG to place orders for additional torque converter repairs.
- DO NOT contact Hotline for MASH authorization for torque converters.

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**REPAIR PROCEDURE**

1. Verify the customer concern.

2. Remove the automatic transaxle according to the instructions on MGSS.

- 2018-2021 Mazda6 [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [FW6A-EL]]
- 2017-2020 CX-5 (2WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [FW6A-EL]]
- 2017-2020 CX-5 (4WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [FW6AX-EL]]
- 2021-2024 CX-5 (2WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [FW6A-EL]]
- 2021-2024 CX-5 (4WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [FW6AX-EL]]
- 2019-2023 Mazda3 (2WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [EV6A-EL]]
- 2019-2023 Mazda3 (4WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [EV6AX-EL]]
- 2024 Mazda3 (2WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [EV6A-EL]]
- 2024 Mazda3 (4WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [EV6AX-EL]]
- 2020-2023 CX-30 (2WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [EV6A-EL]]
- 2020-2023 CX-30 (4WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [EV6AX-EL]]
- 2024 CX-30 (4WD) [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [EV6AX-EL]]

3. Remove the torque converter according to the instruction on MGSS [AUTOMATIC TRANSAXLE DISASSEMBLY].

4. Install the new torque converter according to the instruction on MGSS [AUTOMATIC TRANSAXLE ASSEMBLY].

**CAUTION:** Make sure to check measurements of the installed torque converter as instructed in the Assembly Procedure so that it does not get damaged.

**NOTE:** The new torque converter will contain some ATF, therefore the A/T will not require 8.5 quarts when refilling for a dry A/T.

5. Install the automatic transaxle according to the instruction on MGSS, including refilling with ATF and performing the Initial Learning.

**NOTE:**

- DO NOT replace the ATF drain plug gasket at this time. The A/T will be drained and refilled 2 more times. Replace the gasket on the last refill.
- For 2023-2024 Mazda3 and CX-30 and 2024 CX-5, ATF A7 is used. Verify according to the designation on the A/T dipstick.

6. Drive the vehicle at 20 mph for 3 minutes to agitate the ATF in the torque converter, oil passage, and differential chamber that does not come out of the oil pan drain to evenly mix old and new ATF.

- If actual driving is difficult, perform the drive with the vehicle lifted up on a 2-post lift and drive at 20 mph for 3 minutes.

**NOTE:** In the case of a 4WD vehicle, warning lights may turn on when the vehicle is lifted up and driven, but this is not a malfunction. The fault code can be cleared after completing the work.

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7. Replace the automatic transaxle fluid (ATF) with new ATF according to the instructions on MGSS.

**NOTE:** Replace the ATF drain plug gasket after the last refill (2nd time).

- 2018-2021 Mazda6 (AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FW6A-EL])
- 2017-2020 CX-5 (AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FW6A-EL, FW6AX-EL])
- 2021-2024 CX-5 (AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [FW6A-EL, FW6AX-EL])
- 2019-2023 Mazda3 (AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [EV6A-EL, EV6AX-EL])
- 2024 Mazda3 (AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [EV6A-EL, EV6AX-EL])
- 2020-2023 CX-30 (AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [EV6A-EL, EV6AX-EL])
- 2024 CX-30 (AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT [EV6A-EL, EV6AX-EL])

**NOTE:** For 2023-2024 Mazda3 and CX-30 and 2024 CX-5, ATF A7 is used. Verify according to the designation on the A/T dipstick.

8. Perform Initial Learning according to the instructions on MGSS.

- 2018-2021 Mazda6 (INITIAL LEARNING [FW6A-EL])
- 2017-2020 CX-5 (INITIAL LEARNING [FW6A-EL, FW6AX-EL])
- 2021-2024 CX-5 (INITIAL LEARNING [FW6A-EL, FW6AX-EL])
- 2019-2023 Mazda3 (INITIAL LEARNING [EV6A-EL, EV6AX-EL])
- 2024 Mazda3 (INITIAL LEARNING [EV6A-EL, EV6AX-EL])
- 2020-2023 CX-30 (INITIAL LEARNING [EV6A-EL, EV6AX-EL])
- 2024 CX30 (INITIAL LEARNING [EV6AX-EL])

9. Drive the vehicle at 20 mph for 3 minutes to agitate the ATF in the torque converter, oil passage, and differential chamber that does not come out of the oil pan drain to evenly mix old and new ATF.

- If actual driving is difficult, perform the drive with the vehicle lifted up on a 2-post lift and drive at 20 mph for 3 minutes.

**NOTE:** In the case of a 4WD vehicle, warning lights may turn on when the vehicle is lifted up and driven, but this is not a malfunction. The fault code can be cleared after completing the work.

Approximate time: 10 minutes for initial learning (step 8) and 3 minutes for actual driving (step 9).

10. Repeat steps 7 to 9 one more time.

**NOTE:**

- ATF replacement is performed 3 times in total, once at A/T installation and 2 more drain and refills.
- Initial Learning is performed 3 times in total, once at A/T installation and 2 more times after the drain and refill.
- Make sure to dispose of/recycle the used fluid in accordance with federal and local guidelines.

11. Verify the repair by checking if the chirp noise has disappeared.

- If the chirp noise occurs again, contact the Technical Hotline.

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**PARTS INFORMATION****NOTE:**

- **IMPORTANT:** The parts to complete a torque converter repair are available on the Limited Parts Order screen in eMDCS.
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**CONVERTER, TORQUE**

Part Number	Description	Q'ty	Notes
FZC1-19-100A	CONVERTER, TORQUE	1	For FZ ATF
FZC6-19-100	CONVERTER, TORQUE	1	For A7 ATF

**Replacement Parts****Mazda6**

Part Number	Description	Q'ty	Notes
B455-32-099B	BOLT, SHAFT	1	Joint Bolt A (Lower), Intermediate shaft
PE13-15-296	CONNECTOR	1	for AT Oil Cooler Hose
T060-26-169A	PIN, SNAP	2	for Tie-rod End
D651-33-042A	NUT	2	for Drive Shaft
H010-25-421A	CLIP	1	for Drive Shaft
99564-1400	GASKET	1	for ATF Drain Plug
-	GREASE	1	for Steering Knuckle

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**CX-5**

Part Number	Description	Q'ty	Notes
B455-32-099B	BOLT, SHAFT	1	Joint Bolt A (Lower), Intermediate shaft
PE13-15-296	CONNECTOR	1	for AT Oil cooler hose
T060-26-169A	PIN, SNAP	2	for Tie-rod end
D651-33-042A	NUT	2	for Drive Shaft
H010-25-421A	CLIP	1	for Drive Shaft
PY01-13-460	GASKET	1	for Exhaust Manifold [4WD]
PE23-40-305	GASKET	1	for TWC [4WD]
99946-1000	NUT	2	for TWC [4WD]
99564-1400	GASKET	1	for ATF Drain Plug
-	GREASE	1	for Steering Knuckle

**Mazda3 and CX-30**

Part Number	Description	Q'ty	Notes
B455-32-099B	BOLT, SHAFT	1	Joint Bolt A (Lower), Intermediate shaft
PE13-15-296	CONNECTOR	1	for AT Oil cooler hose
T060-26-169A	PIN, SNAP	2	for Tie-rod end
D651-33-042A	NUT	2	for Drive Shaft
H010-25-421A	CLIP	1	for Drive Shaft
PY01-13-460	GASKET	1	for Exhaust Manifold [4WD]
PE23-40-305	GASKET	1	for TWC [4WD]
99946-1000	NUT	2	for TWC [4WD]
99564-1400	GASKET	1	for ATF Drain Plug
-	GREASE	1	for Steering Knuckle

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**ATF and Engine Coolant**

Part Number	Description	Q'ty	Notes
0000-FZ-113E-01	ATF FZ	-	Actual amount 10 L (US 1 0.6 qt)
0000-A7-115-QT	ATF A7	-	Actual amount 10 L (US 1 0.6 qt)
5555-CL-002	MAZDA COOLANT FL22	-	Actual amount 2 L (US 2 .1 qt)

**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 Powertrain Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.
- **Submit Warranty Claims directly to Warranty. DO NOT submit to Technical Hotline.**

Warranty Type	A
Symptom Code	82
Damage Code	9W
Part Number Main Cause	****-19-100
Quantity	1
Operation Number / Labor Hours:	XXWGCARX / 7.3 Hrs (Mazda6) XXWGCARX / 7.7 Hrs (CX-5 2WD) XXWGCBRX / 10.0 Hrs (CX-5 4WD) XXWGCARX / 7.5 Hrs (Mazda3 and CX-30 2WD) XXWGCBRX / 9.7 Hrs (Mazda3 and CX-30 4WD)

**NOTE:**

- Claim Replacement Parts, ATF and Engine Coolant as related parts.
- Labor hours include time for a front wheel alignment check and adjustment.

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