



GROUP	MODEL
CHA	2018-2021MY Applicable Models with C-MPDS
NUMBER	DATE
111	October 2021

TECHNICAL SERVICE BULLETIN

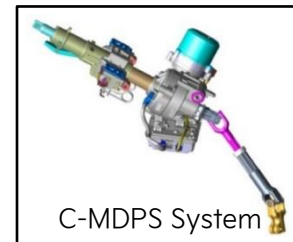
SUBJECT: REPLACEMENT OF MOBIS C-MDPS SMALL BEARING

This bulletin provides the procedure to replace the small bearing of the Column Motor Driven Power Steering (C-MDPS) unit on the vehicles listed below, which may exhibit an abnormal noise when steering left and right. This may be caused by foreign substances in the MDPS worm shaft small bearing. On some vehicles when the steering wheel is rotated a scraping noise can be heard originating from the lower bearing on the Worm Gear Small Bearing and does not affect the steering effort. Follow the procedure outlined in this publication to replace the C-MDPS worm shaft small bearing with one from a different manufacturer.

Note: Refer to Video below for an example of Worm Shaft Bearing Noise.



[Video: Example of Worm Shaft Bearing Noise](#)



Model		Model Year	Production Date Range
Cadenza	YG	2018-2021	July 11, 2017 through October 15, 2020
Forte	BDm	2019-2021	July 9, 2018 through July 28, 2021
	YD	2018	July 25, 2017 through April 30, 2018
	YDm		May 25, 2017 through July 27, 2018
K5	DL3a	2021	March 27, 2020 through December 15, 2020
Niro	DE	2018-2021	July 24, 2017 through May 31, 2021
	DE EV		December 5, 2018 through May 20, 2021
	DE PHEV		September 26, 2017 through May 19, 2021
Optima	JF	2018-2020	May 10, 2017 through April 5, 2018
	JFa		April 18, 2017 through June 23, 2020
	JF HEV		July 11, 2017 through October 28, 2019
	JF PHEV		July 11, 2017 through May 30, 2019
Sorento (Uma)	UMa	2018-2020	March 31, 2017 through November 4, 2020
Soul	PS	2018-2019	April 3, 2017 through December 24, 2018
	PS EV		July 3, 2017 through September 28, 2018

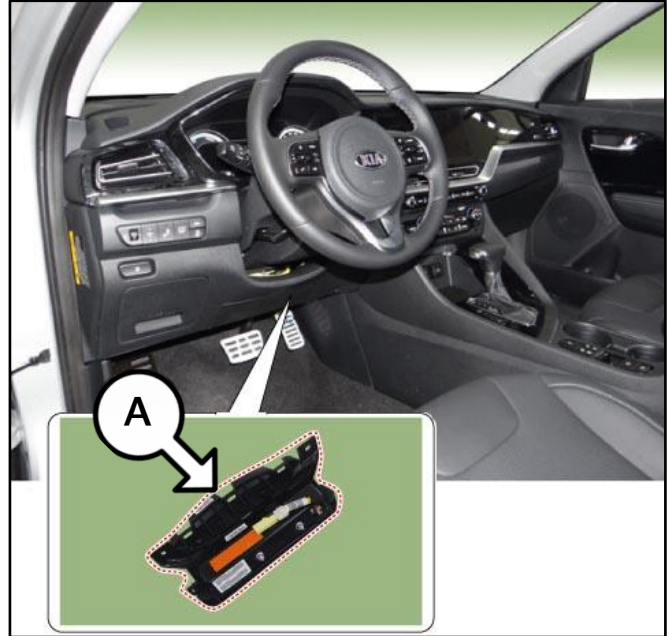
A printed copy is for reference only; publication information can be updated at any time. Always refer to KGIS for the latest information. After logging in kdealer.com, the newest technical publications are listed in 'Service Releases' and has the latest service information that has been released.

Replacement Procedure:

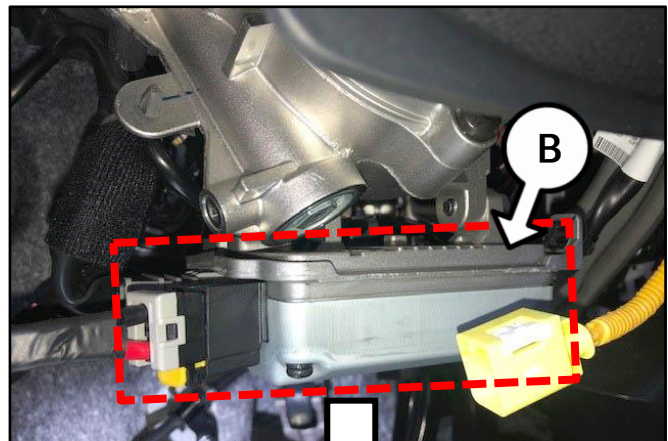
1. Turn the steering wheel so that the front wheels are facing straight ahead.
2. Disconnect the negative (-) battery terminal.
3. Remove the driver's side knee airbag (A) by referring to the "Restraint → Airbag Module → Knee Airbag (KAB) Module → Repair procedures" chapter in the applicable Shop Manual on KGIS.

CAUTION

To prevent injuries from accidental inflation of the airbag, place the removed airbag module in a safe place with the cover side facing up.




4. Disconnect and lower the power steering ECU (B) as shown. If necessary, remove the ECU to access the bearing location.

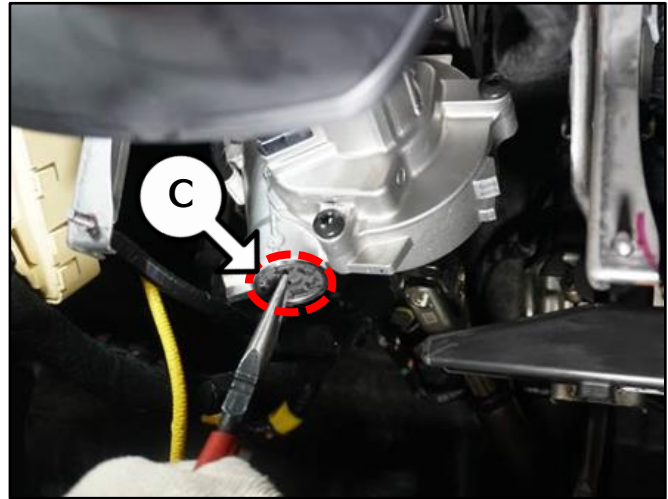


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REPLACEMENT OF MOBIS C-MDPS SMALL BEARING

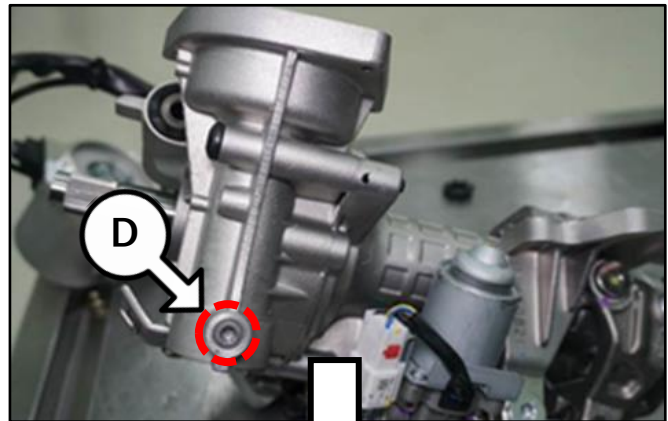
5. DL3a (shown): Remove the end cover (C).
PS/PS EV: Remove the cover plate.
All except DL3a and PS/PS EV: Remove the cover and plate.

Model	Item to Remove	
DL3a	End Cover	
PS/PS EV	Cover Plate	
All others	Cover & Plate	



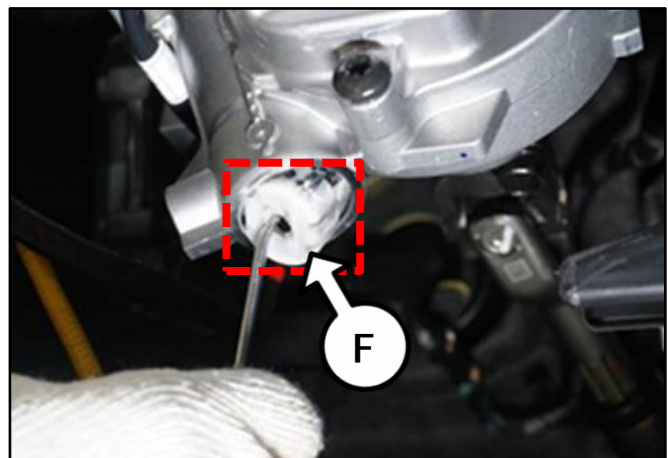
6. Loosen the 5mm hex plug (D) and then remove the anti-rattle plug assembly (E).

Note: The anti-rattle plug assembly may also be called an anti-rattle spring or ARS.



7. Remove the sliding damper (F) using a screwdriver.

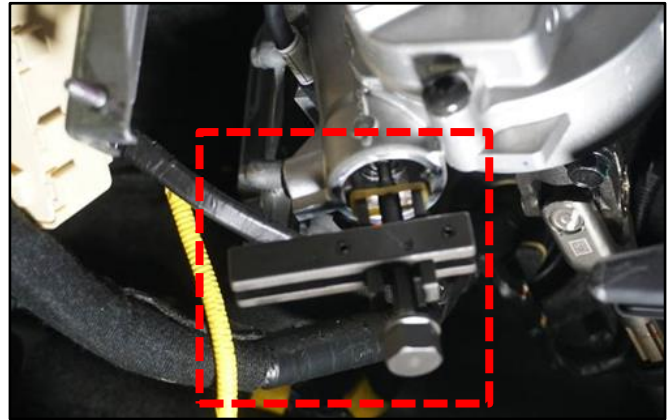
- For PS/PS EV, remove the O-ring.



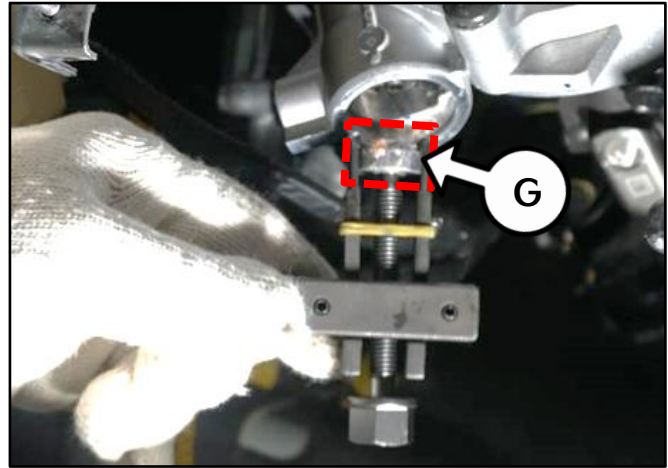
- 8a. Engage the MDPS small bearing remover SST (OK563 L2100) to disconnect the bearing.



[MDPS Small Bearing Removal Video](#)



- 8b. Remove the small bearing (G).



- 9. Remove the existing grease around the area where the small bearing was installed using the paper stick provided in the Small Bearing Kit.

NOTICE

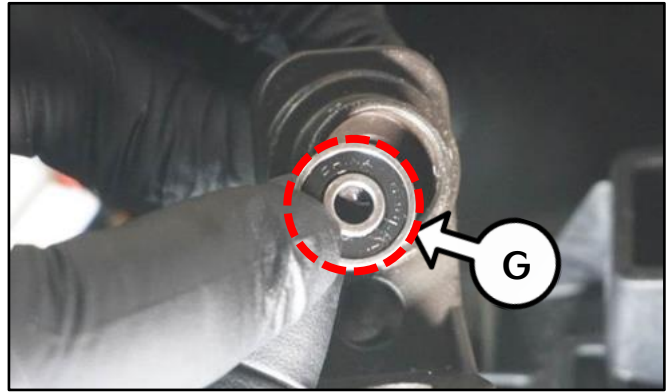
If the old grease is not removed, it may cause an abnormal noise while steering.



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10. Insert the new small bearing (G) into the MDPS Small Bearing Mounting Tool SST (OK563 L2200).



11. Fasten the mounting tool SST to the anti-rattle plug assembly opening in the C-MDPS housing with the bolt, and hand tighten.



12. Install the small bearing as shown using a torque wrench.

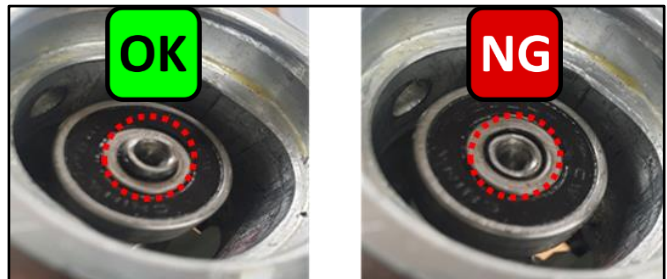


Tightening torque for Small Bearing:
2.2 lb.ft (3.0 N.m) or less

CAUTION

To prevent damaging the small bearing, do NOT use an electric tool.

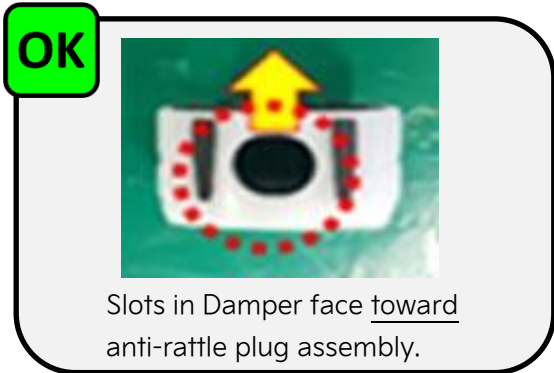
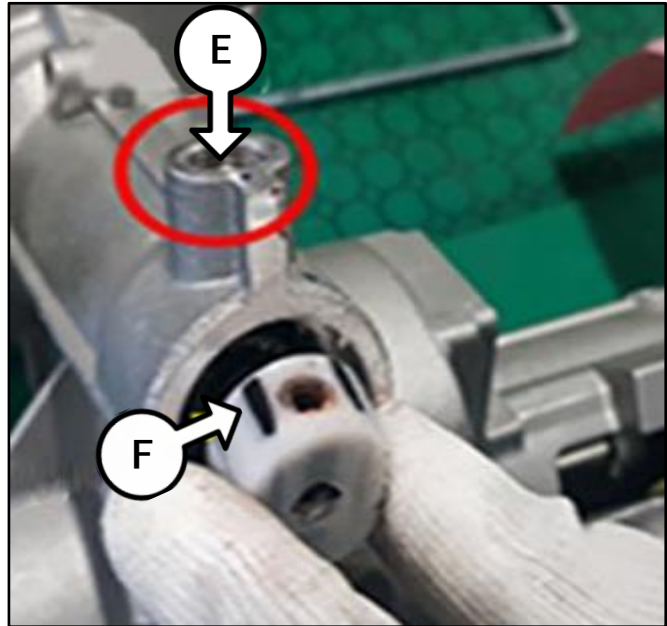
Visually check the condition of the anti-rattle plug assembly after installation. Refer to Video above, and the **OK** and **NG** photos at right.




[MDPS Small Bearing
Installation Video](#)

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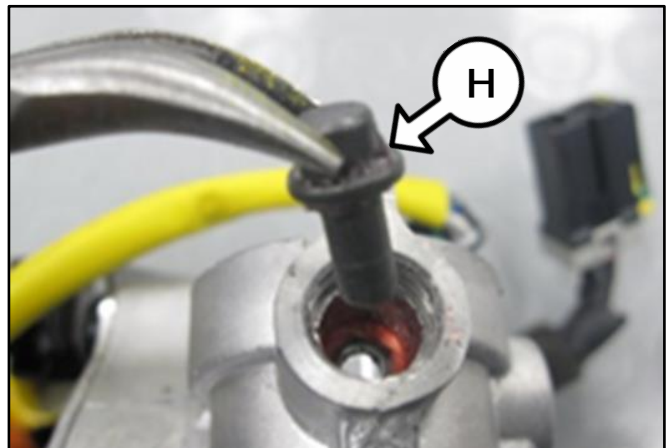
13. Reinstall the sliding damper (F) as shown.
- The slots in the damper (F) should face toward the anti-rattle plug assembly (E) as shown (OK).
 - If damper is installed in the wrong direction (NG), this may cause abnormal noise or stiffness when steering.



14. Reinstall the anti-rattle plug assembly, inserting the sliding pin (H) in the direction shown.



Tightening torque for Anti-Rattle Plug Assembly:
7.2 - 9.4 lb.ft (9.8 - 12.8 N.m)



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15. Install the parts as specified below for each model.
- DL3a, PS/PS EV: Replace the cover with a new one from the Small Bearing Kit.
 - All except DL3a and PS/PS EV: Reuse the existing cover.

	DL3a	PS/PS EV	All Others
Replace Parts	 Bearing (Φ19)  Sliding Damper  End Cover	 Bearing (Φ19)  O-Ring  Cover Plate	 Bearing (Φ19)  Sliding Damper
Reuse Parts	N/A	N/A	 Cover and Plate

16. Reinstall all removed parts.
17. Test drive vehicle to confirm proper operation, and no abnormal noise while steering.

REPLACEMENT OF MOBIS C-MDPS SMALL BEARING

AFFECTED VEHICLE RANGE:









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Soul	PS	2018-2019	April 3, 2017 through December 24, 2018
	PS EV		July 3, 2017 through September 28, 2018

REQUIRED TOOL:

Tool Name	Tool Number	Figure
MDPS Small Bearing Removing Tool	OK563 L2100	
MDPS Small Bearing Mounting Tool	OK563 L2200	

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Part Name	Part Number	Figure	Comments	Qty.
Small Bearing Kit	56359 L1AAAFF	   Bearing (Φ19) Sliding Damper End Cover  Paper Stick	<ul style="list-style-type: none"> DL3a: Replace End Cover with new part* All models <u>except</u> DL3a and PS/PS EV: Reuse existing Cover and Plate* 	1
	56359 B3AAAFF	   Bearing (Φ19) Sliding Damper Cover Plate  Paper Stick	For PS/PS EV Only*	1

*Refer to Replacement Procedure for more details on which parts to replace/reuse for each model.

WARRANTY INFORMATION:**N Code: Q55 C Code: ZZ2**

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
YG, YD/YDm, BD/BDm, DL3a, DE EV/HEV/PHV, JF/JFa/JFE, UM/UMa	W	Use Column Assembly Part No. by using VIN Look-up on EPC	0	Replacement of C-MDPS Small Bearing	56352F01	0.6 M/H	56359 L1AAAFF	1
PS, PS EV							56359 B3AAAFF	1