

# Quality Connection

Dedicated to Quality Kia Vehicle Repairs

SPRING 2018 VOL. 13 | NO. 1

## 2019 SORENTO

Shown with optional features

[www.kia.com](http://www.kia.com)



### COVER ALL BASES

Replacing the E-CVVT cover and motor plug can subdue DTC and oil leak

### AGAINST THE WIND

Front door glass run channel replacement can eliminate noise

### QUESTION OF THE DAY...

Why not replace the cabin filters for your customers?



Genuine Part



# Breaking the compact car mold

All-new Forte offers excellent combination of comfort, fuel efficiency and advanced tech

**E**ntering its third generation as one of Kia's best selling vehicles, the all-new Forte breaks the mold of what compact cars have been. Introduced at the recent North American International Auto Show, the 2019 Forte offers drivers a higher level of comfort and advanced driver assistance technologies that are aimed to make the journey — whether a short commute or long haul — a more rewarding and decidedly upscale experience.

The Forte has evolved with a number of visual and feature enhancements, inside and out. The cabin is a “class above” by offering more comfort and integrating new driver assistance technology. Moreover, space has been expanded in several key areas so passengers are treated to a comfortable space no matter how long the journey. Outside, the Forte enhances its sporty and youthful image by taking design cues from the Kia Stinger.

And, of course, communication technology abounds featuring an 8-inch color touchscreen with support for Android Auto™ and Apple CarPlay® that's integrated neatly on the dash and within the driver's



Label the 2019 Forte a “class above.”

line of sight. With select smartphone devices, the system also has the capability to read SMS texts aloud through Bluetooth®. Eliminating the need for a charging cord is an available wireless charging tray perched on the center stack for compatible Android devices, as well as Apple iPhone 8 and iPhone X.

Housed underneath the Forte's longer hood is a second-generation 2.0-liter Nu four-cylinder engine that benefits from Atkinson Cycle technology and a cooled EGR system. Typically applied to hybrid and electric vehicles, the Atkinson Cycle and cooled EGR technologies are designed to help boost fuel efficiency. The new powerplant can be paired with either a six-

speed manual or Kia's all-new Intelligent Variable Transmission (IVT). The engine and in-house-built IVT are the first of a new line of highly efficient “Smart Stream” powertrains that will make their way into the Kia lineup in the future.

“The compact sedan segment is highly competitive, but with all the improvements the new Forte brings to market for the 2019 model year, it is more than prepared to take on the toughest the segment has to offer,” said Orth Hedrick, Vice President, Product Planning, Kia Motors America.

Standard features and desirable amenities in the compact sedan segment continue to be available across three trims – LX, S and EX – with the model line continuing to expand throughout its lifecycle.

With your service expertise, we are confident that you will help keep the new Forte on the road for many years to come.

## Kia Motors America, Inc.

*All trademarks and tradenames are the property of their respective owners. 2019 Forte EX prototype shown with optional features. Not all optional features available on all trims. Some features may vary. Expected availability fall 2018.*

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### Question of the day...

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# A Genuine Part of You.



When your customers are behind the wheel,  
Kia is more than just the sum of its parts.

Your customers and Kia are built for each other, and Genuine Kia replacement parts bring the superior quality and fit that they've come to expect. Backed by the Kia warranty,\* **Genuine Kia Parts** and **Genuine Kia Remanufactured Parts** give added confidence on the road. Customers work hard, Genuine Kia Parts work even harder."



Genuine Parts

\* Kia Genuine replacement parts (except battery) sold by an Authorized Kia Dealer under warranty are covered for the greater of (1) the duration of the New Vehicle Limited Warranty or (2) the first 12 months from the date of installation of the Kia Genuine replacement parts or 12,000 miles. Labor charges not included when not installed by an Authorized Kia Dealer. Warranty is limited. See Kia's Replacement Parts and Accessories Limited Warranty for further details.



# Cover all bases

Replacing the E-CVVT cover and motor plug can subdue DTC and oil leak



You may encounter some 2016-2017MY Optima (JF, JFa), 2016-2017 Sorento (UMa), and 2017 Sportage (QL) vehicles, equipped with 2.4L GDI or 2.0T-GDI that may exhibit a malfunction indicator light (MIL) ON with DTC P001000 and/or oil leakage in the E-CVVT motor cover. If you do, we recommend inspecting and/or replacing the E-CVVT cover or O-ring and replacing the motor plug as outlined in this article.

*Notice: A video clip is available to aid technicians in completing this repair. Access the Tech Videos in the Publication section of Kia Global Information System (KGIS) and look under Engine Mechanical System for “[VID012]2016 Sorento (UMa), Optima (JFa), Sportage (QL) - E-CVVT Cover & Motor Plug Installer.”*

**AFFECTED VEHICLE RANGE:**

Model	Production Date Range
Optima (JF)	From October 27, 2014 to June 14, 2016
Optima (JFa)	September 4, 2015 through March 6, 2017
Sportage (QL)	December 10, 2015 through September 12, 2016
Sorento (UMa)	October 29, 2014 through October 11, 2016

» This and other technical information is available at [www.Kiatechinfo.com](http://www.Kiatechinfo.com).

» All images are for illustration purposes only.

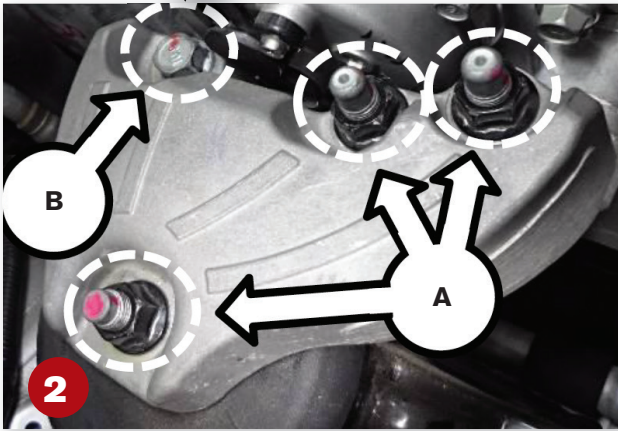
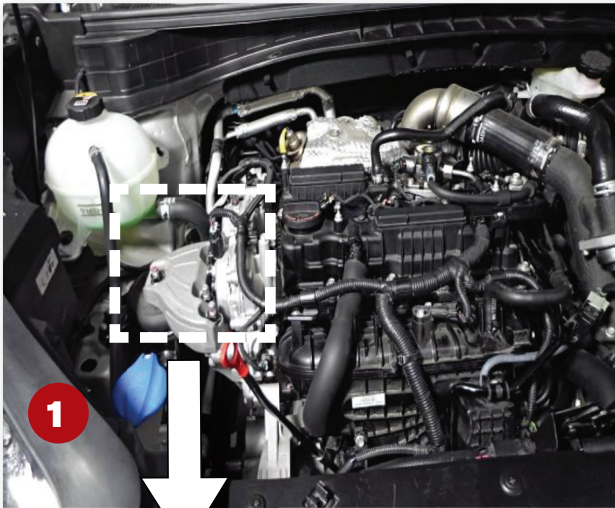
**REQUIRED TOOLS**

Part Name	Part Number	Figure			Remarks
		A	B	C	
SST	09243 C1000			N/A	A. E-CVVT Plug Installer B. E-CVVT Plug Cover Installer
SST	09243 C2000				A. E-CVVT Plug Installer B. E-CVVT Plug Cover Installer C. Handle
Brake Cleaner	UM040 CH018				Order through Kia Chemicals

**REQUIRED PARTS**

Part Name	Part Number	Figure	Remarks
Motor Plug	24351 2GGA1QQk		Brown → Black
E-CVVT Cover	24360 2GG00QK		Center boss height tolerance changed Replace if necessary
O-Ring	24365 2GGA0QK		—





### Service Procedure

**1.** Carefully place a jack at the bottom edge of the oil pan and support the engine for removal of the engine mounts.

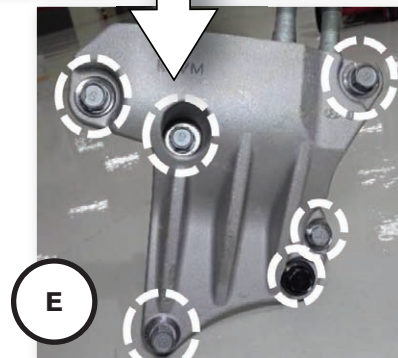
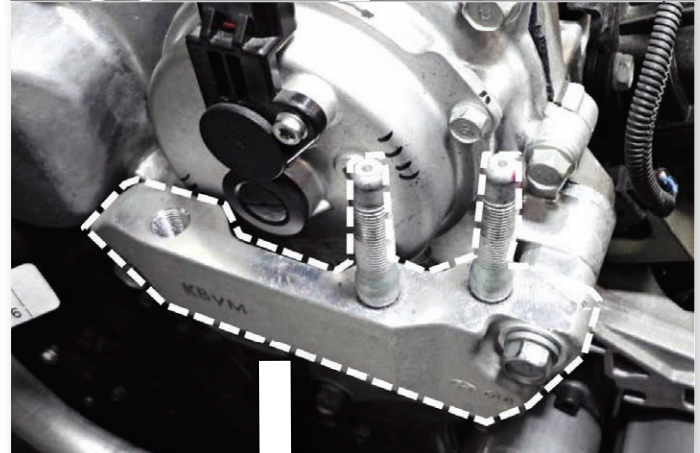
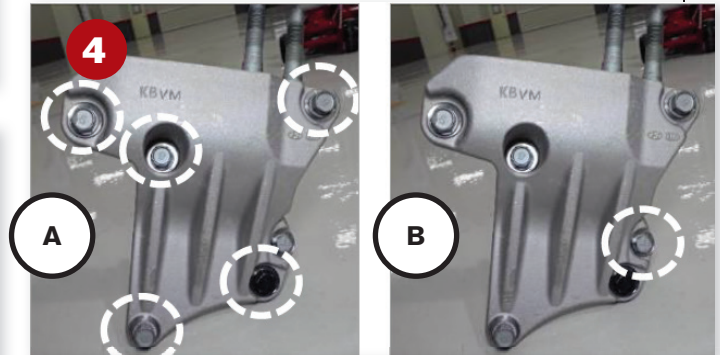
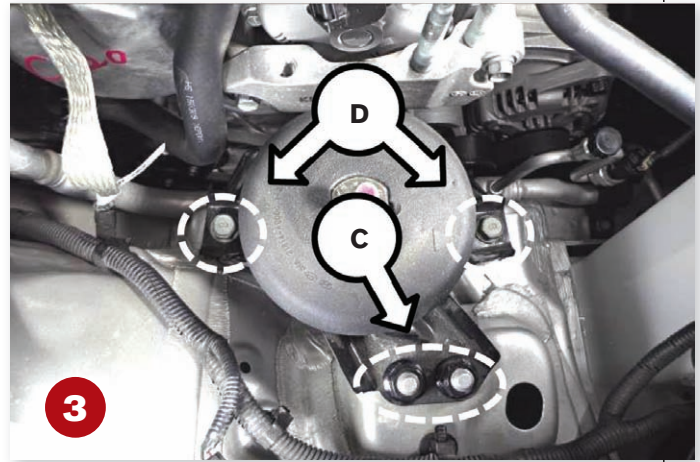
*Notice: Place a wooden or rubber block between the edge of the oil pan and the jack to prevent damaging the oil pan. Do not place block at the center of oil pan as damage can result.*

*Notice: Allow sufficient time for the oil to drain from behind the motor plug before removal of the plug in step 8.*

**2.** Loosen three engine mounting support bracket retaining nuts (A) and one retaining bolt (B).  
Tightening torque: 65.1–79.6 lb.ft (88.3–107.9 N.m)

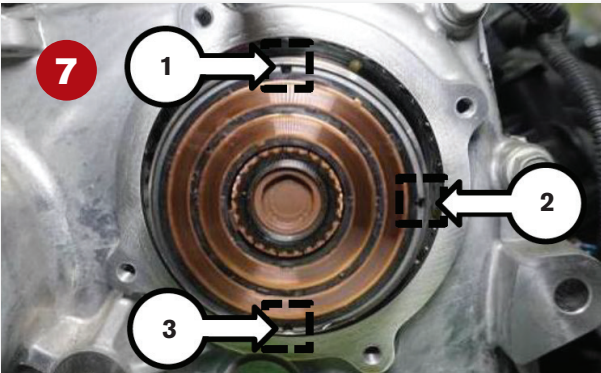
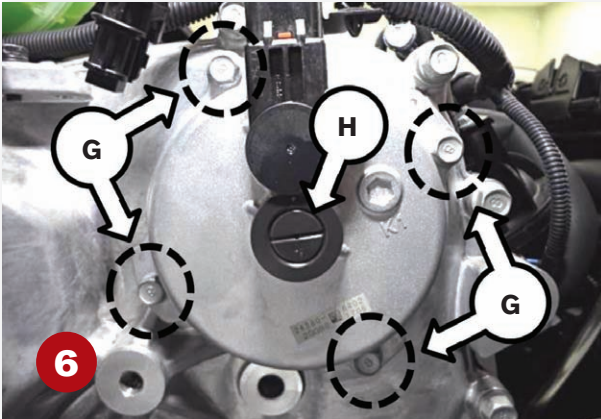
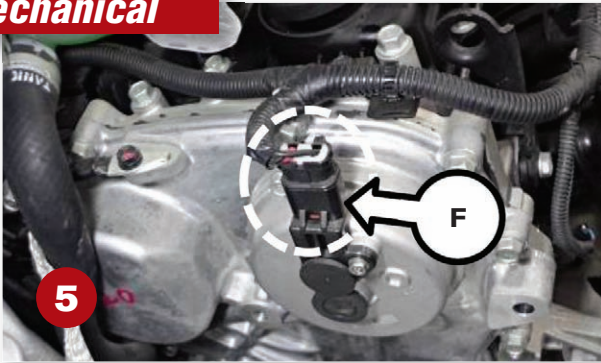
*Notice: Some engine support brackets may be different depending on vehicle configuration. Always refer to the “Engine Mechanical System → Engine and Transaxle Assembly → Engine Mounting → Repair procedures” chapter in the applicable Shop Manual on KGIS ([www.Kiatechinfo.com](http://www.Kiatechinfo.com)) for proper removal and installation instructions.*

**3.** Loosen two engine mounting bracket retaining nuts (C) and two retaining bolts (D).  
Tightening torque: 47.0–61.5 lb.ft (63.7–83.3 N.m)



**4.** Loosen six engine support bracket retaining bolts (E).  
Tightening torque: (A): 28.9–32.5 lb.ft (39.2–44.1 N.m) (B): 14.5–18.1 lb.ft (19.6–24.5 N.m)





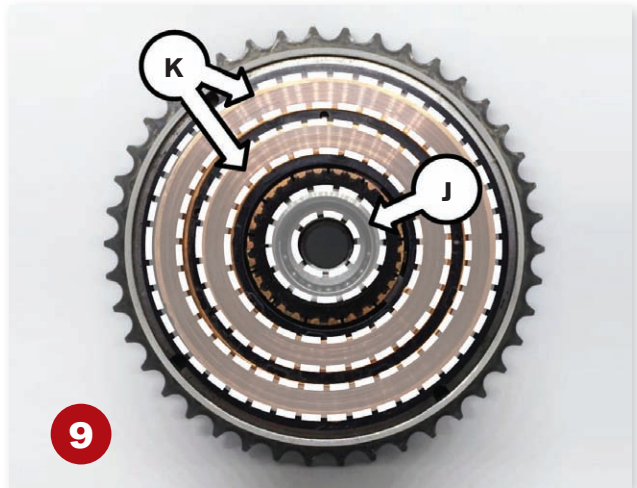
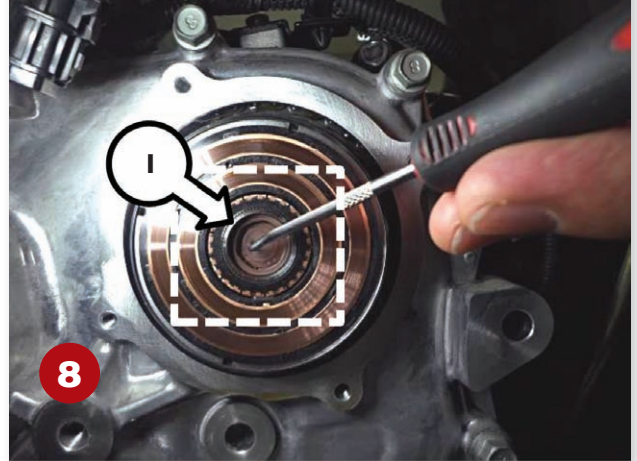
**5.** Disconnect the E-CVVT cover connector (F).

**6.** Loosen and remove the four E-CVVT cover retaining bolts (G) and then remove the E-CVVT cover. Remove the cover plug (H) using a non-marring trim removal tool (such as Snap-on® Part Number PBN5 or equivalent) to avoid damaging trim pieces. Note: This cover plug will be reused. Tightening torque: 7.2–8.7 lb.ft (9.8–11.8 N.m)

**7.** Rotate the E-CVVT assembly by hand until the three holes are aligned as shown.

- Hole 1 at the top (12 o'clock)
- Hole 2 at 45 degrees of Hole 1
- Hole 3 at 90 degrees Hole 1

Place a clean shop towel at the bottom of Hole 3. Then using brake cleaner with a straw attachment, insert the straw into Hole 1 and carefully spray for approximately 30 seconds.



**8.** Remove the motor plug (I) by carefully breaking the center with a straight pick.

*Notice: Wipe off any oil leakage when removing the motor plug. Cover the motor shaft inlet with a clean shop towel.*

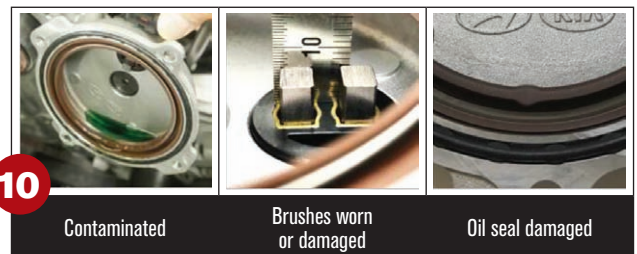
**9.** Using brake cleaner, spray directly on the motor plug assembly seat (J) inside the motor shaft and clean. Spray brake cleaner on a shop towel to wipe and clean the commutators (K).

*Notice: Remove any residual oil or fluid in the motor shaft to prevent plug from becoming displaced.*

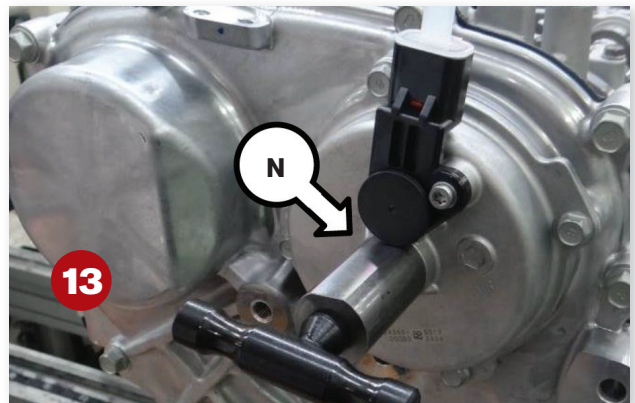
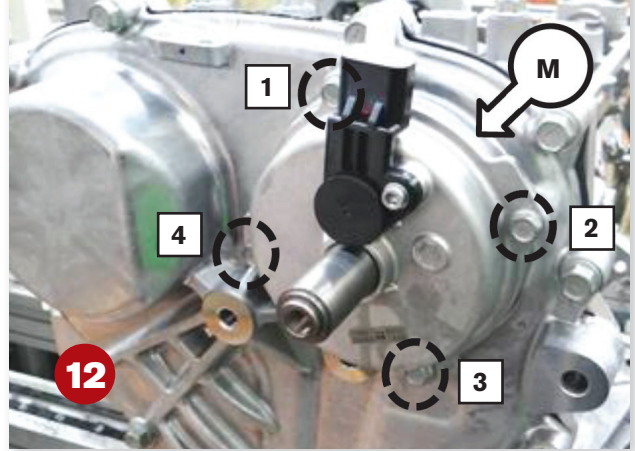
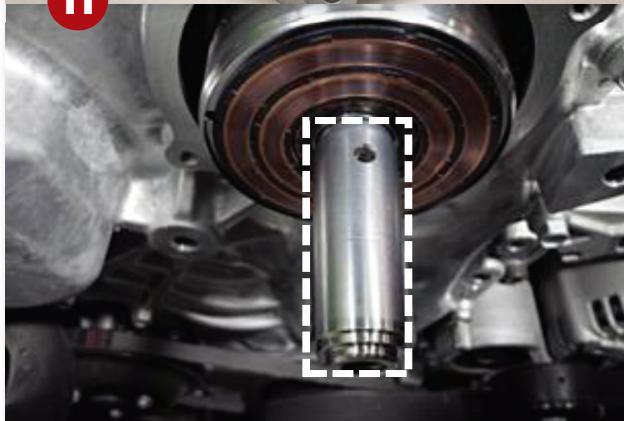
*Notice: Protect the E-CVVT as necessary to prevent oil contamination when spraying brake cleaner.*

**10.** Inspect the E-CVVT cover.

- If there is no sign of oil leakage, contamination, and/or damage, replace only the cover O-ring.
- If there is an oil leak, contamination, and/or damage, replace the cover.







SST INSERTED INCORRECTLY      SST INSERTED CORRECTLY



E-CVVT removed from vehicle for demonstration only purposes.

**11.** Apply oil to the oil seal lip (L) of the E-CVVT cover and install the SST "B" to the E-CVVT motor as shown.

*Notice: When installing the cover, correctly insert the end of the SST to the motor shaft as shown below. Ensure that the SST hole faces towards the motor shaft.*

*Notice: Use caution not to fold the oil seal when installing the cover.*

**12.** Install the E-CVVT cover (M) and perform initial tightening sequence of the E-CVVT cover to the specified torque in the sequence below.

Tightening torque: 8.4–16.8 lb.in (1.0–2.0 N.m)

*Notice: Tighten the retaining bolts in this sequence: 1 → 3 → 4 → 2*

**13.** Install the new motor plug (N) by using the SST "A" of Required Tools.

*Notice: Insert the plug onto the SST and then insert the SST into the E-CVVT cover opening.*

*Notice: Do not apply impurities (oil, cleaners) on the motor plug.*

**14.** Remove the SST and perform final tightening sequence of the E-CVVT cover retaining bolts to the specified torque in the sequence below. Reinstall the cover plug (H) removed in step 6. Tightening torque: 7.2–8.7 lb.ft (9.8–11.8 N.m)

*Notice: Tighten the retaining bolts in this sequence: 1 → 3 → 4 → 2*

Reinstall all removed components by reversing the order of removal. Start and run the engine to confirm proper operation, no oil leakage, and clear any related DTC(s). **KIA**






# Against the wind

Front door glass run channel replacement can eliminate noise



 Some Sedona (VQ) vehicles, produced from June 15, 2005 through May 6, 2013, may experience some highway wind noise caused by front door glass channel deformation. To correct this concern, follow the procedure outlined in this article to replace the left and right side front door glass run channels.

**REQUIRED PART**

Part Name	Part Number	Quantity
Run Assembly Front Door Window Glass	82530 4D001QQK (LH)	1
	82540 4D001QQK (RH)	1

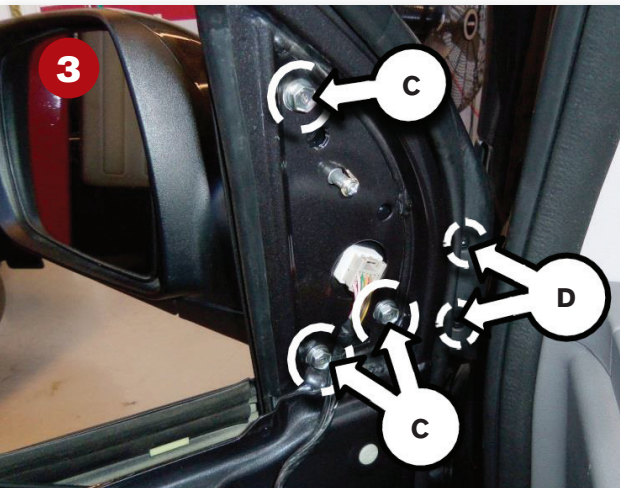
**AFFECTED VEHICLE PRODUCTION RANGE**

Model	Production Date Range
SEDONA (VQ)	From June 15, 2005 - May 6, 2013

**Service Procedure**

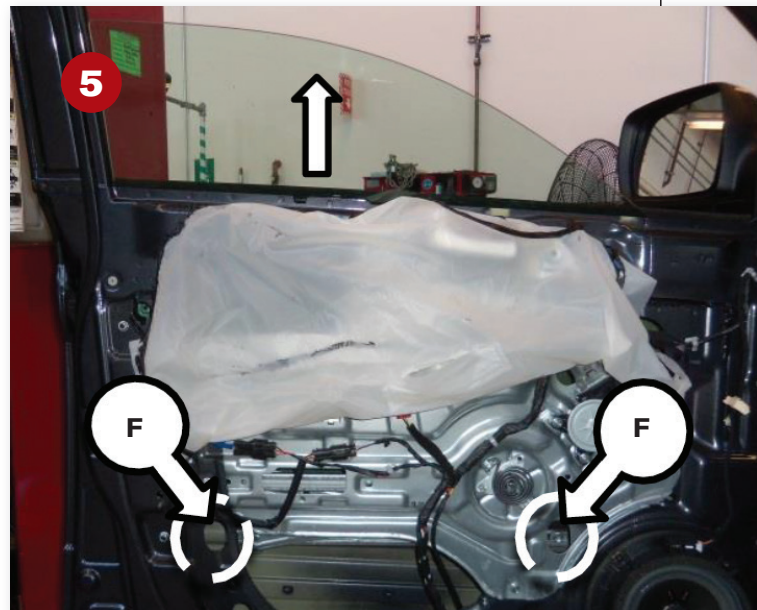
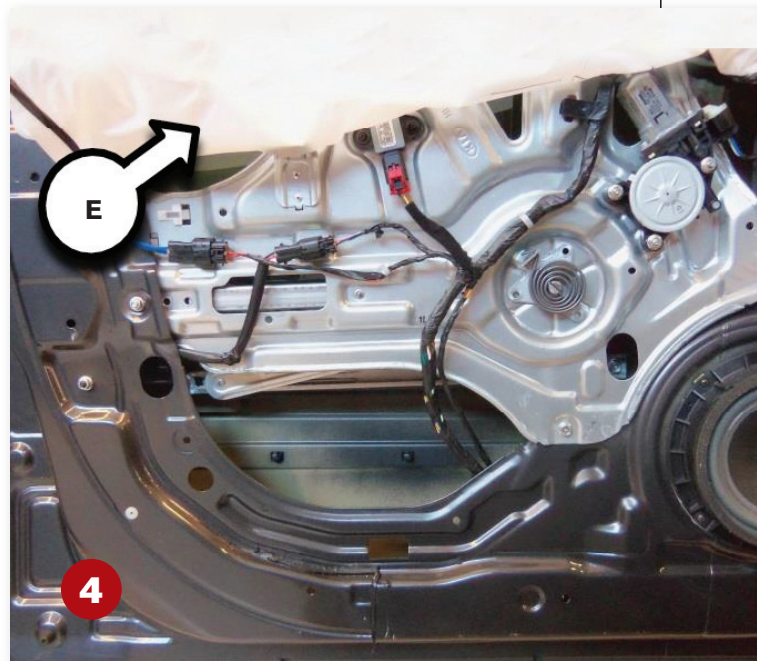
1. Lower the driver's side window. Remove the quadrant inner cover (A) from the driver's door. *Caution: Exercise caution when removing the quadrant inner cover as it can be easily damaged.*
2. Remove the door panel (B) by referring to the Service Information on Kia Global Information System ([www.Kiatechinfo.com](http://www.Kiatechinfo.com)).





**3.** Remove three bolts (C) securing the side view mirror. Also, make sure to remove two screws (D) securing the weather strip to the door frame and to disconnect the side view mirror connector.

Remove the run channel from the vehicle.



**4.** Partially remove the moisture barrier (E) from the door skin.

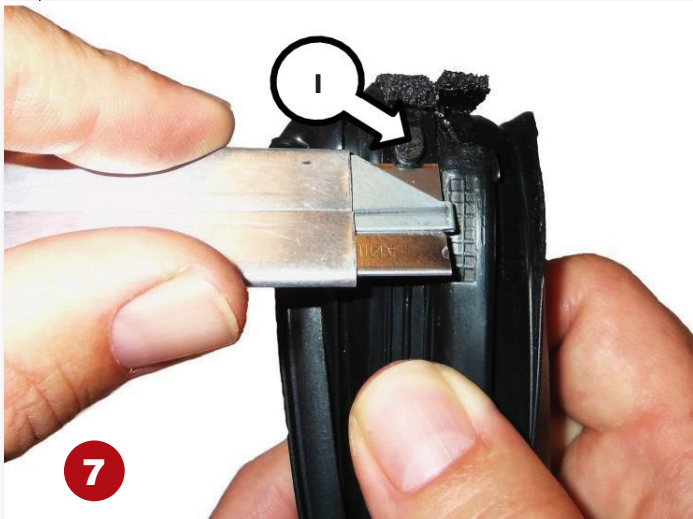
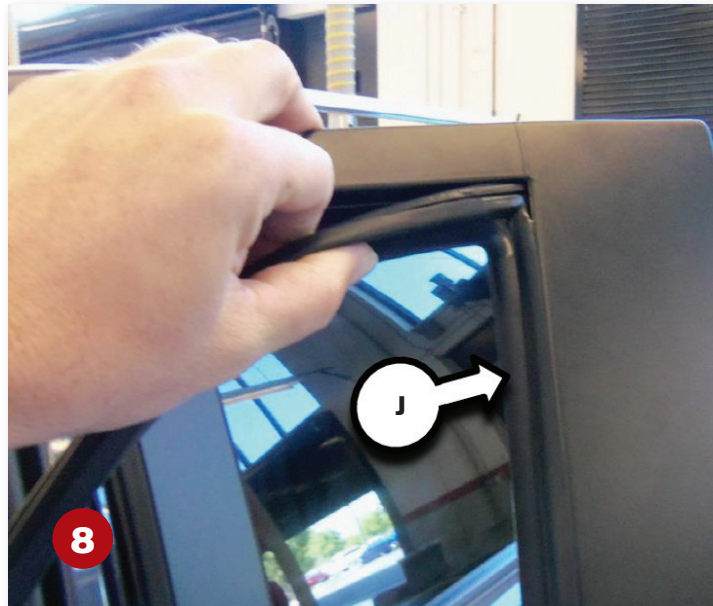
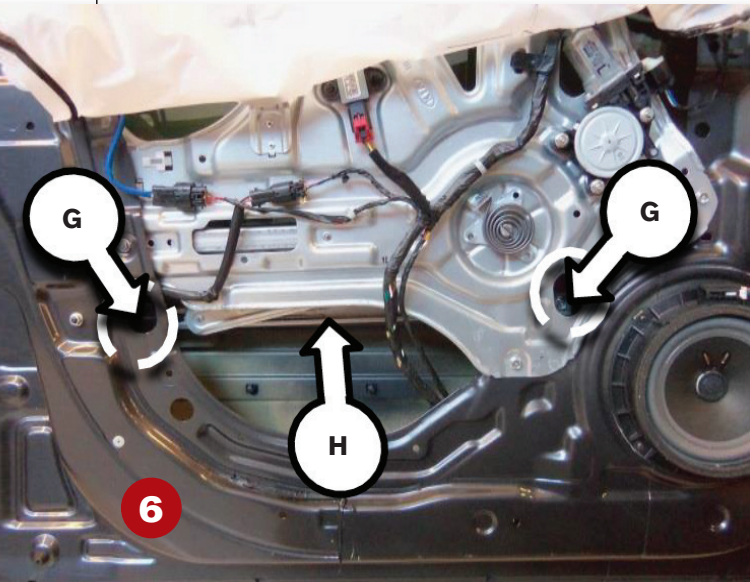
**5.** Temporarily reattach the window switch connector to the door panel. Then, raise the glass until the bolts securing the glass are visible through the mounting holes (F).

» This and other technical information is available at [www.Kiatechinfo.com](http://www.Kiatechinfo.com).

» All images are for illustration purposes only.



## Collision



**6.** Remove two bolts (G) securing the glass to the window mechanism (H) and remove the glass from the door. Tightening torque: 3.98 lb-ft (1.8 Nm)

**7.** Before installing the new run channel, make sure to cut off the projection (I) with a sharp blade, as shown.

**Caution:** Be careful not to damage the run channel when cutting off the projection (I).

**8.** Carefully install the run channel (J) around the window frame.

**Notice:** Check the run channel for proper installation in order to prevent possible water intrusion into the vehicle.

**9.** Install all other removed components by reversing the order of removal.

**Caution:** When reinserting the glass (K) into the door, avoid dropping the glass or scratching the glass surface.

Operate the window to verify proper operation.

Repeat the steps above to install the glass run channel on the opposite side of the vehicle. **KIA**





# Reliability like no other.

Nothing compares with genuine when you expect reliability.

Designed to meet the demands of Kia's specifications, look no further than Genuine Kia collision parts. Going with Kia is the best way to ensure easy installation, precision fitting, durable reliability and value. Backed by the Kia warranty,\* our parts give added confidence when you're on the road or away from it.



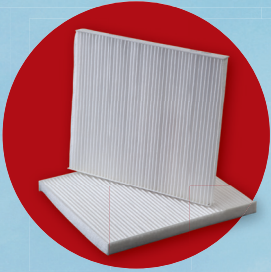
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# Question of the day...

Your customers will replace their vehicle's air filter so the engine can breathe better, so why not replace a cabin filter so they can breathe better?



The answer to that question might be that replacing a cabin filter is not top of mind for all customers. Cabin filters, which clean the air that comes into a vehicle's interior through the HVAC system, are tucked away so it's easy to overlook them.

But overlooking their replacement is not ideal, since cabin filters can catch a variety of airborne particles that customers could otherwise breathe.

An added bonus to cabin filter replacement is assuring a smoother running, more efficient HVAC system. In other words, attention to these filters may help prevent expensive repairs down the road.

And when you recommend Genuine Kia cabin filter replacements, don't forget to mention the "normal" Genuine Kia filter replacements, namely the fuel filter, air filter and oil filter. With this kind of car care, both your customers' vehicles and your customers can breathe easier.



## Genuine Parts

Contact your local  
Kia dealer today for  
assistance and delivery  
of your parts.



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