

# **Component Procedures: Camshaft Position Sensor**

## **Table of Contents**

1. Parts and Labor (itype\_189)
2. Camshaft Position Sensor (CMPS) - Description and Operation (Article 44220)
3. Camshaft Position Sensor (CMPS) - Schematic Diagrams (Article 44222)
4. Camshaft Position Sensor (CMPS) - Repair Procedures (Article 44224)
5. Camshaft Position Sensor (CMPS) - Troubleshooting (Article 44221)

# Component Procedures: Camshaft Position Sensor

## Parts and Labor (itype\_189)

### Parts

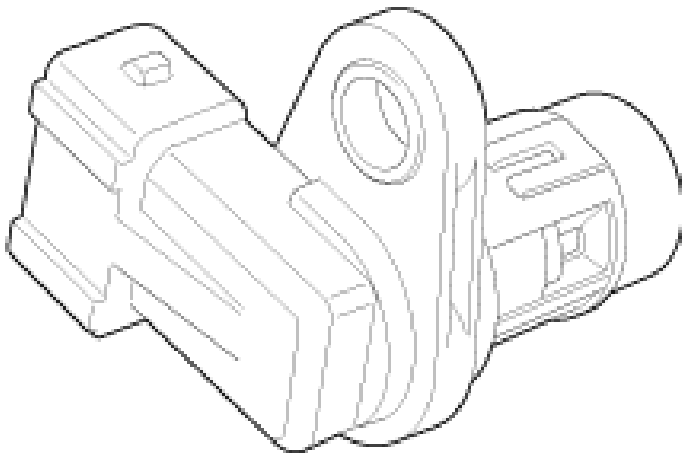
Qualifier	Part #	Name	Price	Note
Powertrain Control	393502E200	Camshaft Position Sens?	76.61	

### Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Remove & Replace	Powertrain Control > Camshaft Position Sensor?	B	0.4	0.0

## Camshaft Position Sensor (CMPS) - Description and Operation (Article 44220)

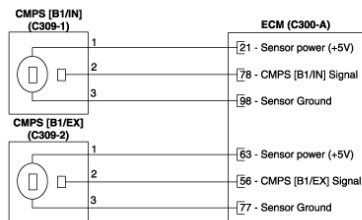
- Description



## Camshaft Position Sensor (CMPS) - Schematic Diagrams (Article 44222)

- Circuit Diagram

[Circuit Diagram]



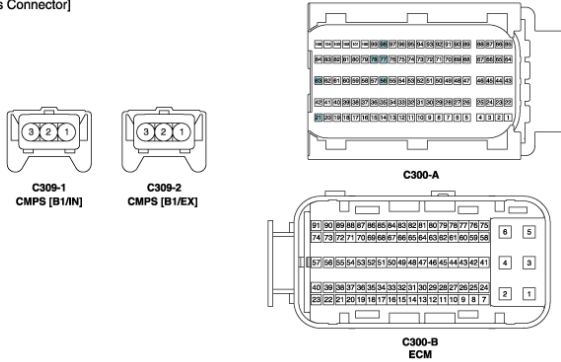
[Connection Information]

CMPS [B1/IN] (C309-1)		
Terminal	Connected to	Function
1	ECM C300-A (21)	Sensor power (+5V)
2	ECM C300-A (78)	CMPS [B1/IN] Signal
3	ECM C300-A (98)	Sensor Ground

CMPS [B1/EX] (C309-2)		
Terminal	Connected to	Function
1	ECM C300-A (63)	Sensor power (+5V)
2	ECM C300-A (56)	CMPS [B1/EX] Signal
3	ECM C300-A (77)	Sensor Ground

[Harness Connector]



## Camshaft Position Sensor (CMPS) - Repair Procedures (Article 44224)

- Inspection
- Check the signal waveform of the CMPS and CKPS using the GDS. Specification : Refer to "Wave Form"
- Removal

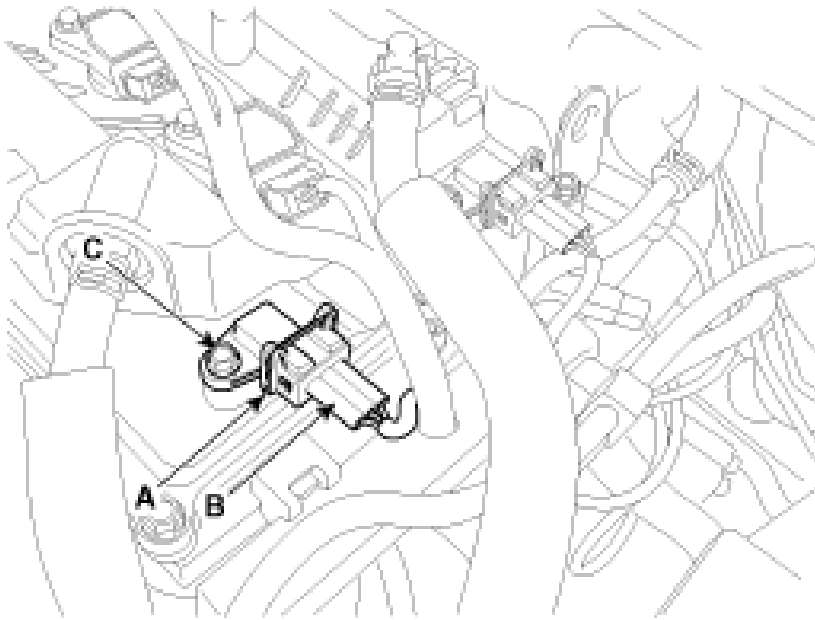
DON'T remove the camshaft position sensor during engine running or right after engine stops, or a scald by the flowed out engine oil may occur.



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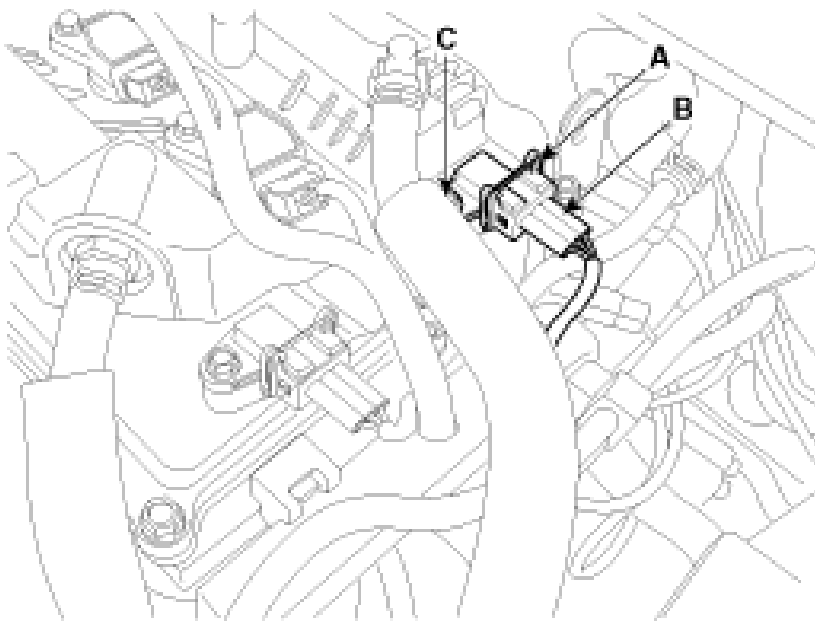
[Bank 1 / Intake]

- Turn the ignition switch OFF and disconnect the battery negative (-) cable.
- Disconnect the camshaft position sensor connector (B) after removing the clip (A).
- Remove the installation bolt (C), and then remove the sensor.



[Bank 1 / Exhaust]

- Turn the ignition switch OFF and disconnect the battery negative (-) cable.



- Installation

Install the component with the specified torques. Note that internal damage may occur when the component is dropped. In this case, use it after inspecting.



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- Insert the sensor in the installation hole and be careful not to damage when installation.
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- Be careful not to damage the sensor housing and the connector. Be careful not to damage the O-ring.
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- Be careful not to damage the O-ring.
- Installation is reverse of removal. Camshaft position sensor installation bolt : 9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)

## Camshaft Position Sensor (CMPS) - Troubleshooting (Article 44221)

- Wave Form

