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## 2021 Ford Transit-350 Service and Repair Manual

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# Camshaft Position (CMP) Sensor

303-14D Electronic Engine Controls - 5.0L 32V Ti-VCT	2022 F-150
Removal and Installation	Procedure revision date: 05/28/2020

## Camshaft Position (CMP) Sensor

### Removal

#### NOTE

Removal steps in this procedure may contain installation details.

### RH (right-hand) Camshaft Position (CMP) Sensors

#### 1. NOTE

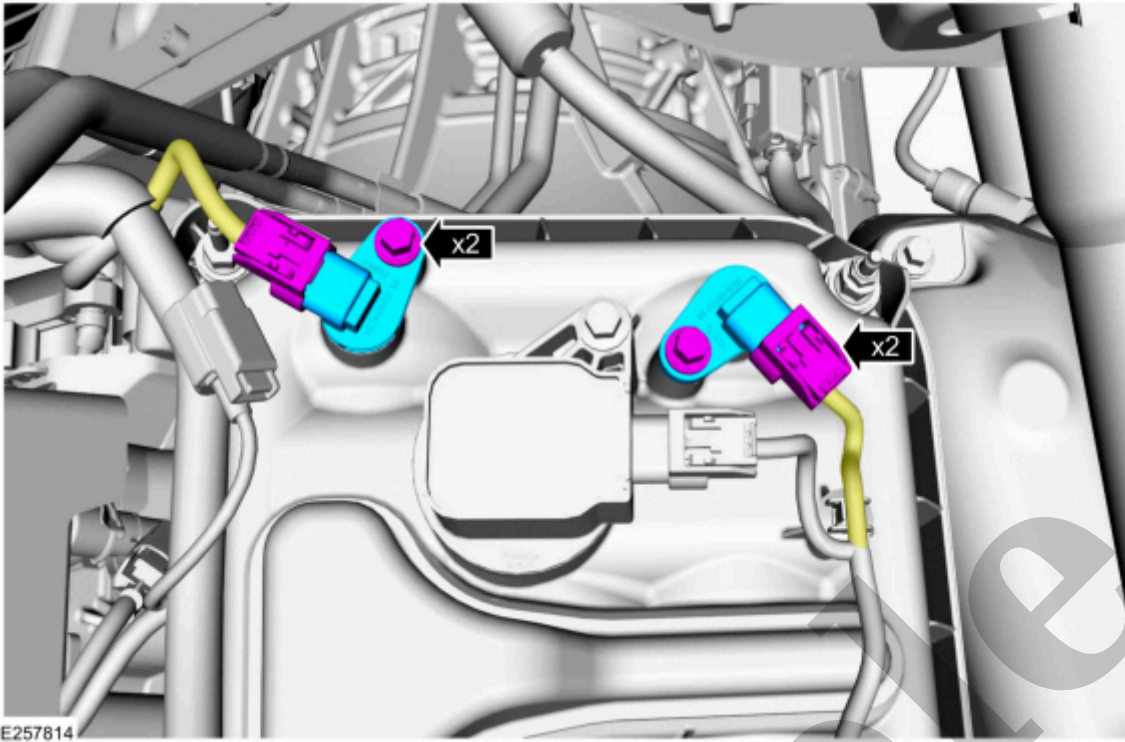
Before installation, lubricate the CMP (camshaft position) sensor O-ring seal with clean engine oil.

- Disconnect the exhaust CMP (camshaft position) sensor electrical connector and remove the retainer and the CMP (camshaft position) sensor.

**Torque** : 66 lb.in (7.5 Nm)

- Disconnect the intake CMP (camshaft position) sensor electrical connector and remove the retainer and the CMP (camshaft position) sensor.

**Torque** : 66 lb.in (7.5 Nm)



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## Installation

### NOTE

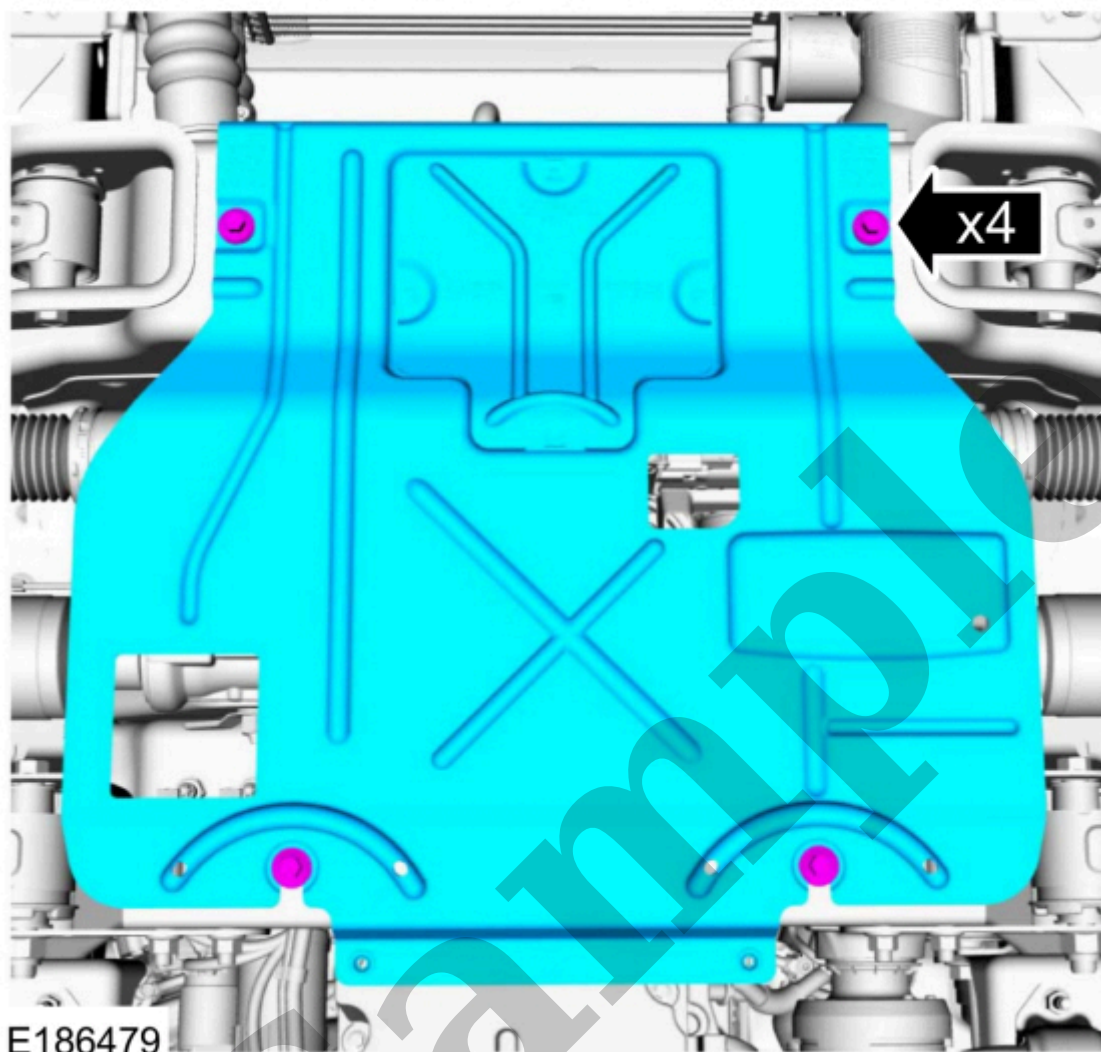
Before installation, lubricate the CMP (camshaft position) sensor O-ring seal with clean engine oil.

1. To install, reverse the removal procedure.

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3. If equipped, remove the bolts and the skid plate.



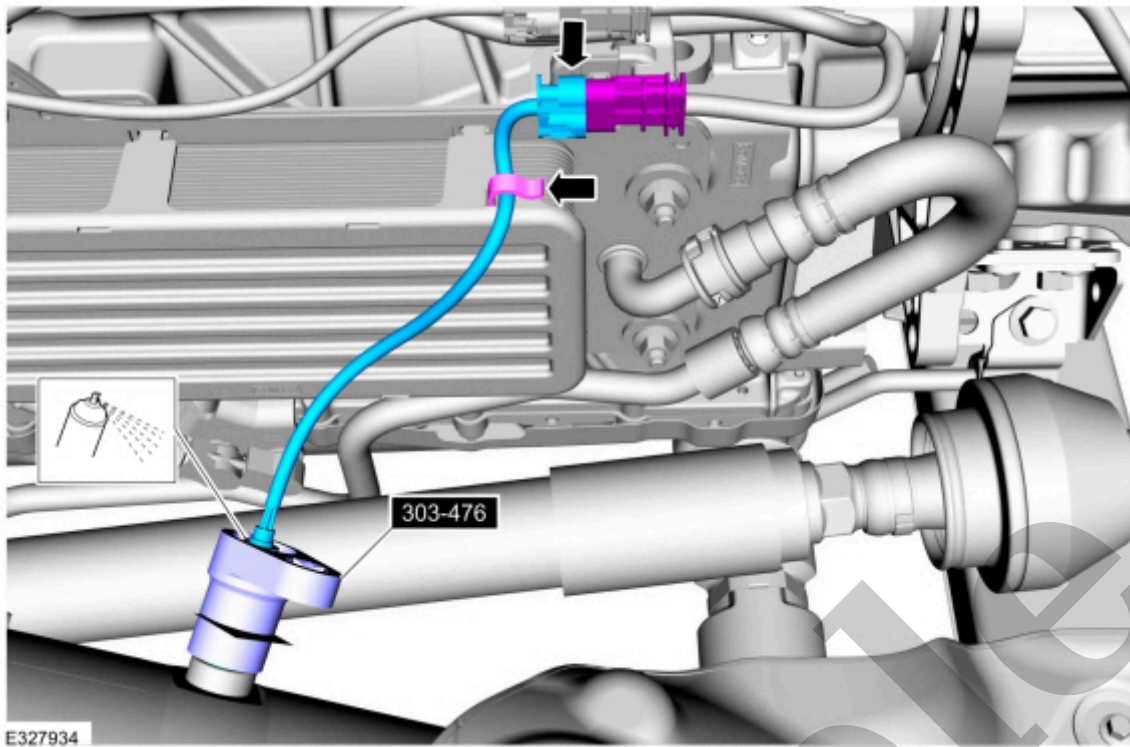
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#### **Catalyst Monitor Bank 1 Sensor 1**

4.
  - Disconnect the electrical connector.
  - Apply penetrating oil to sensor, using the special tool remove the Catalyst monitor sensor.

***Use Special Service Tool*** : 303-476 (T94P-9472-A) Socket, Exhaust Gas Oxygen Sensor

***Material*** : Motorcraft® Penetrating and Lock Lubricant / XL-1



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## Installation

### Catalyst Monitor Bank 2 sensor 1

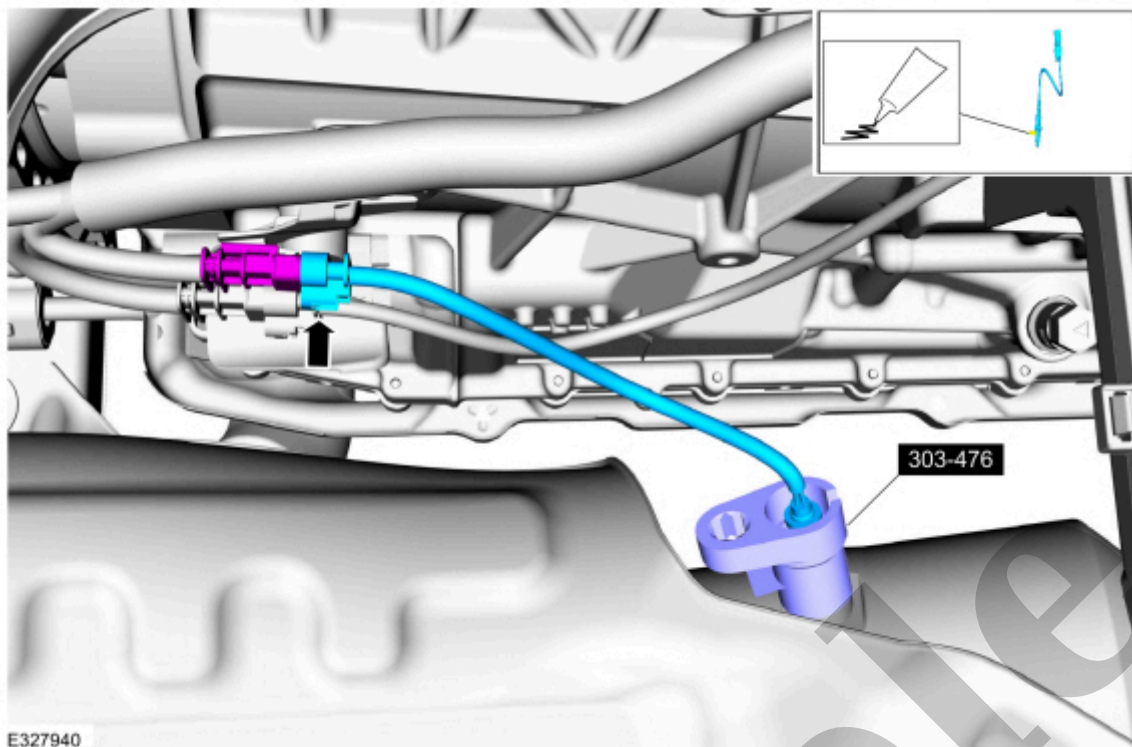
1. • Apply anti-seize to thread of sensor, using special tool install the Catalyst monitor sensor.

**Use Special Service Tool** : 303-476 (T94P-9472-A) Socket, Exhaust Gas Oxygen Sensor

**Material** : Motorcraft® High Temperature Nickel Anti-Seize Lubricant / XL-2

**Torque** : 35 lb.ft (48 Nm)

- Install the harness retainer and connect the electrical connector.



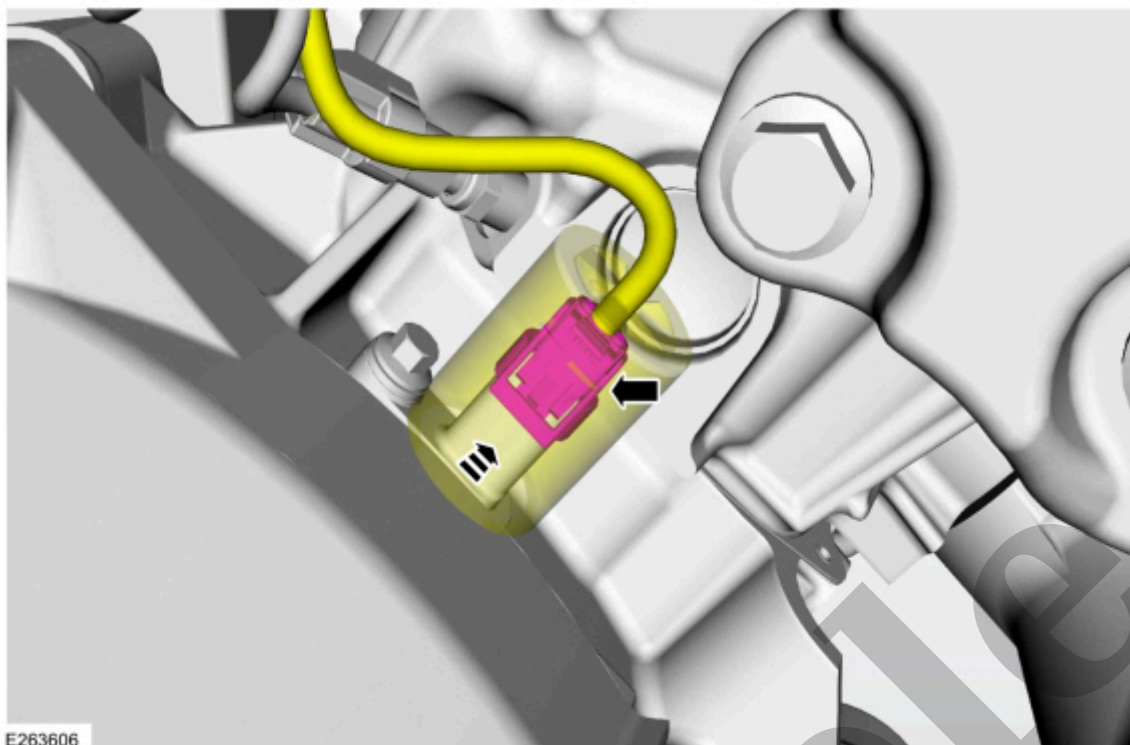
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#### **All sensors**

3. To install, reverse the removal procedure.

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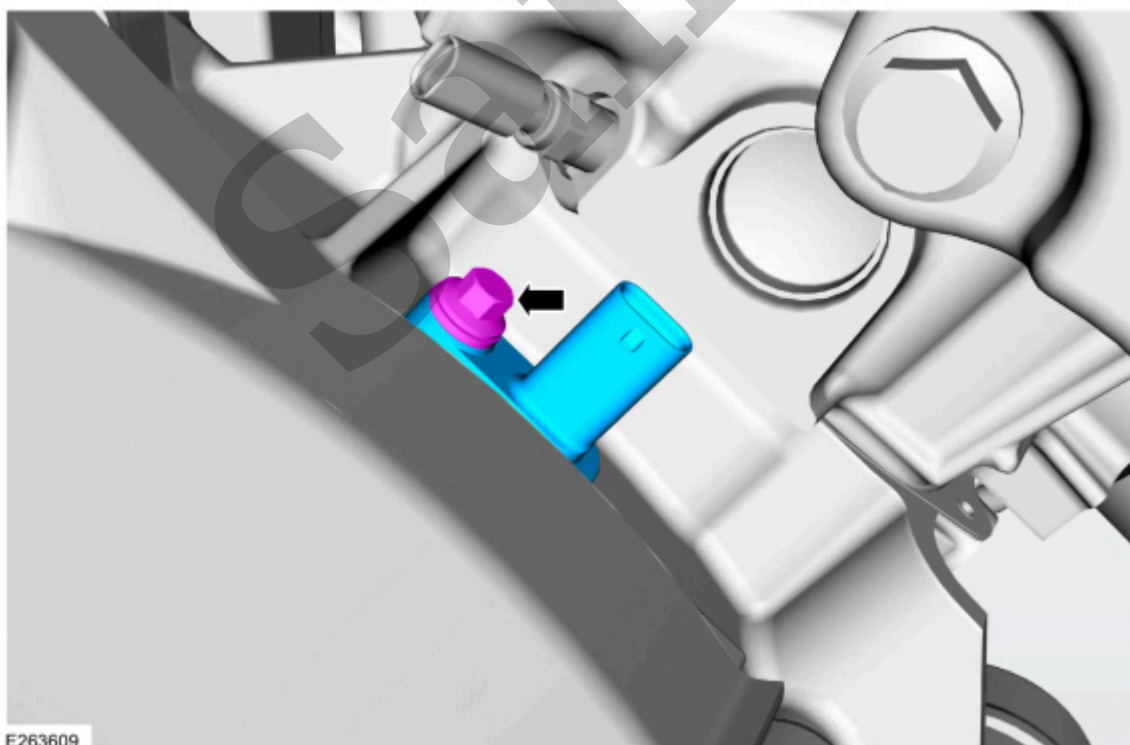


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4. Remove the bolt and the CKP (crankshaft position) sensor.

***Torque*** : 89 lb.in (10 Nm)



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## Cylinder Deactivation Solenoid

<b>303-14D Electronic Engine Controls - 5.0L 32V Ti-VCT</b>	<b>2022 F-150</b>
<b>Removal and Installation</b>	<b>Procedure revision date: 05/28/2020</b>

### Cylinder Deactivation Solenoid

#### Removal

##### NOTE

Removal steps in this procedure may contain installation details.

#### Cylinder Deactivation - Cylinder 1 Cylinder 4 Solenoid

1. Remove the RH (right-hand) valve cover.

Refer to: [Valve Cover RH](#)(303-01E Engine - 5.0L 32V Ti-VCT, Removal and Installation).

##### 2. NOTE

Lubricate the O-rings with clean engine oil.

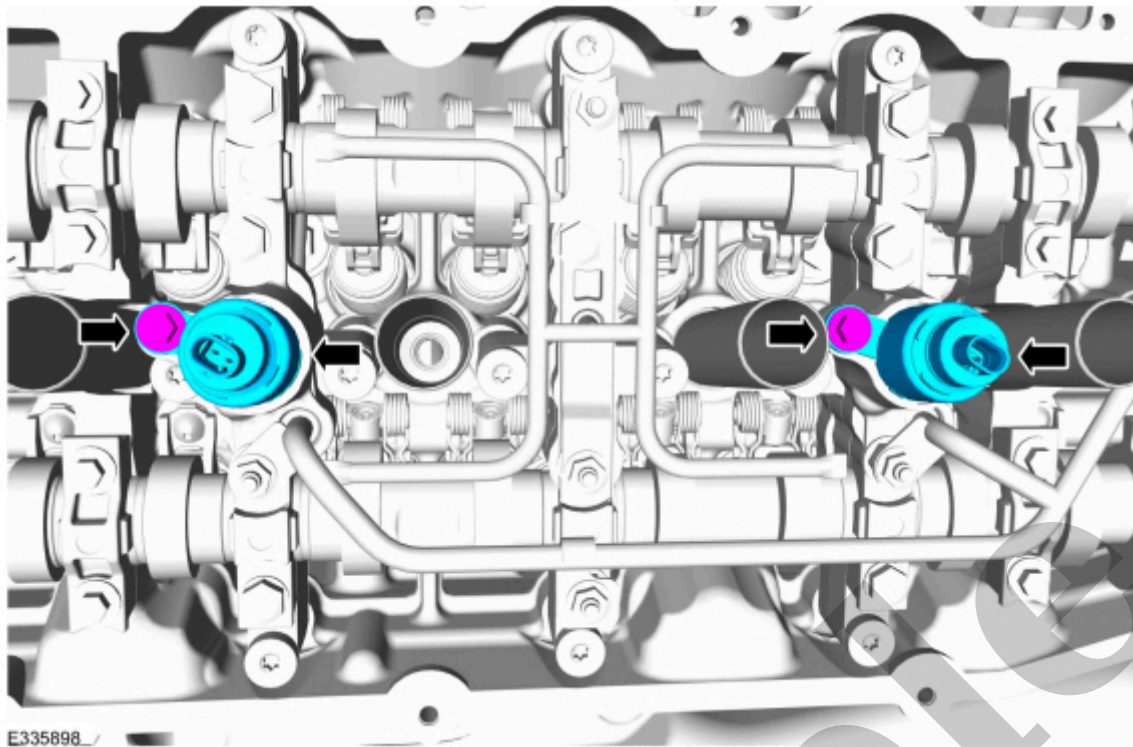
- Remove the retainer. Remove cylinder deactivation cylinder 1 solenoid.

**Torque** : 97 lb.in (11 Nm)

- Remove the retainer. Remove cylinder deactivation cylinder 4 solenoid.

**Torque** : 97 lb.in (11 Nm)



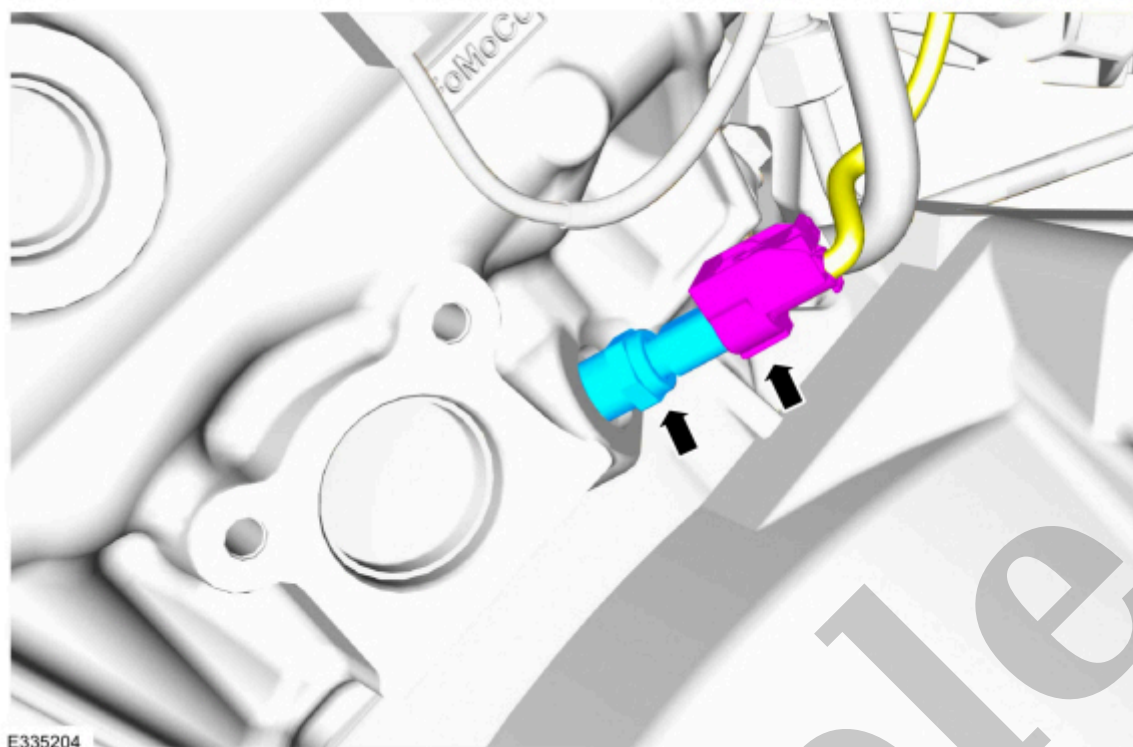


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### Installation

1. To install, reverse the removal procedure.

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## Installation

1. To install, reverse the removal procedure.

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