VOLVO
**Volvo Trucks North America**
Greensboro, NC USA

# Service Bulletin Trucks

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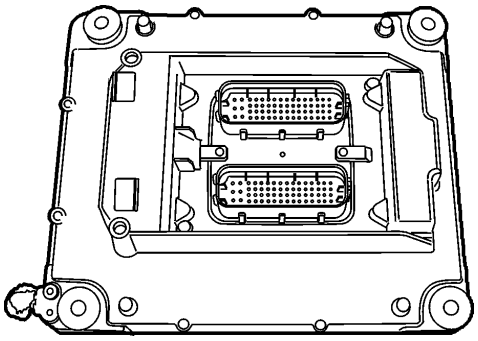
| 1.2007 | **284** | **06** | 1(7) |

Engine ECU
Replacement
D16F

## Engine Control Unit, Replacement



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This information covers the proper procedure for replacement of the engine electronic control unit (EECU) on the Volvo D16F engine.

## Contents



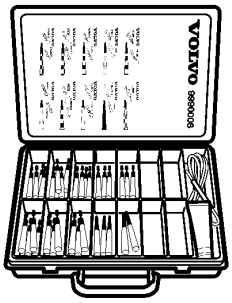
**Note:** Information is subject to change without notice.
Illustrations are used for reference only, and may differ slightly from the actual engine version. However, key components addressed in this information are represented as accurately as possible.

**Note:** YOU MAY NOT replace an EECU without prior authorization from Volvo Trucks North America, Inc.

# Tools

## Special Tools

The following special tools are used with VCADS Pro to diagnose engine faults. For special tools ordering instructions, refer to tool information in group 08.




**9990008**
Test Pins

# Service Procedures

## 2841-03-02-01
## Engine Control Unit, Replacement

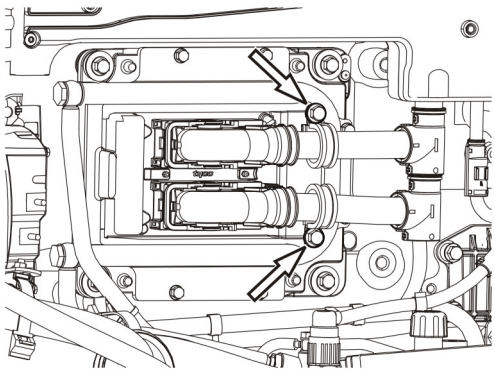
You must read and understand the precautions and guidelines in Service Information, group 20, "General Safety Practices, Engine" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

**Note:** You may not replace an EECU without prior authorization from Volvo Trucks North America, Inc.

## Removal

**1**
Remove all cables from ground (negative) battery terminals to prevent personal injury from electrical shock.

**2**
Remove the bolts mounting the upper and lower wiring harness P-clamps to the EECU housing.



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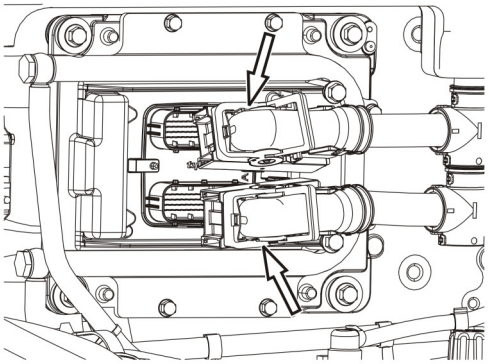

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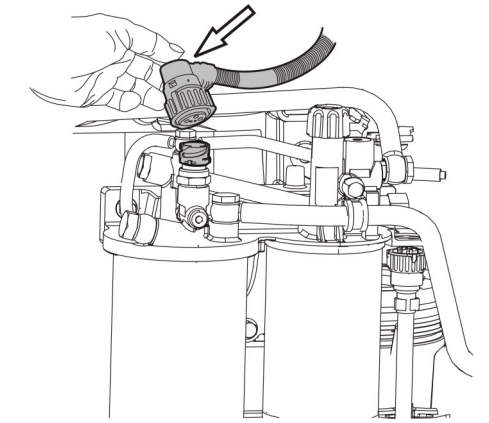
**3**
Push the connector lock inward and rotate outward to disconnect both the wiring harnesses from the EECU.



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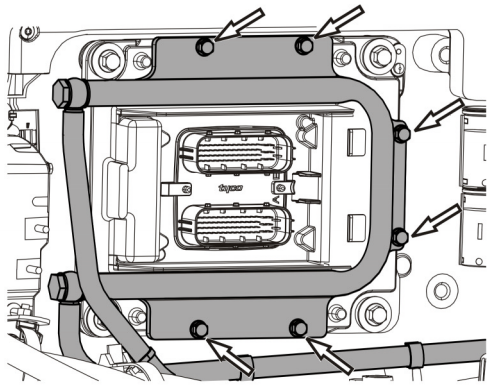
**4**
Disconnect the fuel sensor harness from the fuel filter housing.

**5**
With the fuel sensor harness removed, reposition the EECU harness to allow full access to the EECU.



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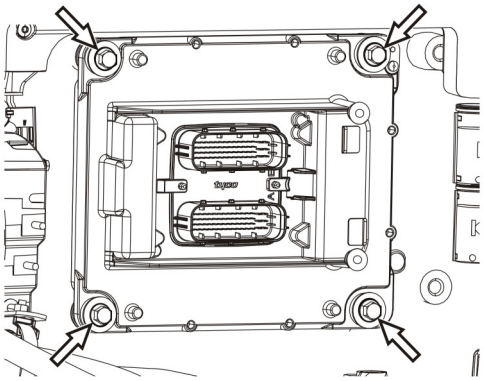
**6**
Remove the bolts securing the EECU fuel cooler to the EECU housing. Reposition the EECU cooler away from the EECU assembly and allow the cooler to hang by the heavy gauge fuel hose.

**Note:** Allow EECU cooler fuel lines to remain attached and position the cooler away from the EECU to allow full access.

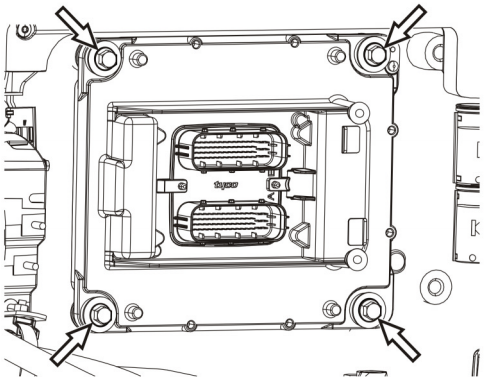


W2005598

**7**
Remove the mounting bolts and remove the EECU from the engine block.

# Installation

**Note:** Make sure that the EECU contact surface is free of dirt. If the EECU is painted in the region contacting the coil, remove the paint to allow the most efficient cooling.



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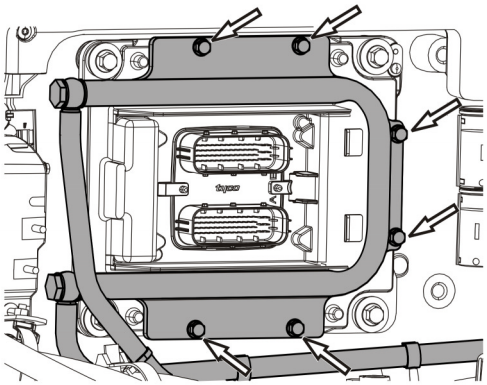
**1**
Mount the EECU to the engine block. Torque-tighten the mounting bolts to 24 ± 4 Nm (18 ± 3 ft-lb).

**Note:** Make sure that rubber isolators are correctly installed and that the ground strap is grounded to the engine block.

24 ± 4 Nm
(18 ± 3 ft-lb)



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**2**
Install the fuel cooling plate to the EECU and tighten the mounting bolts to the specified torque of 10 Nm (90 in-lb).

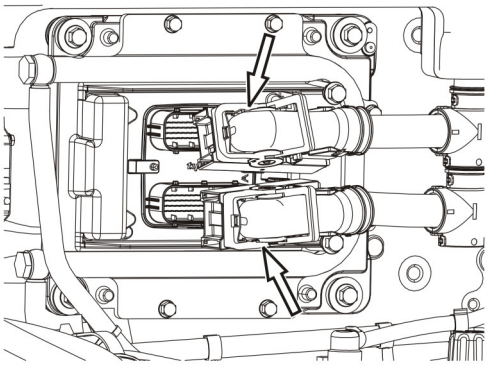
10 Nm
(90 in-lb)

**3**
Check the tension of the terminal connector pins using tool kit 9990008.

**Note:** If terminal pins are damaged or corroded, replace as necessary.

9990008

**4**
Carefully connect the upper and lower wiring harnesses to the EECU. Verify that connectors are locked in position.



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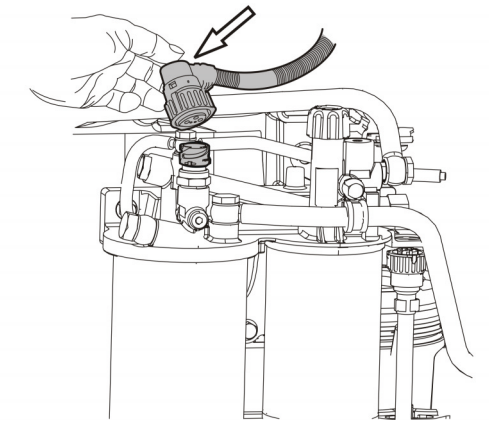
**5**
Reconnect the fuel sensor harness to the fuel filter housing.



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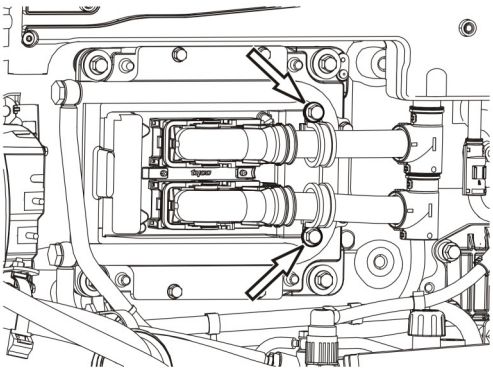
**6**
Install the bolts mounting the wiring harness P-clamps to the EECU.



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**7**
Install all previously removed cables to the ground (negative) battery terminals.

**8**
Connect VCADS Pro to the diagnostic connector and program the EECU (if not yet programmed).

**9**
Start the engine and check that there are no fault codes.