

## BODY CONTROL MODULE (BCM)

419-10 Multifunction Electronic Modules  
Removal and Installation

2022-2023 Ranger  
Procedure revision date: 03/17/2022

# Body Control Module (BCM)

## Removal

**NOTE:** Removal steps in this procedure may contain installation details.

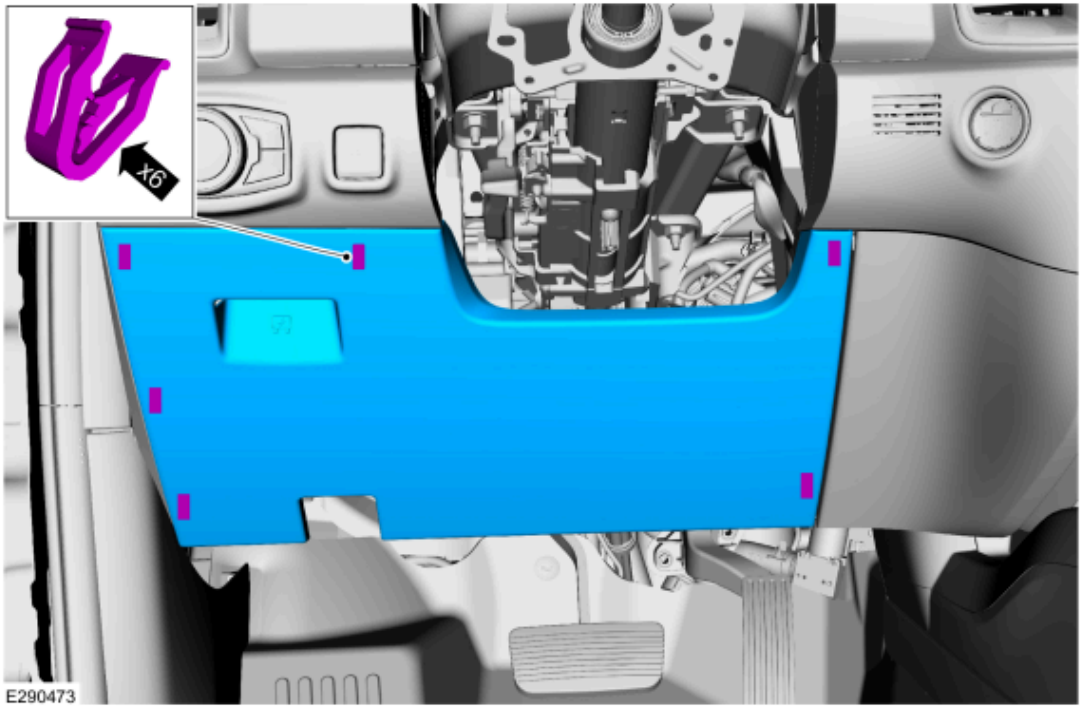
1. If installing a new BCM , connect a battery charger to the battery to make sure it is charged to maintain proper battery voltage.  
Refer to: Battery Charging (414-01 Battery, Mounting and Cables, General Procedures).

2. **NOTE:** Before replacing the BCM (body control module), ensure that two correct keys are present as they will be needed to complete the PMI (programmable module installation) with the FDRS scan tool. The vehicle will not start unless two keys are present.

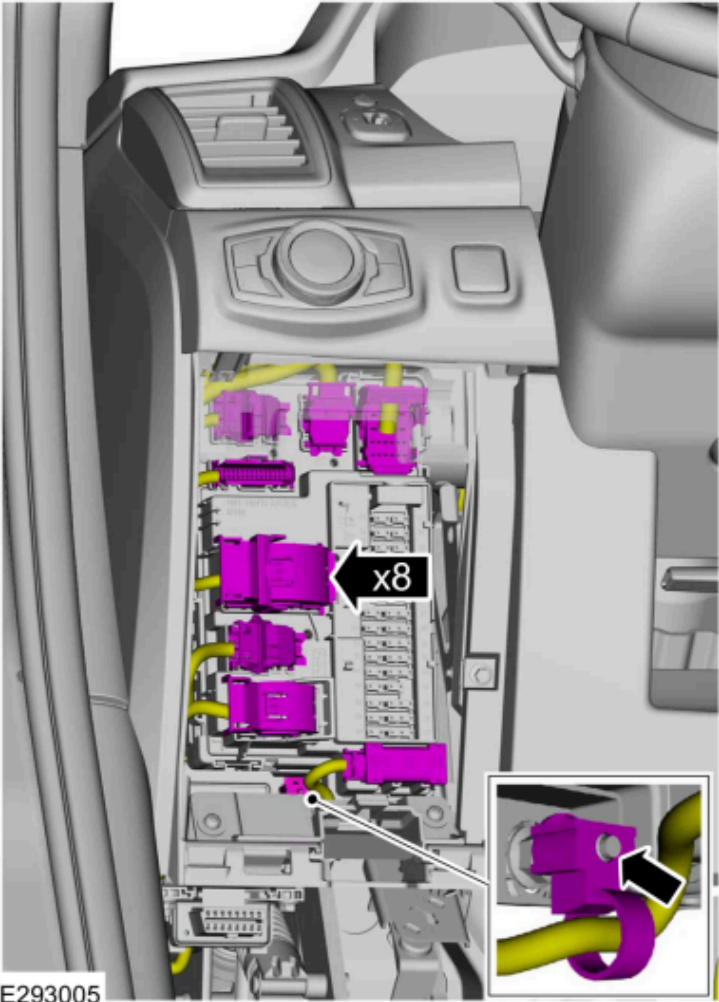
**NOTE:** If the BCM did not respond to the diagnostic scan tool, As-Built Data may need to be entered as part of the repair. This step is only necessary if the BCM is being replaced.

Using a diagnostic scan tool, begin the PMI process for the BCM following the on-screen instructions.

3. If equipped, remove the GWM .  
Refer to: Gateway Module A (GWM) (418-00 Module Communications Network, Removal and Installation).
4. Remove the BCM access cover.




5. Disconnect the electrical connectors and release the wire harness retainer from the BCM .



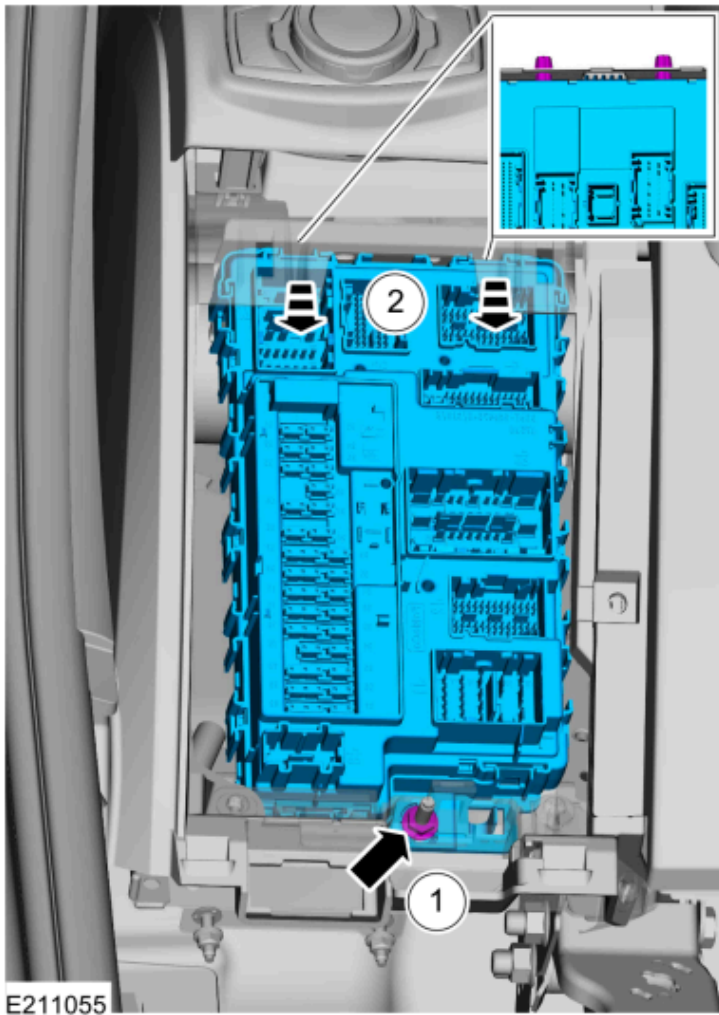

6.

Remove the BCM and bracket.

1. Remove the nut.

*Torque: 48 lb.in (5.4 Nm)*

2. Remove the BCM .



## Installation

1. To install, reverse the removal procedure.

**NOTE:** Carry out the remaining steps only if installing a new BCM .

2. **NOTE:** The PMI (programmable module installation) application in the scan tool will guide you through completing the BCM (body control module) programming and key programming.

Run the PMI on the BCM .

3. After keys have been programmed as directed by the on screen prompts, and the BCM programming has fully completed (as indicated by a module installation complete or successful message), carry out the PATS Module Initialization using the FDRS Scan Tool PATS Application.

4. As directed by the scan tool, follow the onscreen prompts to relearn the TPMS sensors.  
Refer to: Tire Pressure Monitoring System (TPMS) Sensor Location Calibration (204-04B Tire Pressure Monitoring System (TPMS), General Procedures).
5. If equipped with a video rear parking aid (rear mounted only), using a diagnostic scan tool, carry out the LIN New Module Initialization function.
6. Using a diagnostic scan tool, carry out the BMS Learned Values Reset.
7. Configure the BCM Programmable Parameters.  
Refer to: Module Programming (418-01 Module Configuration, General Procedures).
8. Using a diagnostic scan tool, carry out the BCM self-test (must include an on-demand self-test) and then repeat the self-test to confirm all DTC have been cleared.
9. **NOTE:** *This step only applies to vehicles without a stand-alone PAM (parking assist control module).*

Using a diagnostic scan tool, complete the PMI process for the PAM following the on-screen instructions.  
Refer to: Module Configuration - System Operation and Component Description (418-01 Module Configuration, Description and Operation).

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