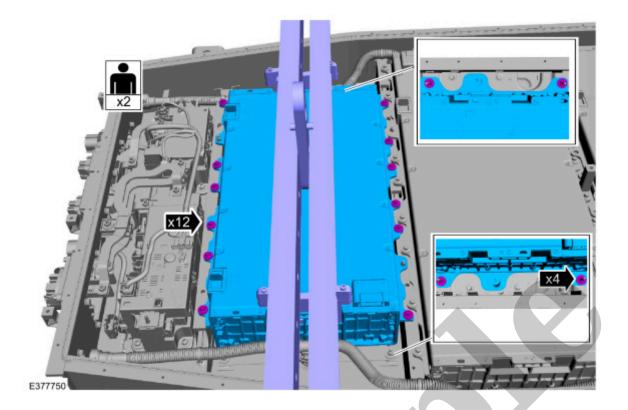


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2004 FORD Ka OEM Service and Repair Workshop Manual

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#### Installation

1. To assemble, reverse the disassembly procedure, except for the steps below.

# 2. **NOTE**

The high voltage battery module balancer balances the voltage level of the replacement battery module to match the remaining original battery modules to ensure correct operation of the high voltage battery pack. This procedure must be repeated for each replacement battery module prior to installation.

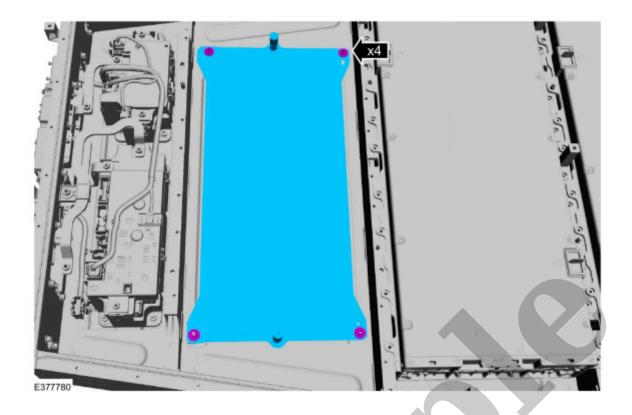
Carry out the High Voltage Battery Module Balancing on the new high voltage battery module(s).

Refer to: High Voltage Battery Module Balancing - Electric(414-03A High Voltage Battery, Mounting and Cables, General Procedures).

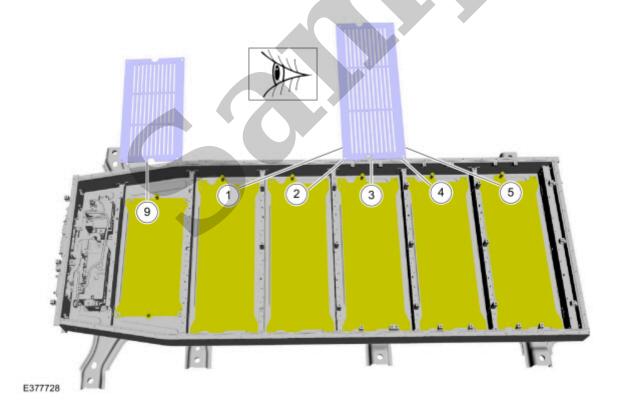
#### 3. NOTICE

For proper adhesion of the Thermal Interface Material (TIM), the cold plate must be clean and free of debris.

Clean and remove any debris from the top of the cold plate.



5. Use the correct Thermal Interface Material (TIM) application template for the cold plate.



Click here to learn about symbols, color coding, and icons used in this manual.

Use a power caulk gun that applies the Thermal Interface Material (TIM) with less effort and a continuous bead.

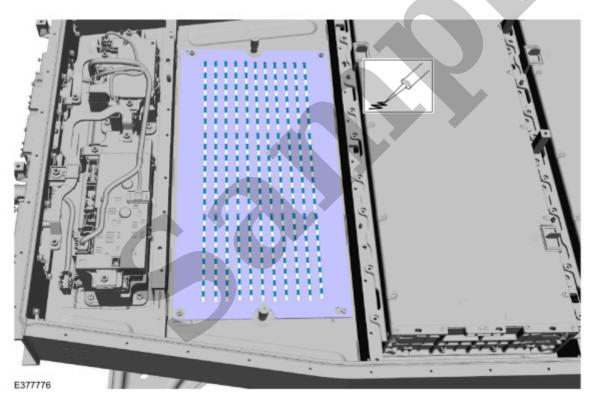
# NOTE

Prior to applying the mixing tip, activate the power caulk gun until both parts of the Thermal Interface Material (TIM) come out of the end and is evenly mixed. Discard the premix TIM. Install the mixing tip and activate the power caulk gun until both parts of the TIM come out of the end of the mixing tip and is evenly mixed. Discard the premix TIM.

Using a power caulk gun, apply the Thermal Interface Material (TIM) between the template and the cold plate, slightly overfill the template spaces evenly.

Use the General Equipment: Power Caulk Gun

Material: Motorcraft® EV Battery Array Thermal Interface Material II / TA-38-B (WSS-M4G372-A1)



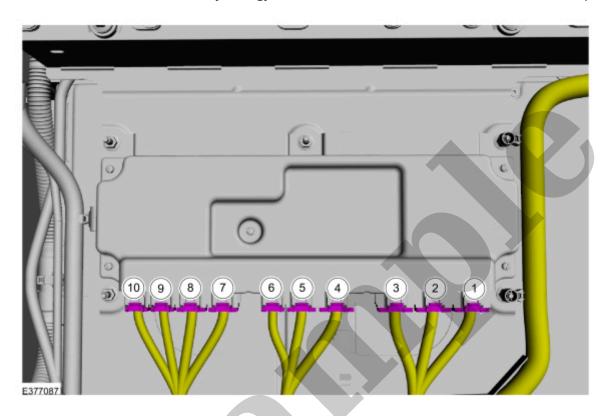
Click here to learn about symbols, color coding, and icons used in this manual.

8. Remove the excessive Thermal Interface Material (TIM) from the top of the template.

#### 10. NOTICE

The BECM electrical connectors must be connected in the sequence shown or component damage may occur.

Connect the BECM (battery energy control module) electrical connectors in the sequence shown.



Click here to learn about symbols, color coding, and icons used in this manual.

# 11. **NOTE**

The high voltage battery must be checked for coolant leaks before the high voltage battery cover is installed.

Check the high voltage battery for coolant leaks.

Refer to: High Voltage Battery Coolant Leak Check (302-03A Electrified Drivetrain Cooling, General Procedures).

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If the components are to be reinstalled, they must be installed in their original locations. Mark the components for installation into their original locations.

# **NOTE**

Removal steps in this procedure may contain installation details.

- 1. Refer to: High Voltage System Health and Safety Precautions (100-00 General Information, Description and Operation).
- 2. Remove the high voltage battery.

Refer to: High Voltage Battery - Electric(414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).

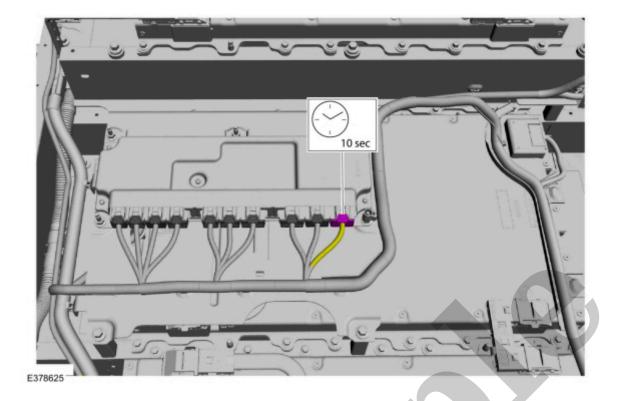
3. Remove the high voltage battery cover.

Refer to: High Voltage Battery Cover - Electric(414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).

#### 4. NOTICE

The BECM electrical connectors must be disconnected in the sequence shown or component damage may occur.

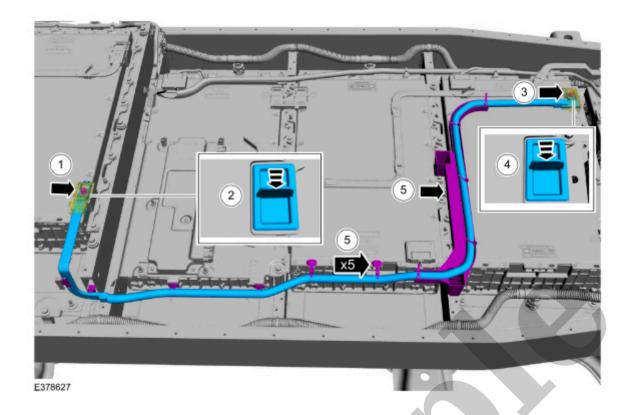
Disconnect the BECM (battery energy control module) electrical connectors in the sequence shown.



# 6. **NOTICE**

The BECM electrical connectors must be disconnected in the sequence shown or component damage may occur.

Disconnect the BECM (battery energy control module) electrical connectors in the sequence shown.



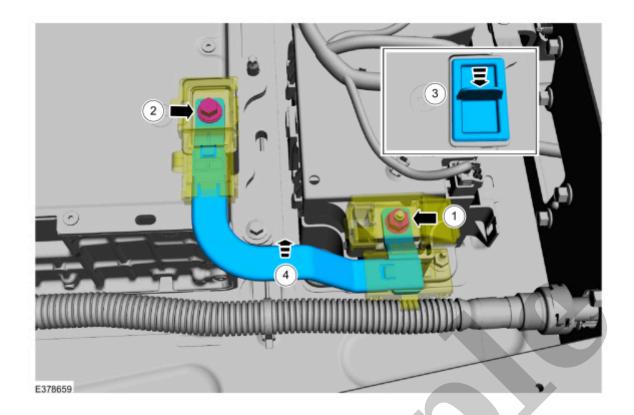
8. 1. Open the terminal cover and remove the bus bar nut.

**Torque**: 106 lb.in (12 Nm)

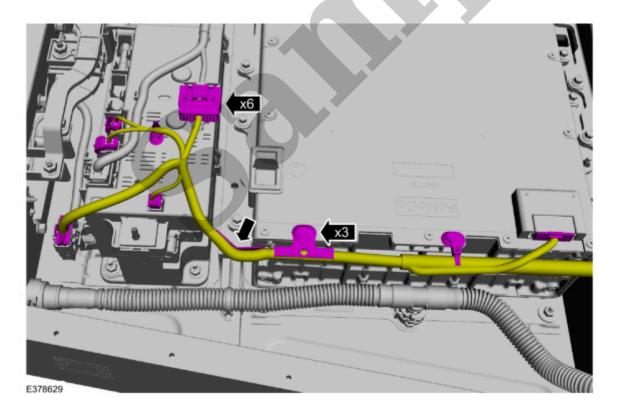
2. Open the terminal cover and remove the bus bar bolt.

**Torque**: 119 lb.in (13.5 Nm)

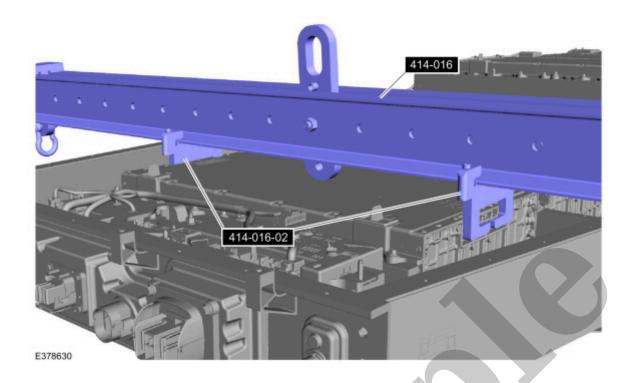
- 3. Install the battery module terminal cover.
- 4. Remove the bus bar.



10. Detach the retainers, disconnect the electrical connectors and position the wire harness aside.



Click here to learn about symbols, color coding, and icons used in this manual.



- 13. Remove the cold plate nuts.
  - Using a floor crane. Remove the bolts, battery array and cold plate.

Use the General Equipment: Floor Crane

**Torque**: 133 lb.in (15 Nm)