

# Your Ultimate Source for OEM Repair Manuals

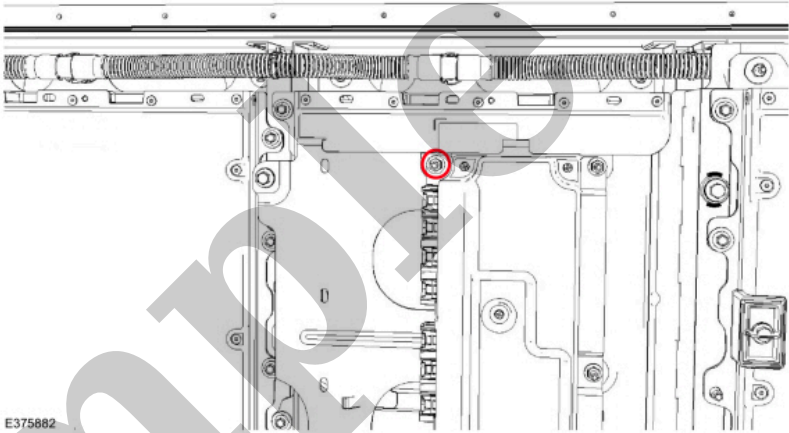
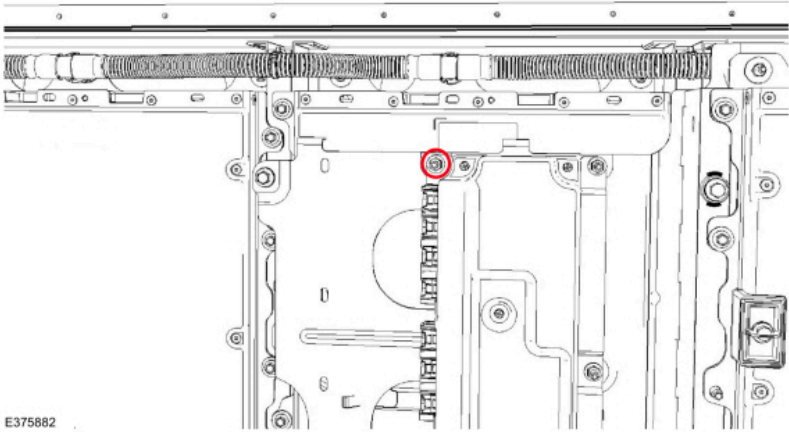
FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

## 1996 FORD Mondeo Hatchback OEM Service and Repair Workshop Manual

[Go to manual page](#)

NOTE

Any of the BECM (battery energy control module) bracket mounting nuts or high voltage battery pack case can be utilized for case ground.

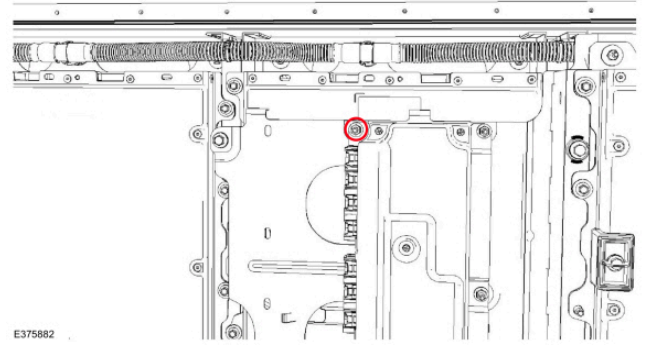
Positive Lead	Measurement / Action	Negative Lead
C4816D-4	$\Omega$	 <p>E375882</p> <p>CASE GROUND</p>
C4816D-7	$\Omega$	 <p>E375882</p> <p>CASE GROUND</p>

**NOTE**

4P and 5P battery packs.

C4816D-7

$\Omega$



CASE GROUND

**Temperature Sensor F****NOTE**

Any of the BECM (battery energy control module) bracket mounting nuts or high voltage battery pack case can be utilized for case ground.

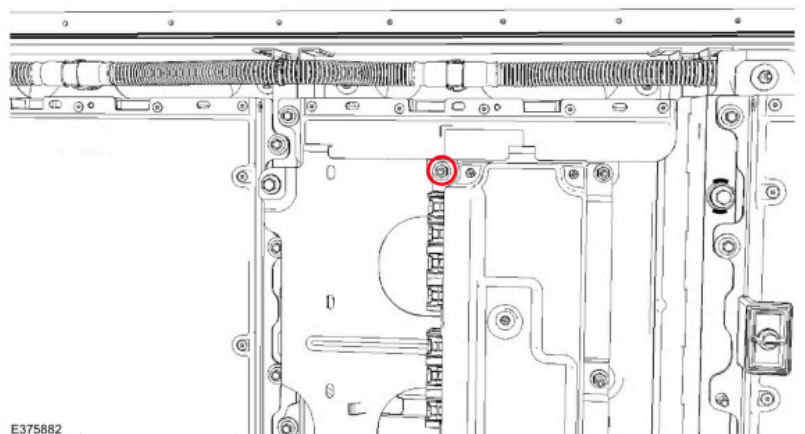
Positive  
Lead

Measurement /  
Action

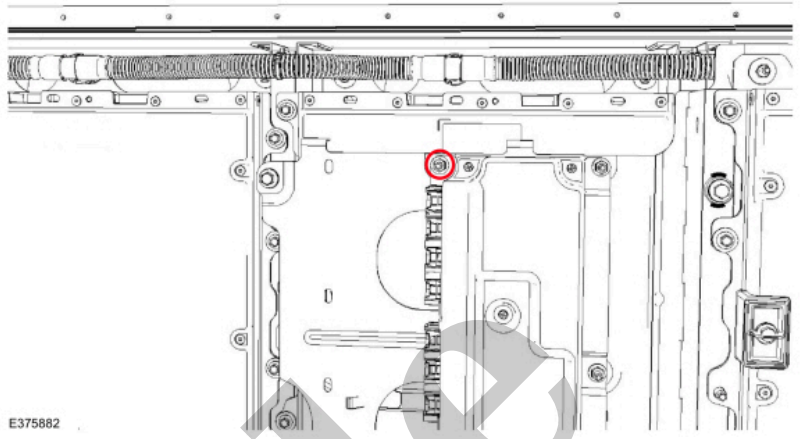
Negative Lead

C4816D-8

$\Omega$

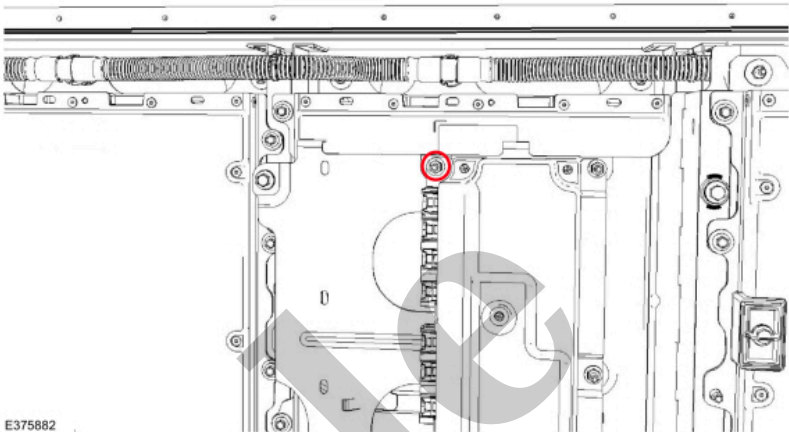
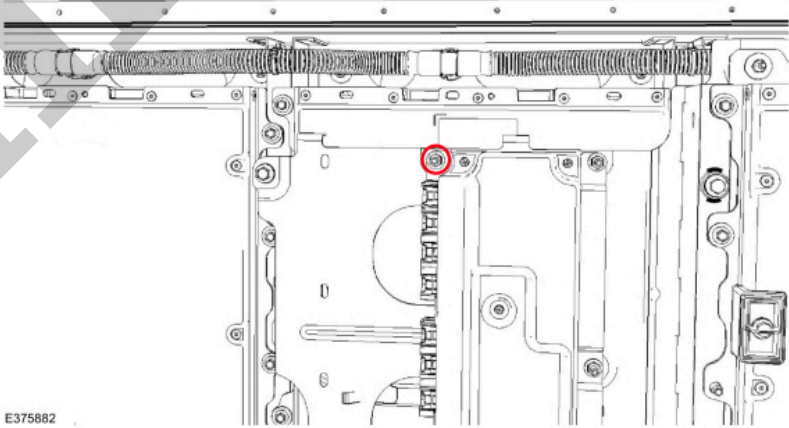


CASE GROUND

		CASE GROUND
C4816D-14	$\Omega$	 <p>E375882</p> <p>CASE GROUND</p>

**Temperature Sensor H**

NOTE		
Any of the BECM (battery energy control module) bracket mounting nuts or high voltage battery pack case can be utilized for case ground.		
Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C4816D-11	$\Omega$	 <p>E375882</p> <p>CASE GROUND</p>
C4816D-14	$\Omega$	 <p>E375882</p> <p>CASE GROUND</p>

Temperature Sensor J

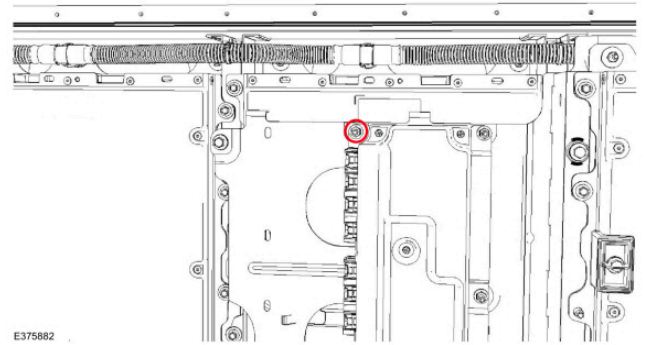
NOTE

**NOTE**

4P and 5P battery packs.

C4816D-14

$\Omega$



CASE GROUND

Are the resistances greater than 10,000 ohms?

Yes

GO to [N6](#)

No

For Temperature Sensor C ONLY, GO to [N5](#)

For all others, INSTALL a new wiring harness.

REFER to: [High Voltage Battery Wiring Harness - Electric](#)

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

Re-install the high voltage battery cover and the high voltage battery. Repower the high voltage system. REFER to: [High Voltage System De-energizing - Electric](#)

(414-03A High Voltage Battery, Mounting and Cables, General Procedures).

Clear the BECM (battery energy control module)

DTC's. Repeat the self-test.

**N5 CONFIRM THE LOCATION OF THE GROUNDED CIRCUIT**

- Disconnect High Voltage battery module no. 4 inline C4804 .
- **Temperature Sensor C**

**NOTE**

Any of the BECM (battery energy control module) bracket mounting nuts or high voltage battery pack case can be utilized for case ground.

Clear the BECM (battery energy control module) DTC's. Repeat the self-test.

No

INSTALL a new wiring harness.

REFER to: [High Voltage Battery Wiring Harness - Electric](#)

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

Re-install the high voltage battery cover and the high voltage battery. Repower the high voltage system. REFER to: [High Voltage System De-energizing - Electric](#)

(414-03A High Voltage Battery, Mounting and Cables, General Procedures).

Clear the BECM (battery energy control module)

DTC's. Repeat the self-test.

## N6 CHECK THE FAULTED THERMISTORS CIRCUITS FOR AN OPEN

### NOTE

Only test the faulted temperature sensors.

### NOTE

The measurement tables below that display C47XX connector numbers function the same for both the C47XX (5P) and C48XX (4P) battery pack connector numbers. The last 2 digits of the connector numbers represents the module number identification in reference to its location in the battery pack.

- Measure:

#### Temperature Sensor A

Positive Lead	Measurement / Action	Negative Lead
C4816D-1	$\Omega$	C4709-20
C4816D-7	$\Omega$	C4709-21

#### Temperature Sensor B

<div>4P base battery pack only.</div> <div>C4816D-5</div>		
<div><b>NOTE</b></div> <div>5P base battery pack only.</div> <div>C4816D-6</div>	Ω	C4706-7
C4816D-7	Ω	C4706-8

#### Temperature Sensor F

Positive Lead	Measurement / Action	Negative Lead
C4816D-8	Ω	C4708-7
C4816D-14	Ω	C4708-8

#### Temperature Sensor G

Positive Lead	Measurement / Action	Negative Lead
C4816D-9	Ω	C4805-20
C4816D-14	Ω	C4805-21

#### Temperature Sensor H



C4816D-14

 $\Omega$ 

C4709-8

**Are the resistances less than 3 ohms?****Yes**GO to [N8](#)**No**For a fault with temperature sensor C ONLY, GO to [N7](#)

For all others, INSTALL a new wiring harness.

REFER to: [High Voltage Battery Wiring Harness - Electric](#)

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

Re-install the high voltage battery cover and the high voltage battery. Repower the high voltage system. REFER to: [High Voltage System De-energizing - Electric](#)

(414-03A High Voltage Battery, Mounting and Cables, General Procedures).

Clear the BECM (battery energy control module)

DTC's. Repeat the self-test.

**N7 CONFIRM THE LOCATION OF THE OPEN CIRCUIT**

- Disconnect High Voltage battery module 4 inline C4904 .
- **Temperature Sensor C**

**NOTE**

Only test the faulted temperature sensors.

Positive Lead	Measurement / Action	Negative Lead
C4816D-3	$\Omega$	C4904-3 (male side)
C4816D-7	$\Omega$	C4904-14 (male side)

**Are the resistances less than 3 ohms?**

- CONNECT the Midtronics XMB-9640 to one of the suspect modules.
- Turn on the Midtronics XMB-9640 and select module diagnostics the follow the on screen instructions to connect and monitor the cell voltage values for the suspect module.

**Is the temperature value within 10°F (6°C) of the ambient temperature?**

<p><b>Yes</b></p>	<p>INSTALL a new wiring harness.</p> <p>REFER to: <a href="#">High Voltage Battery Wiring Harness - Electric</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p>
<p><b>No</b></p>	<p>INSTALL a new module that contains a faulted temperature sensor.</p> <p>REFER to: <a href="#">First Row High Voltage Battery Module - Electric, Vehicles With: Standard Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">First Row High Voltage Battery Module - Electric, Vehicles With: Extended Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Second Row High Voltage Battery Module - Electric, Vehicles With: Standard Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Second Row High Voltage Battery Module - Electric, Vehicles With: Extended Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Third Row High Voltage Battery Module - Electric, Vehicles With: Standard Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Third Row High Voltage Battery Module - Electric, Vehicles With: Extended Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Fourth Row High Voltage Battery Module - Electric, Vehicles With: Standard Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Fourth Row High Voltage Battery Module - Electric, Vehicles With: Extended Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Fourth Row Upper High Voltage Battery Module - Electric, Vehicles With: Standard Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Fourth Row Upper High Voltage Battery Module - Electric, Vehicles With: Extended Range Battery</a> (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).</p> <p>REFER to: <a href="#">Fifth Row High Voltage Battery Module - Electric, Vehicles With: Standard Range Battery</a></p>