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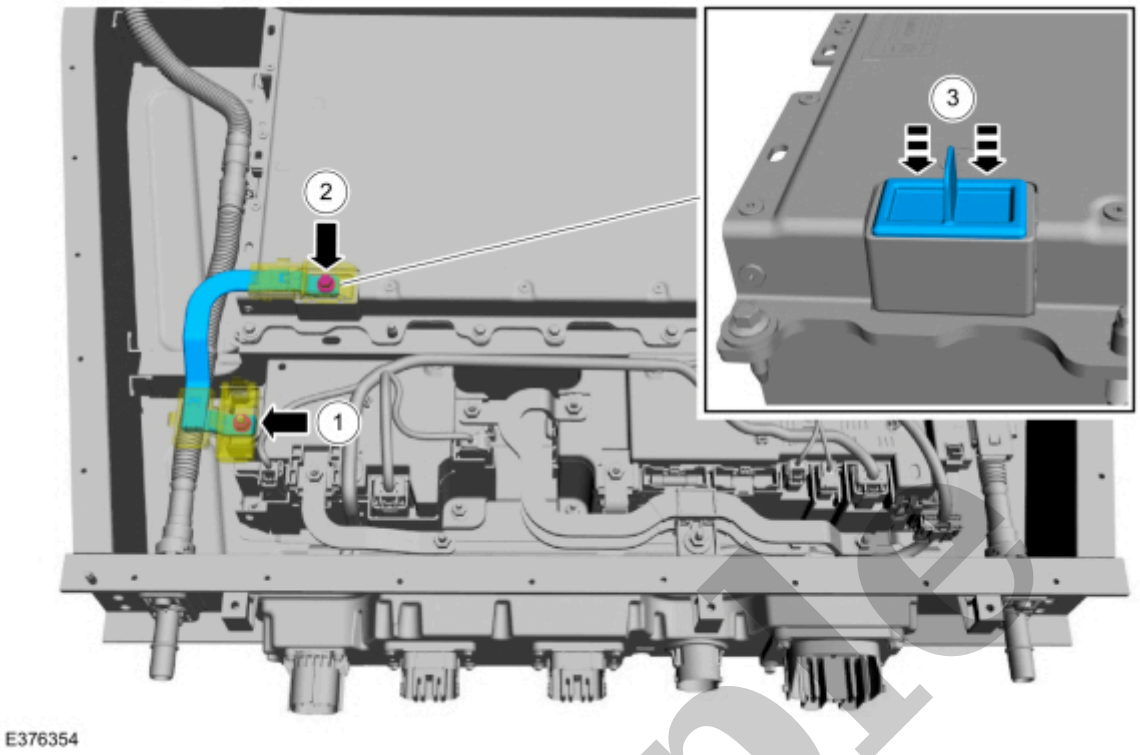
1999 FORD Mondeo Hatchback OEM Service and Repair Workshop Manual

Go to manual page

- 

- CHECK the following connector for being fully seated:
  - DCDC (direct current/direct current converter control module) / SOBDM (secondary on-board diagnostic control module A) C4815A

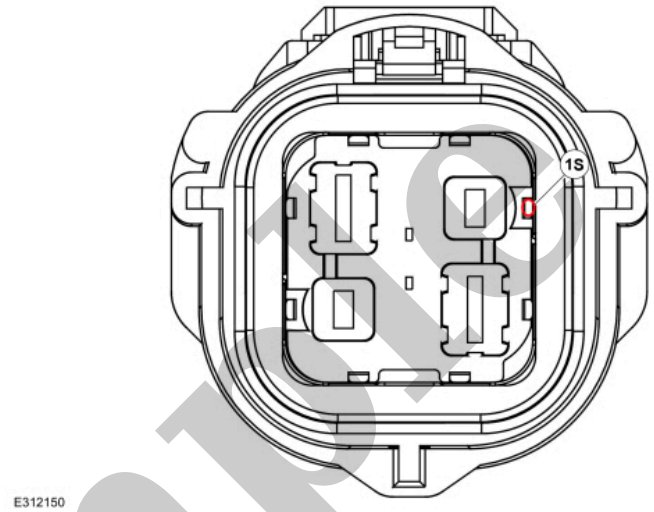
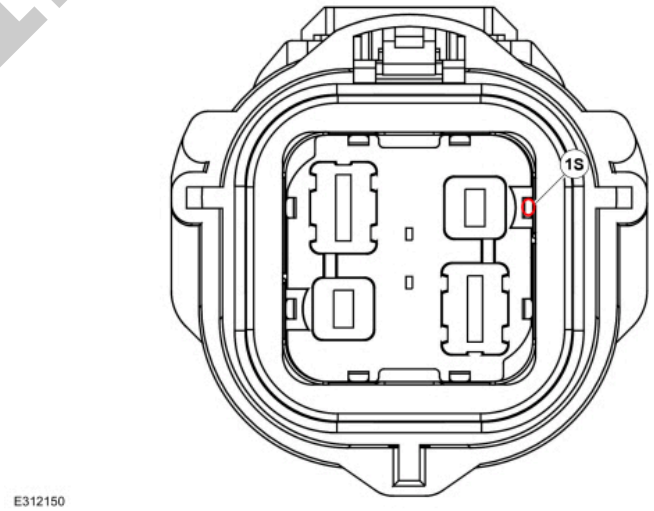
Was the connector fully seated?

Yes	GO to G9

No	Reseat and connect the connectors. 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). Operate the system to check for normal vehicle operation.

G9 CHECK THE HIGH VOLTAGE LOW CURRENT FUSE

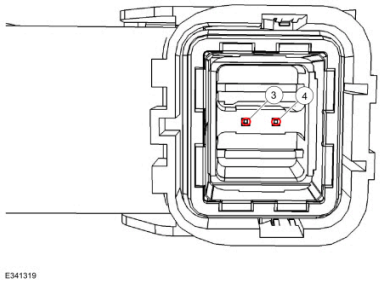
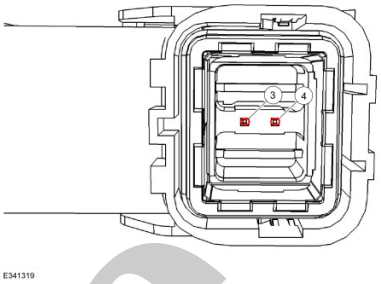
- Measure the resistance of the high voltage low current fuse.

C1457A-1	Ω	C1457A-4
C1457A-2	Ω	C1457A-3
C1457A-1	Ω	 C1457A-1S (shield)
C1457A-2	Ω	 C1457A-1S (shield)

	(414-03A High Voltage Battery, Mounting and Cables, General Procedures). Operate the system performing at least 2 ignition cycles to determine if the concern is still present. If the concern is still present, GO to G24

G11 CHECK FOR AN OPEN IN THE SOBDMC (SECONDARY ON-BOARD DIAGNOSTIC CONTROL MODULE C) REAR DRIVE UNIT HIGH VOLTAGE CABLE INTERLOCK CIRCUIT

- Measure:

Positive Lead	Measurement / Action	Negative Lead
 C294-3 (harness side)	Ω	 C294-4 (harness side)

Is the resistance less than 3 ohms?

Yes	GO to G13

No	INSTALL a new high voltage cable assembly. REFER to: High Voltage Battery Cables - Electric (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).

G13 CHECK THE BECM (BATTERY ENERGY CONTROL MODULE) INTERLOCK INTERCIRCUIT RESISTANCE INSIDE THE HIGH BATTERY PACK

NOTE

Connector C294 must be connected and the interlock terminals must not exhibit any concerns or this test will indicate an open circuit.

- Connect High Voltage Battery C294 .
- Measure and record:
  Measurement A

Positive Lead	Measurement /	Negative Lead

	REFER to: High Voltage Battery Cables - Electric (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation). If measurement A is in range and measurement B is out of range INSTALL a new rear electric drive high voltage cable. REFER to: High Voltage Battery Cables - Electric (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).

G14 CHECK THE BECM (BATTERY ENERGY CONTROL MODULE) INTERLOCK CIRCUITS INSIDE THE HIGH VOLTAGE BATTERY PACK FOR A SHORT TO CASE GROUND

- Remove the high voltage battery.
  REFER to: High Voltage Battery - Electric(414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).
- Remove the high voltage battery cover.
  REFER to: High Voltage Battery Cover - Electric(414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).
- Disconnect all the BECM (battery energy control module) connectors in sequence.
  REFER to: Battery Energy Control Module (BECM) - Electric(414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).
- Measure:

NOTE

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

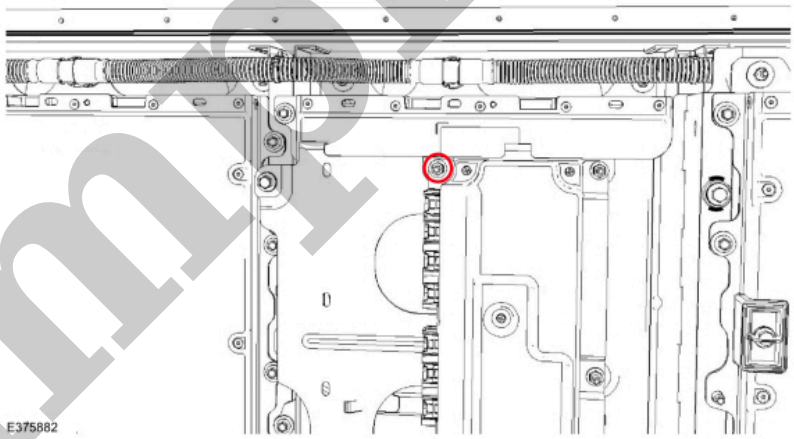
Positive Lead	Measurement / Action	Negative Lead

G15 CONFIRM THE LOCATION OF THE GROUNDED CIRCUIT

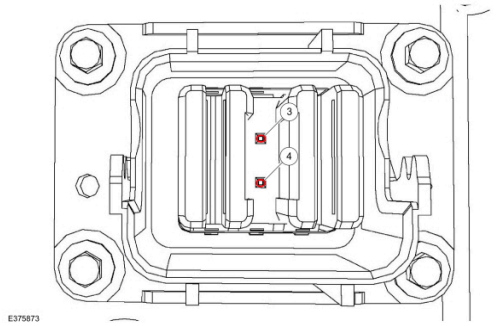
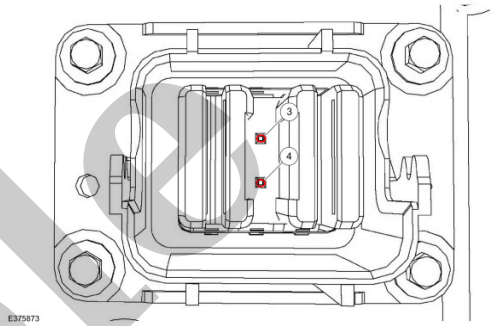
- Disconnect High Voltage battery inline C4240 .
- Measure:

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
C4816C-5	Ω	 CASE GROUND

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C4816C-5		C294-4 (component side)
C4816C-6		C293-3 (component side)
 C293-4 (component side)	Ω	 C294-3 (component side)

Is the resistance less than 3 ohms?

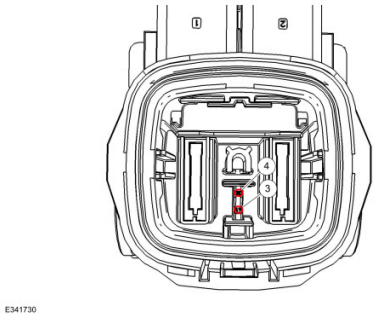
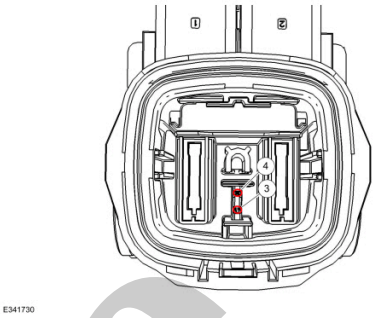
Yes	CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BECM (battery energy control module) . REFER to: Battery Energy Control Module (BECM) - Electric (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).

No	GO to G17

G17 CONFIRM THE LOCATION OF THE OPEN CIRCUIT

- Disconnect High Voltage battery inline C4239 .
- Measure:

- Measure:

Positive Lead	Measurement / Action	Negative Lead
 C292-3 (harness side)	Ω	 C292-4 (harness side)

Is the resistance less than 3 ohms?

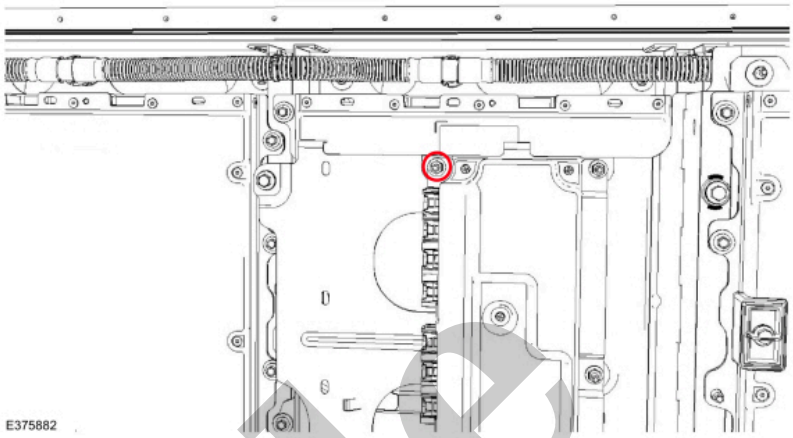
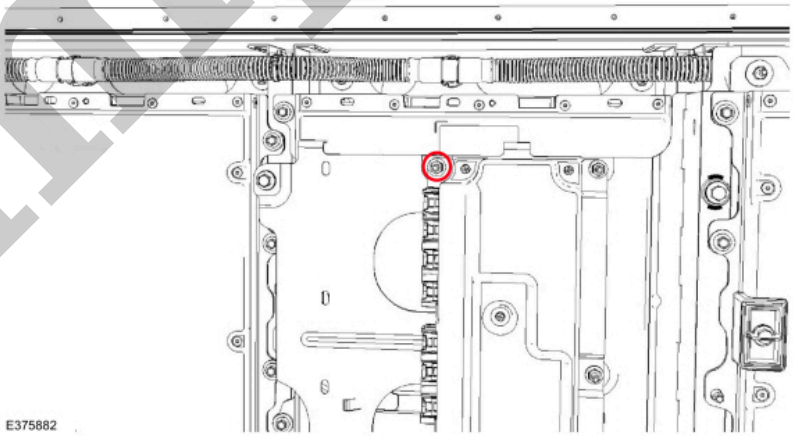
Yes	GO to G19

No	INSTALL a new high voltage cable assembly. REFER to: High Voltage Battery Cables - Electric (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation).

G19 CHECK THE BECM (BATTERY ENERGY CONTROL MODULE) INTERLOCK CIRCUIT RESISTANCE INSIDE THE HIGH BATTERY PACK

- Measure:

Positive Lead	Measurement / Action	Negative Lead

Lead	Action	
C4816C-11	Ω	 CASE GROUND
C4816C-12	Ω	 CASE GROUND

Is the resistance greater than 10,000 ohms?

Yes	GO to G22

No	GO to G21