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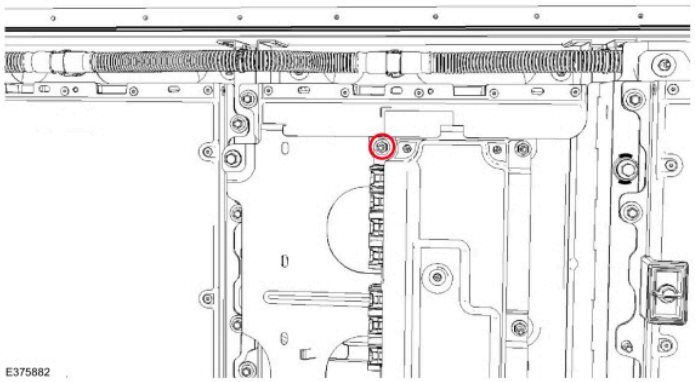
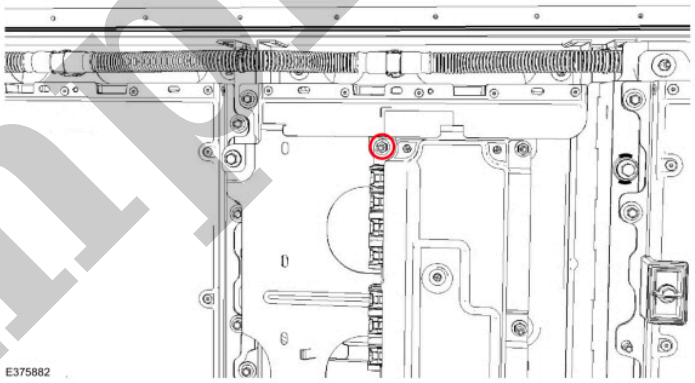
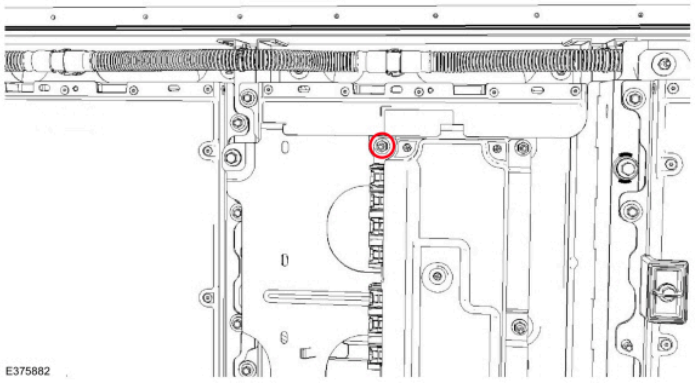
2007 FORD Mondeo Hatchback OEM Service and Repair Workshop Manual

Go to manual page

Cell 41 C4904-9 (female side)	Ω	
Cell 42 C4904-21 (female side)	Ω	
Cell 43 C4904-10 (female side)	Ω	

Cell 33 C4904-18 (female side)	Ω	C4804-13
Cell 34 C4904-7 (female side)	Ω	C4804-1
Cell 35 C4904-19 (female side)	Ω	C4804-14
Cell 36 C4904-8 (female side)	Ω	C4804-9
Cell 37 C4904-20 (female side)	Ω	C4804-15
Cell 38 C4904-9 (female side)	Ω	C4804-10
Cell 39 C4904-21 (female side)	Ω	C4804-16
Cell 40 C4904-10 (female side)	Ω	C4804-11

5P Battery Pack

NOTE

Only test the faulted cell circuits.

Positive Lead	Measurement / Action	Negative Lead

Is the resistance less than 3 ohms?

Yes	GO to AD10
No	INSTALL a new wiring jumper harness.

AD10 INSTALL A NEW BECM (BATTERY ENERGY CONTROL MODULE)

MIL (malfunction indicator lamp) is illuminated when a fault is present. For P0BA9:00 the powertrain malfunction (wrench) indicator is illuminated when a fault is present. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BECM (battery energy control module) P0BA9:00	Hybrid/EV Battery Voltage Sense 'W' Circuit: No Sub Type Information	Sets when the DC (direct current) fast charge contactors are commanded closed and the BECM (battery energy control module) detects the voltage between DC (direct current) fast charge positive and negative contactors is out of range high for 100ms.
BECM (battery energy control module) P0BB3:00	Hybrid/EV Battery Voltage Sense 'Y' Circuit: No Sub Type Information	Sets when the positive contactor is closed and the BECM (battery energy control module) detects the positive contactor sense circuit voltage is greater than 520V.
BECM (battery energy control module) P0BB4:00	Hybrid/EV Battery Voltage Sense 'Y' Circuit Range/Performance: No Sub Type Information	Sets when the positive and negative contactors are closed and the BECM (battery energy control module) detects the positive contactor sense circuit voltage is beyond 50V compared to the battery pack voltage.
BECM (battery energy control module) P0BB8:00	Hybrid/EV Battery Voltage Sense 'Z' Circuit: No Sub Type Information	Sets when the negative contactor is closed and the BECM (battery energy control module) detects the negative contactor sense circuit voltage is greater than 3.136V or less than 0.068V.

Possible Sources

- Wiring, terminals or connectors
- Severely discharged high voltage battery
- BECM (battery energy control module)
- High voltage battery

WARNING

To prevent the risk of high-voltage shock, always follow precisely all warnings and service instructions, including instructions to depower the system. The high-voltage system utilizes approximately 450 volts DC, provided through high-voltage cables to its components and modules. The high-voltage cables and wiring are identified by orange harness tape or orange wire covering. All high-voltage components are

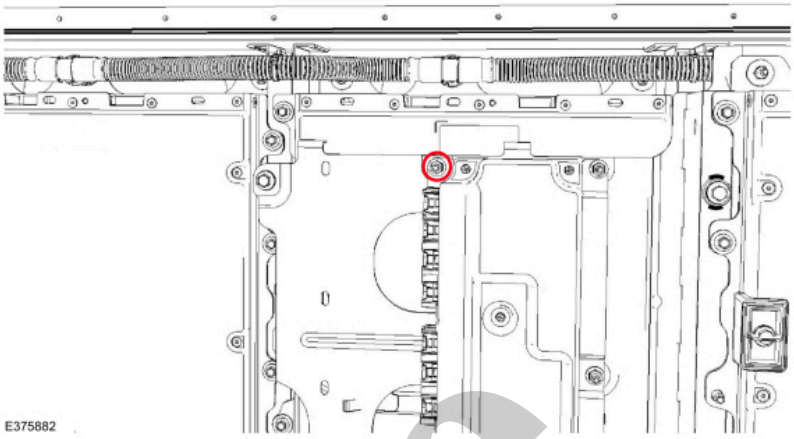
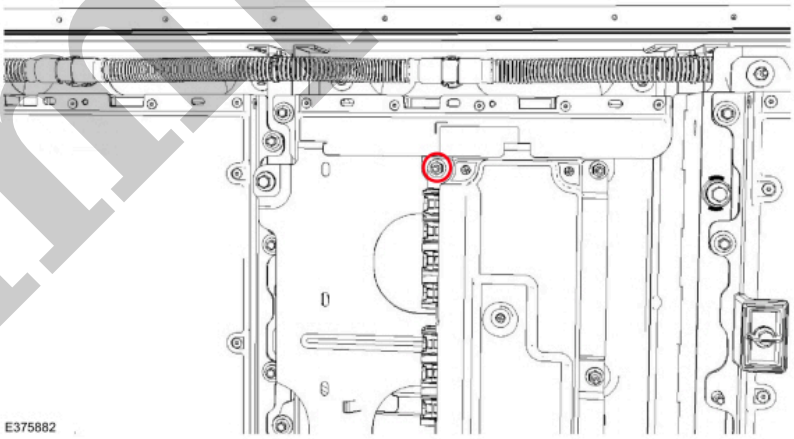
No	The concern is not present at this time.

AE3 CHECK CONTACTOR VOLTAGE SENSE CIRCUITS FOR A SHORT TO CASE GROUND

NOTICE

Failure to disconnect the high voltage battery module harness connectors may result in component damage and/or potential exposure to high voltage.

- Ignition OFF.
- Depower the high voltage system.
  REFER to: High Voltage System De-energizing - Electric(414-03A High Voltage Battery, Mounting and Cables, General Procedures).
- 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).
- Disconnect (4P Battery Pack) High Voltage Battery Module no. 9 C4809 (4P Battery Pack) C4709 (5P Battery Pack) .
- Disconnect (4P Battery Pack) High Voltage Battery Module no. 1 C4801 (4P Battery Pack) C4701 (5P Battery Pack) .
- Depower the high voltage battery junction box by removing the displayed buss bar and install a safety cap on the battery module connection.

C4816J-18	Ω	 CASE GROUND
C4816J-20	Ω	 CASE GROUND

Measurement table B

NOTE

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

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.

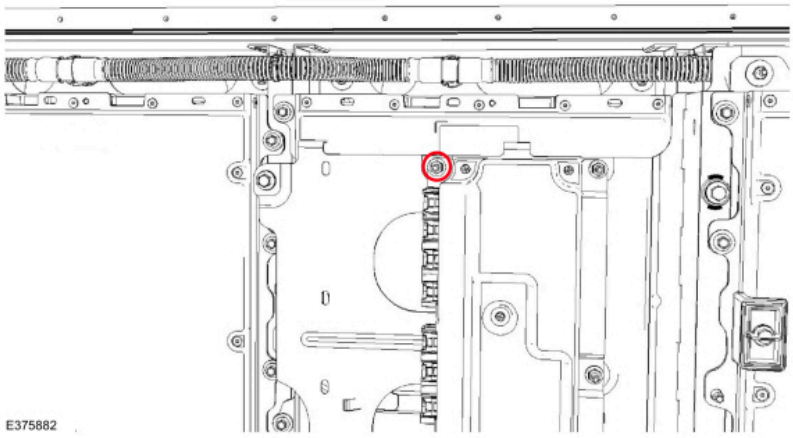
For affected circuits in measurement able B, GO to AE4

AE4 COMFIRM THE LOCATION OF THE GROUNDED CIRCUIT

- Disconnect high voltage battery juniction box 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
C4816E-1	Ω	 CASE GROUND

- Disconnect high voltage battery juniction box inline C4240 .
- Measure:

Measurement Table A

Positive Lead	Measurement / Action	Negative Lead
C4816J-18	Ω	C4815C-3
C4816J-20	Ω	C4815C-1

Measurement Table B

Positive Lead	Measurement / Action	Negative Lead
C4816E-1	Ω	C4815F-1
C4816E-8	Ω	C4815F-3

Is the resistance less than 3 ohms?

Yes	GO to AE7

No	For affected circuits in measurement table A, 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. For affected circuits in measurement able B, GO to AE6

- Measure:

Measurment Table A

Positive Lead	Measurement / Action	Negative Lead
C4815C-1	Ω	C4815C-3

Measurment Table B

Positive Lead	Measurement / Action	Negative Lead
C4815F-1	Ω	C4815F-3

Is the resistance greater than 10,000 ohms?

Yes	For DTC (diagnostic trouble code) PBA9:00, INSTALL a new high voltage juncition box - positive and high voltage junction box - negative. For DTC (diagnostic trouble code) , P0BB3:00 and/or P0BB4:00, INSTALL a new high voltage juncition box - positive. For DTC (diagnostic trouble code) , P0BB8:00, INSTALL a new high voltage juncition box - negative. REFER to: High Voltage Battery Junction Box - Electric (414-03A High Voltage Battery, Mounting and Cables, Removal and Installation). For PBA9:00, P0BB3:00, P0BB4:00 and/or P0BB8:00, 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	For affected circuits in measurement table A, 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.