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2016 FORD Mondeo Hatchback OEM Service and Repair Workshop Manual

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AT5 RETRIEVE THE DTCS FROM THE RCM (RESTRAINTS CONTROL MODULE)

- Using a diagnostic scan tool, perform RCM (restraints control module) self-test.

Is DTC (diagnostic trouble code) U3003:16 or U3003:17 recorded?

Yes	DIAGNOSE the RCM (restraints control module) DTC (diagnostic trouble code) . REFER to: Airbag Supplemental Restraint System (SRS) (501-20B Supplemental Restraint System, Diagnosis and Testing).
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No	GO to AT6
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AT6 CHECK FOR A LOST COMMUNICATION WITH THE RCM (RESTRAINTS CONTROL MODULE) DTC (DIAGNOSTIC TROUBLE CODE) IN OTHER MODULES

- Using a diagnostic scan tool, retrieve Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

Is DTC (diagnostic trouble code) U0151:00 set in multiple modules?

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 RCM (restraints control module) . REFER to: Restraints Control Module (RCM) (501-20B Supplemental Restraint System, Removal and Installation).
No	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, it is necessary to seek additional help. REFER to the Service Repair And Technical Assistance Process.

PINPOINT TEST AU : U0155:00

set due to high network traffic or an intermittent fault condition.

AU2 CHECK THE 12-VOLT BATTERY

- Carry out the 12-volt battery condition test.

REFER to: [Battery - Electric](#)(414-01 Battery, Mounting and Cables, Diagnosis and Testing).

Did the 12-volt battery pass the condition test?

Yes	GO to AU3
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No	INSTALL a new 12-volt battery. REFER to: Battery - Electric (414-01 Battery, Mounting and Cables, Removal and Installation).
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AU3 REVIEW THE DTCS FROM THE BECM (BATTERY ENERGY CONTROL MODULE)

- Review the Diagnostic Trouble Codes (DTCs) recorded during the BECM (battery energy control module) self-test.

Is DTC (diagnostic trouble code) U3003:16 or U3003:17 recorded?

Yes	DIAGNOSE the battery voltage DTC (diagnostic trouble code) stored in the BECM (battery energy control module) . REFER to the BECM (battery energy control module) DTC (diagnostic trouble code) chart.
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No	GO to AU4
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AU4 CHECK THE COMMUNICATION NETWORK

- Ignition ON.
- Using a diagnostic scan tool, perform a network test.

Does the IPC (instrument panel cluster) pass the network test?

Yes	GO to AU5
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FOLLOW the service article instructions. If no service articles address this concern, it is necessary to seek additional help. REFER to the Service Repair And Technical Assistance Process.

PINPOINT TEST AV : U019B:00

Normal Operation and Fault Conditions

The BECM (battery energy control module) communicates with the SOBDM (secondary on-board diagnostic control module A) also known as the Battery Charger Control Module (BCCM) over a HS-CAN (high-speed controller area network) to send and receive important vehicle data.

When powered on, the BECM (battery energy control module) continually monitors the HS-CAN (high-speed controller area network) . If communication with a module is lost, a fault is detected and the BECM (battery energy control module) sets the appropriate DTC (diagnostic trouble code) .

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BECM (battery energy control module) U019B:00	Lost Communication With Battery Charger Control Module 'A': No Sub Type Information	This DTC (diagnostic trouble code) sets if the BECM (battery energy control module) does not receive an expected message from the SOBDM (secondary on-board diagnostic control module A) for 5 seconds.

Possible Sources

- Wiring, terminals or connectors
- High network traffic
- 12-volt battery
- BECM (battery energy control module)
- SOBDM (secondary on-board diagnostic control module A)

AV1 CHECK THE BECM (BATTERY ENERGY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, perform BECM (battery energy control module) self-test.
- Using a diagnostic scan tool, clear the BECM (battery energy control module) Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Wait 5 seconds.
- Ignition ON.

- Ignition ON.
- Using a diagnostic scan tool, perform a network test.

Does the SOBDM (secondary on-board diagnostic control module A) module pass the network test?

Yes	GO to AV5
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No	<p>DIAGNOSE the scan tool communication with the SOBDM (secondary on-board diagnostic control module A) concern.</p> <p>REFER to: Controller Area Network (CAN) Module Communications Network - Electric (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).</p>
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AV5 RETRIEVE THE DTCS FROM THE SOBDM (SECONDARY ON-BOARD DIAGNOSTIC CONTROL MODULE A)

- Using a diagnostic scan tool, perform SOBDM (secondary on-board diagnostic control module A) self-test.

Is DTC (diagnostic trouble code) U3003:16 or U3003:17 recorded?

Yes	<p>DIAGNOSE the SOBDM (secondary on-board diagnostic control module A) DTC (diagnostic trouble code) .</p> <p>REFER to: High Voltage Battery Charging System - Electric (414-03B High Voltage Battery Charging System, Diagnosis and Testing).</p>
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No	GO to AV6
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AV6 CHECK FOR A LOST COMMUNICATION WITH THE SOBDM (SECONDARY ON-BOARD DIAGNOSTIC CONTROL MODULE A) DTC (DIAGNOSTIC TROUBLE CODE) IN OTHER MODULES

- Using a diagnostic scan tool, retrieve Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

Is DTC (diagnostic trouble code) U019B:00 set in multiple modules?

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
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AW1 CHECK THE BECM (BATTERY ENERGY CONTROL MODULE) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, perform BECM (battery energy control module) self-test.
- Using a diagnostic scan tool, clear the BECM (battery energy control module) Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Wait 5 seconds.
- Ignition ON.
- Using a diagnostic scan tool, perform BECM (battery energy control module) self-test

Is DTC (diagnostic trouble code) U027C:00 retrieved?

Yes	GO to AW2
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No	The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition.
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AW2 CHECK THE 12-VOLT BATTERY

- Carry out the 12-volt battery condition test.
REFER to: [Battery - Electric](#)(414-01 Battery, Mounting and Cables, Diagnosis and Testing).

Did the 12-volt battery pass the condition test?

Yes	GO to AW3
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No	INSTALL a new 12-volt battery. REFER to: Battery - Electric (414-01 Battery, Mounting and Cables, Removal and Installation).
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AW3 REVIEW THE DTCS FROM THE BECM (BATTERY ENERGY CONTROL MODULE)

- Review the Diagnostic Trouble Codes (DTCs) recorded during the BECM (battery energy control module) self-test.

Is DTC (diagnostic trouble code) U3003:16 or U3003:17 recorded?

AW6 CHECK FOR A LOST COMMUNICATION WITH THE OBCC (OFF-BOARD CHARGER CONTROLLER) DTC (DIAGNOSTIC TROUBLE CODE) IN OTHER MODULES

- Using a diagnostic scan tool, retrieve Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

Is DTC (diagnostic trouble code) U027C:00 set in multiple modules?

Yes	<p>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 OBCC (Off-Board Charger Controller) .</p> <p>REFER to: Off-Board Charger Controller (OBCC) - Electric (414-03B High Voltage Battery Charging System, Removal and Installation).</p>
No	<p>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, it is necessary to seek additional help. REFER to the Service Repair And Technical Assistance Process.</p>

PINPOINT TEST AX : U0293:00

Normal Operation and Fault Conditions

The BECM (battery energy control module) communicates with the SOBDMC (secondary on-board diagnostic control module C) also known as the Inverter System Controller (ISC) over a HS-CAN (high-speed controller area network) to send and receive important vehicle data.

When powered on, the BECM (battery energy control module) continually monitors the HS-CAN (high-speed controller area network) . If communication with a module is lost, a fault is detected and the BECM (battery energy control module) sets the appropriate DTC (diagnostic trouble code) .

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BECM (battery energy control	Lost Communication With Hybrid/EV Powertrain Control	This DTC (diagnostic trouble code) sets if the BECM (battery energy control module) does not receive

No	<p>INSTALL a new 12-volt battery.</p> <p>REFER to: Battery - Electric (414-01 Battery, Mounting and Cables, Removal and Installation).</p>
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AX3 REVIEW THE DTCS FROM THE BECM (BATTERY ENERGY CONTROL MODULE)

- Review the Diagnostic Trouble Codes (DTCs) recorded during the BECM (battery energy control module) self-test.

Is DTC (diagnostic trouble code) U3003:16 or U3003:17 recorded?

Yes	<p>DIAGNOSE the battery voltage DTC (diagnostic trouble code) stored in the BECM (battery energy control module) . REFER to the BECM (battery energy control module) DTC (diagnostic trouble code) chart.</p>
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No	GO to AX4
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AX4 CHECK THE COMMUNICATION NETWORK

- Ignition ON.
- Using a diagnostic scan tool, perform a network test.

Does the SOBDMC (secondary on-board diagnostic control module C) pass the network test?

Yes	GO to AX5
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No	<p>DIAGNOSE the scan tool communication with the SOBDMC (secondary on-board diagnostic control module C) concern.</p> <p>REFER to: Controller Area Network (CAN) Module Communications Network - Electric (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).</p>
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AX5 RETRIEVE THE DTCS FROM THE SECONDARY ON-BOARD DIAGNOSTIC CONTROL MODULE C (SOBDMC)

PINPOINT TEST AY : U0298:00

Normal Operation and Fault Conditions

The BECM (battery energy control module) communicates with the Direct Current/Direct Current (DC/DC) converter control module over a HS-CAN (high-speed controller area network) to send and receive important vehicle data.

When powered on, the BECM (battery energy control module) continually monitors the HS-CAN (high-speed controller area network) . If communication with a module is lost, a fault is detected and the BECM (battery energy control module) sets the appropriate DTC (diagnostic trouble code) .

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BECM (battery energy control module) U0298:00	Lost Communication With DC/DC Converter Control Module 'A': No Sub Type Information	This DTC (diagnostic trouble code) sets if the BECM (battery energy control module) does not receive an expected message from the Direct Current/Direct Current (DC/DC) converter control module for 5 seconds.

- Possible Sources**
- Wiring, terminals or connectors
 - High network traffic
 - BECM (battery energy control module)
 - Direct Current/Direct Current (DC/DC) converter control module

AY1 CHECK THE COMMUNICATION NETWORK

Yes	DIAGNOSE the battery voltage DTC (diagnostic trouble code) stored in the BECM (battery energy control module) . REFER to the BECM (battery energy control module) DTC (diagnostic trouble code) chart.
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No	GO to AY4
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AY4 RETRIEVE THE DTCS FROM THE DIRECT CURRENT/DIRECT CURRENT (DC/DC) CONVERTER CONTROL MODULE

- Using a diagnostic scan tool, perform Direct Current/Direct Current (DC/DC) converter control module self-test.

Is DTC (diagnostic trouble code) U3003:16 or U3003:17 recorded?

Yes	DIAGNOSE the Direct Current/Direct Current (DC/DC) converter control module DTC (diagnostic trouble code) . REFER to: Direct Current/Direct Current (DC/DC) Converter Control Module - Electric (414-05 Voltage Converter/Inverter, Diagnosis and Testing).
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No	GO to AY5
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AY5 CHECK FOR A LOST COMMUNICATION WITH THE DIRECT CURRENT/DIRECT CURRENT (DC/DC) CONVERTER CONTROL MODULE DTC (DIAGNOSTIC TROUBLE CODE) IN OTHER MODULES

- Using a diagnostic scan tool, retrieve Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

Is DTC (diagnostic trouble code) U0298:00 set in multiple modules?

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 Direct Current/Direct Current (DC/DC) converter control module. REFER to: Direct Current/Direct Current (DC/DC) Converter Control Module - Electric (414-05 Voltage Converter/Inverter, Removal and Installation).
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