

Pinpoint Test - DTC: AT

B1142:62, B11D9:13, B13BF:14

Refer to Wiring Diagrams Cell 46 for schematic and connector information.

Normal Operation and Fault Conditions

The BECMB provides battery voltage to the RCM and OCSM. The BECMB compares HS-CAN1 messages to ignition voltage inputs. If the status of the HS-CAN1 message and the voltage input do not match, the BECMB sets a DTC.

If a fault is detected, the BECMB stores the appropriate DTC in memory and sends a message to the RCM over HS-CAN1 and HS-CAN2, indicating that a BECMB fault is present. Upon receipt of this message, the RCM sets DTC U0413:92 and sends a message to the IPC to illuminate the airbag warning indicator.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1142:62	Ignition Status 1: Signal Compare Failure	A fault is indicated when the status of the hard-wired ignition input to the BECMB does not match the ignition status reported on the HS-CAN1.
B11D9:13	Vehicle Battery: Circuit Open	A fault is indicated when the voltage on the battery input circuit to the BECMB is less than a pre-determined threshold.

B13BF:14	Run/Start Input: Circuit Short to Ground or Open	A fault is indicated when the hard-wired ignition input to the BECMB is inactive, but the BECMB receives an ignition status on the HS-CAN1 that contradicts the hard-wired input status.
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Possible Sources

- BCM fuse 9 (10A)
- BCM fuse 19 (7.5A)
- Wiring, terminals or connectors
- BECMB

PINPOINT TEST A : B1142:62, B11D9:13, B13BF:14



WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may cause damage to the connector.

NOTE: Most faults are due to connector and/or wiring concerns. Carry out a thorough inspection and verification before proceeding with the pinpoint test.

NOTE: SRS components should only be disconnected or reconnected when instructed to do so within a pinpoint test step. Failure to follow this instruction may result in incorrect diagnosis of the SRS.

NOTE: Always make sure the correct SRS component is being installed. Parts released for other vehicles may not be compatible even if they appear physically similar. Check the part number listed in the Ford parts catalog to make sure the correct component is being installed. If an incorrect SRS component is installed, Diagnostic Trouble Codes (DTCs) may set.

NOTE: The SRS must be fully operational and free of faults before releasing the vehicle to the customer.

A1 RETRIEVE BECMB (EXTENDED POWER MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

-  **WARNING:** Before beginning any service procedure in this section, refer to Safety Warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.

REFER to: [Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

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

Was DTC B1142:62, B11D9:13 or B13BF:14 retrieved during self-test?

Yes	This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the self-test. For DTC B11D9:13, GO to A2 For DTC B1142:62 or B13BF:14, GO to A3
No	The fault is intermittent. GO to A7

A2 CHECK THE BECMB (EXTENDED POWER MODULE) BATTERY INPUT CIRCUIT FOR VOLTAGE

- Ignition OFF.
- Depower the SRS.
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Disconnect BECMB C2518.

Is the voltage greater than 11 volts?

Yes	GO to A6
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No	VERIFY that BCM fuse 9 (10A) is OK. If OK, REPAIR the open circuit. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to A8
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A3 RETRIEVE BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, perform BCM self-test.

Are any ignition-related BCM Diagnostic Trouble Codes (DTCs) retrieved during self-test?

Yes	DIAGNOSE and REPAIR the BCM Diagnostic Trouble Codes (DTCs). REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules) . CLEAR the BECMB Diagnostic Trouble Codes (DTCs) and REPEAT the BECMB self-test. If DTC B1142:62 or B13BF:14 is retrieved during self-test, GO to A4
No	If the BCM does not respond to the scan tool, REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing). GO to A4

A4 CHECK THE BECMB (EXTENDED POWER MODULE) IGNITION INPUT CIRCUIT FOR VOLTAGE

- Ignition OFF.
- Depower the SRS.
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Disconnect BECMB C2518.
- Repower the SRS. Do not prove out the SRS at this time.
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.

Is the voltage greater than 11 volts?

Yes	GO to A5
No	VERIFY that BCM fuse 19 (7.5A) is OK. If OK, REPAIR the open circuit. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to A8

A5 CHECK THE BECMB (EXTENDED POWER MODULE) IGNITION INPUT CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Remove BCM fuse 19 (7.5A).
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit. Refer to Wiring Diagrams Cell 5 for schematic and connector information. GO to A8
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No	TURN OFF the ignition. INSTALL BCM fuse 19 (7.5A). GO to A6
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A6 CONFIRM THE BECMB (EXTENDED POWER MODULE) FAULT

NOTE: Make sure all OCS components, restraint system sensor electrical connectors and the RCM electrical connectors are connected before carrying out the self-test. If not, Diagnostic Trouble Codes (DTCs) will be recorded.

- Ignition OFF.
- Prior to reconnecting any previously disconnected SRS component:
 - inspect connector(s) (including any inline connectors) for pushed-out, loose or spread terminals and loose or frayed wire connections at terminals.
 - inspect wire harness for any damage, pinched, cut or pierced wires.
 - repair any concerns found.Refer to Wiring Diagrams Cell 5 for schematic and connector information.
- Depower the SRS.
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Connect BECMB C2518.
- Repower the SRS. Do not prove out the SRS at this time.
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform BECMB self-test.

Was the original DTC retrieved during self-test?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new BECMB. REFER to: Battery Energy Control Module B (BECMB) (501-20B Supplemental Restraint System, Removal and Installation). GO to A8
No	In the process of diagnosing the fault, the fault condition has become intermittent. Do not install any new SRS components at this time. SRS components should only be installed when directed to do so in the pinpoint test. GO to A7

A7 CHECK FOR AN INTERMITTENT FAULT

- Ignition OFF.
- Depower the SRS.
REFER to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Connect BECMB C2518.
- Repower the SRS. Do not prove out the SRS at this time.
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- Using a diagnostic scan tool, perform BECMB self-test to retrieve Diagnostic Trouble Codes (DTCs).

Was DTC B1142:62, B11D9:13 or B13BF:14 retrieved during self-test?

Yes	The fault condition is now present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the self-test. GO to A3
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No	CHECK for causes of the intermittent fault. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition frequently. ACTIVATE other system in the same wire harness. Do not install any new SRS components at this time. Only install SRS components when directed to do so in the pinpoint test. REPAIR any intermittent concerns found. GO to A8
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A8 CHECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition OFF.
- Reconnect all SRS components (if previously disconnected).
- If previously directed to depower the SRS, repower the SRS. Do not prove out the SRS at this time.
REFER to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).
- Ignition ON.
- **NOTE:** *When selecting Restraints from the Self Test menu, DTCs are retrieved from the RCM, OCSM and, if equipped, BECMB.*

Using a diagnostic scan tool, perform **Restraints** self-test.

Are any RCM, OCSM and/or BECMB Diagnostic Trouble Codes (DTCs) retrieved during self-test?

Yes	Do not clear any Diagnostic Trouble Codes (DTCs) until all Diagnostic Trouble Codes (DTCs) have been resolved. REFER to: Airbag Supplemental Restraint System (SRS) (501-20B Supplemental Restraint System, Diagnosis and Testing).
No	The repair is complete. RETURN the vehicle to the customer.