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1994 FORD Probe OEM Service and Repair Workshop Manual

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C1458A-L2	\bar{V}	Ground
C1458A-M2	\bar{V}	Ground

Are the voltages greater than 10.5 volts?

Yes	GO to BF7
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No	REPAIR the circuit.
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BF7 CHECK THE INVERTER SYSTEM CONTROLLER (ISC) GROUND CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure and record:

Positive Lead	Measurement / Action	Negative Lead
C1458A-L4	Ω	Ground
C1458A-M4	Ω	Ground

Are the resistances less than 5 ohms?

Yes	DIAGNOSE the network concern.
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No	REPAIR the open circuit.
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Does the BCMC (body control module C) pass the network test?

Yes	GO to BG3
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No	DIAGNOSE the network concern.
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BG3 CHECK FOR NON-NETWORK DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, carry out the Inverter System Controller (ISC) self-test.

Are any non-network diagnostic trouble codes (DTCs) present?

Yes	DIAGNOSE all non-network diagnostic trouble codes (DTCs) first. REFER to the appropriate DTC (diagnostic trouble code) chart in this section.
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No	GO to BG4
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BG4 CHECK FOR NON-NETWORK BCMC (BODY CONTROL MODULE C) DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, carry out the BCMC (body control module C) self-test.

Are any non-network diagnostic trouble codes (DTCs) present?

Yes	REFER to: Body Control Module C (BCMC) (419-10 Multifunction Electronic Modules, Diagnosis and Testing).
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No	GO to BG5
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BG5 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0143

- Using the diagnostic scan tool, clear the Inverter System Controller (ISC) diagnostic trouble codes (DTCs).
- Ignition OFF.
- Ignition ON.

- corrosion (install new connector or terminals – clean module pins)
- damaged or bent pins – install new terminals/pins
- pushed-out pins – install new pins as necessary
- Reconnect the BCMC (body control module C) connectors. Make sure they seat and latch correctly.
- Ignition ON.
- Operate the system and determine if the concern is still present.

Is the concern still present?

<p>Yes</p>	<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 BCMC (body control module C) . REFER to: Body Control Module C (BCMC) (419-10 Multifunction Electronic Modules, Removal and Installation).</p>
<p>No</p>	<p>The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.</p>

PINPOINT TEST BH : U0151

<p>NOTE</p>		
<p>The Inverter System Controller (ISC) is referred to as the SOBDMC (Secondary On-Board Diagnostic Control Module C) in the scan tool.</p>		
<p>Normal Operation and Fault Conditions</p>		
<p>REFER to: Electric Powertrain Control - Component Location(303-14F Electric Powertrain Control - 3.5L V6 PowerBoost (CN), Description and Operation).</p>		
<p>DTC Fault Trigger Conditions</p>		
<p>DTC (diagnostic trouble code)</p>	<p>Description</p>	<p>Fault Trigger Condition</p>
<p>SOBDMC (secondary on-board diagnostic control</p>	<p>Lost Communication With Restraints Control Module: No</p>	<p>This DTC (diagnostic trouble code) sets when messages are missing from the</p>

- Enter a PCM (powertrain control module) part number, tear tag or calibration number to identify the vehicle and start a session. The PCM (powertrain control module) part number and 4-character tear tag are located on the PCM (powertrain control module).
- Ignition ON.

Do all modules indicate pass?

Yes	GO to BH3
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No	GO to BH4
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BH3 CHECK FOR A RCM (RESTRAINTS CONTROL MODULE) CONCERN

- Using a diagnostic scan tool, carry out the RCM (restraints control module) self-test.
- Check for any other RCM (restraints control module) related symptoms.

Is a concern present?

Yes	Diagnose the RCM (restraints control module) concern. REFER to: Airbag Supplemental Restraint System (SRS) (501-20B Supplemental Restraint System, Diagnosis and Testing).
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No	The system is operating correctly at this time. The concern may have been caused by module connections. Address the root cause of any connector or pin issues.
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BH4 INVERTER SYSTEM CONTROLLER (ISC) SELF-TEST

- Confirm the Inverter System Controller (ISC) was the only module to fail.

Was the Inverter System Controller (ISC) the only module to fail?

Yes	GO to BH5
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No	DIAGNOSE the network concern.
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BH5 CHECK THE INVERTER SYSTEM CONTROLLER (ISC) B+ CIRCUIT FOR VOLTAGE

C1458A-M2	\bar{V}	Ground
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Are the voltages greater than 10.5 volts?

Yes GO to [BH7](#)

No REPAIR the circuit.

BH7 CHECK THE INVERTER SYSTEM CONTROLLER (ISC) GROUND CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure and record:

Positive Lead	Measurement / Action	Negative Lead
C1458A-L4	Ω	Ground
C1458A-M4	Ω	Ground

Are the resistances less than 5 ohms?

Yes DIAGNOSE the network concern.

No REPAIR the open circuit.

PINPOINT TEST BI : U0155

NOTE

No	REFER to: Electronic Engine Controls - System Operation and Component Description(303-14C Electronic Engine Controls - 3.5L EcoBoost (BM), Description and Operation) . Recreating the Fault.
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B12 CARRY OUT THE NETWORK TEST

- Note: When using FDRS (Ford Diagnosis and Repair System) , the scan tool attempts to communicate with the PCM (powertrain control module) first. After establishing communication with the PCM (powertrain control module) , the scan tool then attempts to communicate with all modules on the vehicle. If an FDRS (Ford Diagnosis and Repair System) session cannot be established, FDRS (Ford Diagnosis and Repair System) may state no communication can be established with the PCM (powertrain control module) :
 - Choose No when the scan tool prompts whether or not to retry communication.
 - Enter a PCM (powertrain control module) part number, tear tag or calibration number to identify the vehicle and start a session. The PCM (powertrain control module) part number and 4-character tear tag are located on the PCM (powertrain control module) .
- Ignition ON.

Do all modules indicate pass?

Yes	GO to B13
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No	GO to B14
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B13 CHECK FOR AN IPC (INSTRUMENT PANEL CLUSTER) CONCERN



No	REPAIR the circuit.
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BI6 CHECK THE INVERTER SYSTEM CONTROLLER (ISC) VPWR CIRCUITS FOR VOLTAGE

- Ignition OFF.
- Connect a 5A fused jumper between:

Positive Lead	Measurement / Action	Negative Lead
C1458A-K3		Ground

- Ignition ON.
- Measure and record:

Positive Lead	Measurement / Action	Negative Lead
C1458A-L2		Ground
C1458A-M2		Ground

Are the voltages greater than 10.5 volts?

Yes	GO to BI7
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No	REPAIR the circuit.
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BI7 CHECK THE INVERTER SYSTEM CONTROLLER (ISC) GROUND CIRCUITS FOR AN OPEN

- Ignition OFF.

Possible Sources

- Communications network concern
- HVAC (heating, ventilation and air conditioning) module.

BJ1 CARRY OUT A VEHICLE INSPECTION AND VERIFY THE SELF-TEST PROCEDURE

NOTE

If the self-test or communication concern occurred after a failed or aborted reprogram, the module may be blank. Attempt to reprogram the module again before continuing with this pinpoint test.

- Visually inspect the following for obvious signs of electrical damage:
 - harness wiring
 - electrical connections
- Verify the correct procedure was used to activate the self-test for the scan tool.
REFER to: [Electronic Engine Controls - System Operation and Component Description\(303-14C Electronic Engine Controls - 3.5L EcoBoost \(BM\), Description and Operation\)](#).
Recreating the Fault.

Was the correct self-test procedure used?


Yes	GO to BJ2
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No	REFER to: Electronic Engine Controls - System Operation and Component Description(303-14C Electronic Engine Controls - 3.5L EcoBoost (BM), Description and Operation) . Recreating the Fault.
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BJ2 CARRY OUT THE NETWORK TEST

- Note: When using FDRS (Ford Diagnosis and Repair System) , the scan tool attempts to communicate with the PCM (powertrain control module) first. After establishing communication with the PCM (powertrain control module) , the scan tool then attempts to communicate with all modules on the vehicle. If an FDRS (Ford Diagnosis and Repair System) session cannot be established, FDRS (Ford Diagnosis and Repair System) may state no communication can be established with the PCM (powertrain control module) :
 - Choose No when the scan tool prompts whether or not to retry communication.
 - Enter a PCM (powertrain control module) part number, tear tag or calibration number to identify the vehicle and start a session. The PCM (powertrain control module) part number and 4-

- Ignition ON.
- Measure and record:

Positive Lead	Measurement / Action	Negative Lead
C1458A-M1		Ground


Is the voltage greater than 10.5 volts?

Yes	GO to BJ6
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No	REPAIR the circuit.
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BJ6 CHECK THE INVERTER SYSTEM CONTROLLER (ISC) VPWR CIRCUITS FOR VOLTAGE

- Ignition OFF.
- Connect a 5A fused jumper between:

Positive Lead	Measurement / Action	Negative Lead
C1458A-K3		Ground

- Ignition ON.
- Measure and record:

Positive Lead	Measurement / Action	Negative Lead
C1458A-L2		Ground
C1458A-M2		Ground