

414-05 Voltage Converter/Inverter
Diagnosis and Testing

2019 Ranger

Procedure revision date: 12/3/2018

Direct Current/Alternating Current (DC/AC) Inverter

Inspection and Verification

Before diagnosing or repairing the Direct Current/Alternating Current (DC/AC) Inverter system refer to the Owner's Literature and

REFER to: [Direct Current/Alternating Current \(DC/AC\) Inverter - System Operation and Component Description](#) (414-05 Voltage Converter/Inverter, Description and Operation).
for proper system operation.

DTC Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

Body Control Module (BCM) DTC Chart

DTC	Description	Action
B1330:01	DC/AC Inverter Module: General Electrical Failure	GO to Pinpoint Test A
B1330:02	DC/AC Inverter Module: General Signal Failure	GO to Pinpoint Test C
B1330:08	DC/AC Inverter Module: Bus Signal / Message Failure	GO to Pinpoint Test C
B1330:49	DC/AC Inverter Module: Internal Electronic Failure	CLEAR the <u>DTC</u> . REPEAT the self-test. If <u>DTC</u> B1330:49 is retrieved again, INSTALL a new Direct Current/Alternating Current (DC/AC) Inverter. REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/Inverter, Removal and Installation).
B1330:55	DC/AC Inverter Module: Not Configured	CLEAR the <u>DTC</u> . REPEAT the self-test. If <u>DTC</u> B1330:55 is retrieved again, INSTALL a new Direct Current/Alternating Current (DC/AC) Inverter. REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/Inverter, Removal and Installation).
B1330:9A	DC/AC Inverter Module: Component or System Operating Conditions	ADDRESS all other Diagnostic Trouble Codes (DTCs) first. If no other Diagnostic Trouble Codes (DTCs) are present ADDRESS any symptoms. REFER to SYMPTOM CHART in this section. If no symptoms are present clear the <u>DTC</u> . If the <u>DTC</u> returns and no symptoms are present INSTALL a new Direct Current/Alternating Current (DC/AC) Inverter. REFER to: Direct Current/Alternating Current (DC/AC) Inverter (414-05 Voltage Converter/Inverter, Removal and Installation).

All Other DTCs	—	REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Diagnosis and Testing).
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Symptom Chart(s)

Symptom Chart: Direct Current/Alternating Current (DC/AC) Inverter

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Symptom	Possible Sources	Action
<ul style="list-style-type: none"> The <u>AC</u> power point <u>LED</u> indicator is always flashing with the key in the ON position. 	<ul style="list-style-type: none"> Refer to the Pinpoint Test 	<ul style="list-style-type: none"> DISCONNECT all electrical accessories from the <u>AC</u> outlet and VERIFY that cabin temperature is below 75°C (167°F). CYCLE the ignition. TEST the system for normal operation. If the system is operating normally, RETURN the vehicle to the customer. If the <u>AC</u> outlet <u>LED</u> indicator is still flashing, GO to Pinpoint Test A
<ul style="list-style-type: none"> No power at the <u>AC</u> power point 	<ul style="list-style-type: none"> Refer to the Pinpoint Test 	<ul style="list-style-type: none"> GO to Pinpoint Test A
<ul style="list-style-type: none"> The <u>AC</u> power point <u>LED</u> indicator is never on 	<ul style="list-style-type: none"> Refer to the Pinpoint Test 	<ul style="list-style-type: none"> GO to Pinpoint Test B
<ul style="list-style-type: none"> The <u>AC</u> power point turns off after 13 minutes 	<ul style="list-style-type: none"> Refer to the Pinpoint Test 	<ul style="list-style-type: none"> GO to Pinpoint Test C

Pinpoint Tests

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices. REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

► [PINPOINT TEST A : NO POWER AT THE AC \(ALTERNATING CURRENT\) POWER POINT OR THE AC \(ALTERNATING CURRENT\) POWER POINT LED \(LIGHT EMITTING DIODE\) INDICATOR FLASHES WITH THE KEY IN THE ON POSITION](#)

► [PINPOINT TEST B : THE AC \(ALTERNATING CURRENT\) POWER POINT LED INDICATOR IS NEVER ON](#)

► [PINPOINT TEST C : THE AC \(ALTERNATING CURRENT\) POWER POINT TURNS OFF AFTER 13 MINUTES](#)

