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Coding Information

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**Title:** Symptom 2: No-Idle HVAC Fault Codes

**Applies To:** ProStar® and LoneStar®

## CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

11/21/2014 - Initial Article Release  
 02/19/2015 - Revision 1 updated steps  
 03/06/2015 - Added Warranty and SRT Information  
 3/12/2015 - Amended DTC list

## DESCRIPTION

This document will guide the user through the diagnostics of the No-Idle HVAC Fault Codes.

## SYMPTOM(s)

**Diagnostic Trouble Code(s) & Dashboard Indicator Light(s):**

DTC/Light	SPN	FMI	Description	Possible Causes	Diagnostics
3 FMI	SPN 520210	6	Blower Output Short Circuit	Blower relay failure or Relay enable signal from system controller shorted to Power.	Go to Step 2.
5 FMI	SPN 1548	3	Discharge Temp Sensor High	Discharge Sensor wire shorted to power, Discharge sensor mission, Open circuit in sensor wiring, or Discharge Sensor faulty.	Go to Step 8.
6 FMI	SPN 1548	4	Discharge Temp Sensor Low	Discharge sensor wire shorted to ground or Discharge sensor faulty	Go to Step 8.
9 FMI	SPN 168	3	Battery Voltage High	Charging circuit failure	Test charging system for excessive voltage output.
10 FMI	SPN 168	4	Voltage Low	Battery or charging circuit failure	Test batteries and charging system.
11 FMI	SPN 1547	0	Inlet Temp Sensor High		Go to Step 9.

				Inlet Temp sensor wire shorted to power, Inlet Temp sensor missing or open circuit in sensor wiring, or Inlet Temp sensor faulty	
12 FMI 1	SPN 1547	1	Inlet Temp Sensor Low	Inlet Temp sensor wire shorted to ground or Inlet Temp sensor faulty	Go to Step 9.
15 FMI 14	SPN 520808	14	No-Idle Compressor Relay Open / Short	Compressor and condenser relay failure or Relay enable signal from system controller shorted to power.	Go to Step 10.
17 FMI 14	SPN 520810	14	Condenser Fan Relay Short / Open	Compressor and condenser relay fault, Relay enable signal from system controller shorted to power.	Go to Step 10.
19 FMI 14	SPN 109	14	Pressure Switch Circuit Open	High refrigerant pressure in system, Pressure sensor unplugged, Open circuit in sensor wiring, or Pressure sensor faulty,	Go to Step 17.

**Customer Observations or Concerns:**

- Loose connections
- Failed relay
- Open relay enable circuit
- Relay enable circuit shorted to B+
- Relay enable circuit shorted to ground
- Failed wire harness
- Failed system controller
- Failed temp sensor
- Failed pressure switch
- Failed alternator / regulator
- Failed or discharged batteries

**SPECIAL TOOL(S) / SOFTWARE**

Tool Description	Tool Number	Comments	Instructions
Relay Breakout Harness	ZTSE4674		

[Tools Resource Center](#)

**SERVICE PARTS INFORMATION**

Not Applicable

Kit Description	Part Number	Quantity Required	Notes
Not Applicable			

**DIAGNOSTIC STEP(S)**

**WARNING:**

To prevent property damage, personal injury, and / or death, park vehicle on a hard, flat surface, turn engine off, set parking brake, and install wheel chocks to prevent vehicle from moving in either direction.

**WARNING:**

To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

**CAUTION:**

To prevent damage to components, do not attempt to connect battery voltage to evaporator blower motor, condenser fan motor, or A/C compressor. Electronic components within the motors are sensitive to arcing and reverse polarity.

**NOTE:**

Perform all of the following steps Key-OFF and Park Brake set unless otherwise directed.

**NOTE:**

When disconnecting harness connectors, check for pushed-back and damaged terminals.

**NOTE:**

After any step where a problem is detected, repair as needed and retest for original concern.

**NOTE:**

If operator uses No-Idle A/C with ignition switch in ACCESSORY position, verify park brake input logic to system controller is correct.

**NOTE:**

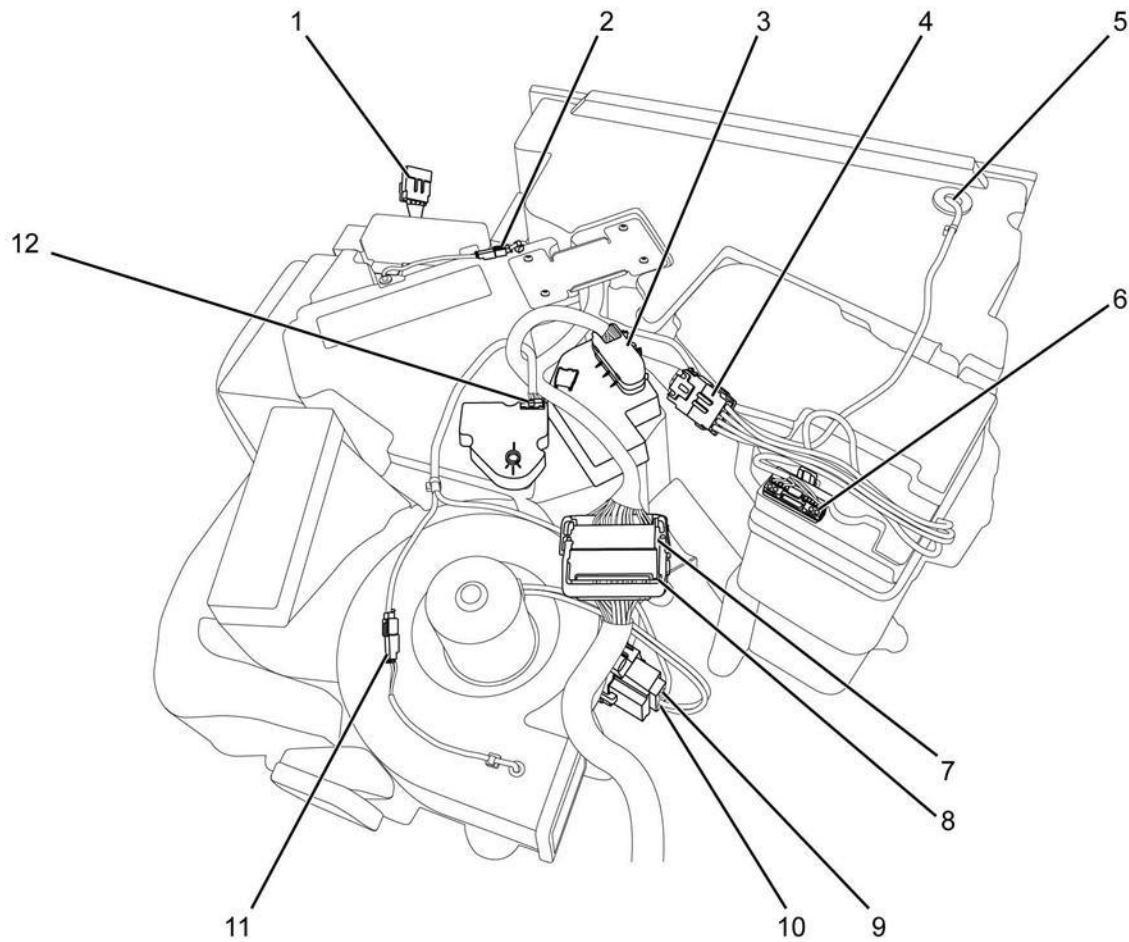
Vehicles built with or updated to 150A compressor relays do not use fuse (F2); Circuit protection is provided by cube fuse located in battery box.

**NOTE:**

When 12V No-Idle system controller senses battery voltage drop below 11.8V for 10 seconds, system will shut down.

**NOTE:**

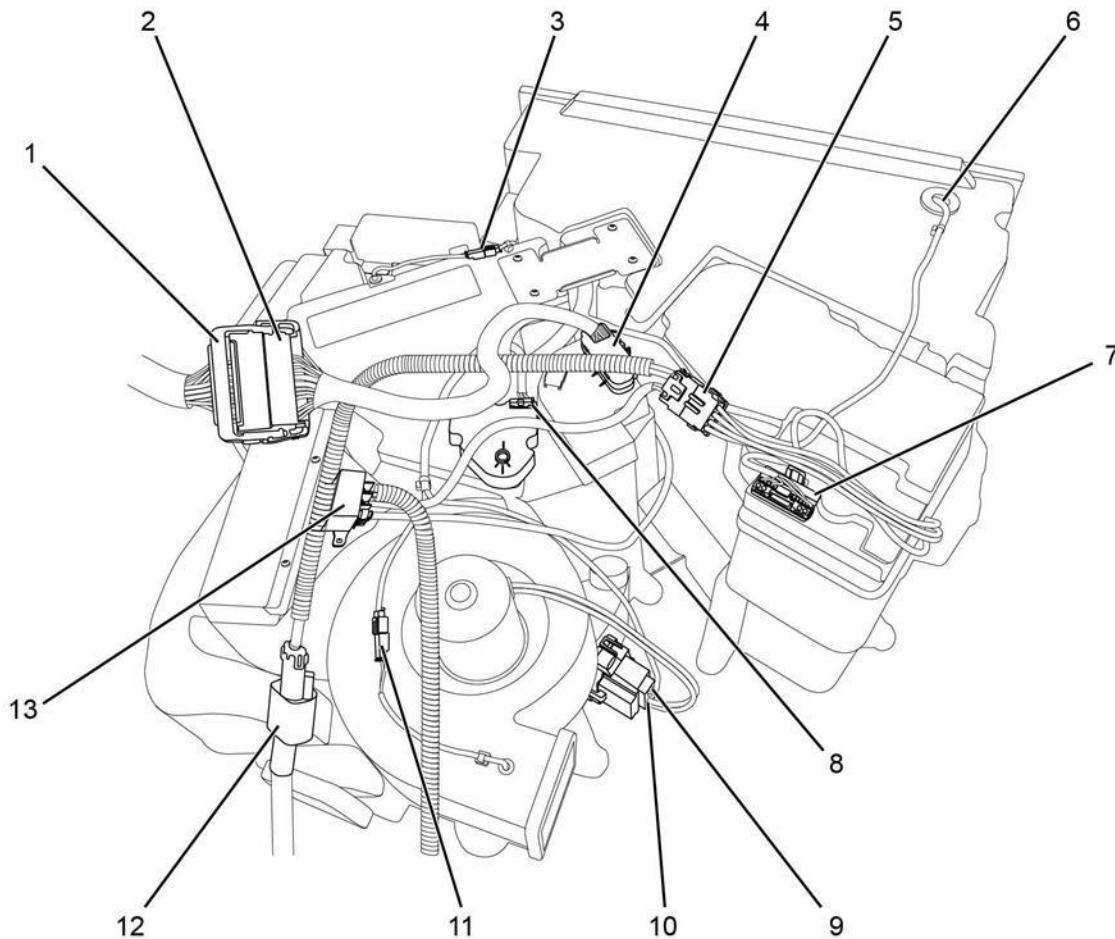
No-Idle A/C faults are transferred to Body Controller (BC) at Key-ON handshake between BC and No-Idle system controller. Inactive faults are not stored in the system controller. Only those faults that are active at handshake are transferred.



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**Figure 1. 60A Relay Connector Locations.**

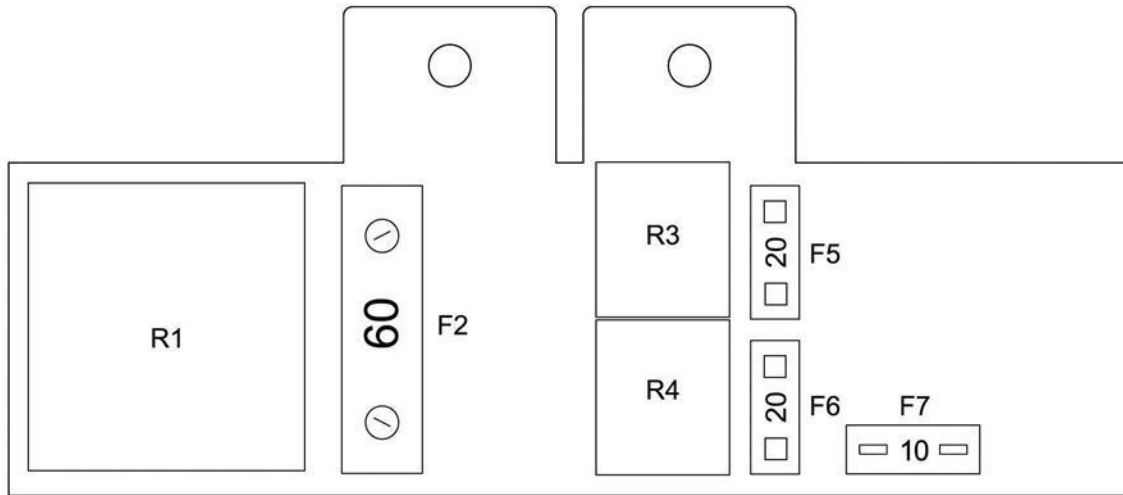
- Item 1: No-Idle harness power / ground 4-way connector
- Item 2: Inlet temperature sensor 2-way connector
- Item 3: System controller 32-way connector
- Item 4: Compressor power / ground 4-way connector
- Item 5: No-Idle harness to condenser fan 3-way connector
- Item 6: Compressor controller 32-way connector
- Item 7: No-Idle 30-way connector
- Item 8: Chassis 30-way connector
- Item 9: Linear Power Module (LPM) 6-way connector
- Item 10: LMP 2-way connector
- Item 11: Discharge temperature sensor 2-way connector
- Item 12: Blend door actuator 6-way connector



0000340021

**Figure 2. 150A Relay Connector Locations.**

- Item 1: Chassis 30-way connector
- Item 2: No-Idle 30-way connector
- Item 3: Inlet temperature sensor 2-way connector
- Item 4: System controller 32-way connector
- Item 5: Compressor power / ground 4-way connector
- Item 6: No-Idle harness to condenser fan 3-way connector
- Item 7: Compressor controller 32-way connector
- Item 8: Blend door actuator 6-way connector
- Item 9: LPM 6-way connector
- Item 10: LPM 2-way connector
- Item 11: Discharge temperature sensor 2-way connector
- Item 12: Compressor controller 1-way ground connector
- Item 13: 150A relay



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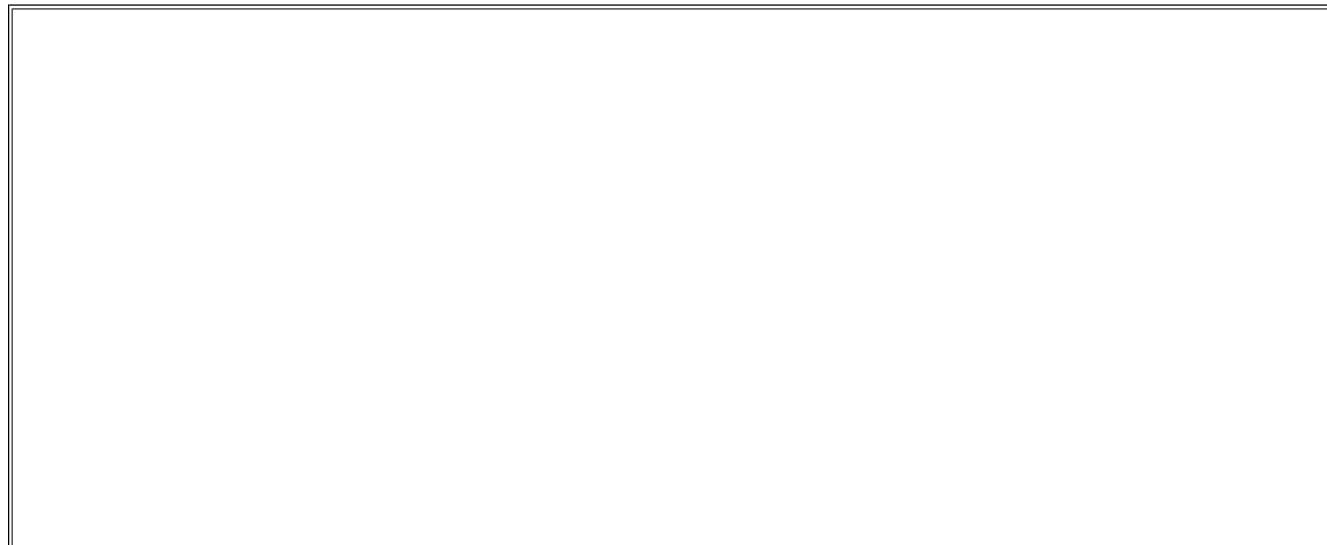
Figure 3. Fuse / Relay Locations.

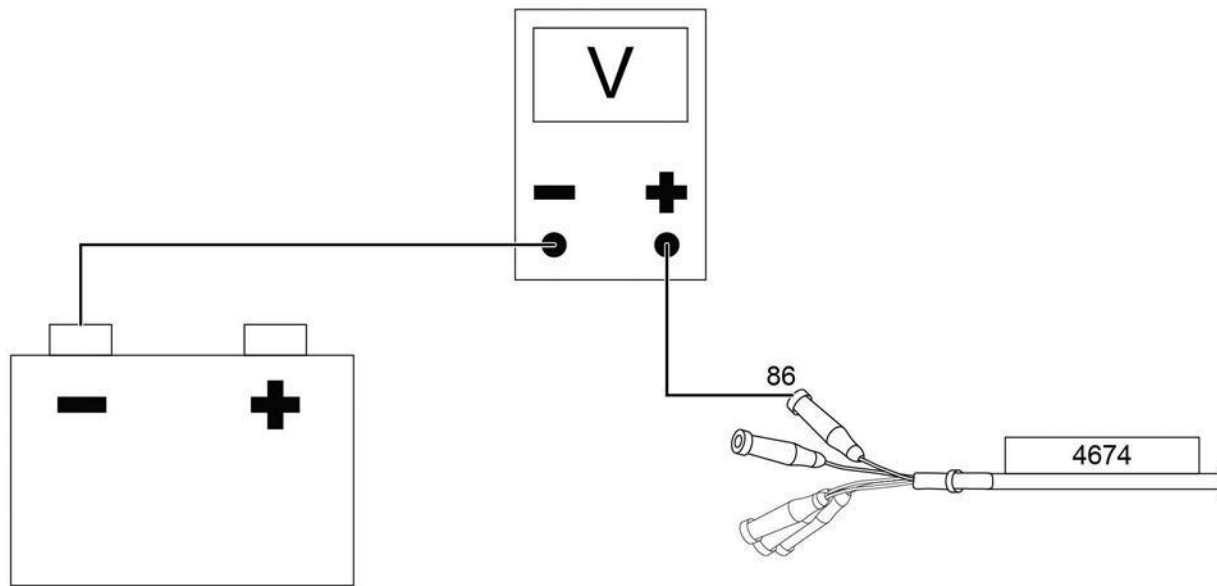
Step	Action	Decision
1	Operational Check: Verify all operational checks have been performed.	Yes. Go to Step 2.
	Have all operational checks been performed?  Fault Code Check:  Locate the Fault Code(s) collected during the completion of operational check (See IK1900235) in the table above and then refer to Diagnostics column for further instructions.	No. Go to <a href="#">Operational Checks in IK1900235</a> .

**DTC 3, SPN 520210 FMI 6: BLOWER ENABLE CIRCUIT SHORTED**

**Possible Causes:**

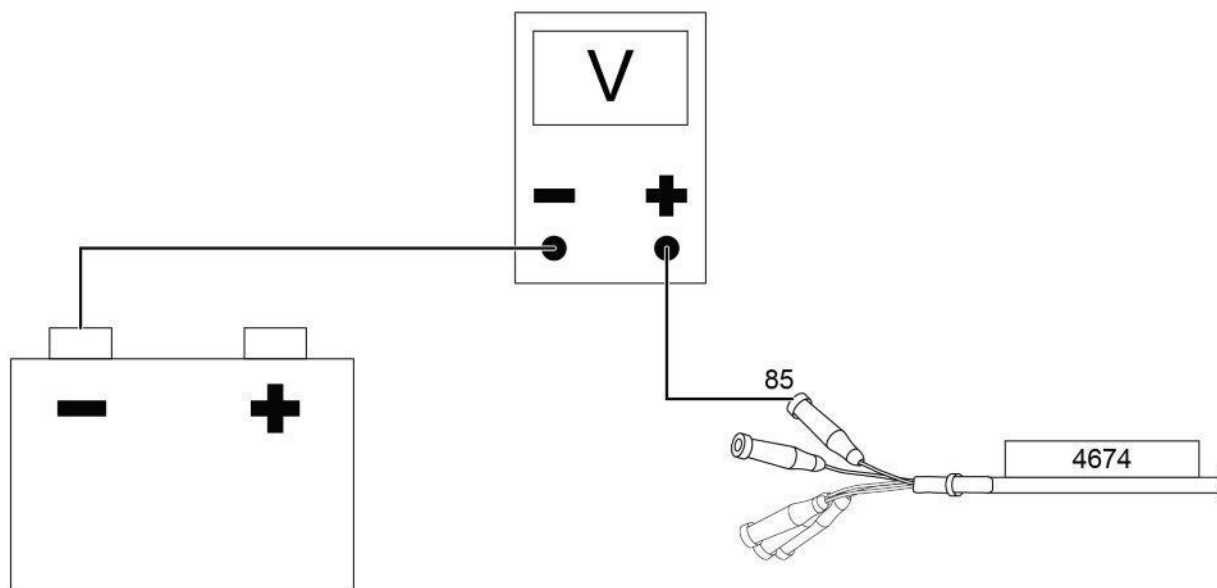
- Blower relay failure
- Relay enable signal from system controller shorted to power





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Figure 4. Breakout Harness ZTSE4674.



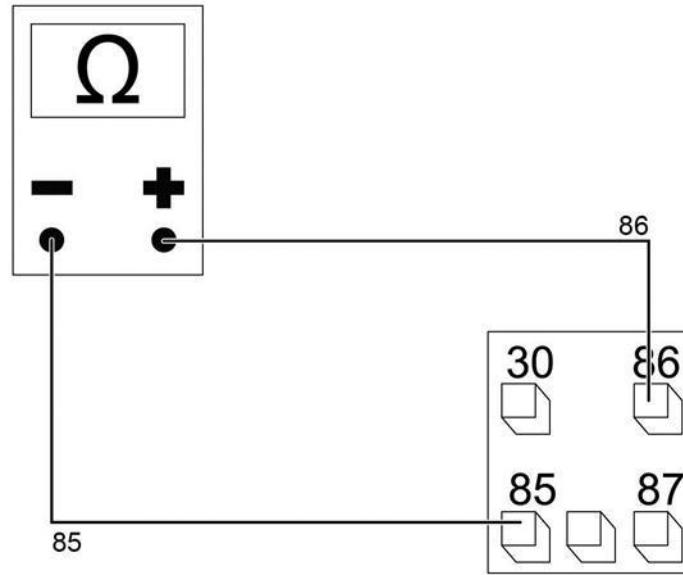
0000330421

Figure 5. Breakout Harness ZTSE4674.

Step	Action	Decision
2	<p><b>BLOWER RELAY CHECK:</b></p> <p>a. Remove blower relay from fuse panel. Install relay breakout harness ZTSE4674 into fuse panel. Connect relay to breakout harness.</p> <p>b. Use a DMM to measure voltage between breakout harness pin-85 (Figure 5) and a known good ground. Pin-85 should have a value B+.</p> <p>c. Record voltage value.</p> <p>d. Use a DMM to measure voltage between breakout harness pin-86 (Figure 4) and a</p>	<p><b>Yes.</b> Fault is intermittent and not active at this time.</p> <p><b>No.</b> Step 2.b = &lt;B+: Check fuse (F7) and check battery box in-line fuse.</p> <p><b>No.</b> Step 2.d = &lt;B+: Check blower relay for open coil and check for open in circuit from fuse (F7) to pin-85.</p>

- known good ground. Pin-86 should have a value of B+.
- e. Record voltage value.
- f. Turn ignition Key-Off and depress control panel COOL switch to start No-Idle A/C.
- g. Use a DMM to measure voltage between breakout harness pin-86 (Figure 4) and a known good ground. Pin-86 should have a value of approximately 0.5V.
- h. Depress control panel COOL switch to stop No-Idle A/C.
- i. Remove breakout harness ZTSE4674 and blower relay from fuse panel.

**No.** Step 2.g has >2V: Go to Step 3.  
**No.** Step 2.g has approximately 0V. Go to Step 5.

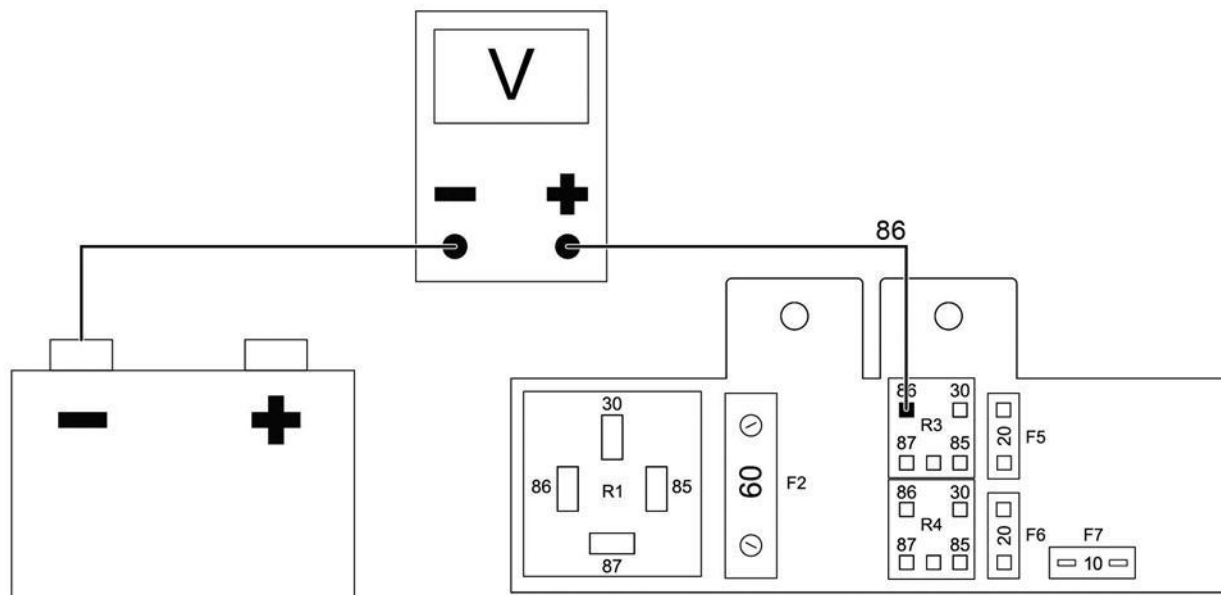


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Figure 6. Blower Relay.

Step	Action	Decision
3	<b>RELAY COIL CHECK:</b> a. Remove breakout harness with relay from the fuse panel. b. Measure resistance between pin-86 and pin-85 of the relay.	<b>Yes.</b> Leave relay out and go to Step 5.
	<div style="background-color: yellow; border: 1px solid black; padding: 5px;"> <b>NOTE:</b>                      Resistance of relay should be approximately 100 Ohms.                 </div> <p>Is coil resistance of blower relay approximately 100 Ohms?</p>	<b>No.</b> Replace relay. reassemble unit to run and retest for operator concern.

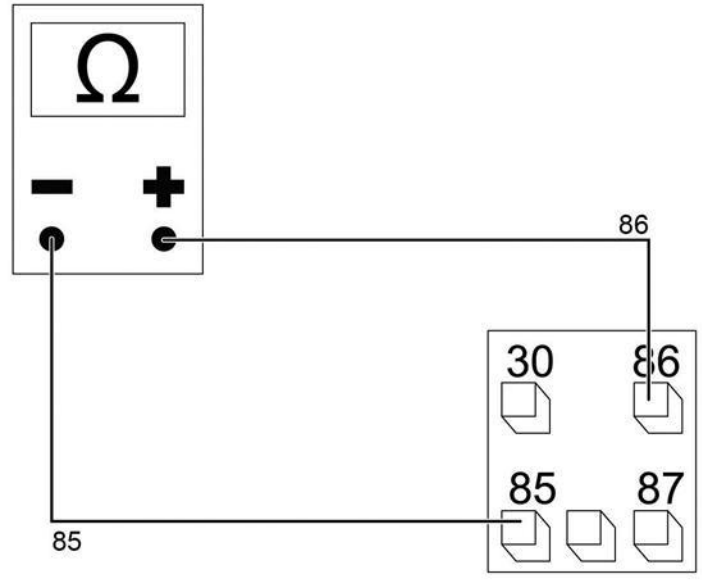




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Figure 7. Blower Relay Cavity.

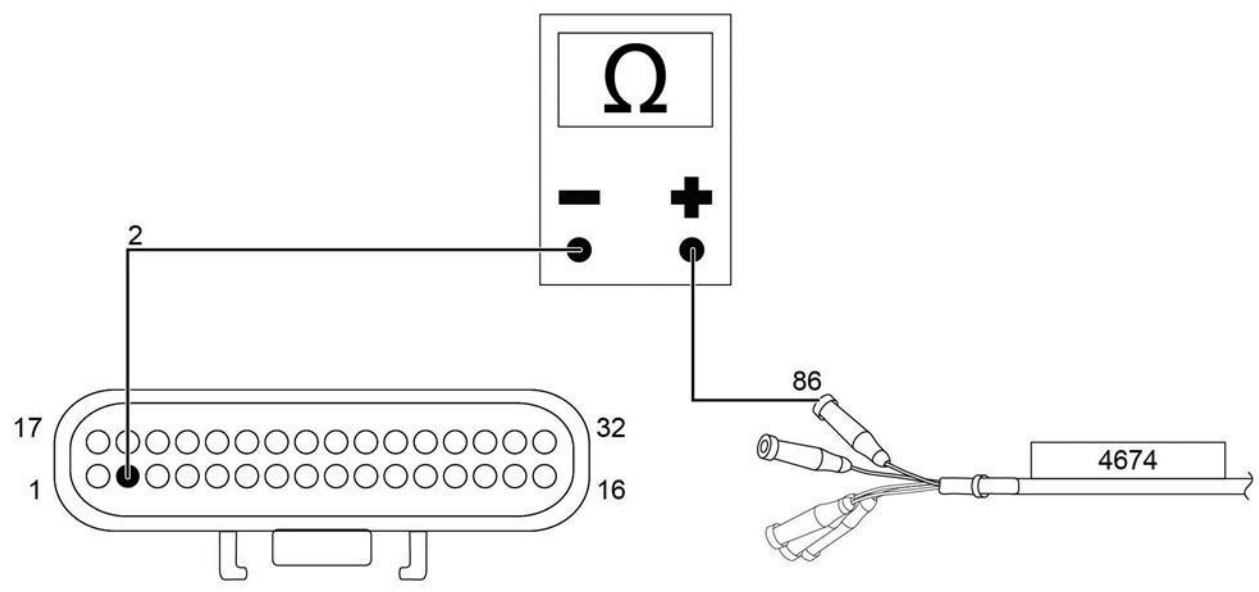
Step	Action	Decision
4	<p><b>ENABLE CIRCUIT SHORT B+ CHECK:</b></p> <ol style="list-style-type: none"> <li>Unplug the No-Idle harness from system controller.</li> <li>Verify blower relay is removed.</li> <li>Use a DMM to measure voltage between fuse panel blower relay cavity-86 (Figure 7) and a known good ground.</li> <li>Reconnect harness to system controller.</li> </ol> <p>Is Step 4.c voltage at cavity-86 &gt;2V?</p>	<p><b>Yes.</b> Replace No-Idle harness. reassemble unit to run and retest for operator concern.</p> <hr/> <p><b>No.</b> Replace the system controller. Reassemble unit to run and retest for operator concern</p>



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Figure 8. Blower Relay.

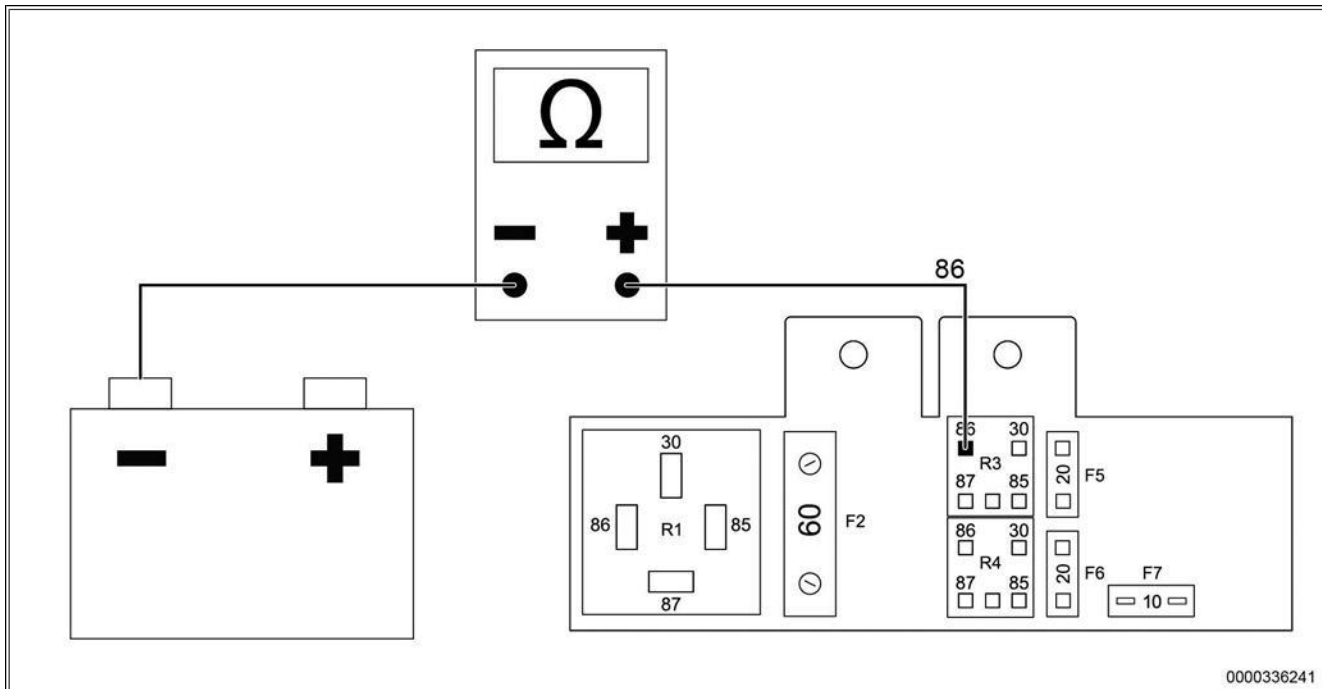
Step	Action	Decision
5	<b>RELAY COIL CHECK:</b> a. Measure resistance between pin-86 and pin-85 of the relay.	<b>Yes.</b> Coil has high resistance (open): Replace relay. Reassemble unit to run and retest for operator concern
	<div style="background-color: #00FF00; padding: 5px; border: 1px solid black;"><b>NOTE:</b></div> Resistance of relay should be approximately 100 Ohms.	<b>No.</b> Leave relay out and go to Step 6.
	Does the coil have high resistance ?	



0000335041

Figure 9. 32-Way System Controller Connector Face View and Breakout Harness ZTSE4674.

Step	Action	Decision
6	<b>ENABLE CIRCUIT RESISTANCE CHECK:</b> a. Unplug the No-Idle harness from the system controller. b. Install relay breakout harness ZTSE4674 into fuse panel blower relay position. c. Use a DMM to measure resistance between breakout harness pin-86 and system controller pin-2 (Figure 9).	<b>Yes.</b> Replace No-Idle harness. reassemble unit to run and retest for operator concern.
	Is resistance greater than 5 Ohms?	<b>No.</b> Go to Step 7.



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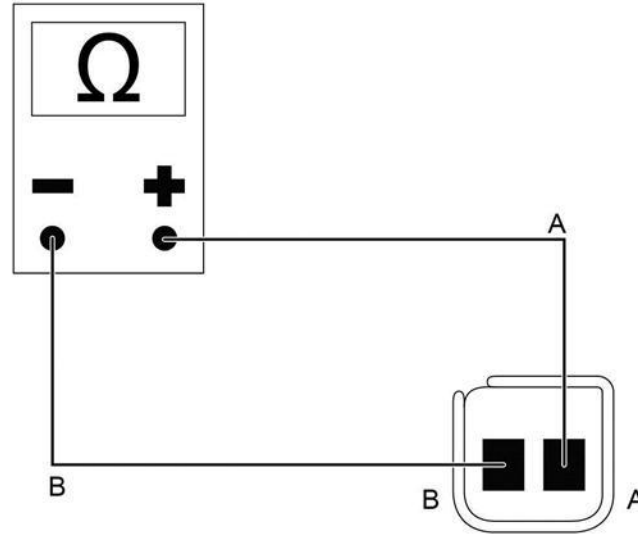
Figure 10. Blower Relay Cavity.

Step	Action	Decision
7	<b>ENABLE CIRCUIT SHORT to GND CHECK:</b> a. Use a DMM to measure resistance between fuse panel blower relay cavity-86 and a known good ground (Figure 10).	<b>Yes.</b> Replace No-Idle harness. reassemble unit to run and retest for operator concern.
	Is resistance less than 1000 Ohms?	<b>No.</b> Replace system controller. reassemble unit to run and retest for operator concern.

**DTC 5, SPN 1548, FMI 3: DISCHARGE TEMP SENSOR HIGH**

**Possible Causes:**

- Discharge temp sensor wire shorted to power
- Discharge temp sensor missing
- Open circuit in discharge temp sensor wiring
- Discharge sensor faulty



0000324861

Figure 11. 2-Way Discharge Temperature Sensor Pigtail Connector.

Step	Action	Decision
8	<b>DISCHARGE TEMPERATURE SENSOR CIRCUIT CHECK:</b> A. Unplug the discharge temperature sensor from the No-idle harness. B. Use a DMM to measure resistance between Pin-A and Pin-B of the sensor pigtail connector. C. Locate the current ambient temperature value on the Discharge Sensor/Inlet Sensor Chart. D. Compare the measured resistance to the min – max range on the chart.  Does measured resistance indicate an open or shorted sensor?  When compared to Sensor/ Temperature Chart, does sensor fall outside proper range?	<b>Yes.</b> Replace discharge temperature sensor. reassemble unit to run and retest for operator concern.
		<b>No.</b> Replace the No-Idle harness. Reassemble unit to run and retest for operator concern.

**Discharge Sensor / Air Inlet Sensor Temperature Resistance Relationship Chart**

Resistance values in Kohms.

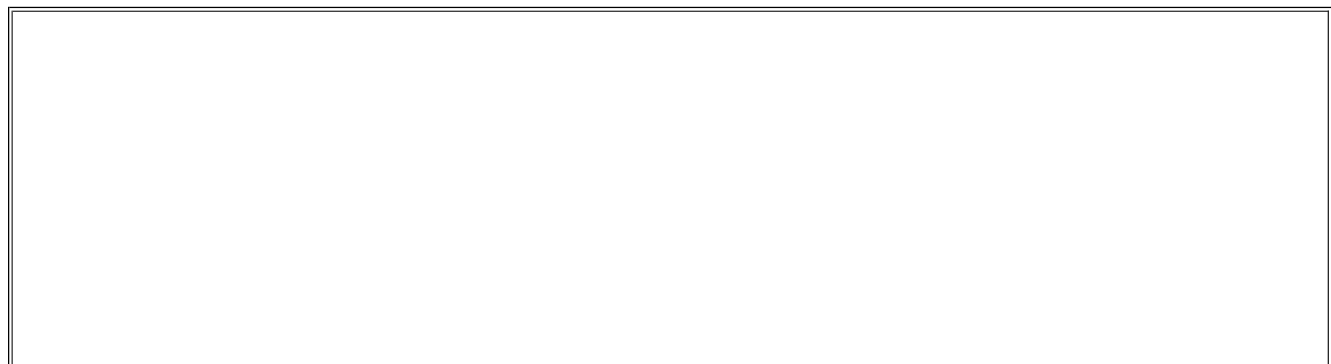
Temp (°F)	Temp (°C)	MIN	KΩ	MAX
32.0	0	15.84		16.16
33.8	1	15.05		15.37
35.6	2	14.30		14.62
37.4	3	13.60		13.91
39.2	4	12.93		13.24
41.0	5	12.30		12.61
42.8	6	11.70		12.01

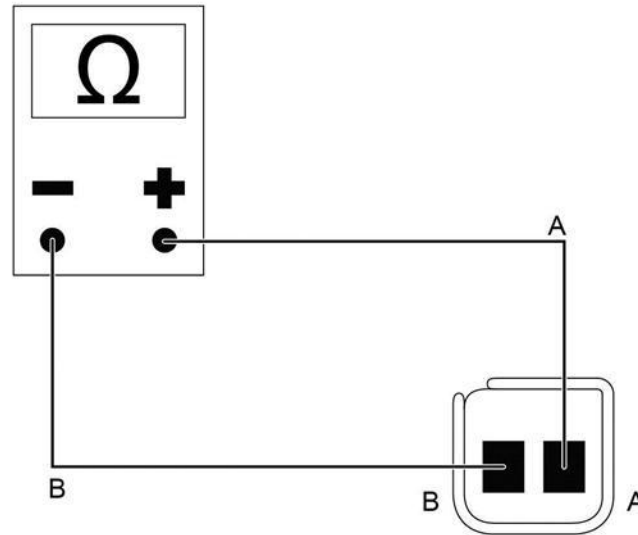
44.6	7	11.14		11.45
46.4	8	10.61		10.91
48.2	9	10.10		10.40
50.0	10	9.62		9.91
51.8	11	9.17		9.46
53.6	12	8.74		9.02
55.4	13	8.34		8.61
57.2	14	7.95		8.22
59.0	15	7.58		7.85
60.8	16	7.24		7.50
62.6	17	6.91		7.17
64.4	18	6.60		6.85
66.2	19	6.30		6.55
68.0	20	6.02		6.26
69.8	21	5.75		5.99
71.6	22	5.50		5.73
73.4	23	5.26		5.48
75.2	24	5.03		5.25
77.0	25	4.81		5.03
78.8	26	4.60		4.81
80.6	27	4.41		4.61
82.4	28	4.22		4.42
84.2	29	4.04		4.23
86.0	30	3.87		4.06
87.8	31	3.71		3.89
89.6	32	3.55		3.73

91.4	33	3.41		3.58
93.2	34	3.26		3.44
95.0	35	3.13		3.30
96.8	36	3.00		3.17
98.6	37	2.88		3.04
100.4	38	2.76		2.92
102.2	39	2.65		2.81
104.0	40	2.55		2.70
105.8	41	2.45		2.59
107.6	42	2.35		2.49
109.4	43	2.26		2.39
111.2	44	2.17		2.30
113.0	45	2.09		2.21
114.8	46	2.00		2.13
116.6	47	1.93		2.05
118.4	48	1.85		1.97
120.2	49	1.78		1.91

**DTC 11, SPN 11547, FMI 0: INLET TEMP SENSOR HIGH****DTC 11, SPN 11547, FMI 1: INLET TEMP SENSOR LOW****Possible Causes:**

- Inlet temp sensor wire shorted to power
- Inlet temp sensor missing
- Open circuit in inlet temp sensor wiring
- Inlet temp sensor faulty





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Figure 12. 2-Way Inlet Temperature Sensor Pigtail Connector.

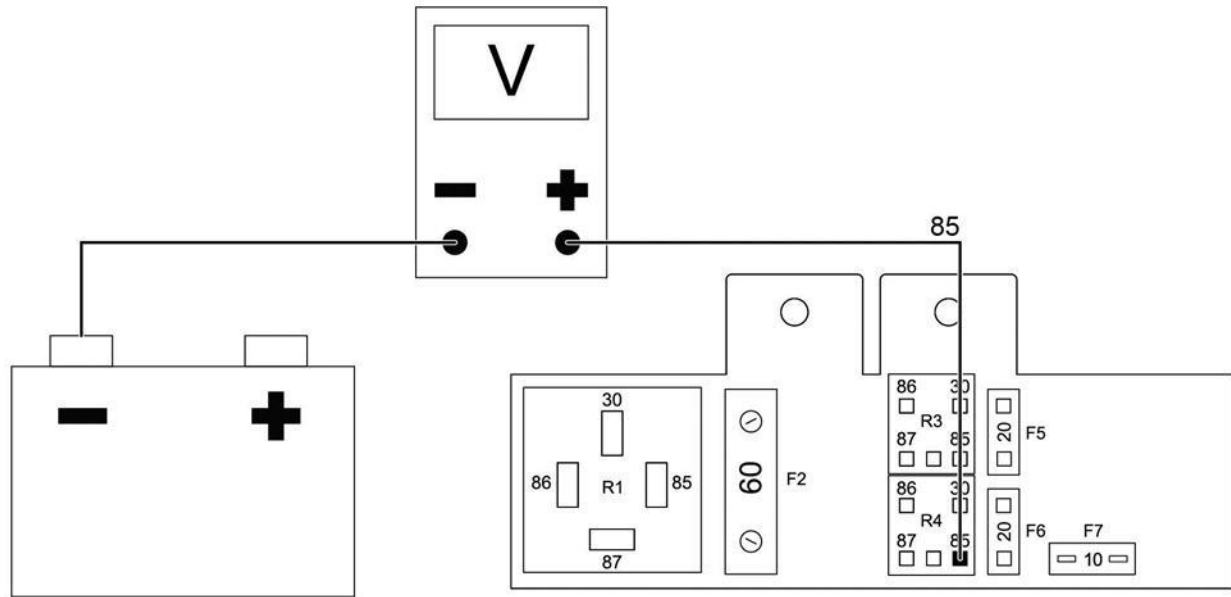
Step	Action	Decision
9	<b>INLET TEMPERATURE SENSOR CIRCUIT CHECK:</b>  A. Unplug the Inlet temperature sensor from the No-idle harness. B. Use a DMM to measure resistance between Pin-A and Pin-B of the sensor pigtail connector. C. Locate the current ambient temperature value on the Discharge Sensor/Inlet Sensor Chart. D. Compare the measured resistance to the min – max range on the chart.  Does the measured resistance indicate an open or shorted sensor? When compared to the Sensor/Temperature Chart, does the sensor fall outside the proper range?	<b>Yes.</b> Replace inlet temperature sensor. reassemble unit to run and retest for operator concern.
		<b>No.</b> Replace the No-Idle harness. Reassemble unit to run and retest for operator concern.

**DTC 15, SPN 520808, FMI 14: COMPRESSOR RELAY / CONDENSER RELAY FAULT**

**DTC17, SPN 520810, FMI 14: COMPRESSOR RELAY / CONDENSER RELAY FAULT**

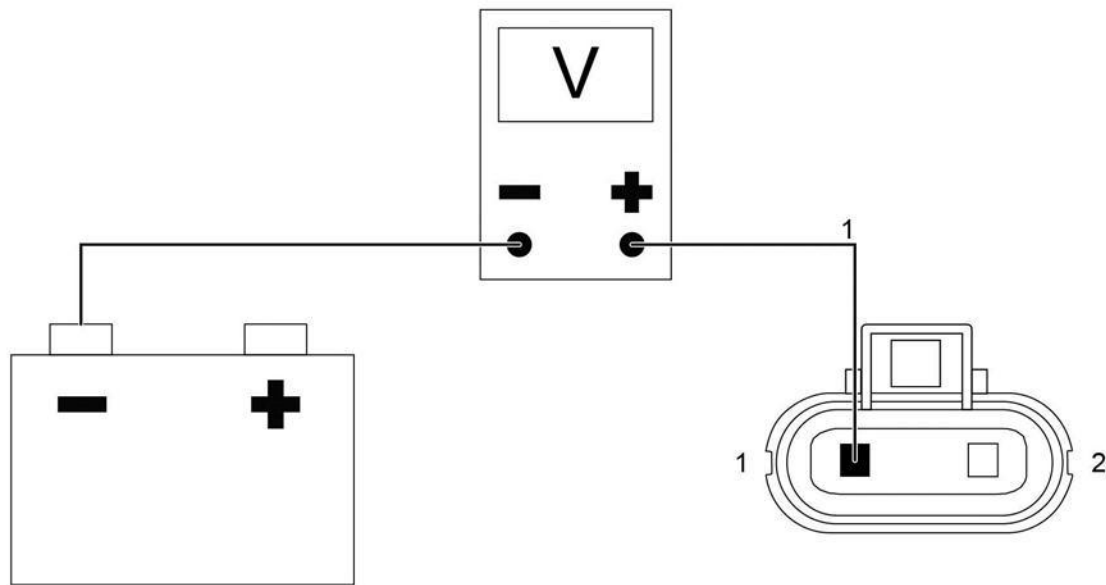
**Possible Causes:**

- Compressor and condenser relay failure
- Relay enable signal from system controller shorted to power



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Figure 13. Fuse Panel (Condenser and Compressor Relay Removed).



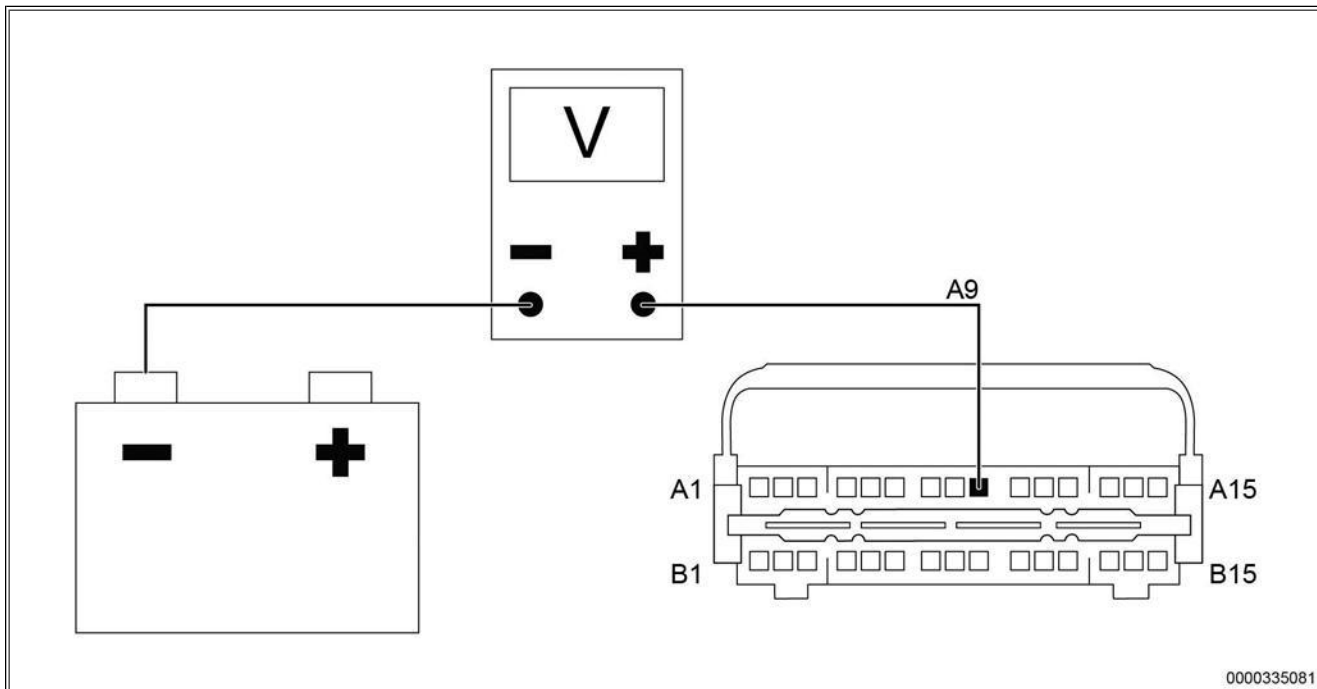
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Figure 14. 2-Way 150A Compressor Relay Connector.

Step	Action	Decision
10	<p><b>COMPRESSOR / CONDENSER RELAY VOLTAGE CHECK:</b></p> <p>A. Remove condenser relay (R4) from fuse panel.</p> <p>B. Remove 60A compressor relay from fuse panel or unplug 2-way harness connector from 150A compressor relay.</p> <p>C. Measure voltage between fuse panel condenser relay (R4) cavity-85 and a known good ground.</p> <p>D. Measure voltage between 2-way 150A compressor relay connector Pin-1 and a known good ground.</p>	<p><b>Yes.</b> Leave relays disconnected and go to Step 12.</p> <p><b>No.</b> Cavity 85 has low voltage: Leave relay out and go to step 11.</p>

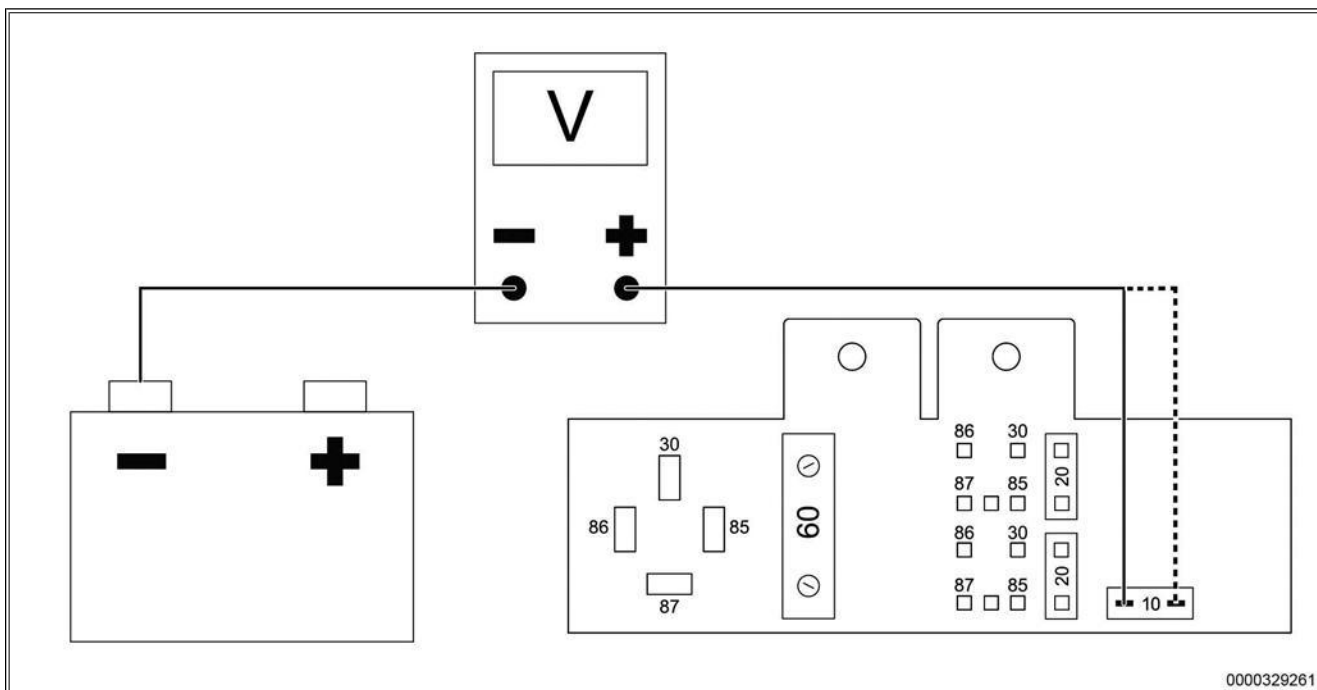


Are Steps 10.c and 10.d measurement both B+?



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Figure 15. 30-Way Chassis / No-Idle Connector (5205) Side Back View.



0000329261

Figure 16. Fuse Panel Red 10A Fuse (F7).

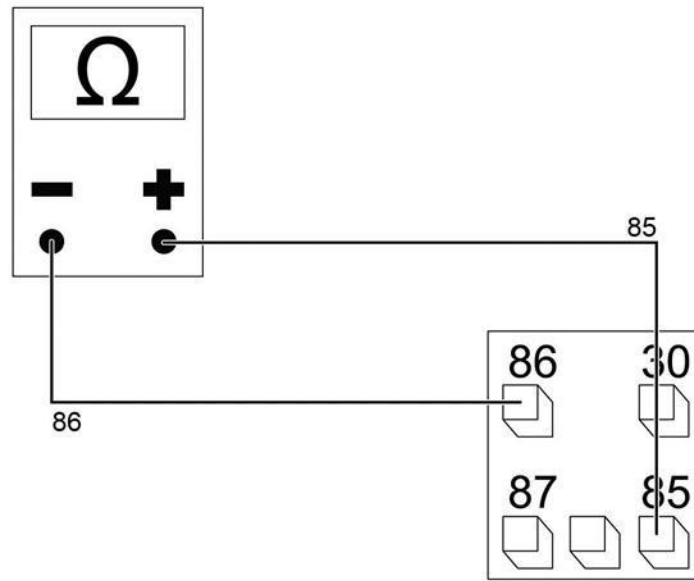
Step	Action	Decision
11	<p><b>RELAY VOLTAGE CIRCUIT CHECK:</b></p> <p>A. Use a DMM to measure voltage between load side of battery box in-line fuse and a known good ground.</p> <p>B. Use a DMM to back probe 30-way chassis / No-Idle connector (5205) and measure voltage between pin-A9 and a known good ground.</p> <p>C. Use a DMM to measure voltage between both sides of Red 10A control fuse</p>	<p><b>Yes.</b> Replace No-Idle harness. reassemble unit to run and retest for operator concern.</p> <p><b>No.</b> Step 11.a has low voltage: Check battery box in-line fuse concern.</p>

(F7) and a known good ground. If only one side has B+, replace fuse and retest.

Are Steps 11.a through 11.c measurements equal to B+?

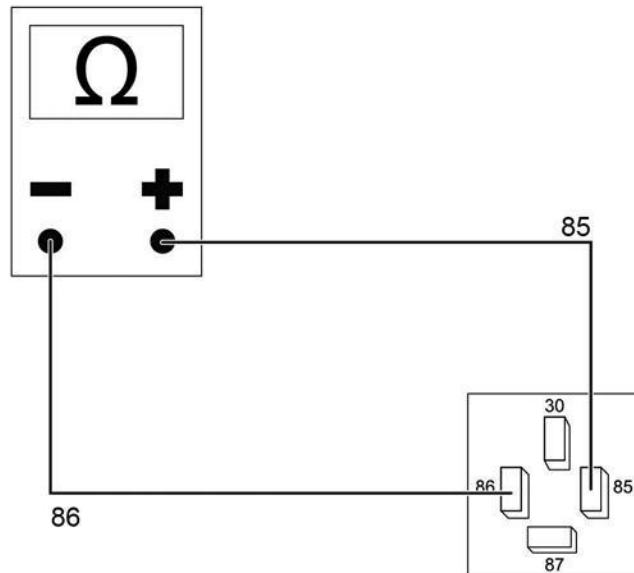
**No.** Steps 11.a and 11.b have low voltage: Repair open or high resistance in circuit from battery box in-line fuse holder to 30-way chassis / No-Idle connector (5205) pin-A9. Assemble unit to run and retest for operator concern.

**No.** Step 11.b has low voltage: Replace No-Idle harness. Assemble unit to run and retest for operator concern.



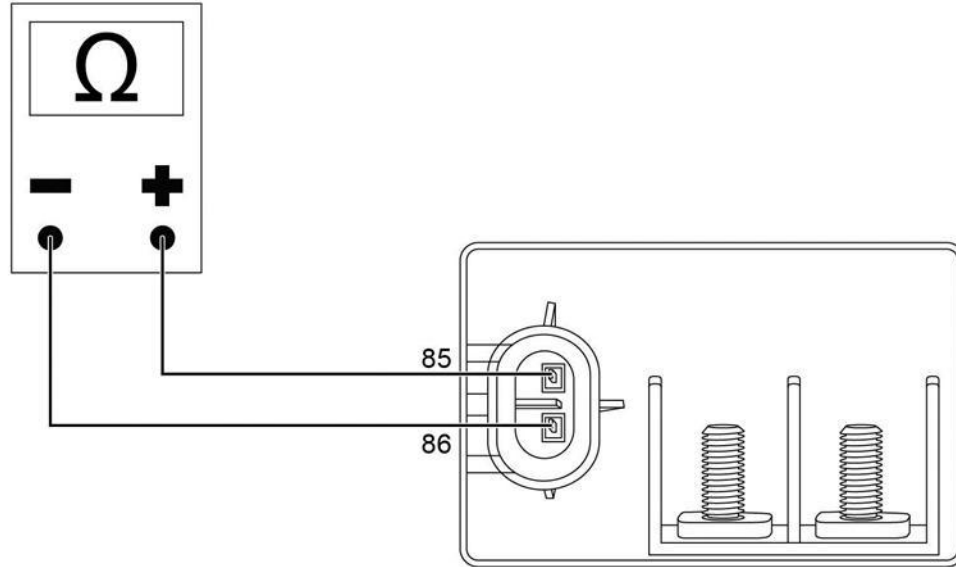
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Figure 17. Condenser Relay and Compressor Relay.



0000338746

Figure 18. 60A Compressor Relay.



0000338843

Figure 19. 150A Compressor Relay.

Step	Action	Decision							
12	<p><b>COMPRESSOR / CONDENSER RELAY COIL CHECK:</b></p> <ol style="list-style-type: none"> <li>Use a DMM to measure resistance between condenser relay (R4) pin-86 and pin-85 (Figure 17).</li> <li>Record resistance value.</li> <li>Use a DMM to measure resistance, if equipped with 60A compressor, between compressor relay (R1) pin-85 and pin-86 (Figure 18). If equipped with 150A compressor, use a DMM to measure resistance between compressor relay (R1) pin-85 and pin-86 (Figure 19).</li> <li>Record resistance value.</li> </ol>	<p><b>Yes.</b> Replace failed relay. Assemble unit to run and retest for operator concern.</p>							
	<p><b>NOTE:</b></p> <p>Resistance of relay should approximately match value in Relay Coil Resistance Table.</p> <p style="text-align: center;"><b>Relay Coil Resistance Table.</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Relay</th> <th>Nominal Resistance</th> </tr> </thead> <tbody> <tr> <td>20A Condenser</td> <td>100 Ohms</td> </tr> <tr> <td>60A Compressor</td> <td>78 Ohms</td> </tr> <tr> <td>150A Compressor</td> <td>36 Ohms</td> </tr> </tbody> </table> <p>Are any coils shorted or open?</p>	Relay	Nominal Resistance	20A Condenser	100 Ohms	60A Compressor	78 Ohms	150A Compressor	36 Ohms
Relay	Nominal Resistance								
20A Condenser	100 Ohms								
60A Compressor	78 Ohms								
150A Compressor	36 Ohms								

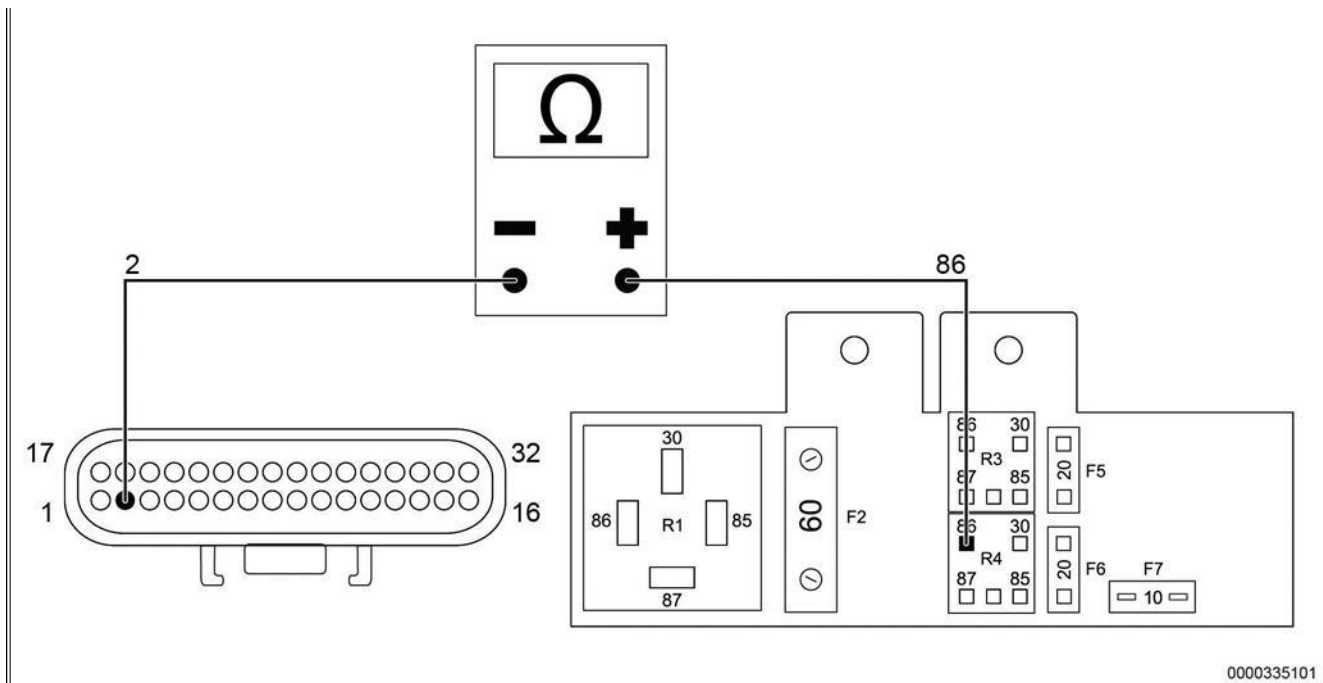
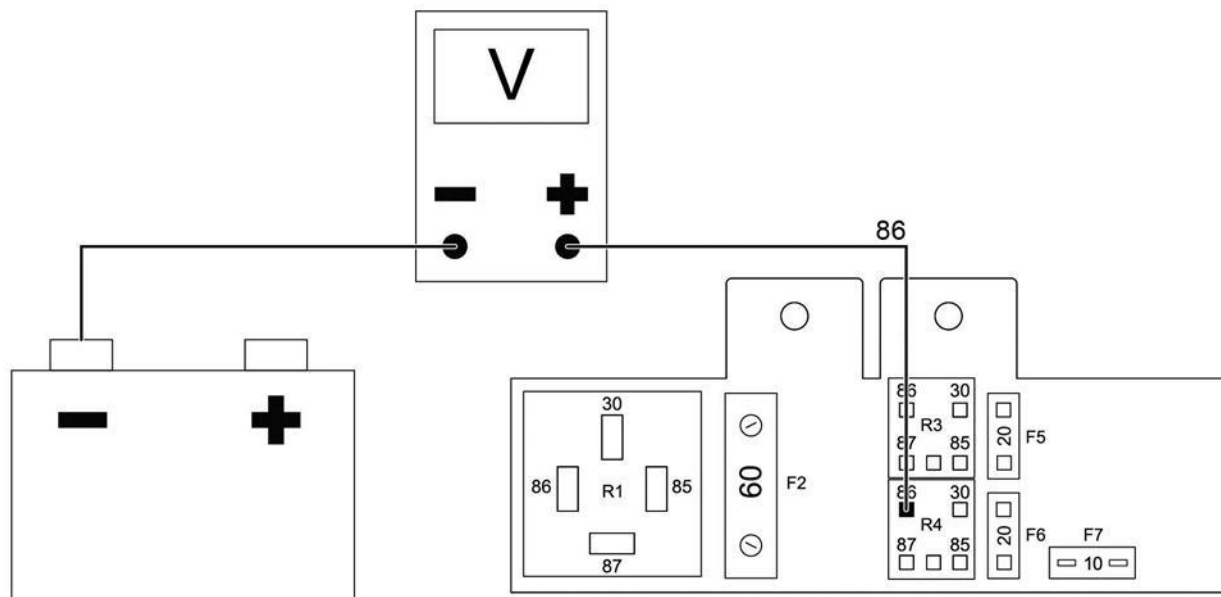


Figure 20. 32-Way System Controller Connector Face View and Fuse Panel Condenser Relay (R4) Cavity-86 (Relay Removed).

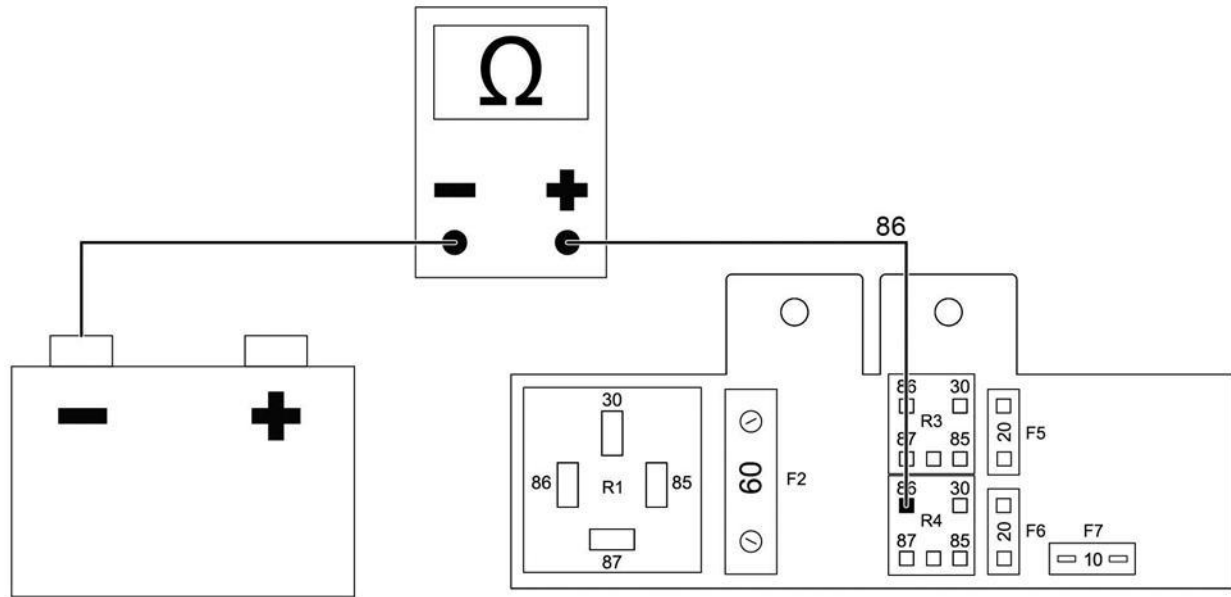
Step	Action	Decision
13	<p><b>ENABLE CIRCUIT RESISTANCE CHECK:</b></p> <ol style="list-style-type: none"> <li>Disconnect 32-way system controller connector.</li> <li>Use a DMM to measure resistance between fuse panel condenser relay (R4) cavity-86 and 32-way system controller connector pin-2 (Figure 20).</li> <li>Perform appropriate Step to match compressor relay:                             <ol style="list-style-type: none"> <li><b>60A Compressor Relay:</b> Use a DMM to measure resistance between fuse panel 60A compressor relay cavity-86 and 32-way system controller connector pin-2 (Figure 20).</li> <li><b>150A Compressor Relay:</b> Use a DMM to measure resistance between 150A compressor relay 2-way harness connector pin-2 and 32-way system controller connector pin-2 (Figure 20).</li> </ol> </li> </ol> <p>Is either resistance reading greater than 5 Ohms?</p>	<p><b>Yes.</b> Replace No-Idle harness. Assemble unit to run and retest for operator concern.</p> <p><b>No.</b> Go to Step 14.</p>



0000335061

Figure 21. Fuse Panel Condenser Relay (R4) Cavity-86 (Relay Removed).

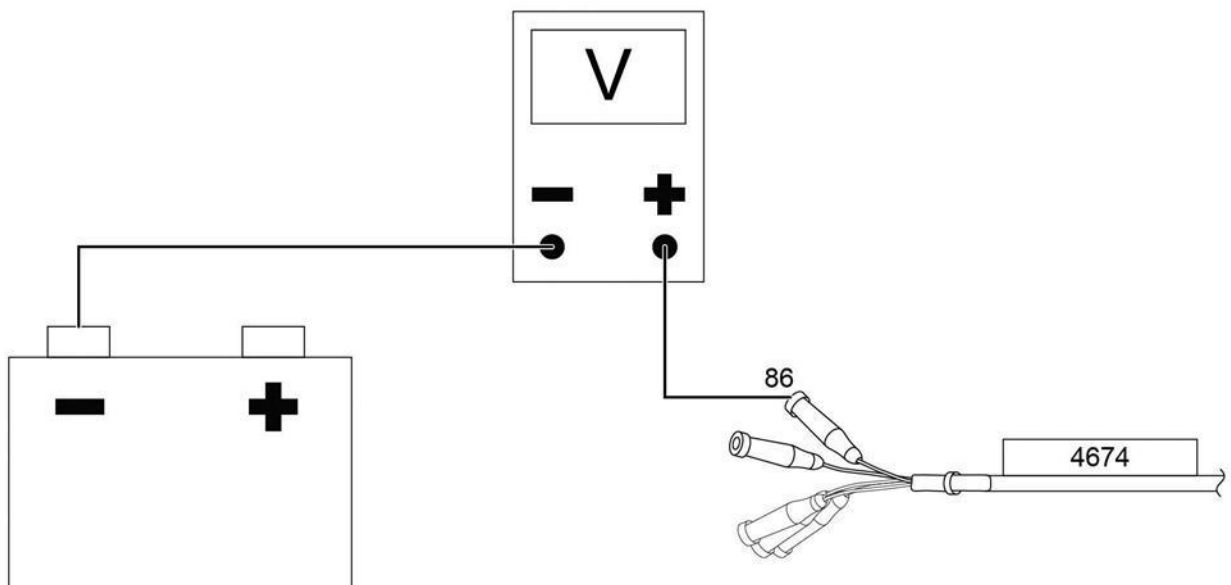
Step	Action	Decision
14	<p><b>ENABLE CIRCUIT SHORT to B+ CHECK:</b></p> <p>a. Disconnect No-Idle harness from system controller.</p> <p>b. Use a DMM to measure voltage between condenser relay (R4) cavity-86 and a known good ground (Figure 21).</p> <p>Is voltage at condenser relay (R4) cavity-86 &gt;2V?</p>	<p><b>Yes.</b> Replace No-Idle harness. Assemble unit to run and retest for operator concern.</p> <hr/> <p><b>No.</b> Leave relay out, connectors disconnected, and go to Step 15.</p>



0000335121

Figure 22. Fuse Panel Condenser Relay (R4) Cavity-86 (Relay Removed).

Step	Action	Decision
15	<p><b>ENABLE CIRCUIT SHORT to GND CHECK:</b></p> <p>a. Use a DMM to measure resistance between fuse panel condenser relay (R4) cavity-86 and a known good ground (Figure 22).</p>	<p><b>Yes.</b> Replace No-Idle harness. Assemble unit to run and retest for operator concern.</p>
		<p><b>No.</b> Go to Step 16.</p>



0000291284

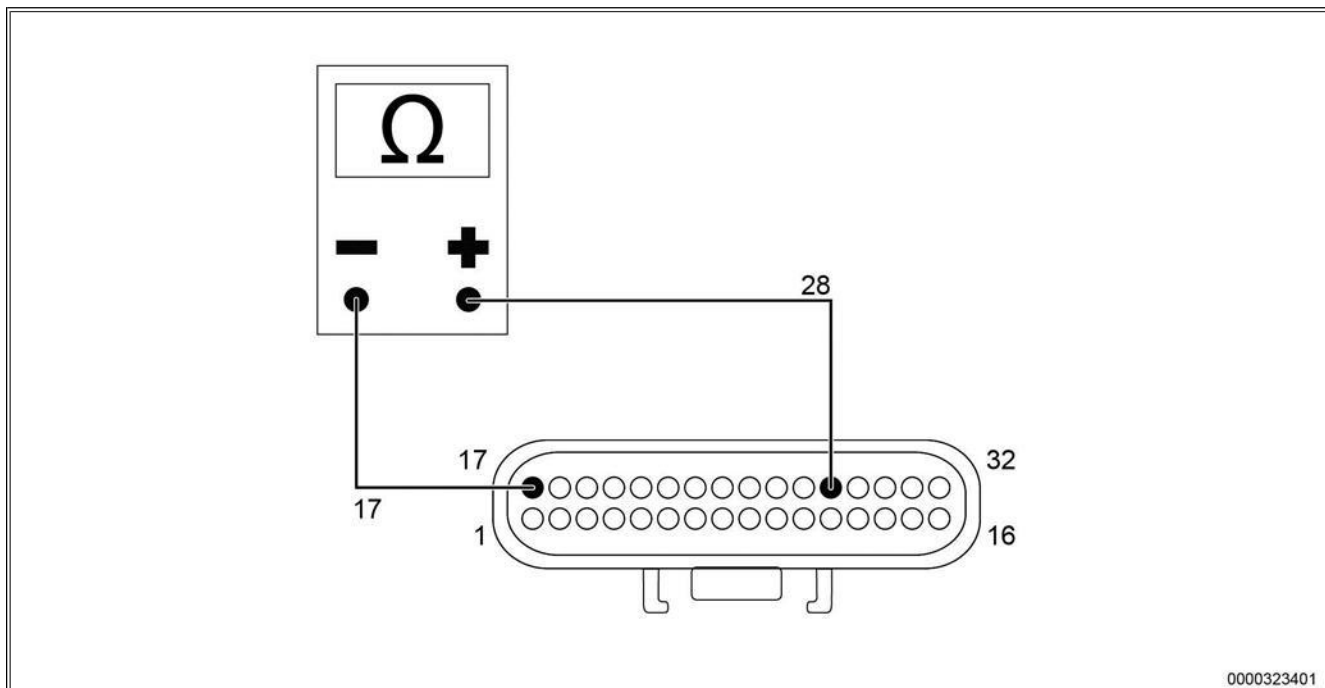
Figure 23. Fuse Panel Condenser Relay (R4) Cavity-86 (Relay Removed).

Step	Action	Decision
16	<p><b>COMPRESSOR / CONDENSER RELAY CHECK:</b></p> <p>a. Turn ignition Key-Off and depress control panel COOL switch to start No-Idle A/C.</p> <p>b. Depress digital display Speed-up switch multiple times to raise blower speed to highest setting.</p> <p>c. Depress digital display Temp-Down switch multiple times to lower temperature to lowest setting.</p>	<p><b>Yes.</b> System is operating correctly. If DTC is still present at Key-On, replace system controller.</p>
	<p><b>NOTE:</b></p> <p>Compressor makes a low rumbling noise at start-up. Cool air at discharge ducts indicate compressor is on. If conditions make it difficult to verify compressor is running, use a DMM with inductive AMP clamp to monitor current draw on PWR leads of compressor controller high AMP 4-way connector. Compressor will draw 20 - 30 amps at start-up.</p> <p>d. Monitor compressor for start-up (Figure 23).</p> <p>Does compressor start?</p>	<p><b>No.</b> Compressor does not start: Check discharge temp sensor, thermal limit switch, and pressure switch for open circuits. If discharge temp sensor, thermal limit switch, and pressure switch all have continuity, replace system controller.</p>

**DTC 19, SPN 109, FMI 14: PRESSURE SWITCH CIRCUIT OPEN**

**Possible Causes:**

- High refrigerant pressure in system
- Pressure sensor unplugged
- Open circuit in sensor wiring
- Pressure sensor faulty

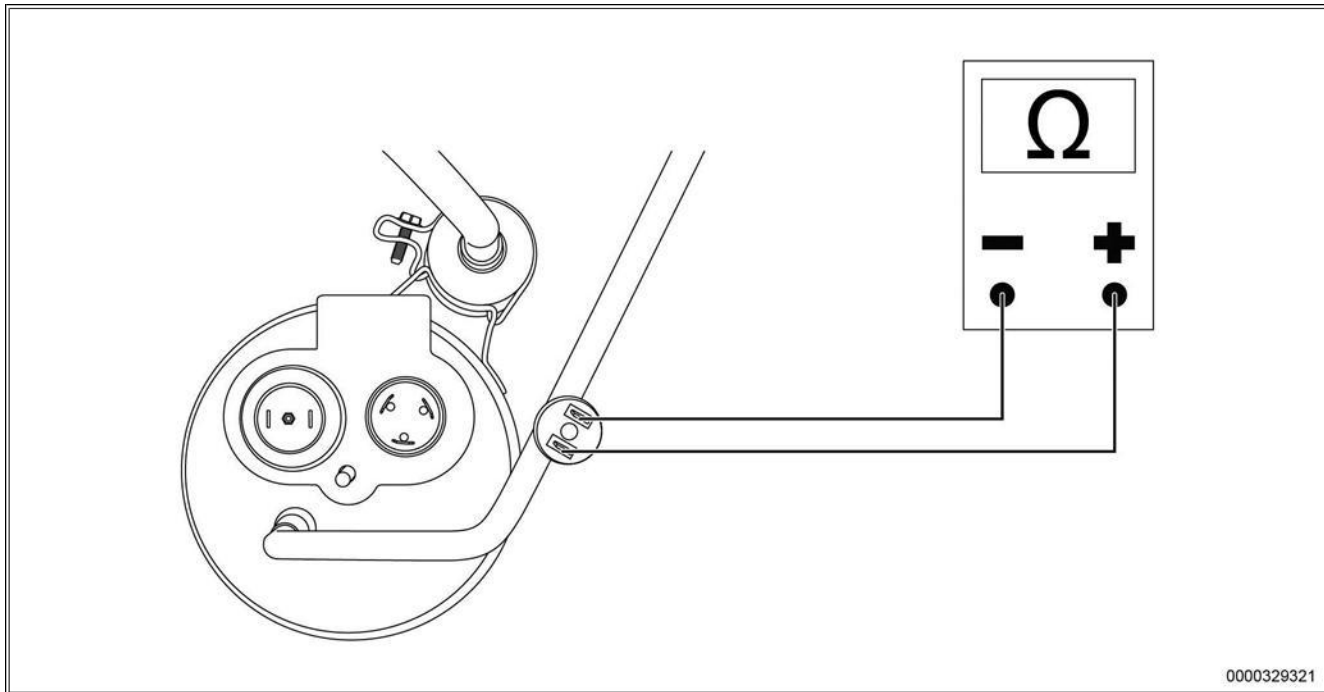


0000323401

Figure 24. 32-Way System Controller Connector Face View.

Step	Action	Decision
17	<p><b>PRESSURE SWITCH CONTINUITY CHECK:</b></p> <p>a. Verify DTC 19, SPN 109, FMI 14: Pressure Switch Circuit Open is currently active.</p> <p>b. Allow No-Idle to set without running for 5 minutes.</p>	<p><b>Yes.</b> Go to Step 18.</p> <p><b>No.</b> Switch has continuity. Turn ignition Key-Off and then Key-On. Check for DTC 19, SPN 109, FMI 14: Pressure Switch</p>

<p>c. Disconnect 32-way system controller connector from system controller.                  d. Use a DMM to measure resistance between 32-way system controller connector pin-17 and pin-28 (Figure 24).                  e. Connect 32-way system controller connector to system controller.</p>	<p>Circuit Open. If DTC is still present, replace system controller.</p>
<p>Is resistance value between pin-17 and pin-28 on 32-way system controller connector greater than 5 Ohms?</p>	



0000329321

Figure 25. Pressure Switch.

Step	Action	Decision
18	<p><b>PRESSURE SWITCH CIRCUIT CONTINUITY CHECK:</b></p> <p>a. Turn No-Idle unit Off.                      b. Disconnect 32-way system controller connector from system controller.                      c. Remove compressor controller cover.                      d. Disconnect two wire terminals from pressure switch.                      e. Use a DMM to check continuity across pressure switch terminals (Figure 25).</p>	<p><b>Yes.</b> Replace No-Idle harness. Assemble unit to run and retest for operator concern.</p>
	<p>Is continuity present between pressure switch terminals?</p>	<p><b>No.</b> Replace sealed refrigerant system. Assemble unit to run and retest for operator concern.</p>

**REPAIR STEP(s)**

Not Applicable

**REMOVAL PROCEDURE:**

Not Applicable

**INSTALLATION PROCEDURE:**

Not Applicable



**WARRANTY INFORMATION****Warranty Claim Coding:**

<b>Group:</b>	19030 - Auxiliary No-Idle HVAC
<b>Noun:</b>	638 - Electric HVAC Module

- Link to the Coding Manual: [Click Here](#)

**Standard Repair Time(s) - ProStar:**

Step	Description	Chassis	Engine	SRT	Hours
1 - 7	Blower Output Short Circuit	ProStar	N/A	R20-1007A	0.2 Hr
1 and 8	Discharge Temperature Sensor High / Low	ProStar	N/A	R20-1007A-20	0.1 Hr
1	Battery Voltage High	ProStar	N/A	R20-1007A-21	0.1 Hr
1	Battery Voltage Low	ProStar	N/A	R20-1007A-22	0.1 hr
1 and 9	Inlet Temperature Sensor High / Low	ProStar	N/A	R20-1007A-23	0.1 hr
1, 10 - 12, 14 - 17	Condenser Fan Relay Short / Open	ProStar	N/A	R20-1007A-24	0.2 Hr
1, 18 - 19	Pressure Switch Circuit Open	ProStar	N/A	R20-1007A-25	0.2 Hr

**Standard Repair Time(s) - LoneStar:**

Step	Description	Chassis	Engine	SRT	Hours
1 - 7	Blower Output Short Circuit	LoneStar	N/A	S20-1007A	0.2 Hr
1 and 8	Discharge Temperature Sensor High / Low	LoneStar	N/A	S20-1007A-20	0.1 Hr
1	Battery Voltage High	LoneStar	N/A	S20-1007A-21	0.1 Hr
1	Battery Voltage Low	LoneStar	N/A	S20-1007A-22	0.1 hr
1 and 9	Inlet Temperature Sensor High / Low	LoneStar	N/A	S20-1007A-23	0.1 hr
1, 10 - 12, 14 - 17	Condenser Fan Relay Short / Open	LoneStar	N/A	S20-1007A-24	0.2 Hr
1, 18 - 19	Pressure Switch Circuit Open	LoneStar	N/A	S20-1007A-25	0.2 Hr

- Link to the Standard Repair Time Manual: [Click Here](#)

**Claim SRT Example:**

Not Applicable

**Claim Comment Suggestion:**

Not Applicable

**Special Requirement(s):**

Not Applicable

**OTHER RESOURCES**

Circuit Diagrams By Unit Build Date		
MaxxPower No-Idle System Circuit Diagram (PDF)	Units Prior to November 11, 2013	<a href="#">Click Here</a>
MaxxPower No-Idle System Circuit Diagram (PDF)	Units from November 11, 2013 to June 23, 2014	<a href="#">Click Here</a>
MaxxPower No-Idle System Circuit Diagram (PDF)	Units from June 24, 2014 through Current	<a href="#">Click Here</a>

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