


SUBJECT
A/C Operation: Reduced or No Airflow After Long Drive
MODEL

F15 (X5)

SITUATION

The customer complains of reduced air-conditioning air flow when driving for a long period, usually greater than 30 minutes. This varies based on outside temperature and humidity.

CAUSE

The A/C low-pressure lines and evaporator are starting to freeze up.

PROCEDURE

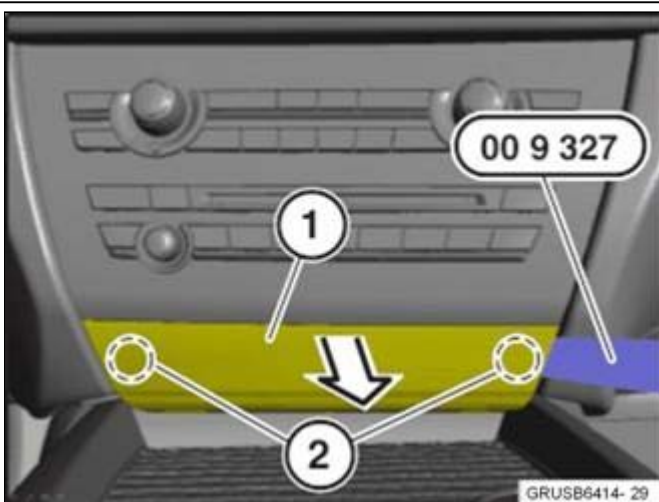
Check for faults and verify the correct refrigerant charge level of 1.49 lbs.

If no problems are found, install an 800-ohm 1/4 watt resistor in line with the evaporator temperature sensor wiring.

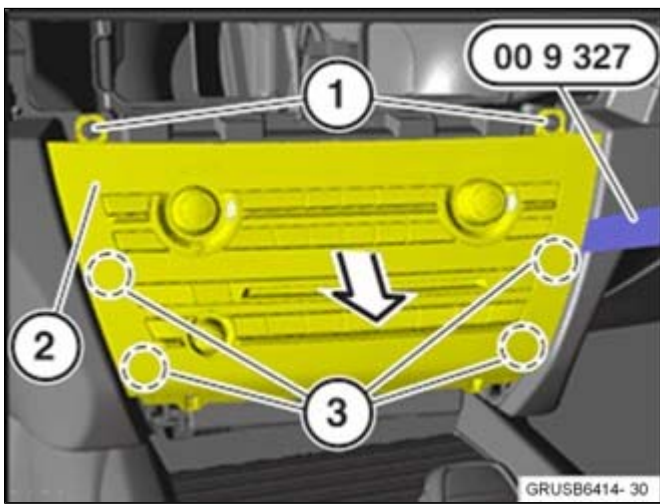


1. The customer A/C settings are typically below 63 deg F with a low fan setting of one or two LEDs.

At these settings, operate the A/C system and record the center outlet temperature. This measurement will be used for comparison after the resistor is installed.

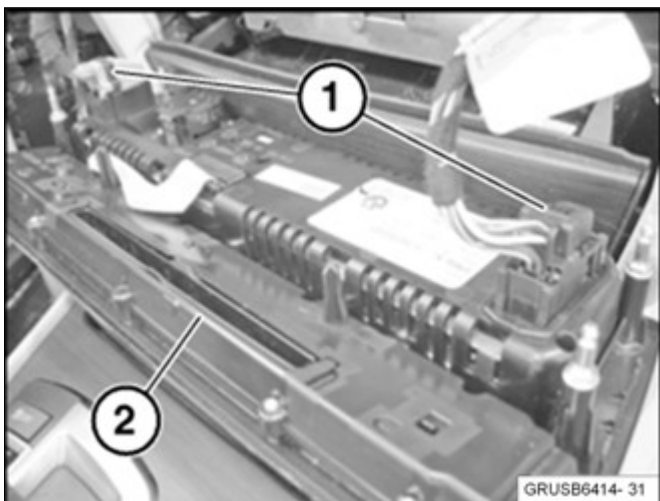


2. Remove the cover (1) using special tool 00 9 327 at the latch mechanisms (2), and remove the cover in the direction of the arrow.



- Remove the screws (1), radio and IHKA controls (2) using special tool 00 9 327 at the latch mechanisms (3).

Remove the radio and IHKA controls (2) in the direction of the arrow, away from the dashboard.



- Rotate the control panel downward to expose the plug connection (1) on the passenger's side.

Pin assignments at plug connector X0018

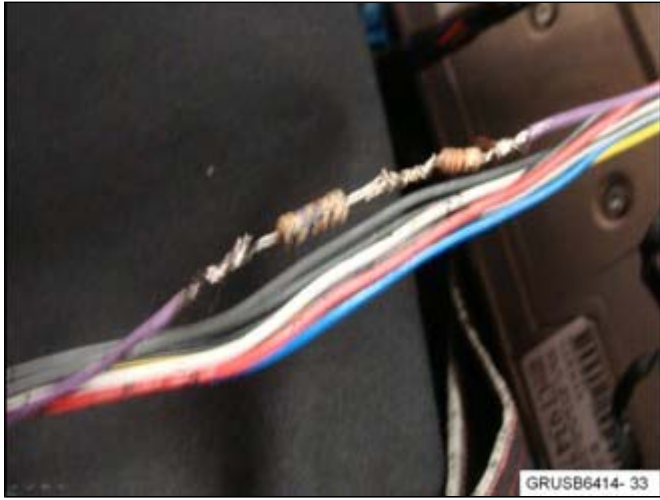
Pin	Type	Description /Signal type	Conn
1	E/A	LIN bus signal Positive	Bus d
2	E/A	LIN bus signal Negative connection	Bus d
3	--	Not used	
4	E/A	LIN bus signal	Bus d
5	--	Not used	
6	--	Not used	
7	--	Not used	
8	--	Not used	
9	M	Ground	Group
10	E	Signal Evaporator temperature sensor	Evape

GRUSB6414- 32

- Locate plug connector X0018 and identify the violet evaporator temperature signal wire at Pin 10.

Reference SSP-SP-0000056308.

- The resistor is to be installed to the upper section of the harness. Working from the passenger seat, unwind the felt tape from the harness and cut the signal wire (pin 10) at a good working distance (3") from the plug connector. This will simplify the



resistor installation. In this case, the technician added two resistors in a series to reach the 800-ohm requirement and installed them approximately four inches from the IHKA plug.

7. Install the resistor and solder the connections neatly with no sharp points. Wrap the resistor and bare leads with electrical tape, and then re-wrap the wire harness with the original felt tape that was removed. Reassemble the removed parts in the reverse order of their removal.

Quality check the repair by measuring the center outlet temperature, and compare to your earlier temperature reading. The increase in outlet temperature should be approximately 3 deg F.

After the repair is complete, make a record in the customer's file that a resistor was installed. Create a PuMA Info Only case to document the repair.

These little details will help everyone, including the customer, during any future vehicle repairs.

PARTS INFORMATION

An 800-ohm 1/4 watt resistance is required. Check your local electronics part store or jobber for availability.

If no local source can be found, the solution below may be used.

Radio Shack.com (online store) has the following 1/4 watt resistors. When connected in series, they make 800 ohms.

470 ohm 5 PK #271-1317 for \$1.49

And

330 ohm 5 PK #271-1315 for \$1.49

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle/SAV Limited Warranty.

Defect Code:	64 11 64 14 00	
Labor Operation:	Labor Allowance:	Description:
00 00 006	Refer to KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults)
and		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply (indicated in KSD2 as "Charging battery")

and		
64 50 510	Refer to KSD2	Discharging, evacuating and filling the A/C system as Plus work (checking level)
and		
61 31 821	Refer to KSD2	Remove and install radio and IHKA controls
and		
64 99 000	4 FRU	Work time to perform the “resistor” procedure
And		
Sublet Code 4	\$4.00	Shop supplies for resistors, solder and electrical tape

Labor operation code 00 00 006 is a Main labor operation. If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowance. Enter the Chassis Number, which consists of the last 7 digits of the Vehicle Identification Number (VIN). Click on the “Search” button, and then enter the applicable flat rate labor operation in the FR code field.

Other Repairs

If performing ISTA diagnostics and related test plans or refrigerant level diagnosis results in other eligible and covered work, claim this work with the applicable defect code and/or labor operations listed in KSD2.

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