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This Service Information bulletin supersedes SI B64 06 13 **dated August 2014.**

**NEW** designates changes to this revision

#### **SUBJECT**

**A/C Cooling: Intermittent Reduction of Air Flow**

#### **MODEL**

F30 (3 Series Sedan)

F31 (3 Series Sports Wagon)

F32 (4 Series Coupe)

F34 (3 Series GranTurismo)

Produced from July 4, 2012 to September 2, 2013

#### **SITUATION**

The customer may complain of reduced air flow when the air conditioning system is operated for an extended time, usually longer than one hour.

The complaint can vary due to one or more of the following variables:

- High outside ambient temperature
- Too much humidity
- A/C temperature and fan settings set too low for too long

Note: It is very difficult to duplicate this issue due the required outdoor weather conditions and length of driving time needed.

#### **CAUSE**

Evaporator starts to freeze up due to the position of the evaporator temperature sensor

#### **PROCEDURE**


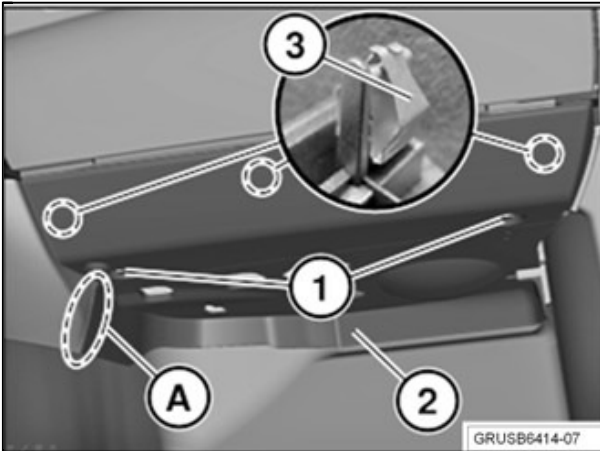
Install a new evaporator temperature sensor adapter.

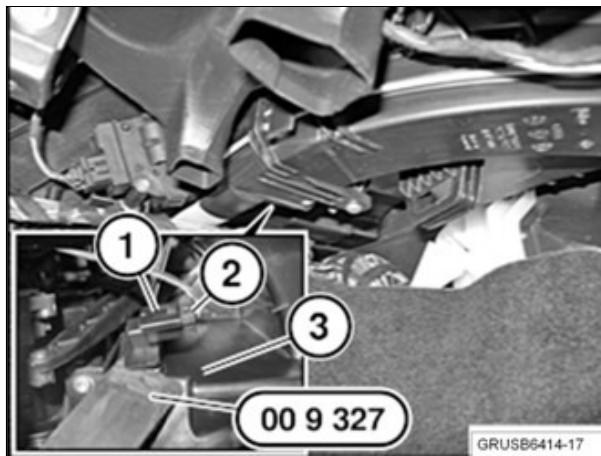
The fault can be reproduced under the following conditions:

- Air-conditioning system switched on
- Driving Experience switch NOT set to Eco Pro
- Mainly at lower fan speeds
- Temperature setting below 68°F (20°C)
- Trip duration at least 30 minutes
- Outside temperature above 68°F (20°C)

After parking the vehicle or switching off the air-conditioning system for at least 20 minutes, the symptom disappears. However, this can occur again if the air-conditioning system is reactivated and a longer drive lasting at least 30 minutes takes place.

Note: After stopping/parking the car or turning off the A/C, the ice will begin to melt off the evaporator and create a puddle under the car from the A/C drains. After the ice melts, normal A/C operation will be restored.

|                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>GRUSB6413-24</p>   | <ol style="list-style-type: none"> <li>1. Remove the passenger's side footwell cover trim (the bottom instrument panel trim).</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|  <p>GRUSB6414-07</p> | <ol style="list-style-type: none"> <li>2. Remove both screws at connection (1). <ul style="list-style-type: none"> <li><b>Note:</b> With the knee airbag, also remove both nuts (1).</li> <li>Tightening torque is 5Nm.</li> <li>Release the trim panel (2) at clamps (3). Feed out the trim panel (2) in area (A) toward the bottom.</li> <li>Lower the trim panel (2) slightly and disconnect the plug connections behind it.</li> <li><b>Installation note:</b> Feed in the trim panel (2) in area (A) correctly behind the center console.</li> <li>Clamps (3) must not be damaged.</li> </ul> </li> </ol> |
|                                                                                                         | <ol style="list-style-type: none"> <li>3. Disconnect the plug connection (2). Unclip the evaporator temperature sensor (1) with special tool 00 9 327 from the heating and air conditioning unit (3), and remove.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                   |



Installation note:

Ensure the evaporator temperature sensor (2) is correctly seated.



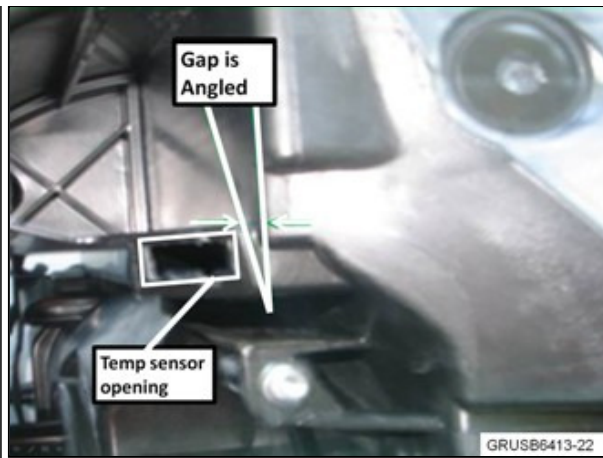
- The IHKA housing (removed for clarity) shown is viewed from the passenger's side. The circle shows the approximate location of the evaporator temperature sensor.



- The close-up picture shows the exact location (circle) of the sensor opening. The following steps will be performed from the lower passenger's footwell area at the bottom of the IHKA housing.

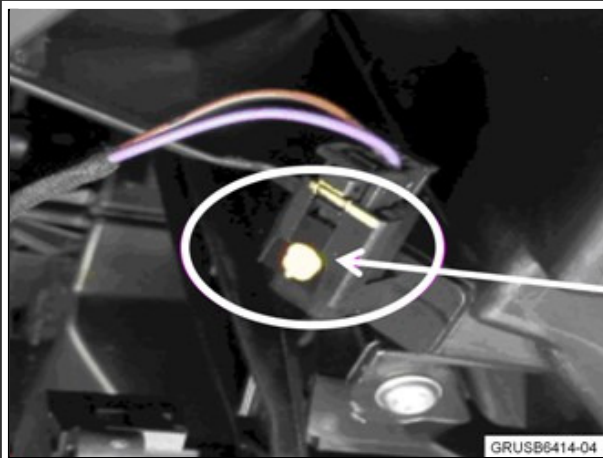
**Note:** As a reference point, the evaporator temperature sensor is located just above the white ribbed rubber water drain hose, when viewed from below.

- Locate the evaporator temperature sensor opening (sensor removed for clarity). Check the gap between the sensor opening and the evaporator case. If the sensor opening contact surface is slightly angled as shown, this



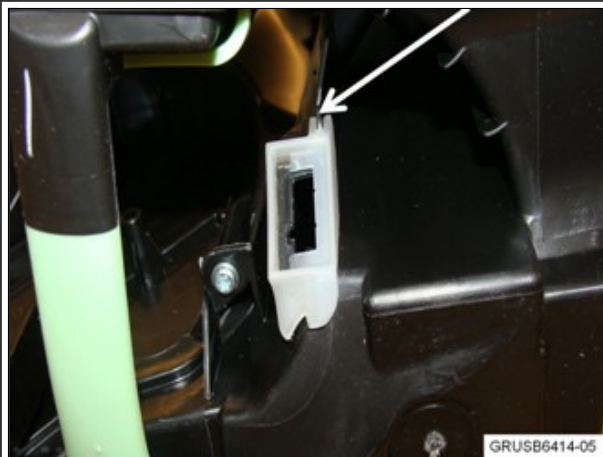
housing is **NOT** affected by this repair procedure. In this case, proceed with normal A/C diagnostic procedures.

If no gap exists proceed to the next step.



7. Check for a marking on the electrical connector. If a mark is seen or **NO** gap exists, the IHKA housing must be modified.

**Do not replace any parts. The repair procedure includes installing a new adapter to correct the gap.**

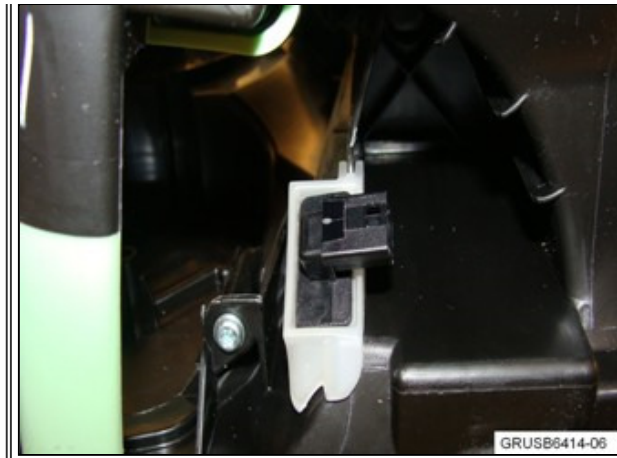


8. Insert the new adapter firmly into the sensor opening, as shown.

**Note:** The arrow shows the slot in the adapter that is properly fitted into the raised rib of the housing.

9. Insert the temperature sensor through the opening in the adapter, and push in firmly. Note: The temperature sensor is keyed and will only fit one way.

Installation note:



Ensure the evaporator temperature sensor is correctly seated.

Install all removed parts in the reverse order of their removal.

#### PARTS INFORMATION

| Part Number     | Description                           | Quantity |
|-----------------|---------------------------------------|----------|
| 64 11 9 350 495 | Evaporator temperature sensor adapter | 1        |

#### **NEW** WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

|                         |                         |                                                                                                              |
|-------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Defect Code:</b>     | <b>64 11 79 40 00</b>   |                                                                                                              |
|                         |                         |                                                                                                              |
| <b>Labor Operation:</b> | <b>Labor Allowance:</b> | <b>Description:</b>                                                                                          |
| 64 99 000               | 4 FRU                   | Work time to check IHKA housing and install the sensor adapter (Main work)                                   |
| or                      |                         |                                                                                                              |
| 64 99 000               | 2 FRU                   | Work time to check IHKA housing and install the sensor adapter (Plus work - vehicle already in the workshop) |
| and                     |                         |                                                                                                              |
| 64 11 943               | Refer to KSD2           | Removing and installing evaporator temperature sensor                                                        |

Since the “work time” FRU allowance is specified for labor operation 64 99 000, a separate punch time is not required.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowance.

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