SUBJECT: Gurgling Noise from Dashboard Area

MODEL: E38

Complaint: Gurgling or percolating noise coming from the dash.

Cause: The above noise may be caused by one or two situations:

A) Excess air in the heater core.

B) Evaporator condensation not draining properly.

Identification: In case of a customer complaint you will need to determine which situation is being dealt with by duplicating the noise. Note, since the evaporator drain noise is related to the amount of condensation buildup, it will tend to show up on hot/humid days, whereas the noise from the heater core can happen under most any conditions. First duplicate the noise with the A/C on fresh air operation, then switch the A/C controls to Recirculation. If noise remains perform correction A). If noise stops perform correction B).

Corrections: Note that procedure A) only applies to M60/62

A) Check coolant level and top off if necessary.

Important:
The coolant level should always be checked cold (<78°F).
The engine should then be warmed up to operating temperature.

M60:
Set the drivers side temp. to 89°F and the passenger side to 60°F, operate with an engine speed of 4000 rpm for at least 4 minutes. Then set the driver's side temp. to 61°F and the passenger side to 90°F, again operate the car for at least 4 minutes at 4000 rpm.

Note:
The reason for the variance in the temperature settings from side to side is due to the override function on earlier E38s with the thumb wheel A/C panel.

M62:
With the introduction of the M62 it is now possible to electrically open the thermostat through the DME.
Using the DIS tester, select DME and go into component activation where you can open the thermostat for the entire bleeding procedure.
Now perform the same bleeding procedures as you would use on the M60.
Performing the above bleeding procedures allows the water valves to be opened separately, allowing the coolant pressure that bleeds the heater core to be higher.
B) The condition described here is being caused by air flowing over the fresh air intake drain hole when the A/C control panel is not set to recirculation mode. This causes a vacuum to form at the inlet portion of the evaporator housing which allows any water or condensation that has formed in the housing to be sucked back up the fresh air hose, causing a gurgle or a percolating noise. As this noise is related to the amount of water or condensation present in the evaporator housing it will tend to show up mostly on hot/humid days, whereas the noise from the heater core can happen under most any conditions.

Here is the unmodified view of the fresh air drain tube(2) as seen on the passenger side. Take note of its close proximity to the firewall(1).

Seen here is a schematic of the condition being heard. Fresh air(A) is blowing into the fresh air cowling(1) which then causes a vacuum to form(B). The condensation in the evaporator housing(2) is forced back up the fresh air drain tube(3) allowing the condensation to go up and then splash back down as seen at C.

Both the drivers and passengers fresh air drains must be modified.

First remove existing fresh air drain tube(1).

Next cut the carpet 1/2"(2) above the crease where the side carpeted panel sits as shown by the three arrows.
Modify the drain tubes as shown.

Cut all tubes to the following lengths:
Hose A (both): 2.4"
Hose B: 5.2"
Hose C: 8.5"

Assemble hoses as shown. Make sure you wire tie all connections before reinstalling in the vehicle. Also note that the original hose is still retained and used as hose C.

Before installing the finished assembly, cut the existing evaporator drain tube 2" below where it exits the evaporator housing (distance 'A'). When cutting, take note of the white plastic spiral installed(2). Remove the upper portion of the white spiral and discard. Push the lower portion back down into the hose(1). Then cut 1/2" off the upper part of the lower remaining hose (distance 'B').

Reinstall the finished assembly back into the vehicle. Tie wrap any remaining connections.

Perform this procedure for both the driver's and passenger's side.

### Parts Information:

A) None required.

B) Part Number Qty Description

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<thead>
<tr>
<th>Part Number</th>
<th>Qty</th>
<th>Description</th>
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<tbody>
<tr>
<td>99 00 0 000 900</td>
<td>1</td>
<td>Hose Kit</td>
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### Warranty Information:

Covered under the terms of the BMW New Car Limited Warranty:

A) Defect Code: 17 11 00 72 00

Labor Operation: 17 00 039

Labor Allowance: 4 FRUs

B) Defect Code: 64 53 01 39 00
Labor Operation: 64 99 000
Labor Allowance: 11 FRUs

Order part number as stated above and charge out as sublet code 4 at $14.00.