

# Technical Service Bulletin



## 01 Coolant loss from coolant valve, engine warning light on, "Limp Home" mode active, cabin heating is insufficient

01 15 31 2033806/7 July 21, 2015. Supersedes Technical Service Bulletin Group 80 number 14-07 dated August 11, 2014 for reasons listed below.

| Model(s)     | Year        | VIN Range                              | Vehicle-Specific Equipment |
|--------------|-------------|--|----------------------------|
| A6, A7       | 2012        | All                                    | Not Applicable             |
| A6, A7       | 2013        | 000001 - 155596                        | Not Applicable             |
| A8           | 2010 - 2012 | All                                    | Not Applicable             |
| A8           | 2013        | 000001 - 034562                        | Not Applicable             |
| Q7           | 2011 - 2013 | All                                    | Not Applicable             |
| Q7           | 2014        | 000001 - 000973                        | Not Applicable             |
| A5 Cabriolet | 2012 - 2013 | All                                    | Not Applicable             |
| A5 Cabriolet | 2014        | 000001 - 000174<br>900000 - 900019     | Not Applicable             |
| TT           | 2012 - 2014 | All                                    | Not Applicable             |
| A4           | 2012 - 2013 | All                                    | Not Applicable             |
| A4           | 2014        | N000001 - N000184<br>A000001 - A247958 | Not Applicable             |
| Q5           | 2012 - 2014 | All                                    | Not Applicable             |
| A5           | 2012        | All                                    | Not Applicable             |
| A5           | 2013        | 000001 - 077920<br>900000 - 903086     | Not Applicable             |

## Condition

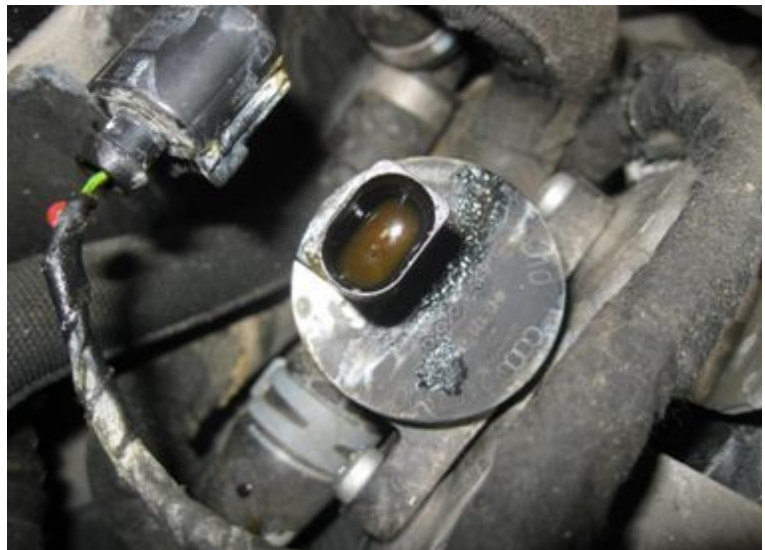
| REVISION HISTORY |           |   |
|------------------|-----------|---|
| Revision         | Date      | Purpose   |
| 7                | -         | Revised title (Changed prefix to "01")<br>Revised <i>Production Solution</i> (Updated to show that solution is now implemented) |
| 6                | 8/11/2014 | Revised <i>Warranty</i> (Updated service number and labor operations)   |
| 5                | 3/11/2014 | Revised title   |

- The customer may have one or more of the following concerns:
  - MIL is on.
  - Climate system heating performance is insufficient.
  - Coolant level warning is on.
  - Engine temperature is elevated.
  - “Limp Home” mode is active.
- The results of the diagnosis based on the customer complaint may reveal one or more of the following:
  - One of the following faults may be stored in the transmission control module (address word 02):
    - **DTC P275300** (Transmission Fluid Cooler Control Circuit Open)
    - **DTC P275500** (Transmission Fluid Cooler Control Circuit High)
  - Coolant loss is found from one or more control valves: N82, N509, or N488. Coolant may have migrated into the wiring harness through the connector and into various control units.

Climate system heating performance is insufficient due to coolant loss as a result of coolant migration in the electrical harness, faults in 08-Heating and Air Conditioning Electronics that result from coolant migration in the electrical harness, or a faulty N82 control valve.

## Technical Background

Inspection of the coolant control valves N82, N509, or N488 reveals the presence of coolant inside the electrical connector as shown in the illustration (Figure 1).



**Figure 1.** Coolant residue in the connector housing of the coolant regulating valve.

The connectors, wiring harness, and/or connected control units may have been damaged from exposure to coolant (Figure 2).



*Figure 2. Corrosion formation on the connector pins.*

## Production Solution

Improved coolant control valves are installed in production.

# Technical Service Bulletin



## Service

1. Diagnose the defective coolant valve (N82, N509, or N488) using Guided Fault Finding (GFF) where stored DTCs are found.
2. Replace the defective coolant valve.



**Tip:** Check the connectors, wiring harness, and connected control units for coolant damage. Perform repairs as necessary.

## Warranty

|                          |  |              |  |
|--------------------------|--|--------------|--|
| <b>Claim Type:</b>       | Use applicable claim type. If vehicle is outside any warranty, this Technical Service Bulletin is informational only.        |              |  |
| <b>Service Number:</b>   | When servicing N82: 8015<br>When servicing N488 or N509: 1945  |              |  |
| <b>Damage Code:</b>      | 0050   |              |  |
| <b>Labor Operations:</b> | See Elsa for the specific model being serviced for this concern:   |              |  |
|                          | <b>For solenoid valve N82:</b>   |              |  |
|                          | See Elsa for specific labor operations   | 8015 9999    | Use actual time                                |
|                          | <b>For solenoid valves N488 or N509:</b>   |              |  |
|                          | See Elsa for specific labor operations   | 1945 9999    | Use actual time                                |
| <b>Diagnostic Time:</b>  | GFF  | 0150 0000    | Time stated on diagnostic protocol (Max 50 TU) |
|                          | Road test prior to service procedure   | No allowance | 0 TU   |
|                          | Road test after service procedure  | No allowance | 0 TU   |
|                          | Technical diagnosis at dealer's discretion<br>(Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details) |              |  |
| <b>Claim Comment:</b>    | As per TSB #2033806/7  |              |  |

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.

# Technical Service Bulletin



## Required Parts and Tools

Please reference ETKA using the VIN of the subject vehicle to ensure that the correct valve is being ordered.

| Part Number | Part Description | Quantity |
|-------------|------------------|----------|
| 4H0121670A  | Solenoid valve   | 1        |
| 4H0121671D  | Solenoid valve   | 1        |

## Additional Information

All parts and service references provided in this TSB (2033806) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information.