

Technical Service Bulletin

Topic	HVAC refrigerant leakage suspected or reports of a damp/musty smell within the cabin - Diagnosis guidelines
Market area	Australia E04 Bentley rest Asia and Australia (6E04),China 723 Volkswagen (Anhui) Automotive CO (6723),China 796 VW Import Comp. Ltd (Vico), Beijing (6796),Germany E02 Bentley rest Europe (6E02),Japan E03 Bentley Japan (6E03),Korea, (South) E08 Bentley South Korea (6E08),United Arab Emirates E06 Bentley Middle East and Africa (6E06),United Kingdom E01 Bentley UK (6E01),United States E05 Bentley USA and rest America (6E05)
Brand	Bentley
Transaction No.	2069806/7
Level	EH
Status	Released for publishing
Release date	Sep 8, 2025

New customer code

Object of complaint	Complaint type	Position
climate control -> cooling	component, automotive fluids	
climate control -> heating, cooling -> manual climate control mode	functionality -> no function	
climate control -> heating, cooling -> automatic climate control mode (AUTO)	functionality -> cannot be activated	

New workshop code

Object of complaint	Complaint type	Position
climate control -> cooling -> evaporator	leaks -> connection leaks	front
climate control -> cooling -> evaporator	leaks -> not watertight	front

Vehicle data

All Models

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
***	2004	E		*	*	*
***	2005	E		*	*	*
***	2006	E		*	*	*

***	2007	E		*	*	*
***	2008	E		*	*	*
***	2009	E		*	*	*
***	2010	E		*	*	*
***	2011	E		*	*	*
***	2012	E		*	*	*
***	2013	E		*	*	*
***	2014	E		*	*	*
***	2015	E		*	*	*
***	2016	E		*	*	*
***	2017	E		*	*	*
***	2018	E		*	*	*
***	2019	E		*	*	*
***	2020	E		*	*	*
***	2021	E		*	*	*
***	2022	E		*	*	*
***	2023	E		*	*	*
***	2024	E		*	*	*

Documents

Document name
master.xml
attachment2069806.pdf
hvacword.doc

Condition

HVAC not cooling / HVAC cooling less than expected / HVAC refrigerant leakage confirmed

Or

The customer reports a damp/musty smell within the cabin **Note: For this scenario please see the pre requisites below**



- Should no HVAC leak be evident and a damp/musty smell has been reported/identified the operative should first confirm that water is not leaking into the cabin please refer to all VIN applicable TPI's
- Should there be no water leaks evident, the operative should check the HVAC and body drains for blockages, in the event the drains are blocked the drains must be unblocked, once this has been completed the operative should confirm if the damp/musty smell is still evident

Hint: Should the damp/musty smell still be evident after the drains have been cleaned and/or water leaks have been repaired, the operative should consider the smell could be related to accumulation of algae, fungus and/or mold on and around the evaporator, in this scenario the operative must raise a DISS query requesting permission to clean the HVAC system

NOTICE

In the event that HVAC cleaning products are required, these **MUST** be sourced locally. Before using the cleaner the operative must inform the customer of the product which will be used, a neutral fragrance cleaner should be used as the customer may not like the smell of the cleaner should a fragranced product be used.

Please ensure all supporting information is included within the DISS query when requesting permission to clean the HVAC system including clear photographs and/or videos showing the reported issue, should the required information not be supplied the warranty claim could be cancelled

The retailer can conduct the cleaning process or a local HVAC specialist may be used to conduct the cleaning process, however this would require permission via DISS before being conducted

CAUTION

Do Not replace the evaporator for this issue, if the issue is still evident after the HVAC system has been cleaned, the operative must raise a new DISS query or respond via the existing query

NOTICE

In the event that no HVAC leaks/issues were found and the damp/musty smell was evident resulting in the requirement to clean the HVAC system, this would not be covered by warranty and must be paid by the customer as this related to a maintenance issue and not a HVAC functionality issue

Technical Background



CAUTION

DO NOT UNDER ANY CIRCUMSTANCES INSTALL TRACER ADDITIVES INTO THE HVAC SYSTEM



Before conducting any work on the HVAC system the operative **MUST** refer to the following within Rep.Gr 87

- Refrigeration system - Safety and general information

It has been observed that some HVAC components have been incorrectly diagnosed and replaced, after the components were returned for inspection no faults were found



CAUTION

The leaks in these scenarios were repaired after component replacement however as the parts were not at fault the actual fix of the leak would have been resolved by replacing O-rings only



NOTICE

IMPORTANT NOTICE: Before proceeding the operative should check to confirm there are no VIN applicable HVAC/refrigerant leak related TPI's

Workshop diagnosis based on the customer complaint could be as follows:

- HVAC is not cooling or the HVAC is not effective due to leakage of the refrigerant
- Refrigerant recovered from the system shows a low volume or no refrigerant at all
- Leakage is suspected from the compressor as no other leakage source was found



NOTICE

please refer to the examples shown below (Figures 1,2 and 3) of leaks found on the HVAC compressor



Figure 1



Figure 2

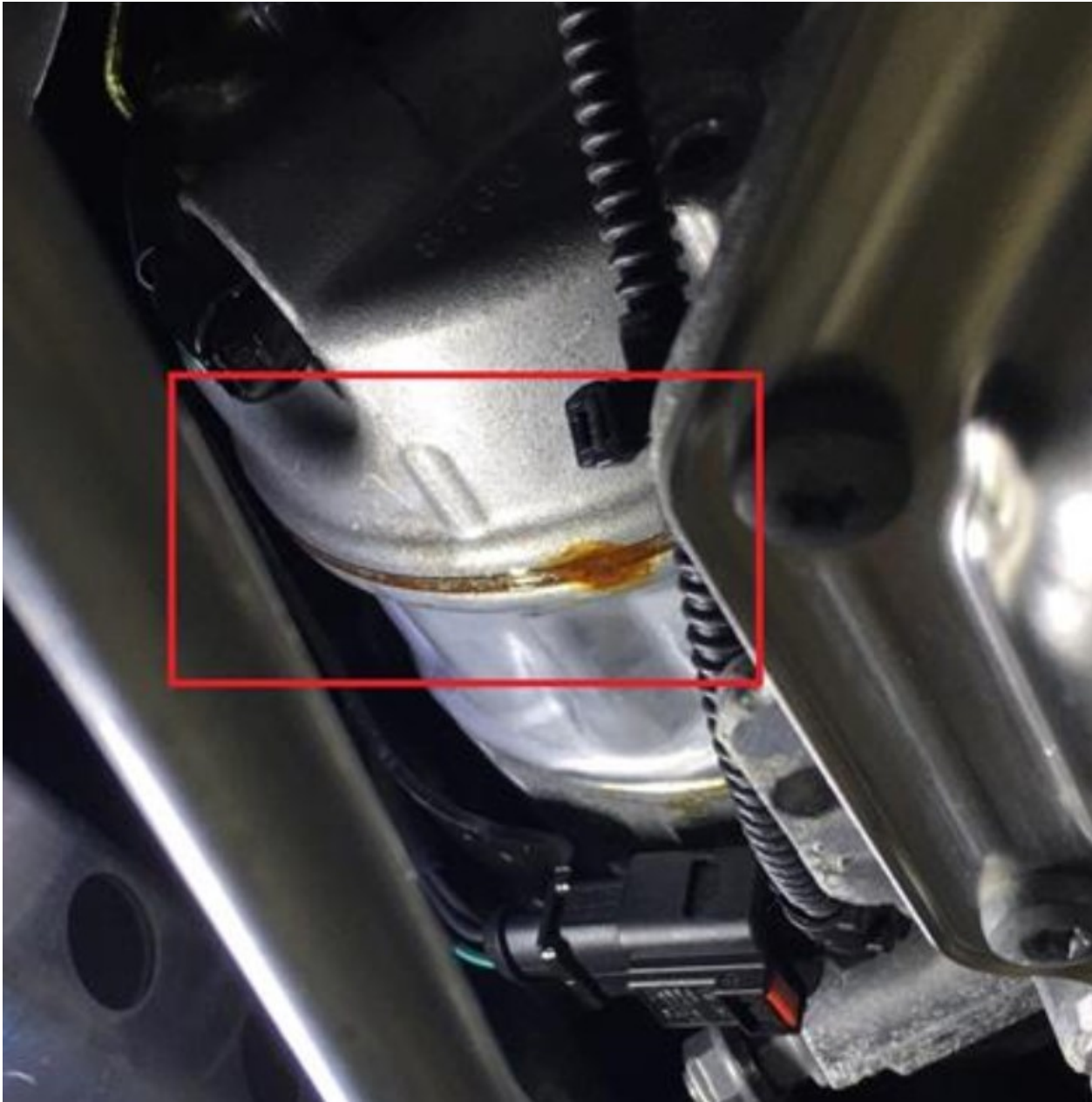


Figure 3



Figure 4

In the event the HVAC sniffer tool traces a HVAC leak from any of the outlets (Figure 4)

Or

A complaint is received that refrigerant is evident within the cabin.

! NOTICE

The operative **MUST** first ensure that a leak is not evident within the plenum chamber or around the centre console (Figures 5 and 6) as refrigerant could be leaking into the plenum chamber/cabin, and recirculated back into the cabin which could lead to misdiagnosis and/or incorrect part replacement.



Figure 5



Figure 6



In the event that leakage is suspected from the thermal expansion valve (TXV) the thermal expansion valve can be replaced when the HVAC unit is fitted within the car

.

The operative must first refer to the attached flow chart before proceeding with any diagnosis or parts replacement

TIP: The attached document is for assistance in diagnosing the HVAC leak for issue relating to damp/musty smells within the cabin please refer to the Customer statement/Workshop findings section of this TPI

- Before conducting any work on the HVAC system the operative MUST refer to the following within Rep. Gr 87
- Refrigeration system - Safety and general information
- Refrigerant oil - Special instructions
- Refrigeration system - To discharge and charge

IMPORTANT TIP: When a HVAC line/connection has been opened the operative MUST always cap/bung the applicable port using a suitable cap/bung

 **CAUTION**

In the event the evaporator or compressor is suspected to be at fault the operative must raise a Technical DISS query before conducting any further work ensuring the following is attached.

- Refill the HVAC system with refrigerant and inspect thoroughly for any additional sources of leakage.
- Photograph and video of the refrigerant quantity and the actual leakage location.
- If no further leaks are identified and the evaporator or compressor remains to have a suspected fault, escalate the case by raising a DISS to 2nd level support for further investigation. For 2nd Level DISS Support – Required Dealer Actions Below.
- Extract MVBs (Measured Value Blocks) from System Address – 0008 (Climate Control Module).
- Refer to the image below for the specific Measured Value Blocks (MVBs) that must be extracted and submitted.

ODIS - 0008 – Climate Control Module – Measured values

Evaporator temperature	08/Temperature downstream of evaporator/temperature
Outside temperature	08/Outside temperature
Interior temperature	08/Interior temperature sensor
Front outer left vent temperature	08/Left front vent temperature
Front outer right vent temperature	08/Right front vent temperature

 **CAUTION**

DO NOT replace the dryer if the evaporator is being replaced unless it is advised in via a technical DISS query. This is to protect the HVAC parts from moisture & foreign elements getting into the system. Always refer to the procedure that has been provided in ElsaPro.

Or

In the event the evaporator or compressor is not suspected as being at fault and the issue can be successfully diagnosed and repaired, please raise a non-technical DISS query stating the issue which was evident and how the issue was resolved

Technical background modification – To include additional HVAC servicing procedures. Specifically refrigerant refill, leak inspection, and media documentation. Clarified escalation criteria and outlined required diagnostic data measured value blocks (MVBs from Address 0008) for DISS submission to 2nd Level Support.

Production Solution

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Service

Refer to the Technical background section

Warranty

Time to conduct the initial checks within the Measure section

Warranty Type	110 or 910
Damage Service Number	87 01
Damage Code	00 50
Labour operation code	87 01 01 20
Time	50 TU



In the event that any parts are required to be replaced please refer to the warranty accounting instructions with Elsa pro this is due to the numerous vehicle specification and symptom scenarios

NOTICE

In the event that no HVAC leaks/issues were found and the damp/musty smell was evident resulting in the requirement to clean the HVAC system, this would not be covered by warranty and must be paid by the customer as this related to a maintenance issue and not a HVAC functionality issue

NOTICE

Please ensure all supporting information is included within the DISS query including clear photographs and /or videos showing the reported issue, should the required information not be supplied the warranty claim in some cases could be cancelled

NOTICE

All HVAC related claims will be checked by the Warranty team, any claims which are not deemed as applicable will be cancelled

- In the event that parts are replaced parts without the required attachments or the parts are found to be not at fault warranty claims will be liable for rejection

Required Parts and Tools

Refer to the ETKA parts catalogue for any additional parts requirements

NOTICE

In the event that HVAC cleaning products are required, these MUST be sourced locally. Before using the

cleaner the operative must inform the customer of the product which will be used, a neutral fragrance cleaner should be used as the customer may not like the smell of the cleaner should a fragranced product be used

