



Technical Service Bulletin

80 The interior vehicle heating is insufficient and the engine coolant is discolored

80 21 11 2062583/1 March 19, 2021.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
All	2012 - 2021	All	Not Applicable

Condition

Customer states:

- Insufficient or uneven cabin heating performance from the HVAC system. The cabin heating may be slow to get warm.

Technical Background

The symptom can easily be duplicated. The engine coolant may contain contaminants that are visually apparent. These contaminants can obstruct the coolant flow through the heater core and diminish the cabin heating capability of the HVAC system.

Production Solution

There has been a change in the coolant standard to G12 evo.

Service

Diagnosis will reveal a drastic temperature difference between the inlet and outlet heater hoses to the heater core with the inlet being warmer than the outlet suggesting an obstruction in the heater core.



Warning:

Risk of scalding due to hot coolant. The cooling system is under pressure when the engine is warm. Risk of scalding due to hot steam and hot coolant.



Technical Service Bulletin

While there may be any number of causes for insufficient cabin heating, the subject matter covered in this TSB addresses only one possible cause. Should the symptom profile be inconsistent with the root cause described in this TSB continue diagnosis to find an alternative cause.

1. Examples of what the appearance of the discoloration of both the coolant as well as the coolant reservoir (Figures 1 – 4). This coolant contamination is not engine oil or transmission fluid.



Figure 1. Suspended particulate matter.

- 2.



Figure 2. 'Brownish' discoloration.



Technical Service Bulletin

3.



Figure 3. *Discoloration on the inside of the coolant reservoir.*

4.

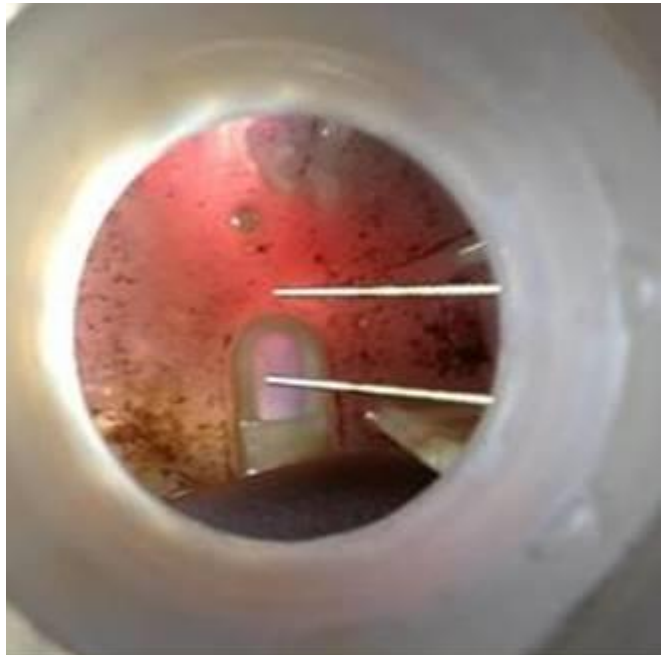


Figure 4. *Particulate matter.*



Technical Service Bulletin

5. Clean and flush the cooling system using cooling system cleaning set, part number G 052 525 A3 as follows (Figure 5):



Figure 5. Cooling system cleaning set.

6. Drain coolant when the engine is warm and the coolant thermostat is open according to the procedure in ElsaPro (Figure 6).

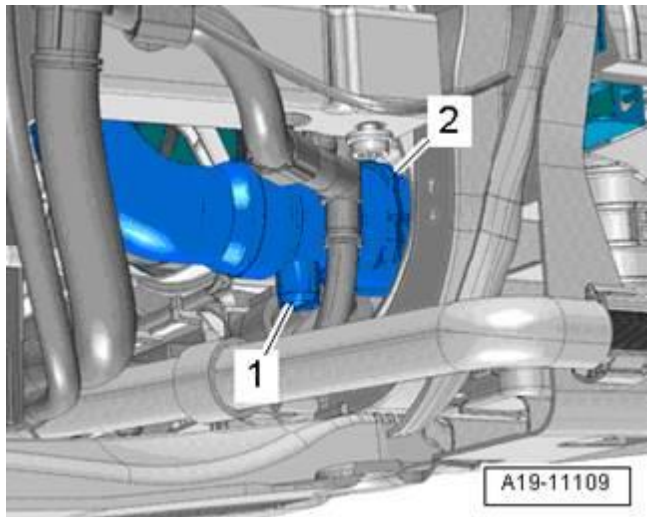


Figure 6. Drain the coolant.



Technical Service Bulletin

7. Flush the heat exchanger(s) with water in the **opposite flow direction**. Do not exceed 2 bar of water pressure (Figure 7).

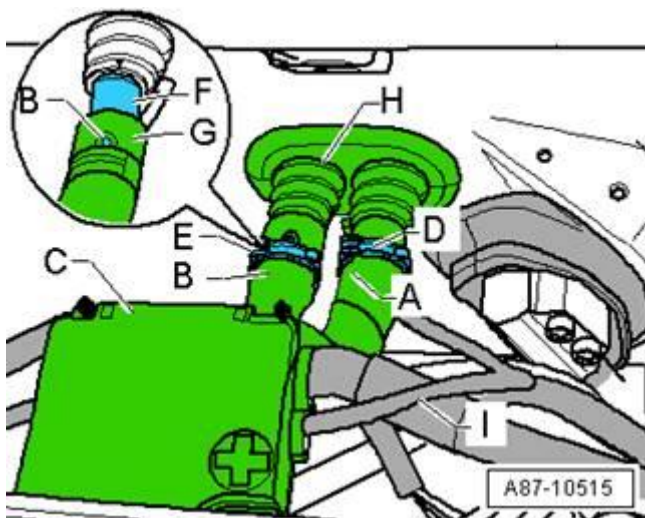


Figure 7. Heater core connections.

8. Blow the coolant out of the heat exchanger(s) in the **opposite flow direction** (Figure 8).

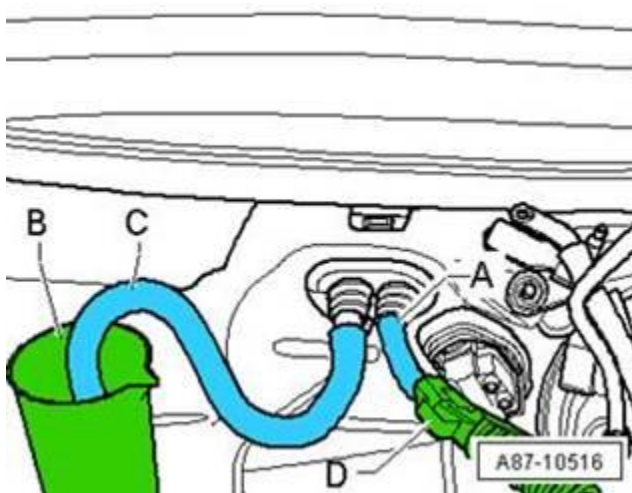


Figure 8. Blowing out heater core.



Technical Service Bulletin

9. Add 3.0 liters of cooling system cleaner 'S' and the balance of the fill with coolant (Figure 9). Perform bleeding procedure. Run the engine for 90 minutes with this mixture with the cabin heating on full hot and HI fan. If equipped, also set the rear HVAC unit to full hot and HI fan.

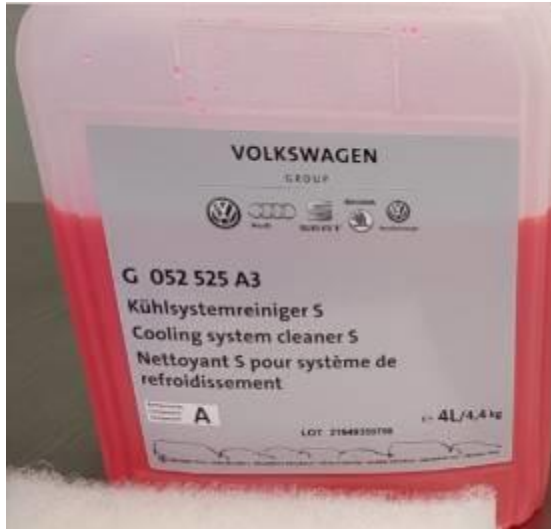


Figure 9. Cooling system cleaner 'S'.

10. Drain the cleaning solution.
11. Add 3.0 liters of neutralizer 'S' and the balance of the fill with coolant. Perform bleeding procedure (Figure 10). Run the engine for 15 minutes with this mixture with the cabin heating on full hot and HI fan. If equipped, also set the rear HVAC unit to full hot and HI fan.

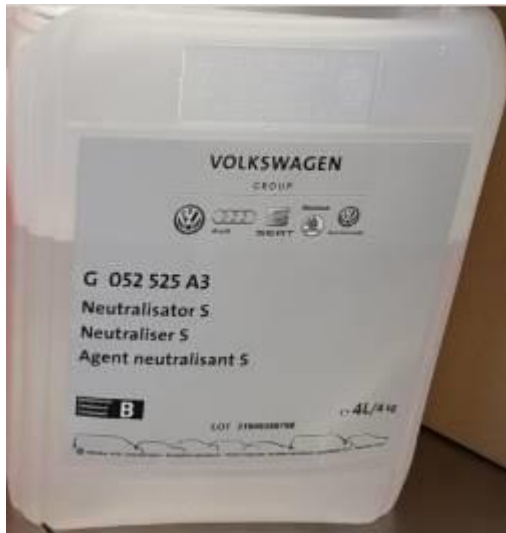


Figure 10. Neutralizer 'S'.

12. Drain the neutralizer solution.



Technical Service Bulletin

13. Fill the cooling system with plain distilled water (Figure 11). Perform bleeding procedure. Again, set the cabin heating to full hot and HI fan. If equipped, also set the rear HVAC unit to full hot and HI fan. Run the engine at approximately 2000 rpm until the cooling fans activate. Continue to run the engine at this speed for an additional 3 minutes.

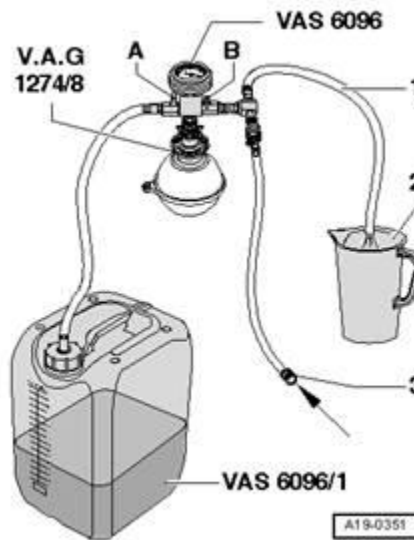


Figure 11. Cooling system filling.

14. Drain the distilled water fill.
15. Repeat this rinse process an additional cycle (repeat steps 13 and 14).
16. Once again, drain the distilled water fill.
17. If the coolant expansion tank is still discolored after the cleaning process it must be replaced (Figure 12).



Figure 12. Discolored coolant expansion tank.



Technical Service Bulletin

18. Fill the cooling system with coolant at the proper mix ratio of coolant and distilled water according to the procedure in ElsaPro (Figure 13). Perform bleeding procedure.

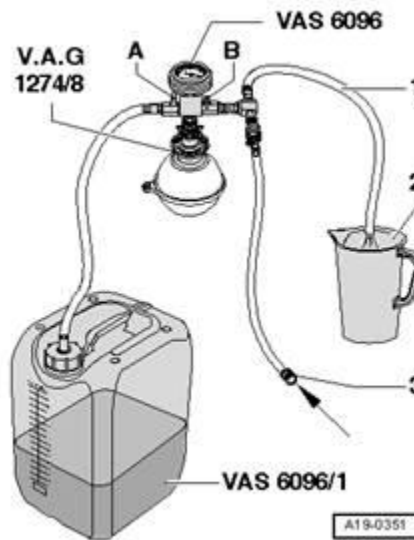


Figure 13. Cooling system filling.



Note:

Do not reuse any of the cleaning and coolant solutions used during this process.

19. Replace the heater core **only** in cases where normal cabin heating performance is not restored after performing this cleaning and flush procedure and the root cause is confirmed to be an obstructed heater core.

Warranty

Claim Type:	<ul style="list-style-type: none"> • 110 up to 48 Months/50,000 Miles. • G10 for CPO Covered Vehicles – Verify Owner. • If the vehicle is outside any warranty, this Technical Service Bulletin is informational only. 		
Service Number:	8023		
Damage Code:	0016		
Labor Operations:	Drain and fill cooling system (4 x drain, fill and bleed operations)	1938 17XX	See SRT with associated operations



Technical Service Bulletin

	Empty and clear out heater core, fill and clean using cooling system cleaning set (4 cylinder engines)	8023 9999	160 TU
	Or		
	Empty and clear out heater core, fill and clean using cooling system cleaning set ('V' and 'W' engines)	8023 9999	250 TU
	For vehicles that have a second heat exchanger: Empty and clear out heater core, fill and clean	8823 9999	100 TU
Diagnostic Time:	GFF – Checking and clearing fault codes included in existing labor operations	0150 0000	Time stated on the diagnostic protocol (Max 40 TU)
	Road test prior to the service procedure	0121 0002	10 TU
	Road test after the service procedure	0121 0004	10 TU
Claim Comment:	As per TSB #2062583/1		

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.

Required Parts and Tools

Always check with your Parts Department and/or ETKA for the latest information and parts bulletins.		
Part Number	Part Description	Quantity
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA



Technical Service Bulletin

G052525A3	 <p>Cooling system cleaning set</p>	01
See ETKA	Coolant	30 liters

Tool Number	Tool Description
T10007B	 <p>Analog Refractometer</p>
VAS 6096	 <p>Cooling system charge kit</p>



Technical Service Bulletin

VAG 1274/X



Adapter

Additional Information

All parts and service references provided in this TSB (2062583) are subject to change and/or removal.

©2021 Audi of America, Inc. All rights reserved. The information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites without the prior expressed written permission of the publisher.