



Dealer Principal	General Manager	Sales Manager	Service Manager	Parts Manager	Marketing	Finance
Date: February 20, 2024		Source: Aftersales			Replaces: A 02 2024 03	
Bulletin #: A 02 2024 11		Name:			Supersedes: n/a	
		Title:			Group: n/a	
		Phone #:				
		Email:				

Aftersales Bulletin

A 02 2024 11 – 00 64 27 02 00 - Spectre RR25 – Service Action – Changeover Valve Replacement – Both Upper and Lower

PERFORM THE PROCEDURE OUTLINED IN THIS SERVICE INFORMATION ON ALL AFFECTED VEHICLES THE NEXT TIME THEY ARE IN THE SHOP FOR MAINTENANCE OR REPAIRS AND PRIOR TO RETAIL DELIVERY.

This bulletin A 02 2024 11 replaces bulletin A 02 2024 03 dated February 14th, 2024.

What's New

Affected vehicles production date range

Affected Vehicles

This Technical Campaign Service Action affects Rolls-Royce Spectre (RR25) vehicles built between **June 20, 2023**, and December 21, 2023. The affected vehicles have been identified as having a potential issue concerning the coolant changeover valve(s) leaking at low temperature.

Situation

A number of Rolls-Royce Spectre (RR25) vehicles have been identified as having a potential issue concerning the coolant changeover valve, that can leak coolant during cold start of the vehicle in cold temperature conditions (-7°C / 19°F and lower).

Vehicles that have been identified within this technical campaign 00 64 27 02 00 will need **both the upper and lower coolant changeover valves replaced**. For vehicles which require only the lower valve replaced, please see bulletin A 02 2024 02 - 00 64 26 02 00 RR25 – Changeover Valves Replacement - Lower.

Information

A technical campaign has been launched to ensure that all vehicles have the check/repair completed. Dealer personnel should use Integrated Service Processes Application (ISPA), S-Gate “Campaigns for

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Vehicle” to check whether a vehicle requires this technical campaign or via Aftersales Information Research (AIR). Please see bulletin “A 10 2016 03 - Recall / Technical Campaign Check” for details.

Procedure



Work must be completed by Rolls-Royce Motor Cars Level 2 High Voltage Technician or higher.

Note: TSARA case is not required to complete this re-work. Submit a TSARA case **only** if technical assistance is required or if there is an issue with the High Voltage system, for example high voltage disconnect not displayed. Please refer to HV Qualification and TSARA Authorization: RRMV_VI SEL-SEL-P-00-20000910599561-01



DANGER

Danger to life in the high-voltage system.

Danger to life if the voltage free state cannot be verified!

- Make sure that the Check Control message "High-voltage system deactivated" is displayed in the instrument cluster before commencing work.
- Lock the vehicle and block it with high-voltage barrier tape if the voltage free state cannot be clearly verified.
- Contact Technical Support immediately in all cases where the voltage free state is not clearly verified.
- A certified qualified electrician 1000 V DC must verify the voltage free state with the help of measuring devices/measuring procedures.



WARNING

Deactivate the high-voltage vehicle electrical system.

Risk of shorting! Risk of fire!

- Make sure that **no charging cable** is connected.
- Make sure that **no battery charger** is connected to the jump start terminal point in the engine compartment.
- For vehicles with additional electrical systems (48V vehicle electrical system, high-voltage vehicle electrical system), it is mandatory to deactivate them **before** disconnecting the vehicle battery.

 **WARNING**

Hot fluids.

Risk of scalding!

- Conduct all work on the vehicle with appropriate personal protective equipment only.

 **RISK OF DAMAGE**



Damage to the high-voltage battery due to insufficient deactivation of the high-voltage system before disconnecting the vehicle battery via Service Disconnect in BEV and PHEV vehicles.

Damage to the high-voltage system!


- It is **essential to deactivate the high-voltage system before disconnecting** the vehicle battery via Service Disconnect on BEV and PHEV vehicles.
- All work on the high-voltage system may only be carried out by specially trained and technically experienced personnel.
- For additional information see:
61 00 ... Safety information on handling hybrid vehicles
- For additional information see:
61 25 ... Repair information for high-voltage battery unit

 **RISK OF DAMAGE**

Contaminant or foreign body in the cooling system.

Contamination or soiling of the cooling system can lead to function or operating failure.

- Adhere to the utmost cleanliness.
- Protect the opened cooling system against contamination immediately. It is imperative that contaminants or foreign bodies are prevented from entering the cooling system, for example, by covering or sealing it.
- Protect the components of the cooling system from contamination after removal, for example by covering or sealing them.

 **RISK OF DAMAGE**

Damage to the engine or components in high-voltage vehicles
The use of an incorrect coolant may lead to corrosion or gelling in the coolant circuit.

- Use only approved coolants for the specific vehicle.
- Fill the vehicle only with the coolant with which it was delivered from the plant.
- Mix only compatible coolants. The colour does not allow any assessment about the compatibility of coolants.
- Selection of the correct coolant only by means of the part number.

Special Tools required to perform repair are:

1. Cooling system plug kit 83 30 5 A4E 844 (auto shipped)
2. Vacuum Filler Device Strainer: 83 30 5 A31 EF2 (auto shipped)
3. Vacuum Fill Device (81 39 2 152 473 – released with Ghost tooling)
4. Vacuum Filler Accessories Box (cap, pressure regulator) 83 30 0 494 417 (17 0 100)

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1. Carry out Service Disconnect following repair instruction:
 - **Switching the high-voltage system voltage free 61 25 900 | REP-REP-P-6125900-18 - V.1**

And Service solutions:

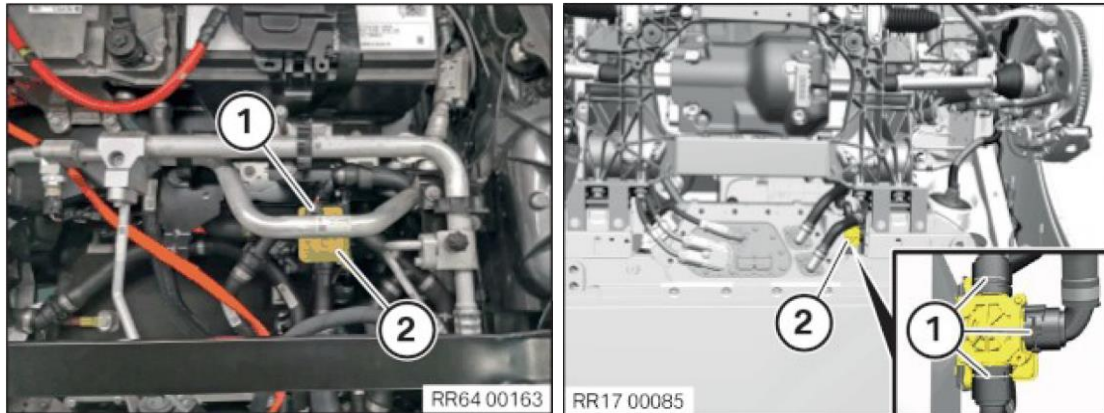
- **HV Qualification and TSARA Authorization:**
RRMC_VI SEL-SEL-P-00-20000910599561-01
- **RR25 Service Disconnect Information:**
RRMC_VI SEL-SEL-P-61-20000896818731-01

2. Once Service disconnect is carried out, and CCM Check Control Message “High Voltage System Deactivated” is displayed.
Note: If the CCM is not displayed, submit a regular TSARA case for technical support as per service solution above.
3. Switch cooling system to workshop mode. Connect the vehicle to ISTA diagnosis system (do not carry out a vehicle test) and switch the cooling system to workshop mode. Start the service function "Switch to workshop mode" via the following path:
 - Service functions
 - Electric drive
 - Cooling
 - Selecting the workshop mode for the cooling system.
4. Remove design cover.



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5. Identify upper and lower changeover valves.

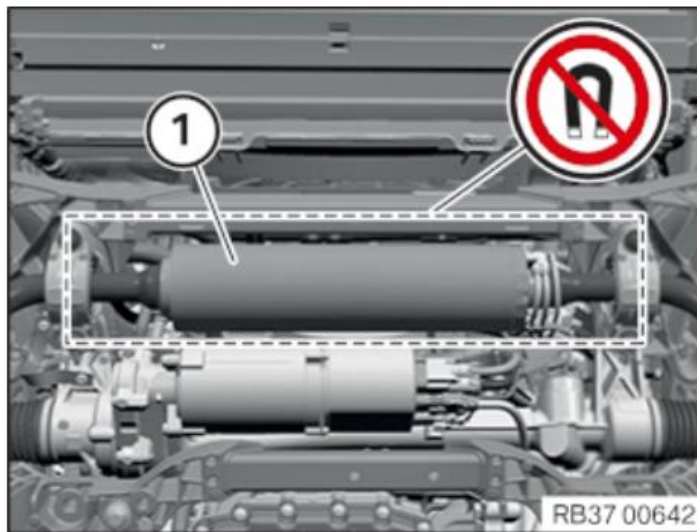


6. Allow vehicle to sleep and disconnect the negative terminal on both 12V batteries.
7. Removing stiffening plate.

i TECHNICAL INFORMATION

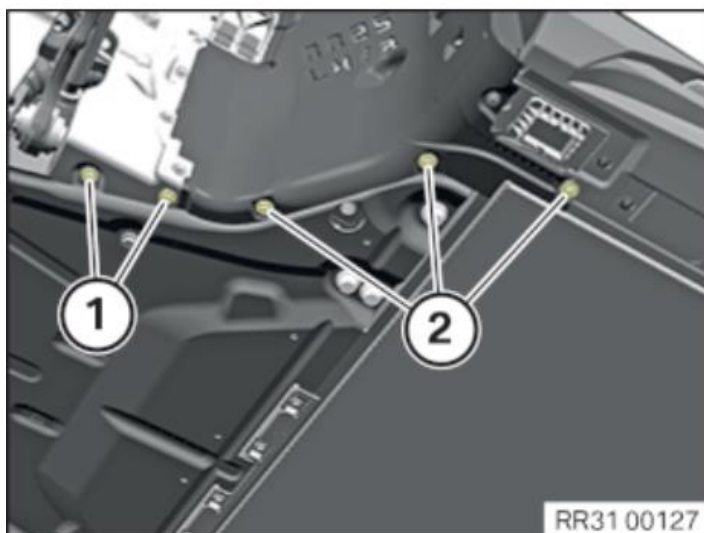
Driving without stiffening plate is not permissible.

- Do not secure magnets in the area of the active stabilizer.

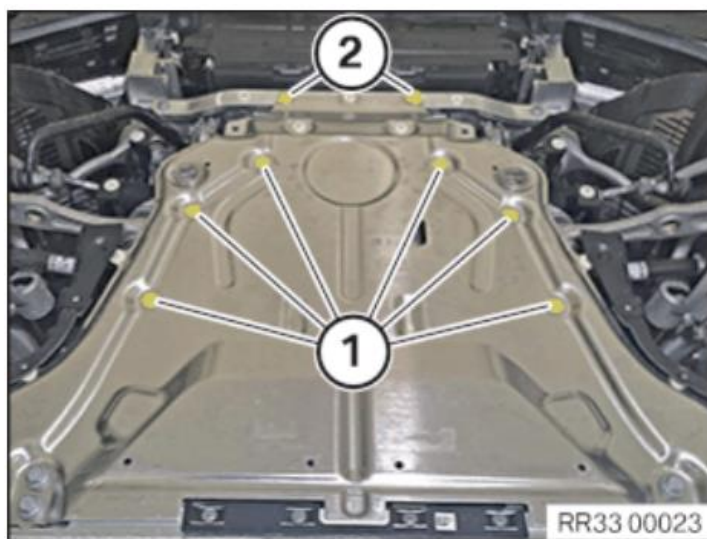


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- Loosen screws (1) and (2).



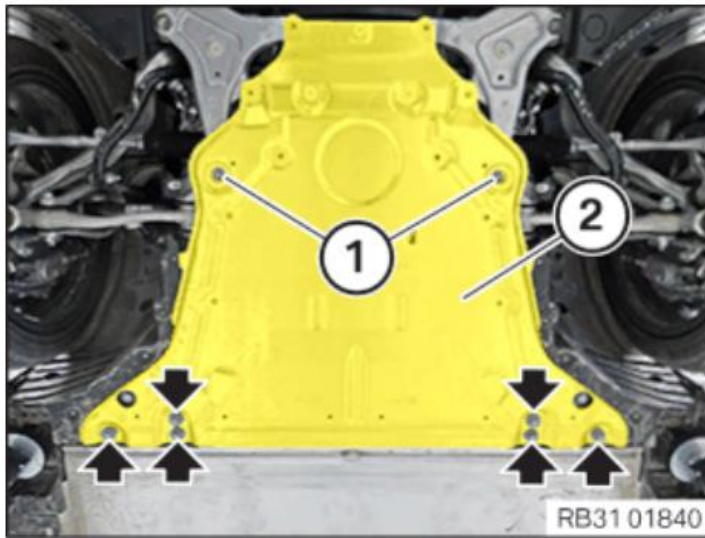
- Release screws (1) and (2).



- Loosen screws (arrows).
- Loosen screws (1).

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- Feed stiffening plate (2) out of wheel arch trim panels and remove.



8. Remove left front wheel and wheel arch covers following repair instruction: “Removing and installing/replacing front left or right wheel arch cover (just rear section needs to be removed)” – 51 71 040 | REP-REP-P-5171040-RR25 - V.1
9. Draining the cooling system.
Ensure that the High Voltage disconnect is still locked out and both 12V battery negative leads are disconnected.

⚠ WARNING

Hot fluids.

Risk of scalding!

Conduct all work on the vehicle with appropriate personal protective equipment only.



RISK OF DAMAGE

Contaminant or foreign body in the cooling system.

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- Adhere to the utmost cleanliness.
- Protect the opened cooling system against contamination immediately. It is imperative that contaminants or foreign bodies are prevented from entering the cooling system, for example, by covering or sealing it.
- Protect the components of the cooling system from contamination after removal, for example by covering or sealing them.



RISK OF DAMAGE

Damage to the engine or components in high-voltage vehicles

The use of an incorrect coolant may lead to corrosion or gelling in the coolant circuit.

- Use only approved coolants for the specific vehicle.
- Fill the vehicle only with the coolant with which it was delivered from the plant.
- Mix only compatible coolants. The colour does not allow any assessment about the compatibility of coolants.
- Selection of the correct coolant only by means of the part number.



TECHNICAL INFORMATION

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.



TECHNICAL INFORMATION

Life-time filling of coolant!

Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be drained and refilled.

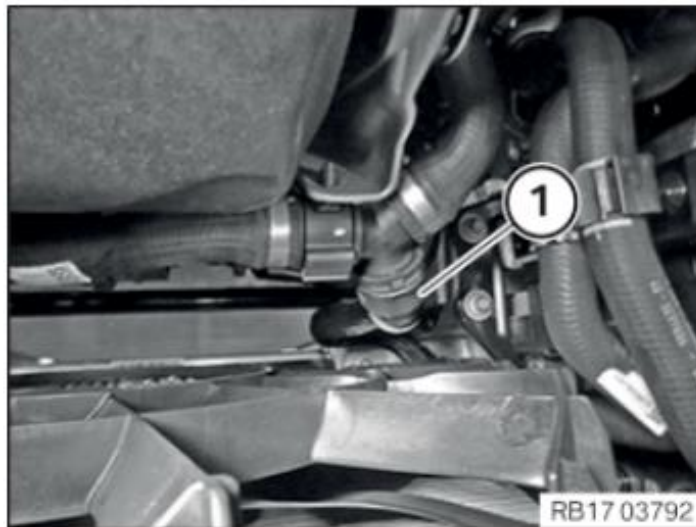
In the case of other disassembly work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

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- Release the sealing cap (1) on the coolant expansion tank.



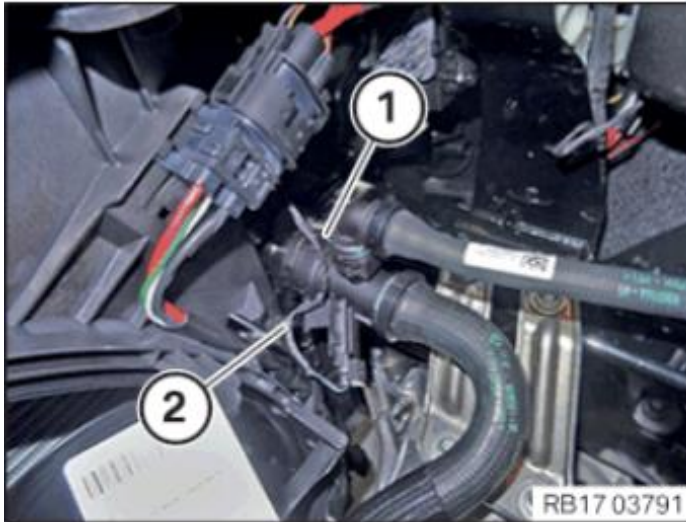
- Unlock and disconnect the coolant line (1).
- Catch and dispose of escaping coolant.
- Connect coolant lines (1) and lock them audibly.



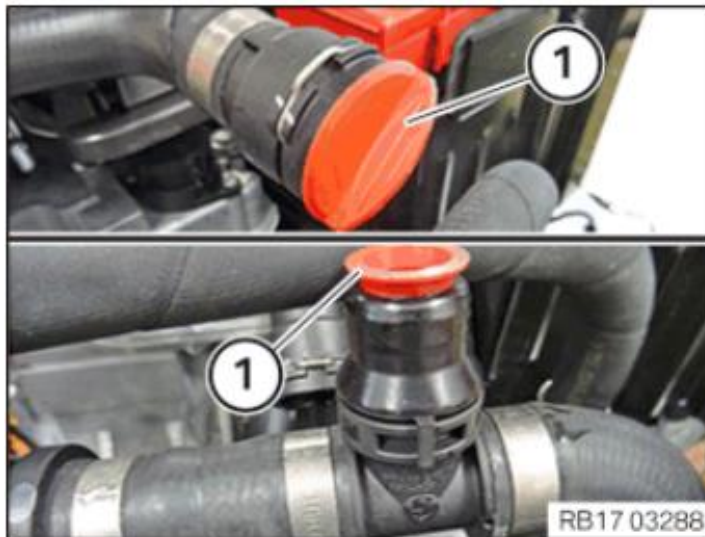
- Unlock and disconnect the coolant line (1).
- Release the cable with the clamp (2).
- Pull down the coolant line (1) to empty the maximum coolant quantity and to drain the high-temperature coolant radiator.
- Catch and dispose of escaping coolant.
- Connect the coolant line (1) and lock it audibly.

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- Secure the cable with the clamp (2).



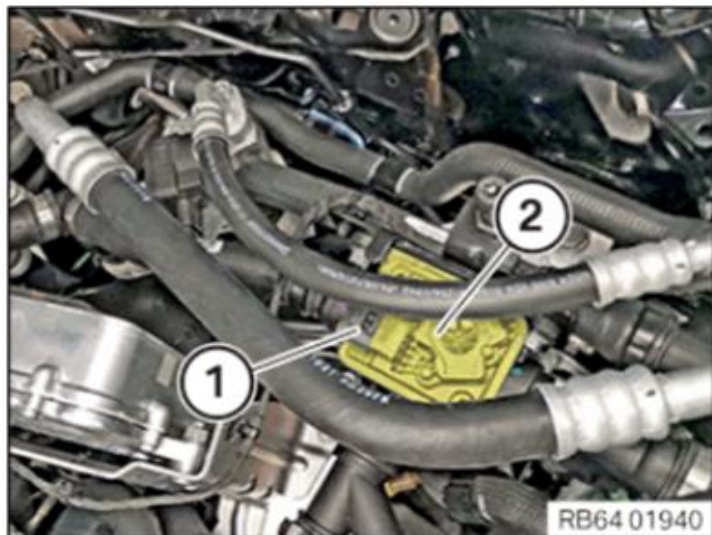
- 10 On the following instructional steps, close all coolant hoses or openings on the cooling system with the appropriate plugs from the set of special tools 83 30 5A4E844.



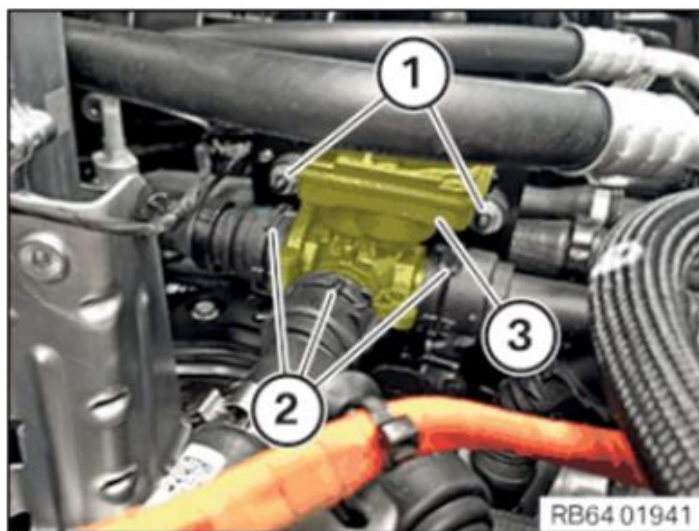
11. Removing upper changeover valve.

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- Unlock the plug connection (1) on the changeover valve (2) and disconnect it.



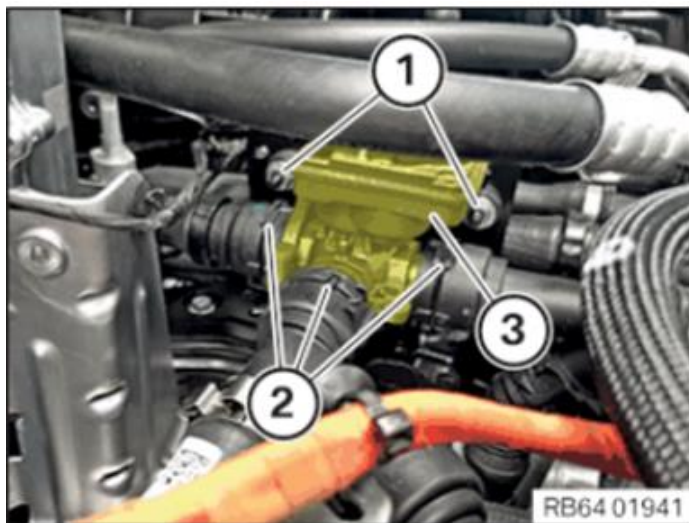
- Release nuts (1).
- Unlock and pull off the coolant hoses (2).
- Guide out and remove the changeover valve (3).



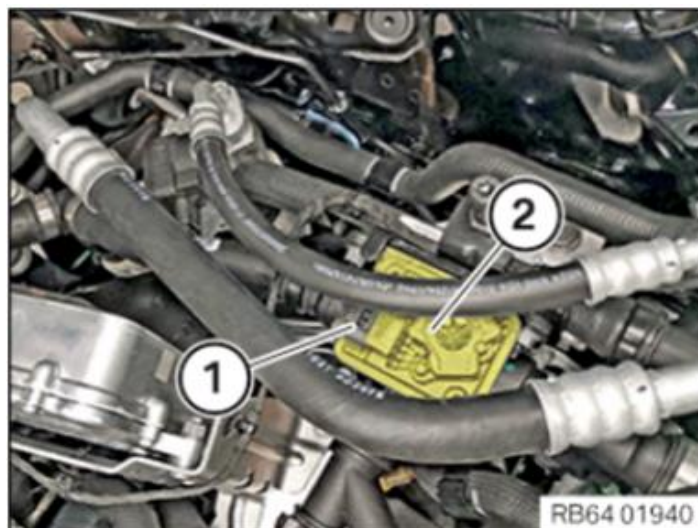
12. Install upper changeover valve.
- Feed in the changeover valve (3) and install it.
 - Slide the coolant hoses (2) on and lock correctly.

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- Tighten nuts (1). Tightening Torque 8Nm.



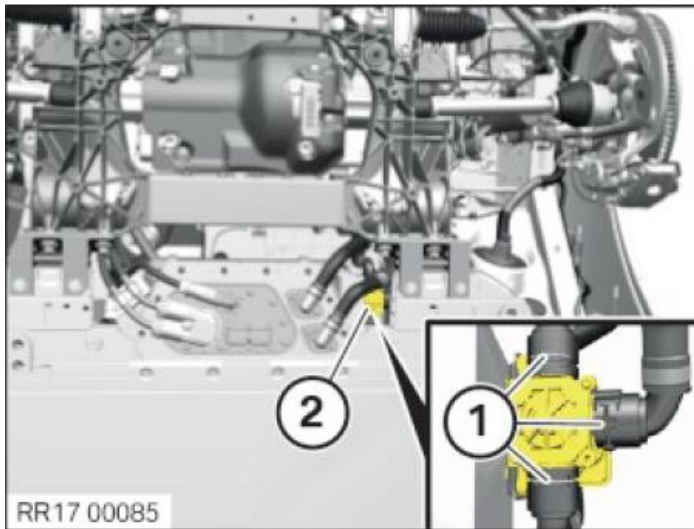
- Connect connectors (1) and lock.



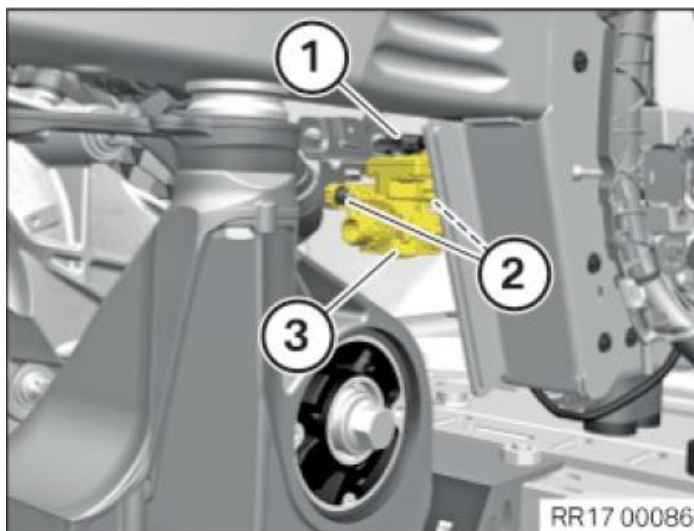
13. Removing lower changeover valve.

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- Unlock and pull off the coolant hoses (1) from the changeover valve (2) at the vehicle underbody.



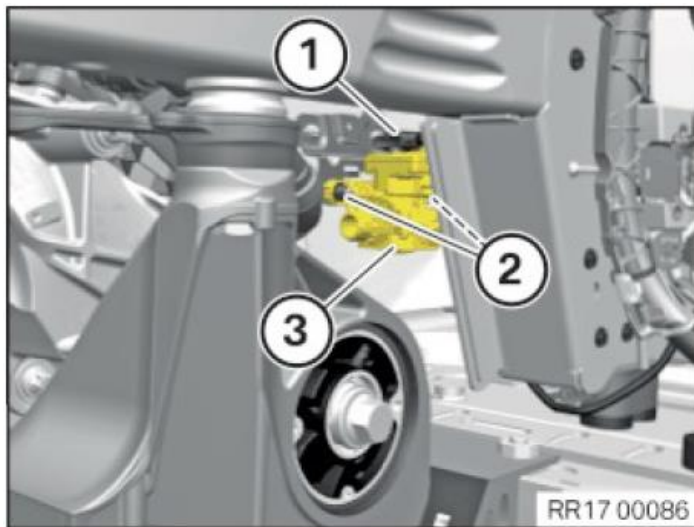
- Unlock the plug connection (1) on the changeover valve through the wheel arch.
- Loosen nuts (2).
- Remove the changeover valve (3) through the wheel arch gap.



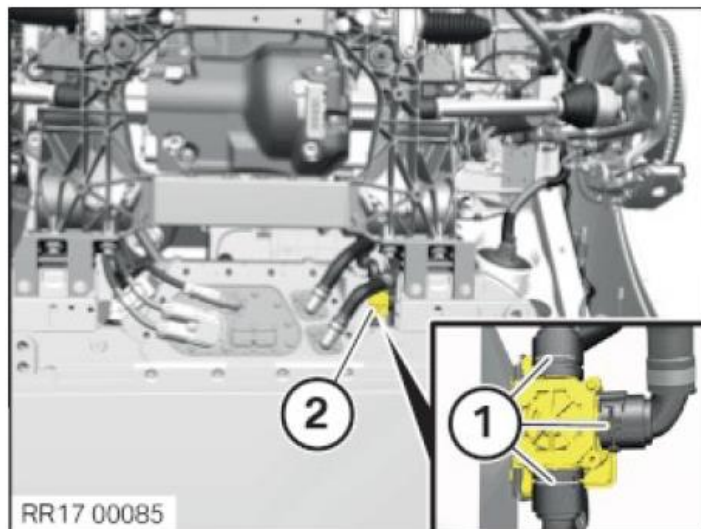
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14. Install lower changeover valve.
- Feed in the changeover valve (3) from the side of the wheel arch and correctly position.
 - Tighten nuts (2). Tightening Torque 8Nm.

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- Connect plug (1) and lock.



- Connect coolant hoses at the underbody (1).



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15. Fill and Bleed Coolant.

i TECHNICAL INFORMATION

Filling **without** the vacuum filler device (watering can filling) is **not released**.

Non-compliance will result in danger of component and/or engine damage.

Filling specification **must absolutely** be adhered to.

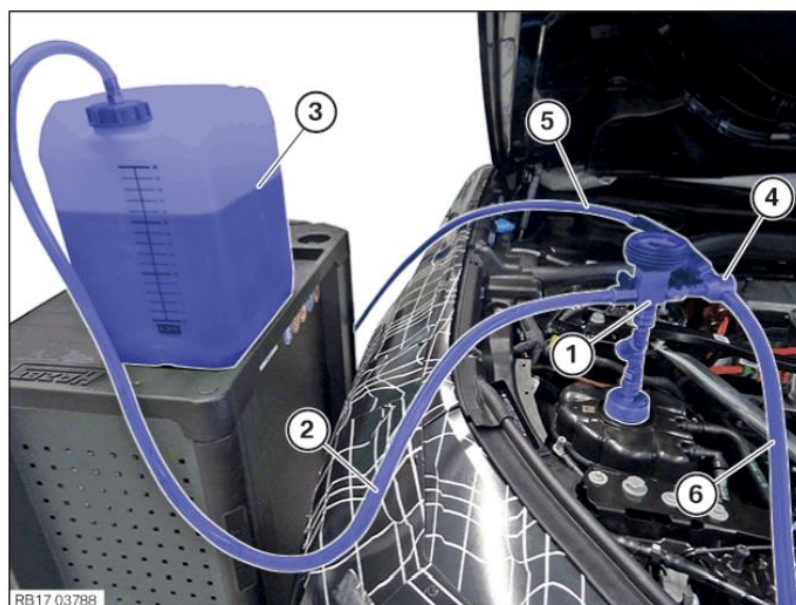
A visual check for functionality and cleanliness must be performed on the **vacuum filler device before use**.

Operation of the vehicle is not permitted unless the filling procedure has been completed. Otherwise, functional limitations (degradation) and/or overheating may occur.

A bleeding procedure is required after a part has been exchanged in the cooling system and/or after refilling the cooling system.

- Connect both the negative battery cables of the 12V batteries. Tightening torque 5Nm.
- Connect battery charger
- Ensure hood latch is closed
- Connect the diagnosis system (do not carry out a vehicle test) and go to the service function "Filling and bleeding the cooling system". Before building up the vacuum in the cooling system, select the menu item "1. Fill cooling system". Start the cooling system filling routine via the diagnosis system under the following path:
 - Service functions
 - Electric drive
 - Cooling
 - Fill and bleed cooling system
 - Menu item "1. Fill cooling system"
- Bleed and fill the coolant circuit with the vacuum filler device.

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Vacuum filler device - connected to the coolant expansion tank

- 1 Vacuum filler device with pressure gauge and shutoff valves
- 2 Filling hose
- 3 Fluid tank with coolant
- 4 Venturi nozzle
- 5 Compressed air connection (7 bar)
- 6 Exhaust hose
(Lead the exhaust hose to a collecting vessel)

Prerequisites:

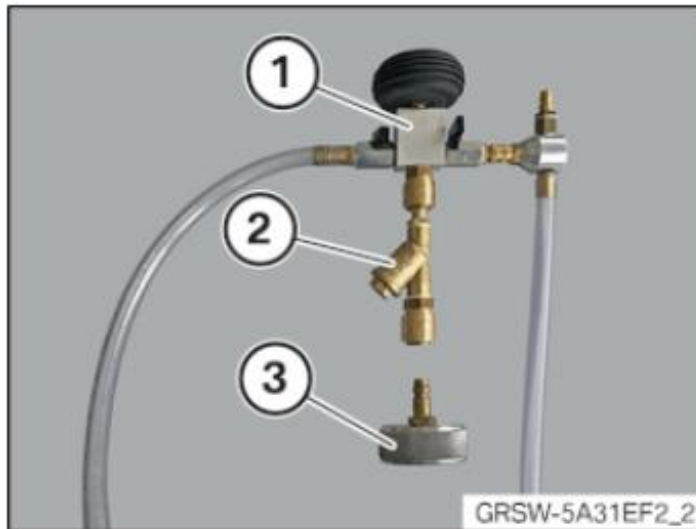
- The coolant expansion tank for the cooling system is empty. In the fluid tank of the vacuum filler device, there is a sufficient quantity of premixed coolant, 1L to 2L more than the specified capacity for the vehicle.
- The fluid tank of the vacuum filler device is positioned at the same height as the coolant expansion tank. There is a compressed air connection with pressure of 7 bar.
- The vacuum filler device must be functional and free of dirt.

i TECHNICAL INFORMATION

To protect against fouling in the coolant circuit, it is essential to use **special tool 5 A31EF2** (strainer) when filling the coolant circuit with a vacuum filler device.

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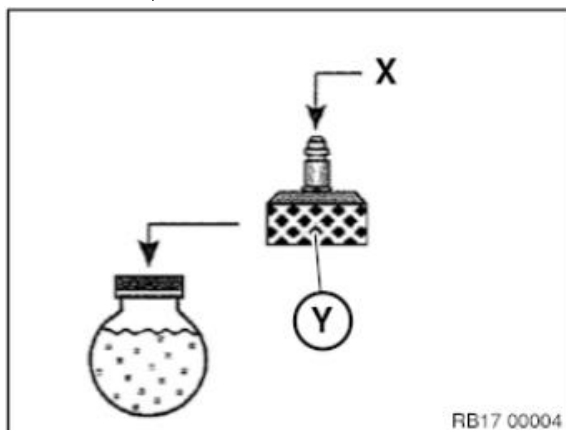
- Connect special tool (2) 83 30 5A31EF2 to vacuum filler device (1).
- Connect special tool (2) with matching adapter (3) from set of special tools 83 30 0494417 (17 0 100).



- The fluid tank of the vacuum filler device must be filled with 1 l to 2 l more than the specified capacity of coolant for the vehicle.

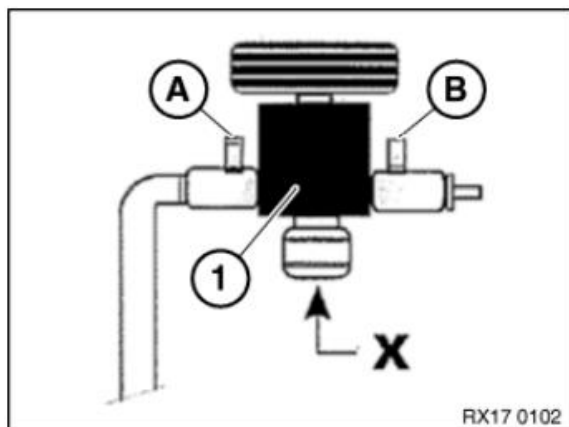
Coolant capacity
RR25 Battery Electric Vehicle
17.8 l

- Connect the selected adapter (Y) to the coolant expansion tank. Connect the vacuum filler device with the special tool 83 30 5A31EF2 on the connection (X) of the adapter.

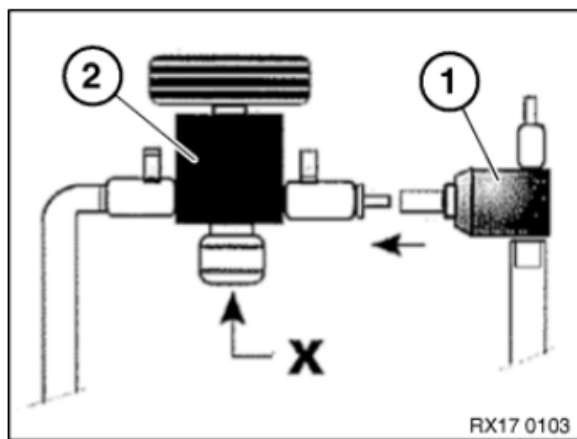


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- Make sure that the shutoff valves (A) and (B) of the vacuum filler device (1) are closed.
- Connect and lock connection (X) on the coolant expansion tank.



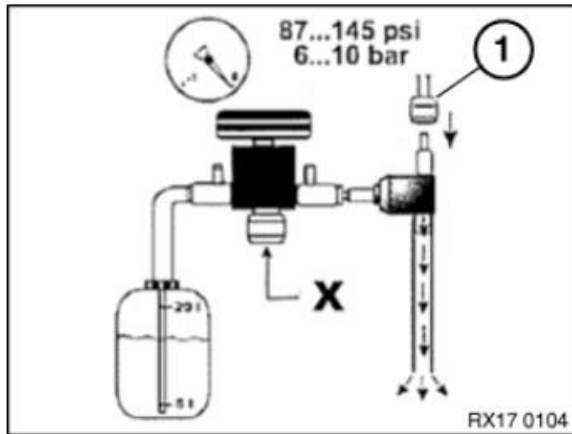
- Connect Venturi nozzle (1) on the vacuum filler device (2).
- (X) = Connection to the coolant expansion tank



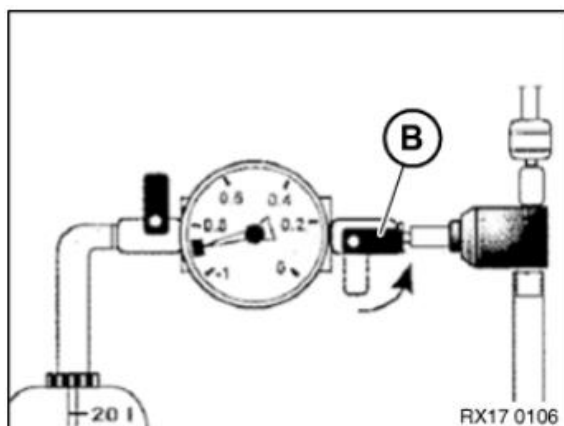
- Connect compressed air (1).

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- (X) = Connection to the coolant expansion tank



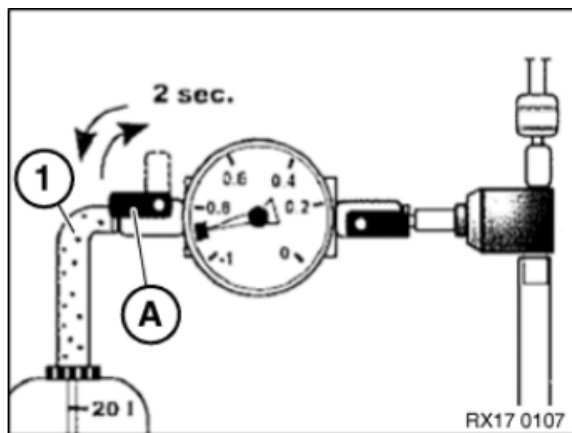
- Connect the diagnosis system (do not carry out a vehicle test) and go to the service function "Filling and bleeding the cooling system". Before building up the vacuum in the cooling system, select the menu item "1. Fill cooling system".
- Start the cooling system filling routine via the diagnosis system under the following path:
 - Service functions
 - Electric drive
 - Fill and bleed cooling system
 - Select menu item "1. Fill cooling system"
- Open shutoff valve (B).
- The Venturi nozzle produces a flow noise.



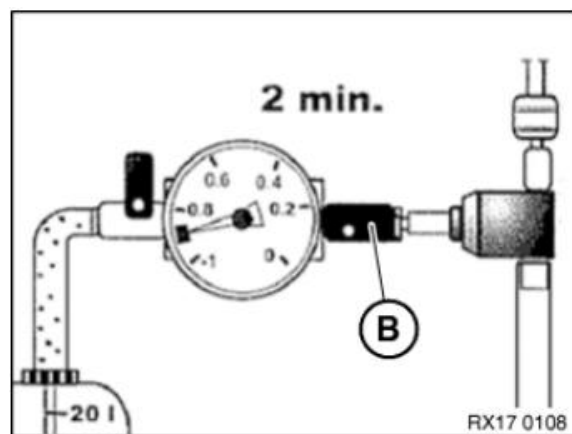
- Open shutoff valve (A) until the filling hose (1) is full without bubbles.

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- Close shutoff valve (A).
- » The filling hose (1) has been bled.



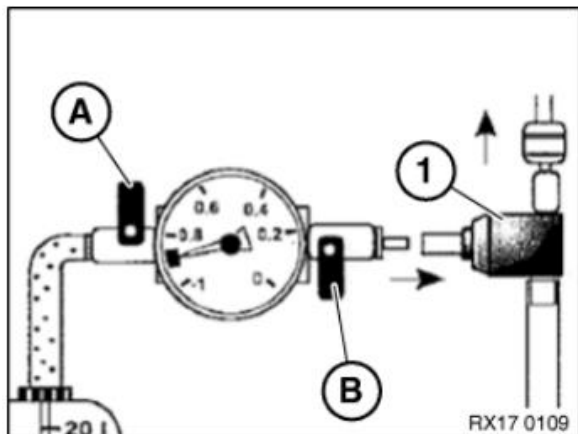
- Check coolant hoses for porosity and renew if necessary.
- The coolant hoses contract during vacuum build-up.
- Close shutoff valve (B) after a vacuum of -0.8 bar to -0.9 bar is achieved in the coolant circuit (duration approx. 2 min).



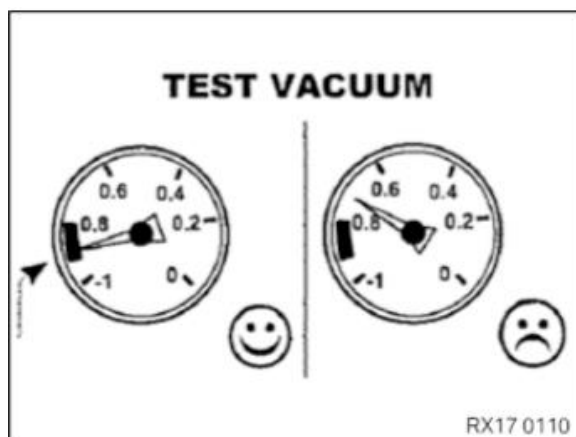
- Check whether the shutoff valves (A) and (B) are closed.

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- Disconnect the Venturi nozzle (1).



- Check whether the vacuum in the coolant circuit is maintained for at least 2

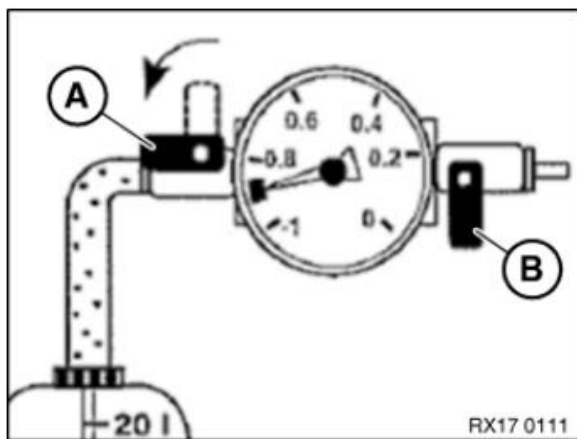


minutes.

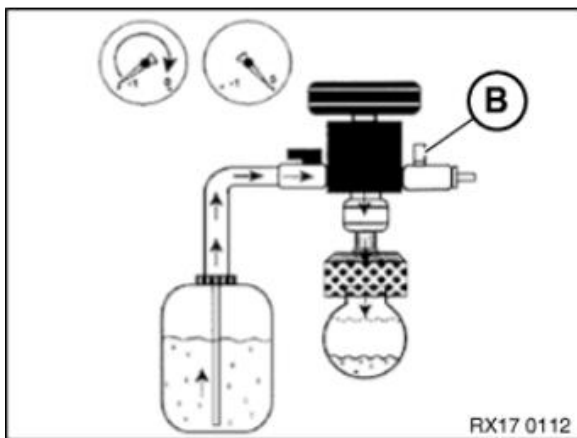
- If the vacuum drops, look for the leak, repair it, and start the filling procedure from the beginning.
- If the vacuum remains constant, continue with the filling.
- Keep shutoff valve (B) closed during the filling procedure.

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- To fill the cooling system, open the shutoff valve (A) to the fluid tank of the vacuum filler device.



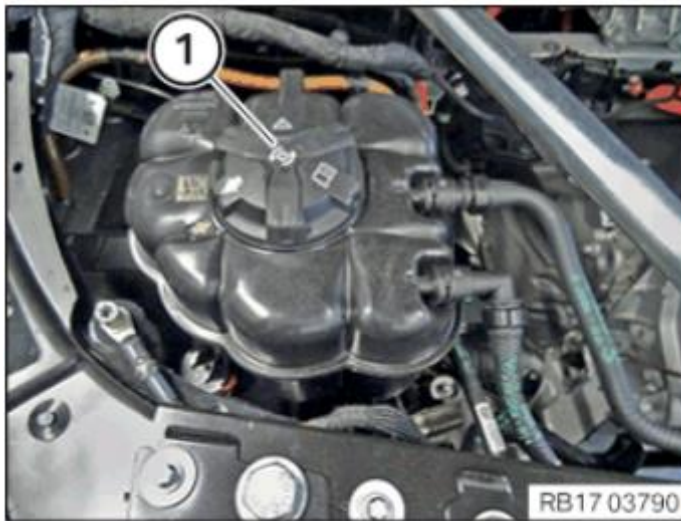
- Stop the filling procedure when the needle in the pressure measuring device is on 0 bar or it no longer drops. If necessary, relieve remaining vacuum. In order to do so, open shutoff valve (B).



- Remove the vacuum filler device from the coolant expansion tank.
- Fill the coolant expansion tank with 500 ml above the maximum mark of the coolant expansion tank.
- Allow vehicle to assume rest state.

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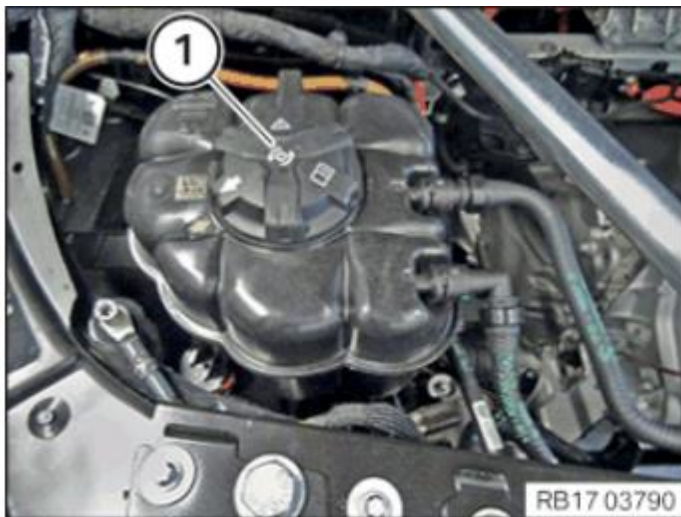
- Close the sealing cap (1) on the coolant expansion tank.



- Start the cooling system bleeding routine via the diagnosis system under the following path:
 - Service functions
 - Electric drive
 - Fill and bleed cooling system
 - Select the menu item "2. Bleed cooling system".
- After completing the cooling system bleeding routine, adjust the filling level of the coolant expansion tank in the cold state (< 30° coolant temperature) to the maximum mark.

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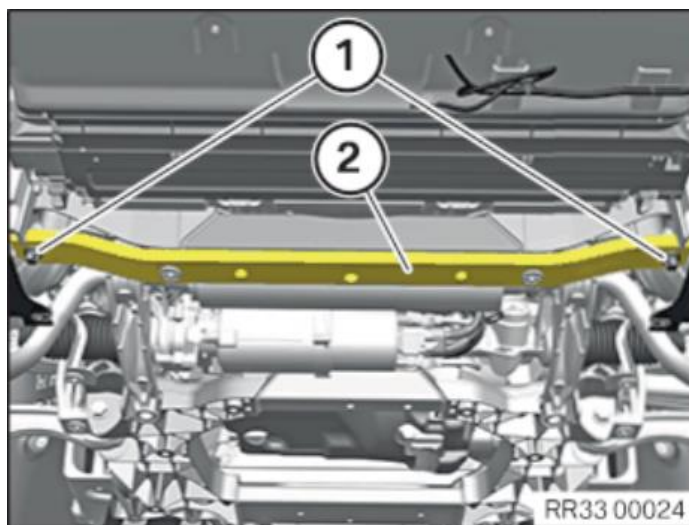
- Close the sealing cap (1) on the coolant expansion tank.



16. Installing the stiffening plate.

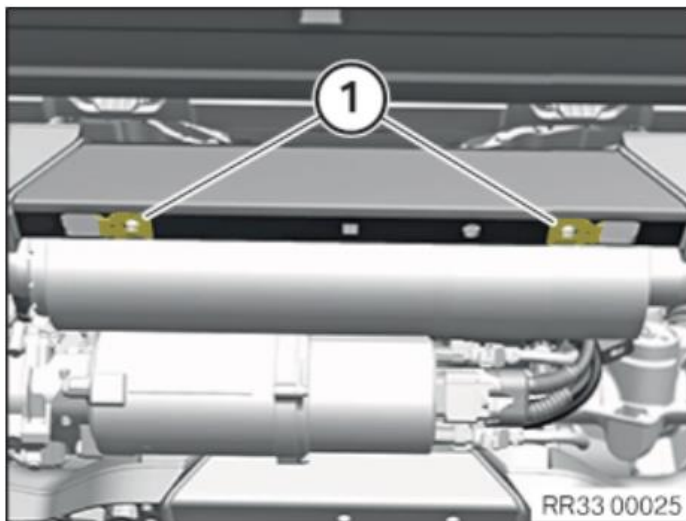
Note: The cage nuts on the cross member must be replaced.

- Loosen screws (1).
- Feed out and remove the cross-member (2).

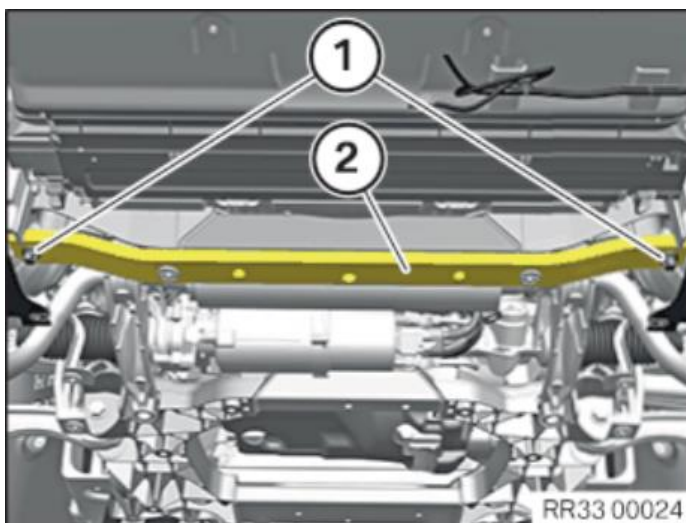


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- Renew the cage nuts (1). Part number 07 14 7283812 x 2.



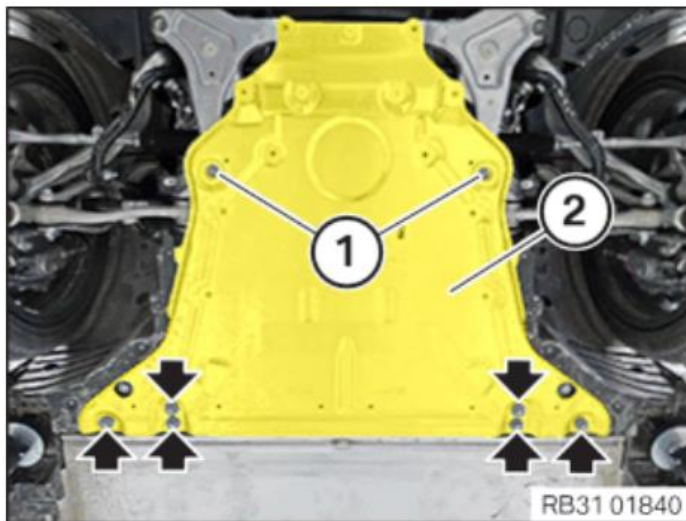
- Thread and install cross brace (2).
- Tighten screws (1).
- Tightening torque 100 Nm.



- Feed in and position stiffening plate 2 on the wheel arch trim panels.
- Renew screws (1). Part number 07 14 8837399
- Screw in the screws (1) by a few turns.

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- Screw in the screws (arrows) by a few turns.



- Renew screws (1) and (2).
- Tighten the screws (1). Part number 31 11 6899302.

Tightening torques

Stiffening plate to front axle support

M10x45	Joining torque	56Nm
Renew screws.	Angle of rotation	90°

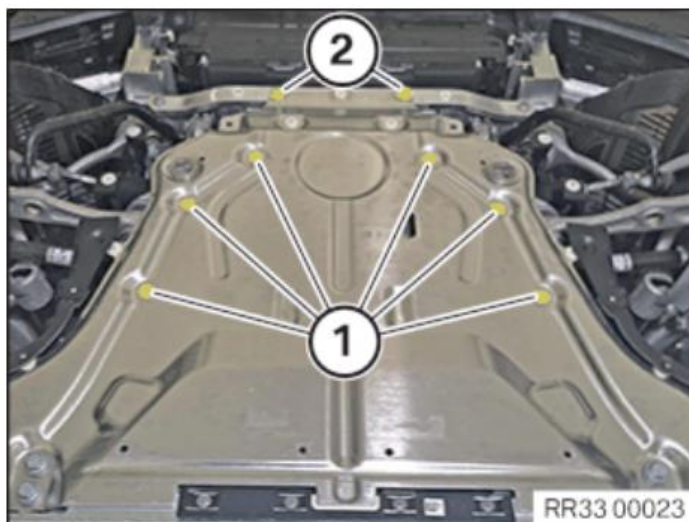
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- Tighten the screws (2). Part number 31 30 6874879

Tightening torques

Stiffening panel on cross-member

M10x50	Joining torque	56Nm
Renew screws.	Angle of rotation	90°



- Tighten screws (arrows).

Tightening torques

Stiffening plate to body (high-voltage battery)

M14x158	Tightening torque	165Nm
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- Renew screws (1). Part number 07 14 8837399

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- Tighten the screws (1).

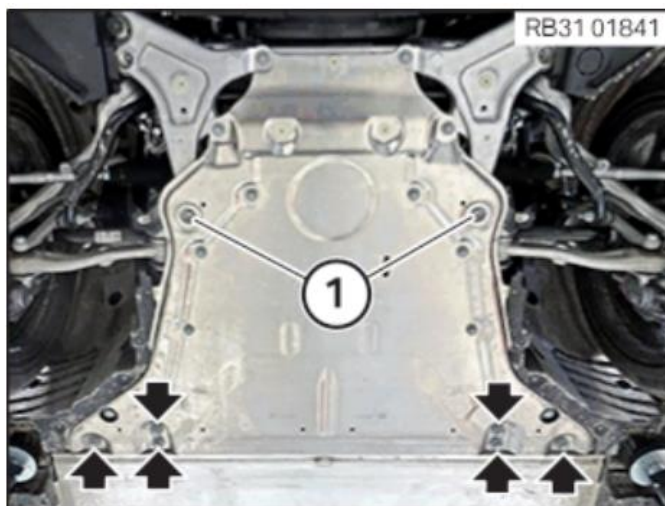
Tightening torques

Stiffening plate on front axle support (anti-roll bar retaining bracket)

M14x70

Tightening torque

96Nm



17. Complete the Potential Equalization 4 eyes check document:
 - Form for equipotential bonding screw connections: REH-HIN-P-0001-1 - V.3 (also at the end of this bulletin)
18. Re-fit design cover.



19. Re-energise High Voltage System.

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Parts Information

Description	Part Number	Quantity
Changeover valve	64 11 9 462 114	2
Plug-in nut (Cage nut)	07 14 7 283 812	2
ASA-Bolt (M14x1,5x70 ZNS3)	07 14 8 837 399	4
Multi-purpose bolt (10x45 ZNS3)	31 11 6 899 302	6
Hex Bolt (M10X50-10.9)	31 30 6 874 879	2
Hex Bolt with washer (M14x1,5x158)	33 30 6 782 246	6
Expanding Rivets	51 71 8 226 190	4
Antifreeze/Coolant	KemKrest	As per repair instructions

Note. Other small parts such as clips, blind rivets, screws, nuts, and seals, which must be replaced, based on the ISTA repair instructions, should be selected from the Electronic Parts Catalogue according to the respective vehicle type and invoiced under the special defect code.

Warranty Information

Claims are subject to current Warranty terms.

Defect Code 00 64 27 02 00

Labor Code	Description	Labor	Notes
17 99 000	Replace coolant changeover valves (both)	42 FRU	Open Time

Coolant must be claimed using part number 07 52 0396415 (Maximum quantity 90 DL).

If required, de-ionized water can be claimed using 04 Sublet code (Maximum quantity 90 DL).

Important! When submitting a warranty claim, if the ‘repair date’ field in CAESAR is not filled in, it will default to the claim entry date. Therefore, it is important you add/manually enter the correct ‘repair date’ in the “repair date field” that corresponds to the last time stamp on your repair order for this repair. Submission of incorrect repair dates will lead to delays with claim processing.

Published date February 20, 2024

Contact

If you have further questions, please contact your Regional Aftersales Manager (RAM).

Form for equipotential bonding screw connection

⚠ DANGER

Equipotential bonding in high-voltage system.
Danger to life if the equipotential bonding screw connection is not correct!

- Observe the safety requirements for the equipotential bonding screw connection.
- Clean contact surfaces and have them checked by a second person.
- Tighten the screws/nuts for equipotential bonding to torque; have a second person check the torque.
- Correct execution of these tasks must be documented in the vehicle records by both persons.

This form must be completed in full and enclosed with the vehicle records!

Vehicle identification number	Order number	Order date	Kilometre reading

Screw application	Torque	Mechanic	Signature	Tester	Signature

By signing, the mechanic and tester assume liability for the correctness of the screw connection!