

SIB 34 02 21

2021-03-03

RECALL 21V-062: INTEGRATED BRAKE SYSTEM

What's New (Specific text highlighted):

All sections updated except Affected Vehicles

Please perform the procedure outlined in this Service Information on all affected vehicles before customer delivery. In the event the customer has already taken delivery of the vehicle, please perform the procedure the next time the vehicle is in the shop.

MODEL

(G82 deleted)

F91 (M8 Convertible)	G05 (X5 Sports Activity Vehicle)	G15 (8 Series Coupe)
F92 (M8 Coupe)	G06 (X6 Sports Activity Coupe)	G16 (8 Series Gran Coupe
F93 (M8 Gran Coupe)	G07 (X7 Sports Activity Vehicle)	G80 (M3 Sedan)
F95 (X5 M Sports Activity	G12 (7 Series Sedan)	
Vehicle)	, ,	
F96 (X6 M Sports Activity Coupe)	G14 (8 Series Convertible)	

AFFECTED VEHICLES

Vehicles which require this Recall Campaign to be completed will show it as "Open" when checked either in AIR, the "Service Menu" of DCSnet (Dealer Communication System), ISPA Next or Warranty Vehicle Inquiry.

SITUATION

BMW AG is conducting a Voluntary Safety Recall (effective February 4, 2021) on certain Model Year 2019-2021 BMW vehicles that were produced between December 4, 2018 and December 8, 2020.

The Integrated Brake system (IB) control unit may not have been produced to specifications. In the event of hard braking, there may be a reduction in braking assistance which could lead to an extended stopping distance, and increase the risk of a crash.

The Recall Notice and Q&A have been attached for further information.

CAUSE

The IB unit was produced incorrectly.

CORRECTION

Replace the IB.

PROCEDURE

Replace the IB as per REP 34 51 601.

Note: For G80 vehicles, see attached G80 REP 34 51 601.

PARTS INFORMATION

Please monitor the Parts Matrix for ordering information.

Only use and invoice the part numbers below that apply.

Performing a part number look-up in ETK (EPC) by VIN or model in place of using/invoicing the following part numbers may result with the wrong part numbers being invoiced and installed, this could delay the payment of the claim.

Part Number	Description	Quantity
07 11 9 904 295	Self-locking collar nut (M8-8-ZNS3)	2
34 33 6 864 115	Seal, brake booster	1
G1x F91 F92 F93		
34 51 5 A30 760	Power brake (IB)	1
G12 G14 G15 G16		
51 71 6 966 566	Hexagon screw with flange (M10x45)	4
F91 F92 F93		
07 14 8 076 410	Hex bolt with washer (M)	4
G8x		
34 51 7 882 966	Power brake (IB)	1
07 14 8 086 257	Hex bolt (M10X35)	4
51 61 8 084 883	Hex bolt (M10X70)	4
G0x F95 F96		
34 51 5 A30 755	Power brake (IB)	1
81 22 0 142 156	Brake fluid (12 oz btl.)	Sublet as needed

WARRANTY INFORMATION

During this workshop visit, the affected vehicle may also show one or more programming and encoding Technical Campaign repairs open, the programming and encoding procedure may only be invoiced one time.

Select THIS open Technical Campaign to perform and submit for updating the vehicle to the required I-level or higher AFTER replacing the brake booster as described in this bulletin.

Please be sure to also perform any additional work (before and/or after) as required by the other open campaign(s) on the vehicle. Close any remaining open programming and encoding Campaign repairs as outlined in the corresponding Service Information Bulletin.

Reimbursement for this Recall will be via normal claim entry utilizing the applicable work package information below and the part numbers listed above that apply.

Defect Code:	0034550200	F9x G0x G1x G8x Replacing brake booster hydraulic unit

Completion before the first vehicle delivery to a customer or the vehicle is already in the workshop

Work Pkg	Labor Operation	Description (Plus work)	Labor Allowance
# 1	00 70 722	Replacing the hydraulic unit of the brake booster, programming and encoding control units (includes connecting an approved battery charger/power supply and performing a vehicle test)	26 FRU (F95, F95, G05, G06, G07, G82); 27 FRU (F91, F92, F93, G14, G15, G16, G80); 29 FRU (G11, G12)

Or:

The vehicle arrives at your center and this Recall shows open (No other main work will be performed or claimed during this workshop visit)

Work Pkg	Labor Operation	Description (Main work)	Labor Allowance
# 2		Replacing the hydraulic unit of the brake booster, programming and	28 FRU (F95, F95, G05, G06, G07, G82);

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CC	````	29 FRU (F91, F92, F93, G14, G15, G16, G80); 31 FRU (G11, G12)
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Only one of the flat rate labor operation codes listed above can be used for claim submission and reimbursement. Also, only one Main work flat rate labor operation code can be claimed per workshop visit.

Claim Repair Comments

Only reference the SIB number and the work package (Pkg) number performed in the RO technician notes and the claim comments (For example: B34 02 21 WP 1), unless otherwise required by State law.

And, as needed:

Sublet – Bulk Materials (RO and Claim Comments Required)

Sublet Code Up to \$25.0	Reimbursement for the repair-related bulk materials (Do not use the BMW part number for claim submission)
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Sublet reimbursement calculation for claiming the applicable repair-related bulk material (BMW part number) is at the dealer net price amount for the quantity used plus your center's handling.

Enter this material cost in sublet and itemize the amount on the repair order and in claim comment section.

And, as applicable:

Alternative Mobility Solution (AMS) for Vehicle Owners (RO and Claim Comments Required)

This Recall repair qualifies for Alternative Mobility Solution (AMS) expense reimbursement, claim this item under the Defect Code noted above as follows:

Sublet Code 2 - Itemize the AMS sublet amount on the repair order and in the claim comment section.

Please refer to SI B01 29 16 for additional information.

Reimbursement of Prior Customer-Pay Repairs (TREAD Act)

Based on the issue and the age of the Affected Vehicles being addressed by this Safety Recall Campaign, a reimbursement request for a qualifying prior customer-pay power brake (Integrated Brake system (IB) control unit) replacement is not likely.

However, if you receive a reimbursement request from a customer for a prior repair that may qualify, please contact the Warranty department (include a legible copy of the invoice) through IDS by selecting Coverage, Policy, Coding Questions and Mileage Corrections. The Warranty department will review and respond to your inquiry accordingly.

QUESTIONS REGARDING THIS BULLETIN

Technical inquiries	Submit feedback at the top of this bulletin
Warranty inquiries	Please contact the Warranty department by either using the Live Chat that's available in the Warranty Documentation Portal or through IDS by selecting Coverage, Policy, Coding Questions and Mileage Corrections
Parts inquiries	Submit an IDS ticket to the Parts Department

Supporting Materials

picture_as_pdf B340221 Recall Notice.pdf
picture_as_pdf B34 02 21 G80 REP 34 51 601.pdf
picture_as_pdf B340221_2021-BMW-MY2019-21-F9x-G0x-1x-8x-IntegratedBrakeSystem-FAQ-(04Feb2021).pdf

Attachment to B34 02 21 February 2021

SAFETY RECALL NOTICE

To: All Center Operators, Sales Managers, Service Manager, Parts Manager and Warranty Processor

RE: Recall 21V-062: Integrated Brake System – B34 02 21

BMW AG is conducting a Voluntary Safety Recall (effective February 4, 2021) on certain Model Year 2019-2021 BMW vehicles that were produced between December 4, 2018 and December 8, 2020.

Please be reminded that it is a violation of federal law (The Safety Act) for you to sell, lease or deliver any new motor vehicle covered by this notification until the recall repair has been performed. This means that centers may not legally deliver new motor vehicles to consumers until they are fixed or use/sell replacement equipment/parts subject to this recall. Note also that substantial civil penalties apply to violations of the Safety Act.

Also, you should not sell, lease or deliver any Certified Pre-Owned or used vehicles subject to a safety recall until the repair is completed.

Please follow any special instructions that we provide to you for the return or disposition of recall parts.

We appreciate all your assistance with this Recall.

Attachment to B34 02 21

February 2021

34 51 601 Replacing the hydraulic unit

Overview of Activities

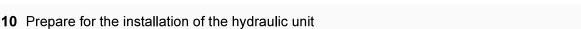
Additional Information

Preliminary Work

- 1 Disconnecting all battery earth leads
- 2 Remove the seal for the rear bonnet
- 3 Remove the cover of the engine compartment at th...
- 4 Remove the cover of the rear right engine compart...
- 5 Removing both wiper arms
- 6 Remove cowl panel cover
- 7 Removing trailing link at spring strut dome
- **8** Removing the trim panel for pedal mechanism

Main Work

9 Remove hydraulic unit



11 Install hydraulic unit

Postprocesses

- 12 Connect bleeder unit for brake fluid
- **13** Flush and bleed rear brake (after part replacement)
- **14** Flushing and bleeding the front brake (after part exch...
- **15** Disconnecting the bleeder unit for the brake fluid (aft...
- **16** Installing the trim panel for the pedal mechanism
- 17 Install tension strut on spring strut dome.
- 18 Installing cowl panel cover
- 19 Installing both wiper arms
- 20 Install the rear right engine compartment cover

- 21 Install the cover of the engine compartment on th...
- 22 Install the seal for the bonnet
- 23 Disconnecting all battery earth leads
- 24 Functional check of the integrated brake system
- 25 DSC unit start-up/driving dynamics sensor adjustment/programming the control unit

General information

i TECHNICAL INFORMATION

Maintain conditions of absolute cleanliness.

i TECHNICAL INFORMATION

Before working on the DSCi brake (integrated brake) for the first time, the "DSCi" web-based training should have been completed once. To do this, the "DSCi" web-based training must be initiated in their Learning Management System (TMSi).

i TECHNICAL INFORMATION



- Before the hydraulic unit is removed, the vehicle battery must be disconnected!
- The vehicle battery must never be connected during the repair!
- Otherwise a brake bleeding routine must be performed after the repair.
- · Additional information: see 34 00 ... Brake bleeding routine
- The vehicle battery may be connected again only if the brake system is filled completely with brake fluid and bled!

i TECHNICAL INFORMATION

Use only BMW-approved brake fluids.

For additional information see: SBS-ANL-SBS1996-340396150...

PRELIMINARY WORK

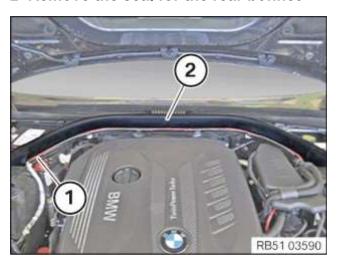
1-Disconnecting all battery earth leads

Additional information is available.



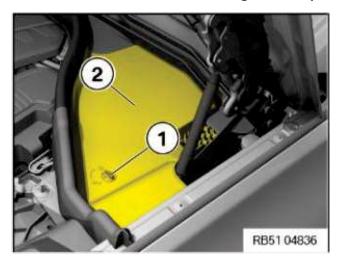
· See additional information.

2-Remove the seal for the rear bonnet



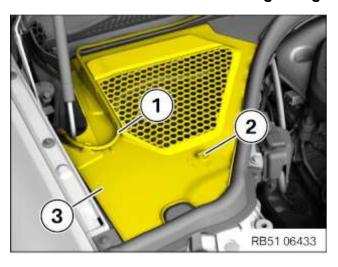
- Feed the cable (1) out of the brackets toward the front.
- Remove the rear bonnet seal (2) from the guide toward the inside.

3-Remove the cover of the engine compartment at the rear left



- Loosen the lock (1).
- Remove the cover (2) of the rear left engine compartment.

4-Remove the cover of the rear right engine compartment



- Release washer fluid hose (1) from the guides.
- Loosen the lock (2).
- Remove the cover (3) of the rear right engine compartment.

5-Removing both wiper arms

☐ NOTICE

Description is for left component only. Procedure on the right side is identical.

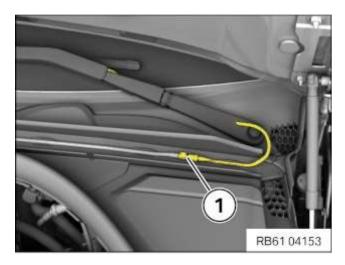
► Remove the wiper arm

☐ RISK OF DAMAGE

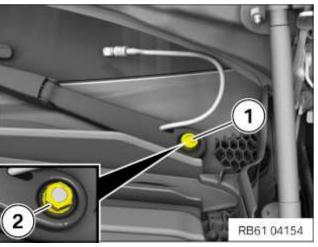
Damage to wiper console

While removing the wiper arms without using special tool, the wiper console can break.

- Removing the wiper arms must be carried out only using the prescribed special tool.
- Do not lift off wiper arm, else the wiper console may break on the predetermined breaking point for the pedestrian protection.

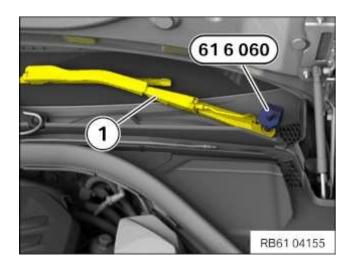


• Disconnect the washer fluid hose (1) at the separation point and feed out from the cowl panel guide.



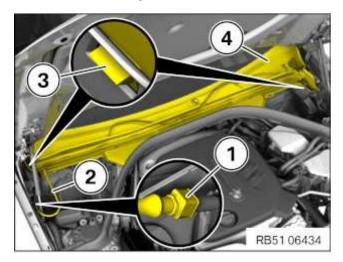
- Remove the protective cap (1).
- Loosen nut (2).

Pull off the wiper arm (1) using special tool 0 493 441 (61 6 060).

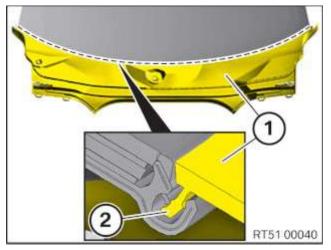


4

6-Remove cowl panel cover



- Release snap fastener (1) of the washer fluid hose (2) and put the washer fluid hose (2) to one side.
- Unclip clips (3) on the cowl panel cover (4).

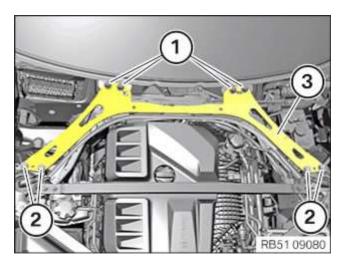


• Pull the cowl panel cover (1) upward out of the latch mechanism (2) beginning on the side.

7-Removing trailing link at spring strut dome

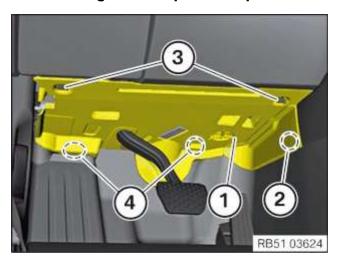
i TECHNICAL INFORMATION

Driving without the strut brace/front-end strut or tension strut is not permitted.



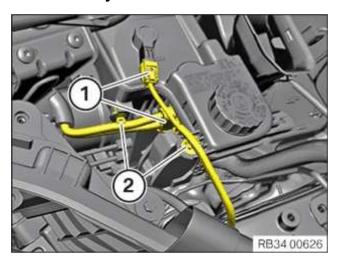
- Loosen screws (1) and (2).
- Remove the tension strut (3) upwards.

8-Removing the trim panel for pedal mechanism

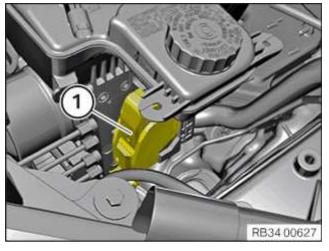


- Unclip the trim panel for the pedal mechanism (1) towards the inside in this area (2).
- Turn the locks (3) by 90°.
- Detach the trim panel for the pedal mechanism (1) inwards out of the guides (4).
- Unlock associated plug connection and disconnect.

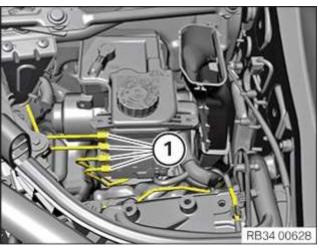
9-Remove hydraulic unit



- Disconnect plug connection (1).
- Remove the cable clip (2).



• Disconnect plug connection (1).



i TECHNICAL INFORMATION

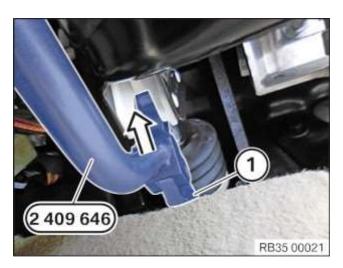
Do not interchange brake lines. Mark the brake lines before the disassembly.

Do not bend brake lines.

Close off connecting bores with seal plugs.

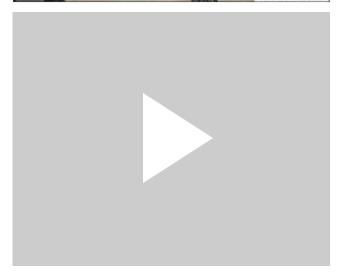
• (1)Unfasten brake lines.

- Retract release tool <u>2 409 646</u> between brake pedal and brake booster.
- Apply support (1) of the release tool 2 409 646 on the bearing support.
 If necessary, securely position the support (1) by turning the screw on the special tool.

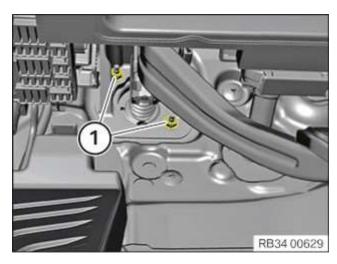


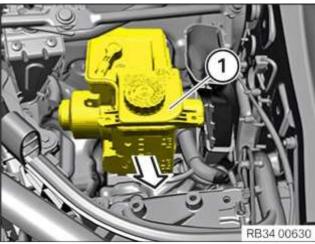


• Press the special tool <u>2 409 646</u> in the direction of the arrow and lever the brake pedal off the brake booster.



• Loosen nuts (1).





• Remove the hydraulic unit (1).

10-Prepare for the installation of the hydraulic unit

i TECHNICAL INFORMATION

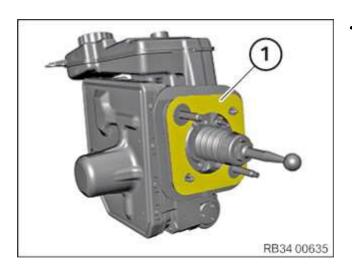
Maintain conditions of absolute cleanliness.



• Check the retaining lugs of the holding clip (1) in the marked area (2) for damage and renew the holding clip where required.

• Renew the seal (1) on the hydraulic unit.

Parts: Gasket

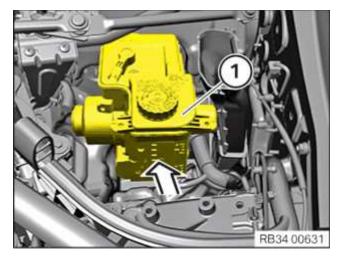


• Thoroughly clean the sealing surfaces on the hydraulic unit and on the bulkhead.

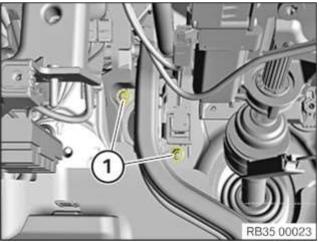
11-Install hydraulic unit

i TECHNICAL INFORMATION

Maintain conditions of absolute cleanliness.



Position hydraulic unit (1).



· Renew nuts.

Parts: Nuts

• Place and tighten nuts (1).

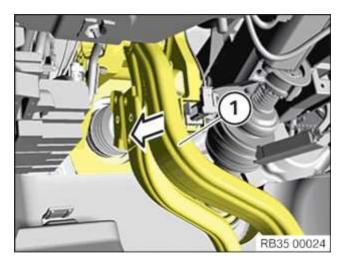
Hydraulic unit to pedal bracket

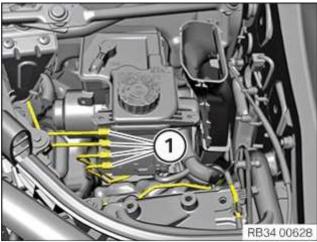
Nm

Replace nuts.

M8	1 x retighten to the hydraulic	Tightening t	22 Nm
	unit after 10 min	orque	

- Lock the brake pedal (1) in direction of arrow with the brake booster.
- Ensure that the brake pedal is completely locked with the brake booster!





i TECHNICAL INFORMATION

Do not interchange brake lines. Mark the brake lines before the disassembly.

Do not bend brake lines.

Close off connecting bores with seal plugs.

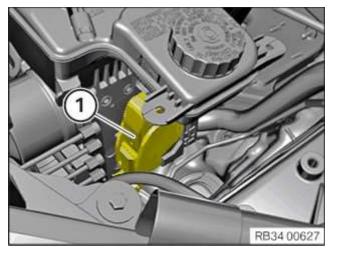
• (1)Fit brake lines () and tighten.

Brake pipe screw connection / Union screws



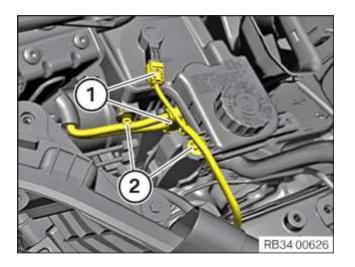
Tightening t orque

17 Nm

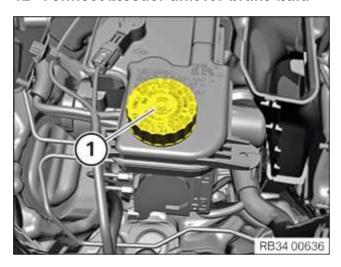


• Connect connector (1).

- Connect connector (1).
- Install the cable clip (2).



12-Connect bleeder unit for brake fluid



Open sealing cap (1).



RISK OF DAMAGE

Paint damage.

Mechanical or chemical action may lead to paint damage.

· Cover up working area with specified covering material only.

i TECHNICAL INFORMATION

Use only BMW-approved brake fluids, see operating fluids.

 Connect the bleeder unit (1) to the brake fluid expansion tank and switch it on.

Observe the operating instructions of the corresponding equipment manufacturer.

Do not exceed the filling pressure of 2 bar.

13-Flush and bleed rear brake (after part replacement)



™ NOTICE

Description is for right component only. The procedure on the left side is identical.

- Start flushing at the rear right.
- Connect the vent hose with the collecting vessel to the vent valve (1) on rear right brake caliper.
- Open the vent valve (1) and purge it until clear, bubble-free brake fluid emerges.
- · Close vent valve.



Rear ventilation valve	Rear	ventilation	valve
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Vent valve Tightening t 10 Nm orque

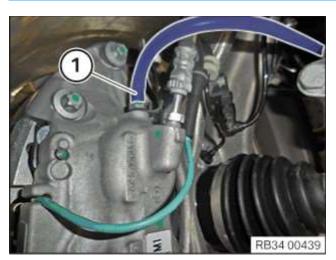
· Carry out the same procedure on the rear left wheel brake.

14—Flushing and bleeding the front brake (after part exchange)



☞ NOTICE

Description is for right component only. The procedure on the left side is identical.

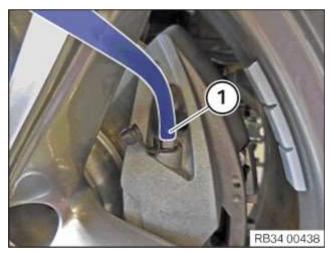


- Start flushing at the front right.
- Connect the vent hose with the collecting vessel to the vent valve (1) on front right brake caliper.
- Open the vent valve (1) and purge it until clear, bubble-free brake fluid emerges.
- Close vent valve (1).

Front ventilation valve Brake calliper manufacturer Brembo



Vent valve	Tightening t	18 Nm
	orque	



- Connect the vent hose with the collecting vessel to the vent valve (1) on the front right brake caliper.
- Open the vent valve (1) and purge it until clear, bubble-free brake fluid emerges.
- Close vent valve (1).

Front ventilation valve Brake calliper manufacturer Brembo



Vent valve	Tightening t	18 Nm
	orque	

Carry out the same procedure on the front left wheel brake.

15-Disconnecting the bleeder unit for the brake fluid (after part exchange)

F RISK OF DAMAGE

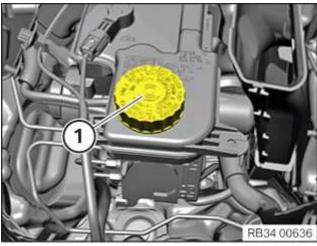
Paint damage.

Mechanical or chemical action may lead to paint damage.

· Cover up working area with specified covering material only.

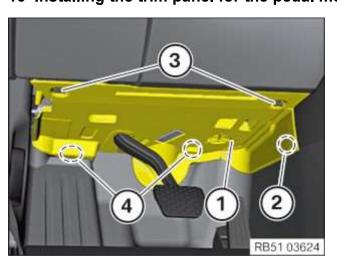


- Switch off bleeder unit (1) and remove from brake fluid expansion tank.
- Check the brake fluid level; if necessary, adjust to maximum mark.



- Check the seal of the sealing cap (1) for a correct fit and damage, renew if necessary.
- Shut sealing cap (1).

16-Installing the trim panel for the pedal mechanism

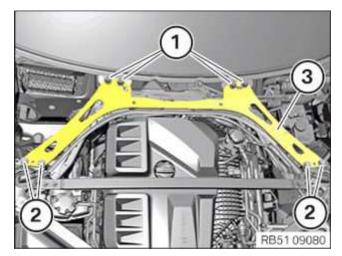


- · Connect associated connector.
- Attach the trim panel for the pedal mechanism (1) in the guides (4) and fold it up.
- Clip the trim panel for the pedal mechanism (1) into the centre console in this area (2).
- Insert locks (3) correctly and turn 90°.

17-Install tension strut on spring strut dome.

i TECHNICAL INFORMATION

Driving without the strut brace/front-end strut or tension strut is not permitted.



- Install tension strut (3).
- Renew screws (1).

Parts: Screws

• Tighten the screws (1).

Tension strut on bulkhead



M10x35 sc rew	Renew screws.	Tightening t orque	56 Nm
		Angle of rot ation	90 °

Renew screws (2).

Parts: Screws

• Tighten the screws (2).

Tension strut to spring strut dome



M10x70 sc	Renew screws.	Tightening t	56 Nm
rew		orque	
		Angle of rot ation	90 °

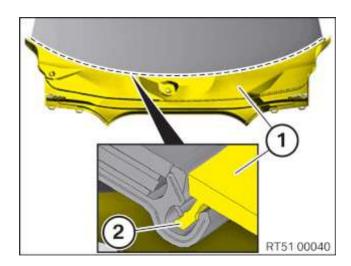
18-Installing cowl panel cover

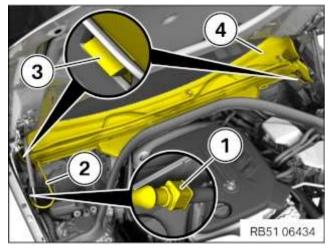
☞ RISK OF DAMAGE

Damage caused by water ingress into the vehicle.

Water ingress into the vehicle may result in damage to components, malfunctions and corrosion.

- Ensure correct installation of the components.
- · Only use undamaged components.
- Push the cowl panel cover (1) into the latch mechanism (2) beginning on the side.





- Clip cowl panel cover (4)in by means of the latch mechanisms (3).
- Position windscreen wash hose (2) and connect windscreen wash hose (1)quick lock.

19-Installing both wiper arms



☞ NOTICE

Description is for left component only. Procedure on the right side is identical.

► Install the wiper arm

i TECHNICAL INFORMATION

The wiper system must be in zero position.

After installing the cowl panel cover and before fitting the wiper arm:

Activate the wiper system once to ensure that it has the correct installation position.

- Connect the wiper arm (3).
- Correctly position the wiper arm (2) in relation to the window edge (1).

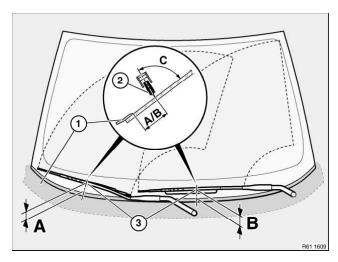
Distance from window pane edge to wiper blade

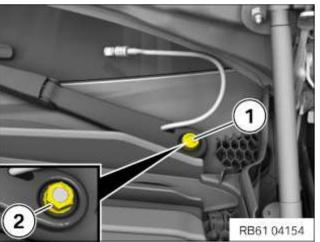


Wiper arm right (A)	57,5 ± 5 mm
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Wiper arm left (B)

 $63,3 \pm 4 \text{ mm}$





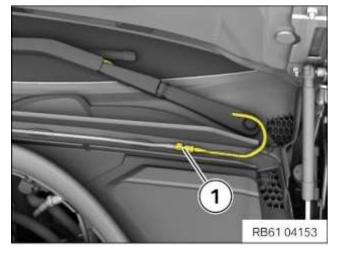
• Tighten nut (2).

Windscreen wiper arm



Combinati	Tightening t	35 Nm
on hexago	orque	
n nut		

• Connect the protective cap (1).



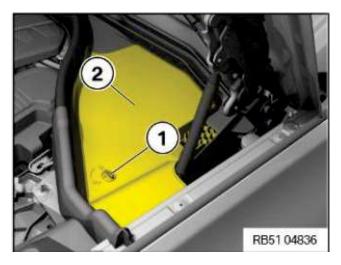
• Feed washer fluid hose (1) into the cowl panel guide and connect at the separation point.

20-Install the rear right engine compartment cover

- Position the cover of the engine compartment on the rear right (3).
- Close lock (2).
- Insert washer fluid hose (1) into the guides.

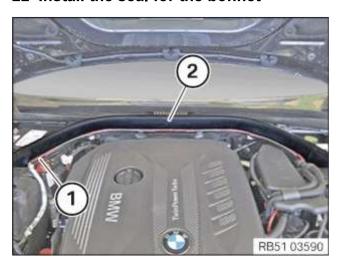


21-Install the cover of the engine compartment on the rear left



- Position the engine compartment cover at the rear left (2).
- Close lock (1).

22-Install the seal for the bonnet



- Press the rear bonnet seal (2) into the guide.
- Feed in cable (1) into the brackets.
- Check that the rear bonnet seal (2) and the cable (1) are seated correctly.

23-Disconnecting all battery earth leads

Additional information is available.

See additional information.



24–Functional check of the integrated brake system

i TECHNICAL INFORMATION



- A functional check must be performed after the repair has been completed. If, during this functional check, it is determined that there is some air in the brake system, a brake bleeding routine must be performed.
- For additional information, see 34 00 ... Brake bleeding routine

25-DSC unit start-up/driving dynamics sensor adjustment/programming the control unit

► Encode/program control unit(s)

Prerequisite

Replacement of component.

i TECHNICAL INFORMATION

Use the most recent software version to prevent faults during programming/encoding.

The battery voltage must not fall below 13.0 V during programming.

Use only chargers for a low volt-vehicle electrical system that are recommended by BMW.

i TECHNICAL INFORMATION

No high-voltage switch off is required in electric vehicles or hybrid vehicles for programming/encoding.

The high-voltage system will be automatically switched off by the programming system.

- Connect the battery charger to the vehicle.
- · Connect the programming system with the vehicle.
- Determine the action plan.

- · Accept and fully process the measures plan.
- If applicable, connect the workshop system to the vehicle, depending on the reworking list.
- · Carry out vehicle test.
- Delete the fault memory.
- The information about programming the workshop system and the corresponding notes in the user documentation must be observed.
- · Wait until programming/encoding has been completed.
- Disconnect the programming system from the vehicle.
- Disconnect the battery charger from the vehicle.

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- Connect diagnosis system:
 - Carry out the DSC unit start-up service function
 - Carry out the driving dynamics sensor adjustment service function

Safety Recall 21V-062 Integrated Brake System Model Year 2019-2021 BMW X5 / X5M SAV, X6 / X6M SAC, X7 SAV BMW 7 Series, 8 Series (including M), M3 Sedan, M4 Coupe Initial Release: 02/04/2021

Q1. Which BMW Group models in the US are potentially affected by this Safety Recall? Certain Model Year 2019-2021 BMW X5 / X5M SAV, X6 / X6M SAC, X7 SAV models, and also BMW 7 Series, 8 Series (including M), M3 Sedan, and M4 Coupe models in the US, produced between December 2018 and December 2020, are potentially affected.

Q2. What is the specific issue?

The integrated brake system may not have been produced to specifications. In the event of hard braking, there may be a reduction in braking assistance which could lead to an extended stopping distance, and increase the risk of a crash.

Q3. Why are other models / vehicles not included in this Safety Recall?

Other models have an integrated brake system that was produced to specifications.

Q4. Can I continue to drive my vehicle?

Yes. However, when you receive a letter requesting you to make an appointment to have this Safety Recall performed by an authorized BMW center, please do so as soon as possible. <u>If you are not the only driver of this vehicle, please advise all other drivers of this important information.</u>

Q5. Can I determine if this issue exists in my vehicle?

Yes. In an emergency, if the driver needs to step on the brakes hard, they may notice a "stiff" brake pedal, and a warning lamp in the instrument cluster. If this issue occurs, carefully move away from traffic and pull over to a safe location as soon as possible. If it is safe to do so, all occupants should carefully exit the vehicle and move to a safe location away from traffic. Do not continue to drive the vehicle. **Contact BMW Roadside Assistance at 1-800-332-4269 immediately to have your vehicle brought to the nearest authorized BMW center.**

Q6. How did BMW Group become aware of the issue?

BMW Group became aware of the issue through our quality control procedures.

Q7. How will I be informed of this Safety Recall?

Letters will be mailed to owners in <u>April</u> via First Class mail advising them of this Safety Recall and requesting them to schedule an appointment with an authorized BMW center to have the remedy performed. Owners can locate their nearest authorized BMW center at www.bmwusa.com/dealer. To ensure BMW has the most recent contact and vehicle information, owners should register their vehicle at www.bmwusa.com/myBMW. Registration is free and will give them access to factory-initiated campaigns and other information specific to their BMW.

Q8. How will my vehicle be repaired?

The integrated brake system will be replaced for free and may take several hours.

Q9. Do I have to wait for my letter to have my vehicle serviced?

Yes. BMW is in the process of ensuring that the necessary tools, parts, and procedures are available prior to contacting you to schedule an appointment with your authorized BMW center to have this important Safety Recall performed. For the latest updates to this Safety Recall, please visit www.bmwusa.com/recall.