# Safety Recall Code: 42L5



Subject

#### **Rear Axle Suspension Alignment**

**Release Date** 

March 11, 2022

**REVISION SUMMARY** 

- Added claiming for front toe adjustments
- Updated claiming for driver assist calibrations
- Clarified tire replacement guidelines
- Clarified rear axle alignment steps

**Affected Vehicles** 

Country	Beginning Model Year	Ending Model Year	Vehicle	Vehicle Count
USA	2020	2021	A4	4,138
USA	2019	2021	A5	1,921
USA	2020	2021	A5 CABRIOLET	314
USA	2020	2021	A6	2,450
USA	2020	2021	A7	203
USA	2020	2021	A8	222
USA	2020	2021	Q5	14,611
USA	2021	2021	Q7	1,929
USA	2021	2021	Q8	706
USA	2019	2021	RS5	172
USA	2021	2021	RS6	129
USA	2021	2021	RS7	208
USA	2021	2021	RSQ8	85
USA	2020	2021	S4	380
USA	2019	2021	S5	695
USA	2020	2021	S5 CABRIOLET	100
USA	2020	2021	S6	227
USA	2020	2021	S7	131
USA	2020	2021	S8	70
USA	2020	2021	SQ5	2,021
USA	2021	2021	SQ7	191
USA	2021	2021	SQ8	155
CAN	2020	2021	A4	759
CAN	2019	2021	A5	366
CAN	2020	2020	A5 CABRIOLET	21
CAN	2020	2021	A6	62
CAN	2020	2021	A7	16
CAN	2020	2020	A8	3

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CAN	2020	2021	Q5	2,206
CAN	2021	2021	Q7	93
CAN	2021	2021	Q8	62
CAN	2019	2021	RS5	18
CAN	2021	2021	RS6	23
CAN	2021	2021	RS7	19
CAN	2021	2021	RSQ8	25
CAN	2020	2021	S4	71
CAN	2020	2021	S5	278
CAN	2020	2021	S5 CABRIOLET	16
CAN	2020	2021	S6	21
CAN	2020	2020	S7	9
CAN	2020	2021	S8	8
CAN	2020	2021	SQ5	244
CAN	2021	2021	SQ7	15
CAN	2021	2021	SQ8	26

Check Campaigns/Actions screen in Elsa on the day of repair to verify that a VIN qualifies for repair under this action. Elsa is the only valid campaign inquiry & verification source.

- ✓ Campaign status must show "open."
- ✓ If Elsa shows other open action(s), inform your customer so that the work can also be completed at the same time the vehicle is in the workshop for this campaign.

#### **Problem Description**

A check of the suspension alignment of the rear axle was not included originally in the work instructions for Safety Recall 42L1. This may result in displacement in the wheel alignment, and could result in premature and uneven wear of the tires leading to a decrease of traction.

In cases where the tires are worn to the carcass, this may also cause a puncture. This could lead to a loss of tire pressure without warning, potentially causing a loss of vehicle control and even a crash.

#### Corrective Action

Check and, if necessary, adjust the rear axle suspension alignment on the affected vehicles. Tires will be checked for premature and uneven wear due to a possible misalignment of the suspension and will be replaced if necessary.

#### Important Information Regarding Tire Inspections Under This Recall

#### Customers are being advised:

For your safety and that of your passengers, please have this recall work performed as soon as possible. If you have more than one set of tires for your vehicle (for example, summer tires or winter tires), you <u>must</u> bring both sets to your recall appointment so they can be inspected (if necessary) under this recall.

- If the rear axle suspension is properly aligned, it will not be necessary for your dealer to inspect your vehicle's tires for premature wear under this recall.
- If the rear axle suspension is misaligned, your dealer will correct it free of charge and
  will, at the same time, also inspect your vehicle's tires for evidence of premature wear
  as a result of the misalignment. A tire(s) found to be prematurely worn due to
  misalignment of the rear axle suspension will be replaced free of charge. Your dealer
  will advise you regarding the estimated additional time needed to order and perform
  the replacement.

Tire replacement(s) will only be authorized in cases where your dealer has determined that the condition of the tires is directly related to wear resulting from the post-Safety Recall 42L1 rear axle suspension misalignment. Tire damage or malfunctions caused by normal wear & tear, or by outside influence, such as damage due to an accident, or vehicle misuse or neglect is <u>not</u> covered under this action.

#### **Precautions**

If this condition is present, the driver may notice a steering wheel misalignment when driving on a straight road or the vehicle pulling to one side when braking or accelerating. Customers

The information in this document is intended for use only by skilled technicians who have the proper tools, equipment and training to correctly and safely maintain your vehicle. These procedures are not intended to be attempted by "do-it-yourselfers," and you should not assume this document applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Audi dealer. ©2022 Audi Group of America, Inc. and Audi Canada. All Rights Reserved.

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experiencing this condition with their vehicle should contact an authorized Audi dealer without delay to have the vehicle diagnosed/repaired.

#### **Code Visibility**

On or about February 18, 2022, the campaign code was applied to affected vehicles.

#### **Owner Notification**

Owner notification took place in February 2022. Owner letter examples are included in this bulletin for your reference.

#### **Additional Information**

Please alert everyone in your dealership about this action, including Sales, Service, Parts and Accounting personnel. Contact Warranty if you have any questions.

#### IMPORTANT REMINDER ON VEHICLES AFFECTED BY SAFETY & COMPLIANCE RECALLS

<u>New Vehicles in Dealer Inventory:</u> It is a violation of federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied. By law, dealers must correct, prior to delivery for sale or lease, any vehicle that fails to comply with an applicable Federal Motor Vehicle Safety Standard or that contains a defect relating to motor vehicle safety.

<u>Pre-Owned Vehicles in Dealer Inventory:</u> Dealers should not deliver any pre-owned vehicles in their inventory which are involved in a safety or compliance recall until the defect has been remedied.

Dealers must ensure that every affected inventory vehicle has this campaign completed <u>before</u> delivery to consumers.

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#### **Parts Information (if necessary)**

Parts Control Type:	Parts will be managed by free order.

Initial Allocation:	There will be no parts allocation.
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Criteria	Quantity	Part Number	P.O.C. Part Description	Ordering Method
A	Up to 2	WHT-010-234	FLANGE NUT (M14) (if necessary)	Free Order
ALL	Up to 2	WHT-007-828	FLANGE NUT (M12) (if necessary)	Free Order

## • NOTE

The specified part numbers reflect the status at the start of this action. Interim updates made in ETKA can cause a listed part number to become unavailable. In this case, the new part number specified in ETKA should be used.

## ① NOTE

If tire(s) require replacement, tire ordering will be handled through the dealer's tire vendor or distributor.

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#### **Claim Entry Instructions**

The labor times listed here may differ from the labor operations and labor times listed in ELSA.

After campaign has been completed, enter claim as soon as possible to help prevent work from being duplicated elsewhere. Attach the Elsa screen print showing action *open on the day of repair* to the repair order. If customer refused campaign work:

- √ U.S. dealers: Submit the request through Audi Warranty Online under the Campaigns/Update option.
- ✓ <u>Canada dealers:</u> Upload the repair order [signed by customer] to Audi WIN/Operations/Campaign Closure.

Service Number	42L5	
Damage Code	0099	
Parts Vendor Code	002	
Claim Type	Sold vehicle: 7 10	
	Unsold vehicle: 7 90	
Causal Indicator	Mark labor as causal	
Vehicle Wash/Loaner	Do not claim wash/loaner under this action	

#### Criteria V3 must be claimed for every repair.

V3 = Check front and rear axle alignment

<u>IF TIRES REPLACED</u>: claim the applicable criteria below for the tires replaced. These additional criteria correspond to the potential, additional work that may be necessary and the criteria <u>IS required</u> to be entered on the claim.

Z1 = Replace 2 tires

Z2 = Replace 4 tires

Z3 = Replace 2 tires on 2nd set of wheels

Z4 = Replace 4 tires on 2nd set of wheels

<u>DO NOT</u>: claim these additional criteria. These additional criteria correspond to the potential, additional work that may be necessary but the criteria are <u>NOT</u> required to be entered on the claim.

XP = Adjust camber on rear axle

K1 = Adjust front camera

K2 = Adjust two radar sensors

K3 = Adjust one radar sensor

K4 = Adjust laser sensor

K5 = Adjust night vision system

OZ = Check tires

#### Continued on next page

Criteria I.D.	V3		
	Check rear axle alignment		
	LABOR		LABOR
	Labor Op	Time Units	Description
	0183 00 99	90	Check axle alignment, <u>no</u> adjustments necessary
			OR
	4495 03 99	90	Check axle alignment, camber adjustments necessary

#### Perform and claim the following work only if necessary.

If any of the following is claimed the items in the *Documenting tire replacement* step and/or the initial and final alignment measurements must be available and retained.

Criteria I.D.	XP			
	Make alignment adjustments			
		LABOR		
	Labor Op Time Units Description			
	4494 15 50 Adjust rear axle camber			
	-or- SEE ELSA -or-			
	4493 15 50 Adjust rear axle toe			
	Add, if front toe adjustments were necessary:			
	4488 15 50 SEE ELSA Adjust front axle toe			
	PARTS			
	Quantity Part Number Description			
	Up to 2.00 WHT010234 NUT (M14)		NUT (M14)	
		-OR-		
	Up to 2.00	WHT007828	NUT (M12)	

#### Continued on next page

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Criteria I.D.	K1			
	Calibrate driver assist systems – Front Camera			
	LABOR			
	Labor Op Time Units Description		Description	
	9092 00 50	SEE ELSA	Preparation Driver Assist Calibration	
	9638 15 50	SEE ELSA	Camera Driver Assist Sys adjust	
	2706 89 50	10	Connect battery charger	
	0150 00 00	Time stated on diagnostic protocol	GFF Operations	
			be performed on one GFF diagnostic session. 0150 00 00 are only claimed once.	
Criteria I.D.	K2			
	Adjust or calibrate driver assist systems – Two radar sensors			
	LABOR			
	Labor Op	Time Units	Description	
	9092 00 50	SEE ELSA	Preparation Driver Assist Calibration	
	9163 16 50	SEE ELSA	Adjust two radar sensors	
Criteria I.D.	К3			
	Adjust or calibra	ate driver assist systems –	One radar sensor	
		LA	ABOR	
	Labor Op	Time Units	Description	
	9092 00 50	SEE ELSA	Preparation Driver Assist Calibration	
	9163 15 50	SEE ELSA	Adjust one radar sensor	
Criteria I.D.	K4			
	Adjust or calibra	ate driver assist systems –	Laser sensor	
		LA	ABOR	
	Labor Op	Time Units	Description	
	9092 00 50	SEE ELSA	Preparation Driver Assist Calibration	
	9159 15 50	SEE ELSA	Adjust laser sensor	

#### Continued on next page

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Criteria I.D.	K5			
	Adjust or calibrate driver assist systems – Night vision system			
	LABOR			
	Labor Op Time Units Description		ription	
	9092 00 50	SEE ELSA	Preparation Drive	er Assist Calibration
	9080 15 50	SEE ELSA	Adjust night	vision system
Criteria I.D.	OZ	OZ		
	Check tread we	ar on all four tires		
		L	ABOR	
	Labor Op	Time Units	Desc	ription
	4440 01 99	10	Che	ck tires
Criteria I.D.	Z1 (Criteria must be entered on the claim)			
	Replace rear tires			
	LABOR			
	Labor Op	Time Units	Desc	ription
	4440 56 50	SEE ELSA	2 Tires	s replace
	4405 20 00	SEE ELSA	2 Wheels rem	oved+reinstalled
	OUTSIDE MATERIAL			
	Quantity	Part Number	Description	Amount
	2.00	TIRE	Tire	Dealer Net + \$60
	An invoice of the dealer net tire cost must be archived at the dealership for future auditir The \$60 allowed above dealer net also includes the cost of wheel weights, valve stems and tire disposal.			
Criteria I.D.	Z2 (Criteria mus	st be entered on the claim	)	
	Replace four tire	es		
		L	ABOR	
	Labor Op	Time Units	Desc	ription
	4440 56 99	80	4 Tires	s replace
	4405 20 04	SEE ELSA	4 Wheels rem	oved+reinstalled
		OUTSIDE	MATERIAL	
	Quantity	Part Number	Description	Amount
	4.00	TIRE	Tire	Dealer Net + \$120
	An invoice of the dealer net tire cost must be archived at the dealership for future audition. The \$120 allowed above dealer net also includes the cost of wheel weights, valve stems and tire disposal.		-	

#### Continued on next page

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Criteria I.D.	Z3 (Criteria must be entered on the claim)			
	Replace two tires on second set of wheels			
		LABOR		
	Labor Op	Labor Op Time Units Description		
	4440 56 99	4440 56 99 50 2 Tires replace		
		OUTSID	E MATERIAL	
	Quantity	Part Number	Description	Amount
	2.00	TIRE	Tire	Dealer Net + \$60
	An invoice of the dealer net tire cost must be archived at the dealership for future auditing.  The \$60 allowed above dealer net also includes the cost of wheel weights, valve stems and tire disposal.			,
Criteria I.D.	Z4 (Criteria must be entered on the claim)			
	Replace four tires on second set of wheels			
		LABOR		
	Labor Op	Time Units	Desc	ription
	4440 56 99	80	4 Tire	s replace
		OUTSIDE MATERIAL		
	Quantity Part Number Description Am			Amount
	4.00 TIRE Tire Dealer Net + \$12			Dealer Net + \$120
		e dealer net tire cost must d above dealer net also in		= =

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#### **Customer Letter Example (USA)**

This notice applies to your vehicle: <MODEL YEAR> <BRAND> <CARLINE>, <VIN>

NHTSA: 22V034

Subject: Safety Recall 42L5 - Rear Axle Suspension Alignment

Dear Audi Owner,

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act. Audi has decided that a defect, which relates to motor vehicle safety, exists in certain 2019-2021 model year Audi vehicles. Our records show that you are the owner of a vehicle affected by this action.

#### What is the issue?

A check of the suspension alignment of the rear axle was not included originally in the work instructions for Safety Recall 42L1 when the recall repair was performed on your vehicle. This may result in displacement in the wheel alignment, and could result in premature and uneven wear of the tires leading to a decrease of traction.

In cases where the tires are worn to the carcass, this may also cause a puncture. This could lead to a loss of tire pressure without warning, potentially causing a loss of vehicle control and even a crash.

#### What will we do?

To correct this defect, your authorized Audi dealer will check and, if necessary, adjust the rear axle suspension alignment on your vehicle. The tires will be checked for premature and uneven wear due to a possible misalignment of the suspension, and will be replaced if necessary. This work will take about two hours to complete and will be performed for you free of charge. Please keep in mind that your dealer may need additional time for the preparation of the repair, as well as to accommodate their daily workshop schedule.

#### What should you do?

Please contact your authorized Audi dealer without delay to schedule this recall work. For your convenience, you can also visit <a href="www.audiusa.com">www.audiusa.com</a> and click on the "Find a Dealer" link to locate a dealer near you and schedule this service.

#### Important Information Regarding Tire Inspections Under This Recall

For your safety and that of your passengers, please have this recall work performed as soon as possible. If you have more than one set of tires for your vehicle (for example, summer tires or winter tires), you must bring both sets to your recall appointment so they can be inspected (if necessary) under this recall.

- If the rear axle suspension is properly aligned, it will not be necessary for your dealer to inspect your vehicle's tires for premature wear under this recall.
- If the rear axle suspension is misaligned, your dealer will correct it free of charge and will, at the same time, also inspect your vehicle's tires for evidence of premature wear as a result of the misalignment. A tire(s) found to be prematurely worn due to misalignment of the rear axle suspension will be replaced free of charge. Your dealer will advise you regarding the estimated additional time needed to order and perform the replacement.

Tire replacement(s) will only be authorized in cases where your dealer has determined that the condition of the tires is directly related to wear resulting from the post-Safety Recall 42L1 rear axle suspension misalignment. Tire damage or malfunctions caused by normal wear & tear, or by outside influence, such as damage due to an accident, or vehicle misuse or neglect is not covered under this action.

## Precautions you should

The driver may notice a steering wheel misalignment when driving on a straight road or the vehicle pulling to one side when braking or accelerating. Customers experiencing this condition with their vehicle should contact an authorized Audi dealer without delay to have the vehicle diagnosed/repaired.

## Lease vehicles and address changes

If you are the lessor and registered owner of the vehicle identified in this action, the law requires you to forward this letter immediately via first-class mail to the lessee within ten (10) days of receipt. If you have changed your address or sold the vehicle, please fill out the enclosed prepaid Owner Reply card and mail it to us so we can update our records.

#### Reimbursement of Expenses

If you have previously paid for repairs relating to the condition described in this letter, the enclosed form explains how to request reimbursement. We would be pleased to review your reimbursement request.

## Can we assist you further?

If your authorized Audi dealer fails or is unable to complete this work free of charge within a reasonable time, please contact Audi Customer Experience at 1-800-253-2834 or via our "Contact Us" page at <a href="https://www.audiusa.com">www.audiusa.com</a>.

## Checking your vehicle for open Recalls and Service Campaigns

To check your vehicle's eligibility for repair under this or any other recall/service campaign, please visit the **Recall/Service Campaign Lookup** tool at <a href="https://www.audiusa.com">www.audiusa.com</a> and enter your Vehicle Identification Number (VIN).

If you still cannot obtain satisfaction, you may file a complaint with: The Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153); or go to http://www.safercar.gov.

We apologize for any inconvenience this matter may cause; however we are taking this action to help ensure your safety and continued satisfaction with your vehicle.

Sincerely, Audi Customer Protection

#### **Customer Letter Example (Canada)**

This notice applies to your vehicle: <MODEL YEAR> <BRAND> <CARLINE>, <VIN>

Transport Canada Recall: 2022-022

Subject: Safety Recall 42L5 - Rear Axle Suspension Alignment

Dear Audi Owner,

This notice is sent to you in accordance with the requirements of the *Motor Vehicle Safety Act*. This is to inform you that your vehicle may contain a defect that could affect the safety of a person. Our records show that you are the owner of a vehicle affected by this action.

What is the issue?

A check of the suspension alignment of the rear axle was not included originally in the work instructions for Safety Recall 42L1 when the recall repair was performed on your vehicle. This may result in displacement in the wheel alignment, and could result in premature and uneven wear of the tires leading to a decrease of traction.

In cases where the tires are worn to the carcass, this may also cause a puncture. This could lead to a loss of tire pressure without warning, potentially causing a loss of vehicle control and even a crash.

What will we do?

To correct this defect, your authorized Audi dealer will check and, if necessary, adjust the rear axle suspension alignment on your vehicle. The tires will be checked for premature and uneven wear due to a possible misalignment of the suspension, and will be replaced if necessary. This work will take about two hours to complete and will be performed for you free of charge. Please keep in mind that your dealer may need additional time for the preparation of the repair, as well as to accommodate their daily workshop schedule.

What should you do?

Please contact your authorized Audi dealer without delay to schedule this recall work.

Important Information Regarding Tire Inspections Under This Recall

For your safety and that of your passengers, please have this recall work performed as soon as possible. If you have more than one set of tires for your vehicle (for example, summer tires or winter tires), you <u>must</u> bring both sets to your recall appointment so they can be inspected (if necessary) under this recall.

- If the rear axle suspension is properly aligned, it will not be necessary for your dealer to inspect your vehicle's tires for premature wear under this recall.
- If the rear axle suspension is misaligned, your dealer will correct it free of charge and will, at the
  same time, also inspect your vehicle's tires for evidence of premature wear as a result of the
  misalignment. A tire(s) found to be prematurely worn due to misalignment of the rear axle
  suspension will be replaced free of charge. Your dealer will advise you regarding the estimated
  additional time needed to order and perform the replacement.

Tire replacement(s) will only be authorized in cases where your dealer has determined that the condition of the tires is directly related to wear resulting from the post-Safety Recall 42L1 rear axle suspension misalignment. Tire damage or malfunctions caused by normal wear & tear, or by outside influence, such as damage due to an accident, or vehicle misuse or neglect is not covered under this action.

Precautions you should take

The driver may notice a steering wheel misalignment when driving on a straight road or the vehicle pulling to one side when braking or accelerating. Customers experiencing this condition with their vehicle should contact an authorized Audi dealer without delay to have the vehicle diagnosed/repaired.

Lease vehicles and address changes

If you are the lessor and registered owner of the vehicle identified in this letter, you shall forward this letter (and any subsequent notice, if applicable) to the lessee within ten (10) days of receipt. If you have changed your address or sold the vehicle identified in this letter, please fill out the enclosed prepaid Owner Reply Card and mail it to us so we can update our records.

Reimbursement of Expenses If you have previously paid for repairs relating to the condition described in this letter, the enclosed form explains how to request reimbursement. We would be pleased to review your reimbursement request.

Can we assist you further?

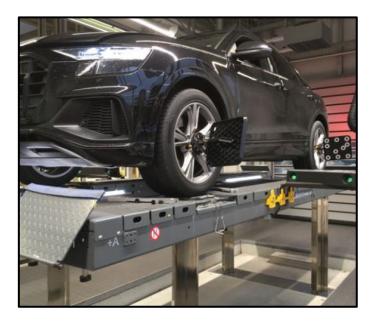
If your authorized Audi dealer fails or is unable to complete this work free of charge within a reasonable time, please contact Audi Customer Relations Monday through Friday from 8AM to 8PM EST at 1-800-822-2834 or via our "Contact Audi Canada" page at <a href="https://www.audi.ca">www.audi.ca</a>.

We apologize for any inconvenience this matter may cause; however we are taking this action to help ensure your safety and continued satisfaction with your vehicle.

Sincerely,

**Audi Customer Protection** 

#### **Repair Overview**



- Check rear axle alignment.
- Adjust rear axle alignment and check tires, if necessary.

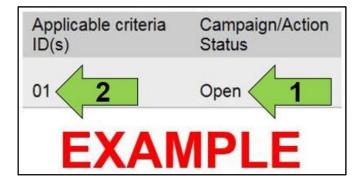
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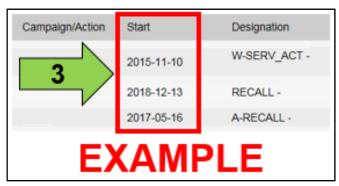
- These repair instructions may differ from the labor operations and labor times listed in ELSA.
- Damages resulting from improper repair or failure to follow these work instructions are the dealer's responsibility and are not eligible for reimbursement under this action.
- This procedure must be read in its entirety prior to performing the repair.
- Due to variations in vehicle equipment and options, the steps/illustrations in this work procedure may not
  identically match all affected vehicles.
- Diagnosis and repair of pre-existing conditions in the vehicle are not covered under this action.
- When working during extreme temperatures, it is recommended that the vehicle be allowed to acclimate inside the shop to avoid temperature-related component damage/breakage.

The repair information in this document is intended for use only by skilled technicians who have the proper tools, equipment and training to correctly and safely maintain your vehicle. These procedures are not intended to be attempted by "do-it-yourselfers," and you should not assume this document applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Audi dealer. ©2022 Audi of America, Inc. and Audi Canada. All Rights Reserved.

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#### Section A - Check for Previous Repair





• Enter the VIN in Elsa and proceed to the "Campaign/Action" screen.



On the date of repair, print this screen and keep a copy with the repair order.

- Confirm the Campaign/Action is open <arrow 1>. If the status is closed, no further work is required.
- Note the Applicable Criteria ID <arrow 2> for use in determining the correct work to be done and corresponding parts associated.



open, they must be performed in order of the Start date <arrow 3>. The oldest should be performed first.

- All Safety Recalls must be completed prior to completing this campaign.
- Proceed to Section B.

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#### Section B - Checking Rear Axle Alignment



- Perform an initial wheel alignment measurement:
  - Refer to your Alignment Equipment Instructions and ELSA Repair Manual: Repair manual > Chassis > Suspension, Wheels, Steering > 44 Wheels, Tires, Wheel Alignment





- During the 42L1 repair; only the rear axle alignment would have been affected.
- The customer must be informed immediately if there is an issue with the <u>front</u> axle wheel alignment prior to making adjustments to the rear axle alignment.
- The cost of making adjustments to the front axle only will not be covered by this action.

## ! NOTE

A record of the measurements (initial and final measurements) must be archived at the dealership for future auditing.

- If the rear axle alignment measurements are within specification according to the wheel alignment program:
  - No further work is required.
  - Proceed to Section F.
- If the rear axle alignment measurements are out of specification according to the wheel alignment program:
  - o The rear tires must be checked.
    - See Section C
  - The rear axle alignment must be adjusted.
    - See Section D
  - Driver assist systems (if equipped) must be calibrated.
    - See Section E

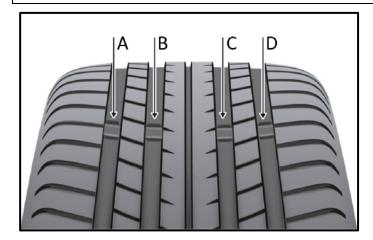
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#### Section C - Checking Tire Wear



If tires are replaced, the replacement tires should be comparable to the removed tires and must meet the specifications (speed rating and load index) of the vehicle.



#### **Evaluating rear tire wear:**

- A tire wear chart is included on one of the attachment tabs in ELSA and in ServiceNet. Fill the chart out for each set of tires and retain a copy for your records.
- Check and record the tread depth in the main tread channels <A – D> on both rear tires.

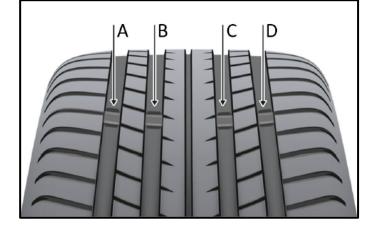


#### NOTE

If a second set of wheels/tires has been installed since the 42L1 was completed, both sets of tires must be checked.

Summer/winter tires, for example.

- Summer tires: If the lowest tread depth on any of the main tread channels is less than 4 mm, both rear tires must be replaced.
- Winter/Snow/All Season Tires: If the lowest tread depth on any of the main tread channels is less than 5 mm, both rear tires must be replaced.
- If the difference between any of the main tread channels on a rear tire is greater than 1 mm, both rear tires must be replaced.



#### ! NOTE

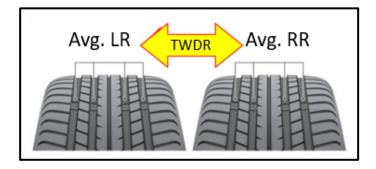
The differences in tread wear on the tires is determined by measuring the tread depth in the main tread channels.

#### Examples:

[A = 6 mm, B, C and D = 5 mm] = Tire does not require

[A = 7 mm, B, C = 6 mm. D = 4 mm] = Tire requiresreplacement.

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## Calculate tread wear difference (TWDx) on rear axle:

- Difference in rear tires = TWDR
- The tread wear difference (TWDR) between the two rear tires is calculated by:
  - Determining the average tread depths in the main tread channels for each tire
  - 2. Comparing the average tread depth between each tire on each axle.

## Example of evaluating the tread wear difference (TWDR) of the rear tires:

Average wear of left rear tire (ALR):

ALR = (A1+B1+C1+D1)/4

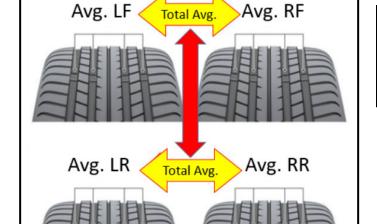
Average wear of right rear tire (ARR):

ARR = (A2+B2+C2+D2)/4

Tread wear difference:

TWDR = ALR - ARR

 If the difference in rear tires (TWDR) is greater than 1 mm, both rear tires must be replaced.



#### Comparing front tires to rear tires:



If the rear tires are being replaced, the difference between the rear tires and front tires should be calculated using the measurements from the new rear tires.

- Determine the average tread depth of both front tires.
- Determine the average tread depth of both rear tires.
- Calculate the difference in averages between the front tires and rear tires.
- If the difference of averages between the front and rear tires is greater than 2mm, the front and/or rear tires must also be replaced.

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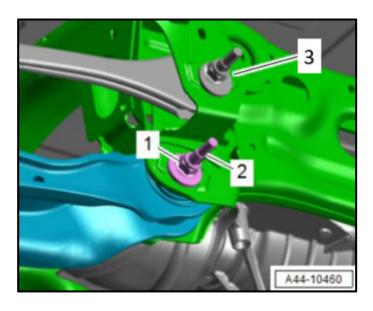


#### **Documenting tire replacement:**

- Document the following with photos for each tire being replaced:
  - DOT code
  - Lowest tread depth
  - o VIN number
- The photos must be archived at the dealership for future auditing.
- The old tires must be rendered unusable and disposed of safely.

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#### Section D - Rear Axle Alignment Adjustment



- Adjust the camber or toe on the rear axle:
  - Refer to your Alignment Equipment Instructions and ELSA Repair Manual: Repair manual > Chassis Suspension, Wheels, Steering > 44 Wheels, Tires, Wheel Alignment
- Nut <1> or <3> must be replaced.

Part Number	Part Description	
WHT-010-234	Nut (M14) <1>	
-AND/OR (if necessary)-		
WHT-007-828	Nut (M12) <3>	



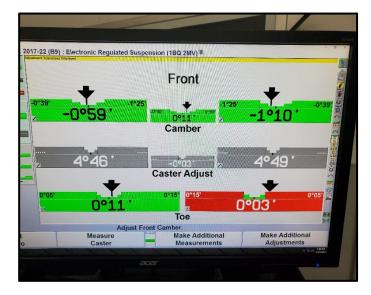
### () NOTE

It shouldn't be necessary to adjust both camber AND toe.



#### () NOTE

- Whenever possible, make the camber OR adjustments using the camber adjustment <1>. Make the adjustments using the camber adjustment so the toe setting is in the middle of the specified range and equal to the opposite side.
- The camber setting must also be within the tolerance
- Adjust the front toe only if the front toe was in spec prior to the rear axle alignment and out of spec after rear axle alignment.



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#### Section E - Calibrating Driver Assistance Systems

## U NOTE

Criteria is assigned to the vehicles which designates which driver assist system is equipped. Perform the calibrations as needed based on the assigned criteria.

K1 = Adjust front camera

K2 = Adjust two radar sensors

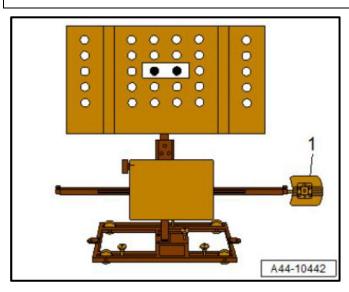
K3 = Adjust one radar sensor

K4 = Adjust laser sensor

K5 = Adjust night vision system

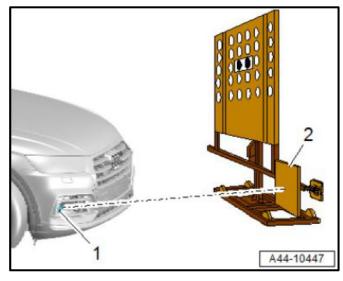
#### • NOTE

Contrary to the ELSA repair manual, calibrations of the peripheral camera and the rear view camera and not necessary.



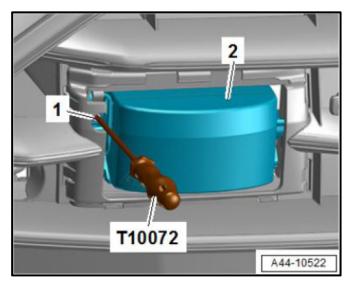
#### Calibrating front camera for driver assist systems:

- Criteria K1.
- See ELSA Repair Manual: Repair manual > Electrical System > Driver Assistance Systems > 98 Assistance Systems > Driver Assistance Systems Front Camera > Driver Assistance Systems Front Camera, Calibrating



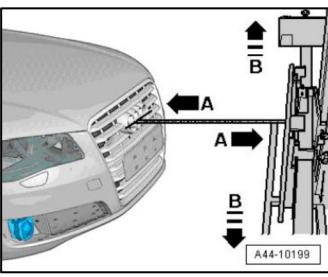
## Adjusting radar sensor for adaptive cruise control unit -J428-:

- Criteria K2 Adjust two radar sensors.
- Criteria K3 Adjust one radar sensor.
- See ELSA Repair Manual: Repair manual > Electrical System > Driver Assistance Systems > 98 Assistance Systems > Adaptive cruise control > Adjusting adaptive cruise control; Adjusting radar sensor (adaptive cruise control unit -J428-) - Calibrate



#### Adjusting laser sensor:

- Criteria K4.
- See ELSA Repair Manual: Repair manual > Electrical System > Driver Assistance Systems > 98 Assistance Systems > Adaptive cruise control > Adaptive Cruise Control (ACC), Adjusting > Laser Sensor (Laser Distance Regulation Control Module J1122), Adjusting



## Calibrating night vision system (if equipped), PR No. 9R1:

- Criteria K5.
- See ELSA Repair Manual: Repair manual > Electrical System > Driver Assistance Systems > 98 Assistance Systems > Night vision system > Calibrating night vision system

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#### Section F - Campaign Completion Stamp

I certify that this campaign has been performed in strict accordance with the applicable Audi repair procedure.
SAGA Code:
Technician:
Date:

Item#: AUD4927ENG

-OR-

Je certifie que cette campagne de rappel a été exécutée suivant les strictes directives de réparation d'Audi
Code de SAGA:
Technicien:
Date:

Item # AUD4927FRE

#### Once the campaign has been completed, the technician should stamp the repair order.

 Stamps are available for ordering through the Compliance Label Ordering Portal.

**Proceed to Section G** 

#### Section G - Parts Return/Disposal

Properly store (retain), destroy or dispose of removed parts in accordance with all state/province and local requirements, unless otherwise indicated and/or requested through the Warranty Parts Portal (WPP) for U.S. and the Part Destruction and Core Disposition Report for Canada.

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