

# Service Action Code: 87H9

Subject

#### **Pressure & Temperature Sensors**

**Document History** 

Date	Summary
02/13/2024	Original publication

#### **Affected Vehicles**

Country	Beginning Model Year	Ending Model Year	Vehicle	Vehicle Count
USA	2021	2022	E-TRON QUATTRO	7,387
USA	2020	2022	E-TRON SPORTBACK QUATTRO	3,307
CAN	2021	2022	E-TRON QUATTRO	391
CAN	2020	2022	E-TRON SPORTBACK QUATTRO	423

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 <u>only</u> 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**

On vehicles manufactured within a specific period, the pressure and temperature sensors in the air conditioning system may fail. If this happens, the air conditioning system will no longer function.

#### **Corrective Action**

Inspect and, if necessary, replace the affected pressure & temperature sensors.

**Code Visibility** 

On or about February 13, 2024, the campaign code will be applied to affected vehicles.

**Owner Notification** 

Owner notification will take place in February 2024. Owner letter examples are included in this bulletin for your reference.

## Campaign Expiration Date

This campaign expires on **September 01, 2028.** Work must be performed on or before this date to be eligible for payment. Keep this expiration date in mind when scheduling customers for this action. If a customer wishes to have this work performed after the expiration date, your dealerships normal costs associated with this work will apply.

#### **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.

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

## **Parts Information**

Criteria	Quantity	Part Number	P.O.C. Part Description	Ordering Method (see description below)
	Up to 2	4M0-959-603-E	SENSOR	Free Order
	1	4KE-012-113-A	BIN	VIN to Order
GE	1	4KE-863-362-B	BIN	VIN to Order
	Up to 1.2 ml	G -052-535-1M-DSP	OIL REFRIG	Free Order
	Up to 74g	R1234yf refrigerant (Locally sourced)		

Parts Control Type: VIN to Order	If parts are needed to support a vehicle repair:  US Dealers - use AVA  CAN Dealers - contact the Parts Specialists via phone (800-767-6552), email (VWoAPartsSpecialists@vw.com), or chat/text with the VIN to order		
Parts Control Type: Free Order	Parts will be managed by Free Order		
Initial Allocation: NO	Please reference the Repair Projection Tool (below) to view your potential VIN population.		
	•		
Repair Projection Tool:	n.		



(right click to open)

Campaign parts should always be ordered as per the parts information in this circular. The ordering system will supersede the part, if applicable.

## **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 <u>open on the day of repair</u> to the repair order. If customer refused campaign work:

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

Service Number	87H9				
Damage Code	0099				
Parts Vendor Code	002				
Claim Type	Sold vehicle: 7	Sold vehicle: 7 10			
	Unsold vehicle:	7 90			
Causal Indicator	Mark labor as ca	ausal if SENSOR is OK			
	Mark SENSOR*	as causal if a sensor(s	) is NOT OK		
Vehicle Wash/Loaner	Do not claim wa	sh/loaner under this act	tion		
Criteria I.D.	GE				
	Pressure/temperature sensor inspection				
	LABOR				
	Labor Op Time Units Description		Description		
	8711 01 99	10	Check sensor production dates		
	7007 19 00 SEE ELSA Storage compartment remove+reinstall		Storage compartment remove+reinstall		
	PARTS				
	Quantity Part Number Description				
	1.00	4KE012113A	BIN		
	1.00	4KE863362B	BIN		
	AND (only if necessary)				
	Up to 4.00	N 90558401	RIVET		

## Continued on next page

ADD (Only if necessary)	Replace pressure/temperature sensor(s)			
	LABOR			
	Labor Op	Time Units	Description	
	8709 20 51	SEE ELSA	2 Pressure switch remove+reinstall (if both sensors replaced)	
	8757 19 50	SEE ELSA	High pressure switch remove+reinstall (Only if G395 sensor replaced)	
	8764 19 50	SEE ELSA	Low pressure switch remove+reinstall (Only if G826 sensor replaced)	
	8703 17 00	SEE ELSA	Refrigerant drain+fill	
	2706 89 50	SEE ELSA	Connect battery charge	
	0150 00 00	Time stated on diagnostic protocol	GFF/Guided functions	
		PARTS		
	Quantity	Part Number	Description	
	Up to 2.00	4M0959603E	SENSOR	(*
	Up to 0.01	G 052535M2	OIL FOR REFRIGERANT COMPRESSOR	
		OUTSIDE MATERIAL		
	Part Number	Quantity	Description	Amount
	R1234YF	Up to 2.61 oz (74 g)	A/C Refrigerant – R1234yf	Up to \$10.62 (\$4.07 per oz)
	Please enter part numbers in ALL CAPS			

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

<MONTH YEAR>

<CUSTOMER NAME>

<CUSTOMER ADDRESS>

<CUSTOMER CITY STATE ZIPCODE>

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

Subject: Service Action 87H9 - Pressure & Temperature Sensors

Dear Audi Owner,

As part of Audi's ongoing commitment to customer satisfaction, we are informing you of our decision to conduct a service action on certain 2020-2022 model year Audi vehicles. Our records show that you are the owner of a vehicle affected by this action.

What is the issue?

On vehicles manufactured within a specific period, the pressure and temperature sensors in the air conditioning system may fail. If this happens, the air conditioning system will no longer function.

What will we do?

Your authorized Audi dealer will inspect and, if necessary, replace the affected pressure & temperature sensors. This work will take about four 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 work, as well as to accommodate their daily workshop schedule.

What should you do?

In order to limit any possible inconvenience, please contact your authorized Audi dealer as soon as possible to schedule this work. Please keep in mind that your dealer may need additional time for the preparation of the work, as well as to accommodate their daily workshop schedule. 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.

This service action will be available for you <u>free of charge only until September 01, 2028.</u> If you wish to have this service performed after that date, your dealer's normal costs associated with this repair will apply.

Lease vehicles and address changes

If you are the lessor and registered owner of the vehicle identified in this action, please 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).

We apologize for any inconvenience this matter may cause; however we are taking this action to help ensure your vehicle continues to meet and exceed your expectations.

Sincerely,

**Audi Customer Protection** 

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

<MONTH YEAR>

<CUSTOMER NAME>

<CUSTOMER ADDRESS>

<CUSTOMER CITY STATE ZIPCODE>

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

Subject: Service Action 87H9 - Pressure & Temperature Sensors

Dear Audi Owner,

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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 vehicle continues to meet and exceed your expectations.

Sincerely,

**Audi Customer Protection** 

# Safety Precautions When Working NEAR the High-voltage System (additional information is also available in the ELSA Repair Manual)

## A DANGER

### Extremely dangerous due to high voltage.

- The voltage levels in the high-voltage system constitute a safety hazard. Danger of severe or fatal injuries from electric shock if high-voltage components or high-voltage wiring are damaged.
- Carry out a visual check of high-voltage components and high-voltage wiring.
- Never use cutting/forming tools or other sharp-edged implements.
- Never perform work using welding, brazing, thermal bonding or hot air in the area of high-voltage components and high-voltage cables.

## **Repair Overview**



- Inspect G395 and G826 pressure/temperature sensors.
- Replace if necessary.

## **!** NOTE

- 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.

## Required Tools



R1234yf Air Conditioning Service Unit -ROB1234YFX-

> or -VAS581005-



Engine Bung Set
-VAS6122(or equivalent)



Socket – 24mm -T40284-(or equivalent)



Battery Tester/Charger capable of minimum 90 Amp continuous supply



Diagnostic Tester
-VAS6150X/6160X(or equivalent)



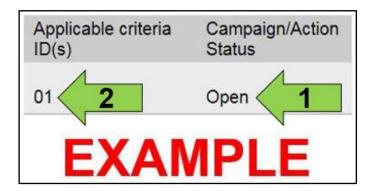
Safety Gloves and Safety Goggles

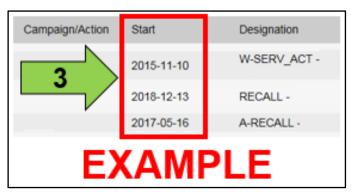
## **Repair Instruction**

## Section A - Check for Previous Repair

i TIP

If Campaign Completion Stamp is present, no further work is required.





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

i TIP

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

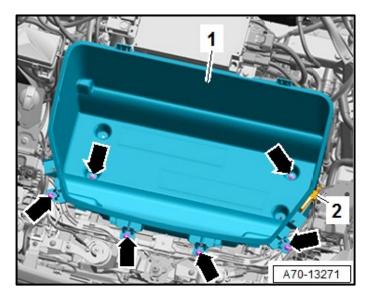
- Confirm the Campaign/Action is open <arrow 1>. If the status is closed, no further work is required.
- Note the Applicable Criteria ID <arrow 2> for use in determining the correct work to be done and corresponding parts associated.



If multiple software update Campaign/Actions are open, they must be performed in order of the Start date <arrow 3>. The oldest should be performed first.

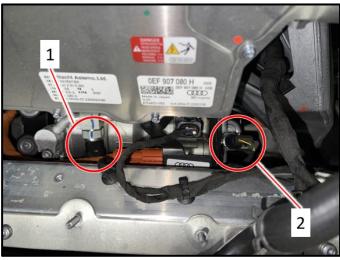
- All Safety Recalls must be completed prior to completing this campaign.
- Proceed to Section B

## Section B - Sensor Inspection



# Inspect G395 and G826 pressure/temperature sensors:

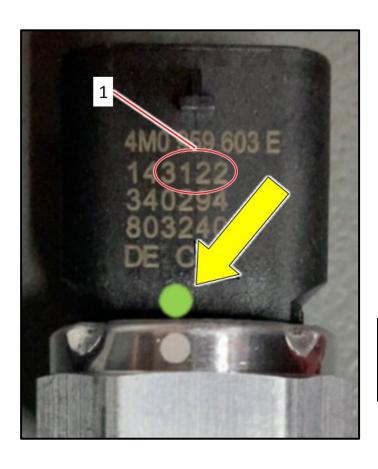
- Remove front luggage compartment liner <1> per the ELSA repair manual:
  - Repair manual > Body > Body Interior > Interior Trim > Luggage Compartment Trim Panels > Front Luggage Compartment Liner, Removing and Installing



## **A** CAUTION

The connectors for the G395 and G826 can be swapped! Ensure that the connectors are reinstalled in their correct locations if removed.

- Locate the G395 <1> and G826 <2> sensors in the under hood compartment.
- Label the sensors and connectors as needed.
- Ensure the ignition is turned off.
- Disconnect the sensors.



- Check for a green dot <arrow> on the connector housing of the G395 and G826.
- If the green dot is present on both sensors:
  - The sensors do not require replacement.
  - Continue with the reassembly instructions in this section.
- If the green dot is NOT present on the sensor(s):
  - Check the production date <1> of the affected sensor.
  - If the affected sensor was produced calendar week 23 of 2020 through calendar week 30 of 2021, the sensor must be replaced.



The production date <1> of the sensor pictured is calendar week 31 of 2022. This sensor does not require replacement. The date format is week/year.

- If a sensor requires replacement:
  - o Proceed to section C.
- If both sensors are ok and do not require replacement:
  - Continue with the reassembly instructions in this section.



If either sensor is positioned in a way that the production information is not visible on the connector <1>, a mirror can aid in inspecting the sensor.



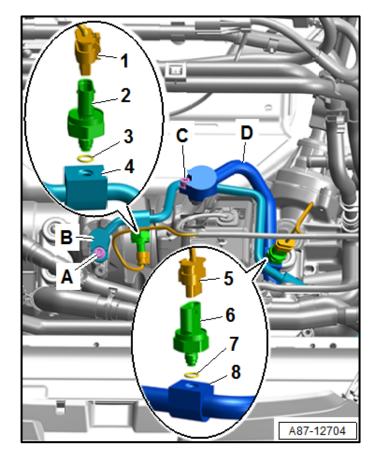
## Vehicle reassembly:

- Reassemble the vehicle in the reverse order of removal per the ELSA repair manual while noting the following:
  - The front luggage compartment liner and foam insert for tool storage must be replaced after removal.

Part Number	Part Description
4KE-012-113-A	Tool storage insert
4KE-863-362-B	Storage Bin

**Proceed to Section D** 

## Section C - Sensor Replacement



Replace the affected sensor(s):

## A CAUTION

Danger of frostbite due to refrigerant coming out under pressure.

Frostbite on the skin and other parts of the body is possible.

- Wear safety gloves.
- Wear protective eyewear.
- Evacuate or drain refrigerant and open the refrigerant circuit immediately.
- If more than 10 minutes elapse after extracting or draining the refrigerant and the refrigerant circuit has not been opened, extract or drain the refrigerant again. Pressure develops in the refrigerant circuit due to evaporation.

## U NOTE

The power-activated valves in the refrigerant circuit must be opened through ODIS per ELSA prior to refrigerant recovery.

- The instructions to open the valves can be found within the instructions for replacement of the G395/G826 sensors.
- Complete any additional basic settings recommended by the test plan following replacement of the sensors.
- Refer to the ELSA repair manual for sensor replacement instructions.
- If the G395 sensor requires replacement:
  - Repair manual > Heating, Ventilation
     Air Conditioning > Heating
     Ventilation and Air conditioning > 87
     Air Conditioning > Refrigerant Circuit
     A/C Pressure/Temperature Sensor
     G395, Removing and Installing.
- If the G826 sensor requires replacement:
  - Repair manual > Heating, Ventilation & Air Conditioning > Heating Ventilation and Air conditioning > 87 Air Conditioning > Refrigerant Circuit > A/C Pressure/Temperature Sensor 2 G826, Removing and Installing.

## Vehicle reassembly:

- Reassemble the vehicle in the reverse order of removal per the ELSA repair manual while noting the following:
  - Recharge the A/C system with the amount of refrigerant that was recovered.
  - The front luggage compartment liner and foam insert for tool storage must be replaced after removal.

Part Number	Part Description	
4KE-012-113-A	Tool storage insert	
4KE-863-362-B	Storage Bin	

Proceed to section D

## Section D - 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 E

## Section E - 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.