



Audi
Truth in Engineering



Technical Service Webinar
January, 2017

Technical Service Webinar

All information discussed is already published and is being discussed as diagnostic aids. Please always review the most current publications for current information.

We will not be discussing specific vehicles, please use TAC tickets for this.

We are using the webinars as a way to increase communication to dealerships and technicians. This is a result of feedback from the dealer sub council

Agenda:

- What's new
 - 2018 Q5 Training
 - ODIS feedback
 - TSB 2045549 Repair Authorization
 - TSB 2043333 Repair Authorization
- TSB Review and Diagnostic Tips
 - A3/Q3 HomeLink buttons
 - Q3 Key adaptation
 - Supercharger clutch diagnosis
 - TSB 2043144 All-wheel drive coupling
- Feedback
 - Please send email to artactivation@audi.com



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What's New
2016

2018 Q5

ILT training and SSP's

2018 Q5 will use body code FY0

Vehicle launch is expected in March

The following SSP's are available:

990173 SSP

990173B Test

Training classes start February 9th and are available now for registration

Instructor led course code: 990172

Pre-requisites for this course:

990173

Networking



ODIS Feedback

Why is feedback important and how is it used?

Feedback from the tester is used to improve test plans and ODIS overall. This is the fastest way for us to make changes and improve the tester.

It is important that the tester is configured BEFORE you send the feedback. If the tester is not configured, the information will not be sent which can cause delays with diagnosis if this a requested step from TAC.

Examples of when to create an ODIS feedback:

Test plan calls out an incorrect component or part identifier

Little or no diagnostic steps supplied in a test plan

Test plan misses steps in diagnosis

A clearly inaccurate result is obtained

Test plan or MVB's are in German

When creating a feedback:

Be as descriptive as possible in the comment field

Add a screenshot if it helps to understand the issue

Reference a TAC case if one was made

NOTE: ODIS feedback without any comments get discarded

ODIS Feedback

How to configure and create a tester feedback:

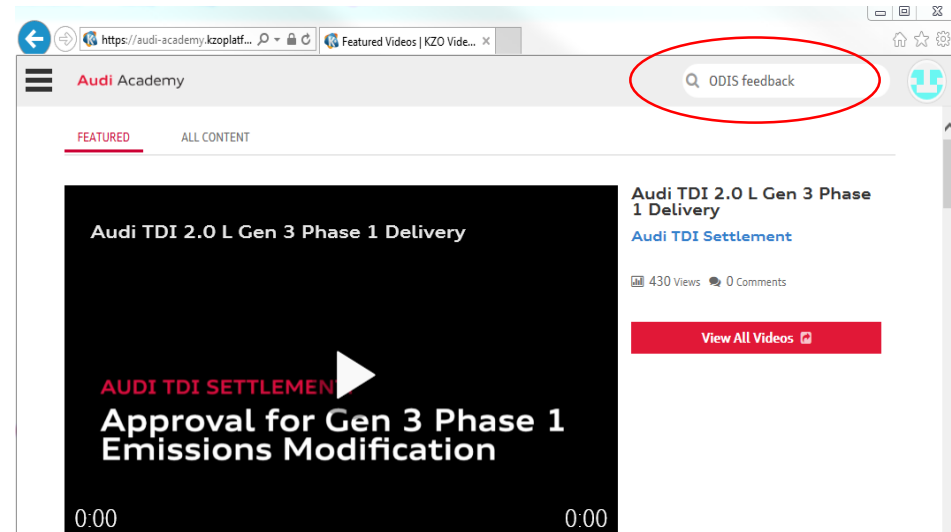
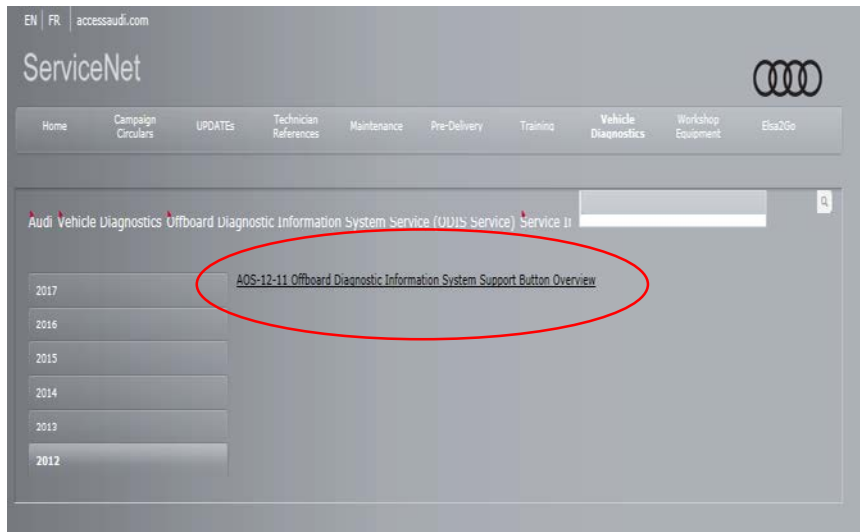
An instructional guide can be found on ServiceNet:

ServiceNet>Vehicle diagnostics>ODIS>2012>AQS-12-11-ODIS support Button Overview

A video tutorial can be found on the Academy Video Portal:

Access Audi>Academy video portal> Search ODIS Feedback

Tester support can be called at **888-896-1298**



TSB 2045549 MY 16/17 2.0TFSI, MIL on, DTC P001600

Repair Authorization

- Customer may report MIL on, DTC P001600 (Crankshaft/Camshaft correlation) is stored in the ECM.
- In an effort to gain information on the DTC codes for the vehicles listed above, we are asking that you contact the Audi Technical Assistance Center (TAC) before replacing any parts. This will assist us in diagnosing any potential issues with the condition noted above.
- No changes to production have been made, as no issue has been identified. Investigation is ongoing.
- Verify the condition and create a Web contact before proceeding. Please attach the DTC and diagnostic log to the TAC ticket.
- We will give you testing steps to perform and possible repair direction based on findings.
- TSB should be coming in the near future.

TSB 2043333 DTC P045100

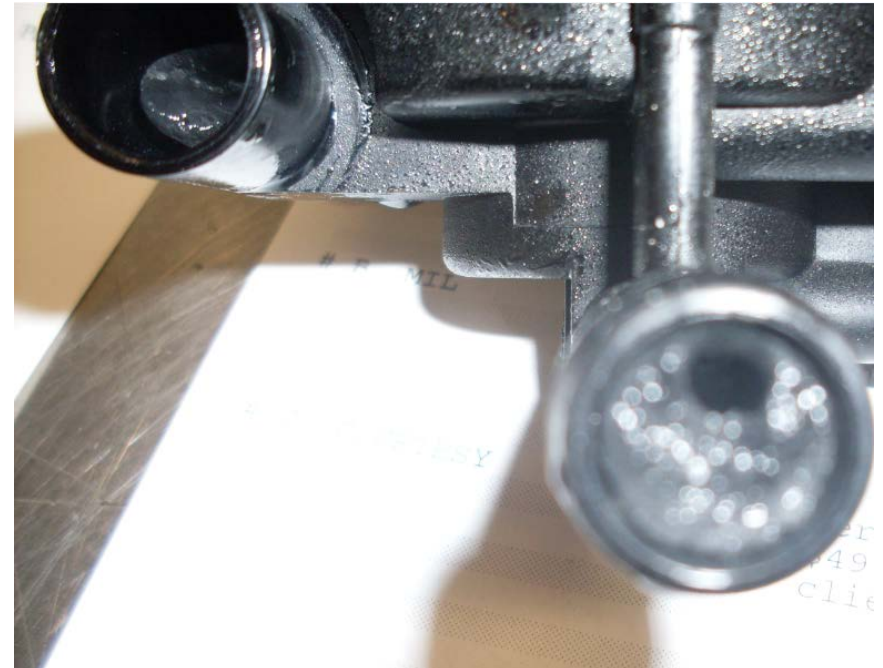
Repair Authorization

Various parts have been replaced under warranty for the condition noted above, but no issues were identified with these parts. In an effort to gain information on the DTC codes for the vehicles listed above, we are asking that you contact the Audi Technical Assistance Center (TAC) before replacing any parts. This will assist us in diagnosis.

No changes to production have been made, as no issue has been identified.

Repair and diagnostic steps:

- Attach the diagnostic log to the TAC case.
- Check the J909 for the presence of ice.
- Call TAC for further direction.





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TSB Review and Diagnostic Tips

Q3, A3 HomeLink button inoperative

Customer Concern:

- HomeLink button(s) inoperative
- Button press requires excessive effort
- Button assembly is loose in headliner

Tech Findings:

- Button(s) do not depress correctly
- No detent is felt on one of the buttons
- Control unit has become dislodged from the button assembly
- Trim ring broken
- HomeLink button assembly has a parts block and requires a part release from TAC.



Q3, A3 HomeLink button inoperative

Repair:

- Remove the HomeLink module and inspect the assembly for any signs of damage.
- If no damage is found, re-assemble all 3 components on the bench and re-check operation. If the buttons now work, re-install them into the vehicle and check the operation. **Note: No TAC case is required in this case.**
- If damage to any of the components is found OR the assembly easily dislodges again, please take the necessary photos and create a TAC case. Include the photos and part number needed for the parts release.



Q3, A3 HomeLink button inoperative

Tips:

- Verify the module is properly clipped to the button assembly at all 4 corners.
- Verify the trim ring is properly clipped to the button assembly
- Trim ring must be installed with the raised edge pointing towards the overhead roof/lamp assembly.
- Check that the headliner is cut properly and the fitment of the buttons are correct
- Most of the time the module has simply became unclipped from the button assembly and can be re-assembled

HomeLink assembly part numbers:

8V5063211 6PS - A3 Black buttons
8V5063211 ET1 - A3 Silver Buttons
8U0063211 6PS - Q3 Black buttons
8U0063211 ET1 - Q3 Silver buttons



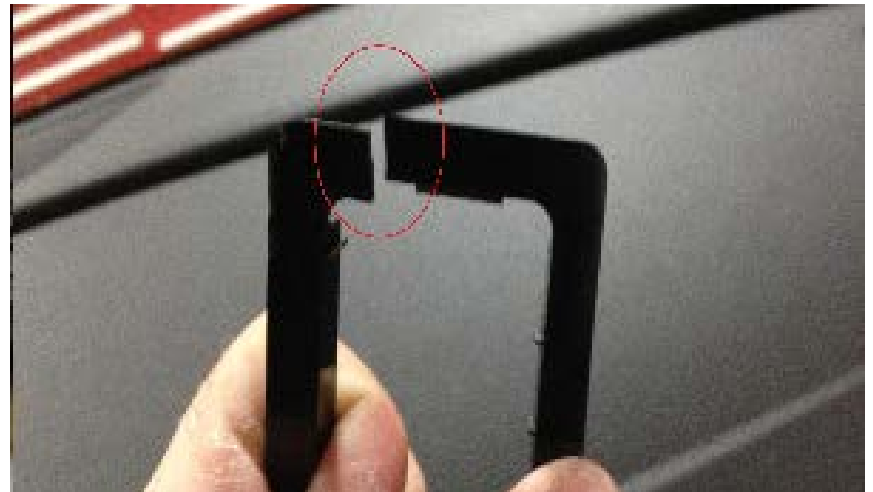
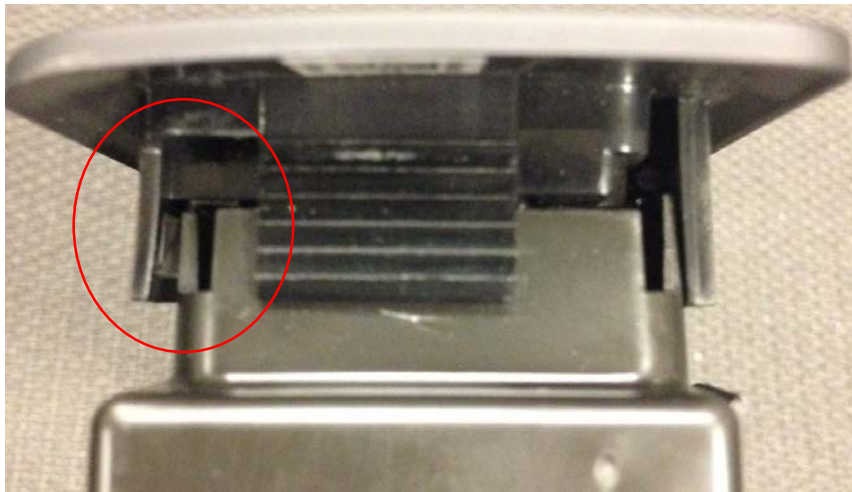
Q3, A3 HomeLink button inoperative

Example of HomeLink module unclipped



Q3, A3 HomeLink button inoperative

Examples of damage to the components



TSB 2046196 Advanced key inop after new key is adapted

Q3 Key adaptation

Concern:

A replacement key is ordered due to a faulty or lost key

Tech findings:

- Key appears to adapt correctly to the immobilizer
- Advanced key functions no longer start or lock/unlock the vehicle
- Car will start with reader coil and vehicle locks/unlocks with key fob buttons
- Fault code B104C29 Key Implausible signal may be stored

Cause:

The key was not completely adapted to the immobilizer. Key position is crucial for proper key adaptation.

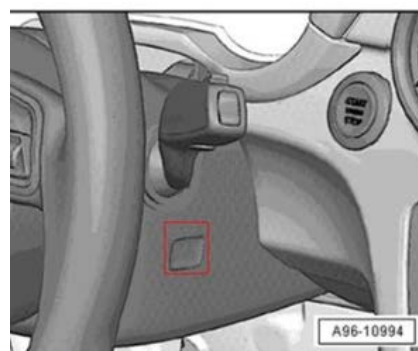


Figure 1. Emergency coil reader.



Figure 2. Hold top of key against coil.

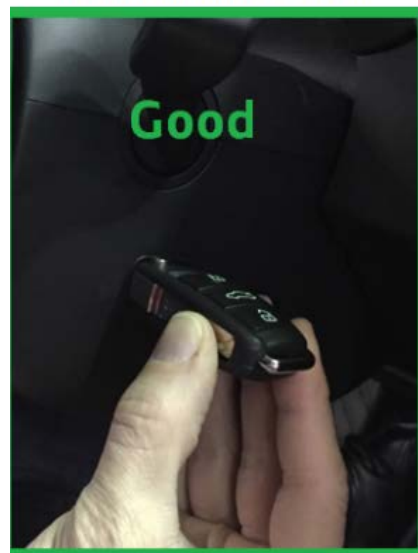


Figure 3. The correct way to hold the key while adapting it.



Figure 4. The incorrect way to hold the key while adapting it.

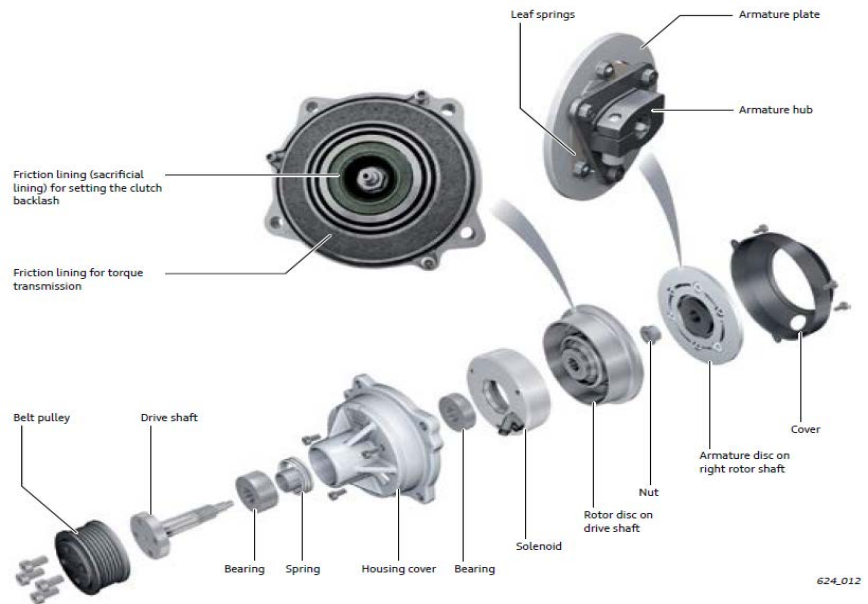
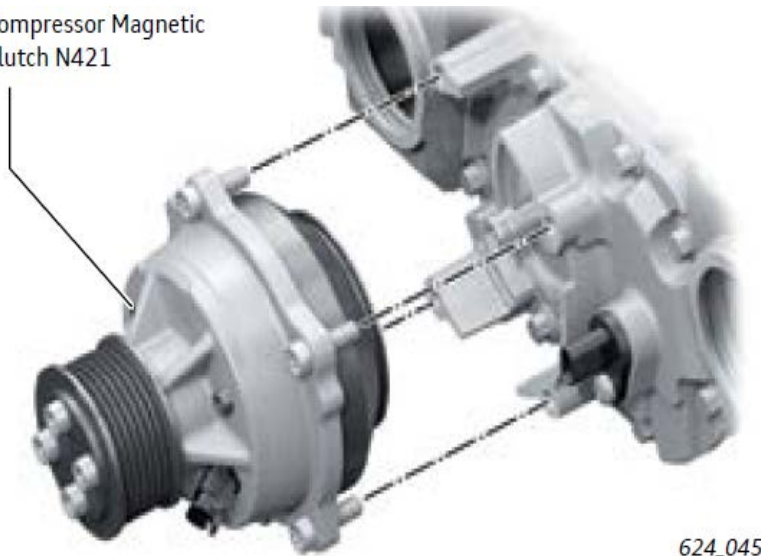


3.0 EVO engine supercharger clutch operation

Overview

- In the fourth generation 3.0 TFSI engine, a magnetic clutch has been added to the supercharger drive system. This clutch is similar to an A/C compressor clutch.
- The compressor clutch is not activated at low or medium rpm nor at low engine load conditions.
- When the clutch engages it creates a noise and sometimes a hesitation or shudder on acceleration that may be noticed by the customer. This may result in a complaint and require diagnosis.

Compressor Magnetic Clutch N421



3.0 EVO engine supercharger clutch operation

Diagnosing engine supercharger clutch concerns (N421)

Normal operation:

When the vehicle is idling in park and the throttle is momentarily floored the clutch will engage and a click noise will be heard, this is normal. Listen to a known good vehicle to see how the clutch should sound. As the vehicle mileage increases the clutch noise may change over time but should still be considered normal operation.

Tip:

When diagnosing a clutch noise concern it is recommend to compare to a like vehicle with similar mileage. Clutch noise at PDI will most likely sound different than a clutch at 10,000 miles for example. The best practice is to drive the concern vehicle and a known good like vehicle for comparison to determine if the clutch is operating normally.

SSP information:

Self Study Program 920323 has much more in depth information on N421 and the fourth generation 3.0 TFSI engine.

3.0 EVO engine supercharger clutch operation

Diagnosing engine supercharger clutch concerns (N421)

“Hoot” noise concern on acceleration:

A customer may complain about a “hoot” noise initially on acceleration. This noise comes from the clutch engaging. Perform a visual inspection of the clutch and belt. If nothing abnormal is noted then try to verify the concern. Compare to a like vehicle to determine if the noise is normal or not.

Delayed acceleration or harsh transmission engagement:

As stated previously, the supercharger clutch is disengaged at idle. When taking off from a stop, if the engine load is high enough then the clutch will become engaged. If the engagement of the clutch is abnormal then the customer could interpret that as a transmission engagement or shift issue. The best way to rule out the transmission in this scenario is to unplug the N421 clutch then reevaluate the concern. If the concern is gone then the problem lies within the N421 clutch and not the transmission.

Parts block:

The N421 is on order block and a TAC case is required for part release.

TSB 2043144 All-wheel drive coupling does not work (DTC C111204) 2015 and 2016 A3 and Q3 Quattro

One or both of the following issues is present:

- All-wheel drive does not work.
- The EPC warning lamp is illuminated.

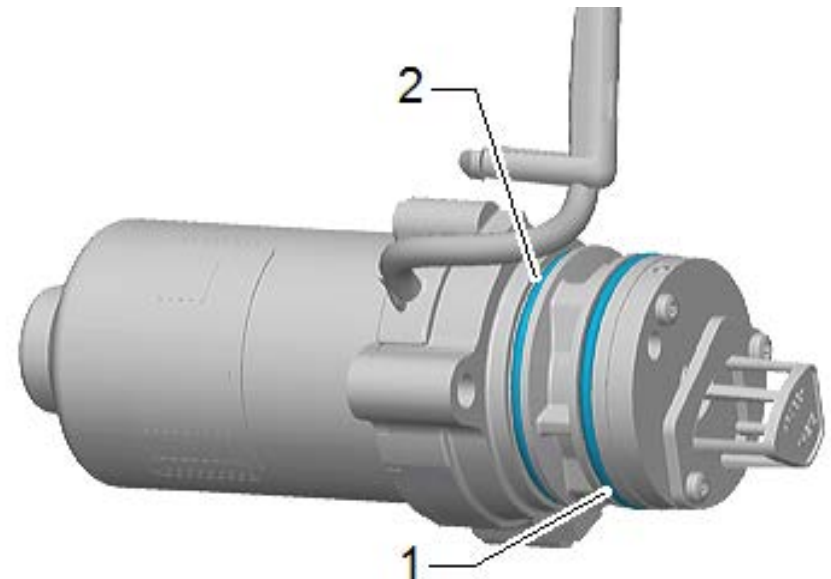
Possible DTC is stored:

- DTC C111204 (All Wheel Drive clutch pump faulty) in J492
- U011400: Lost Communication With Four-Wheel Drive Clutch Control Module

Note: If the J492 module fuse is blown then it cannot set fault C111204 because the module is offline. U011400 will be stored instead.

Cause: There is an internal leak in the hydraulic pump.

Production Solution: Improved hydraulic pump.



TSB 2043144 All-wheel drive coupling does not work (DTC C111204) 2015 and 2016 A3 and Q3 Quattro

Service:

- Before proceeding, confirm that the issue matches the *Condition* exactly.
- Confirm that the propeller shaft from the transmission to the differential is transmitting power to the rear differential.
- Replace the BorgWarner clutch pump according to the Elsa Repair Manual.
- Replace the high performance oil for the BorgWarner clutch according to the Elsa.
- Perform all-wheel drive basic settings after repairs have been completed.

Note: There may be debris on the pump when removed. This is normal. You will be flushing the clutch assembly and replacing the fluid during repair.



Thank you

Please send feedback to artactivation@audi.com