



Technical Service Bulletin

91 Multiple vehicle features (ACC, Nav, DriveSelect, etc.) are not available, DTC P164700 stored in the ECM

91 20 34 2042506/9 February 6, 2020. Supersedes Technical Service Bulletin Group 91 number 19-16 dated December 6, 2019 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A3, S3	2015 - 2020	All	Not Applicable
TT, TTS	2016 - 2020	All	Not Applicable
A5, Q5	2018 - 2020	All	Not Applicable
A4, A4 allroad, S4, Q7, and R8	2017 - 2020	All	Not Applicable
A6, A7, S6, S7, and RS7	2016 - 2018	All	Not Applicable

Condition

REVISION HISTORY		
Revision	Date	Purpose
9	-	Revised header (Changed title to include DTC code) Revised <i>Service</i> (Added Note for ODIS feedback)
8	12/06/2019	Revised header (Updated DTC and added MY 2020) Revised <i>Condition</i> (Updated DTC) Revised <i>Warranty</i> (Removed table)
7	10/30/2019	Revised header (Removed Q8)



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The customer states one or more of the following conditions:

- Audi drive select functions cannot be selected (Figure 1).
- Cruise control does not work (except for A6 and A7) and **DTC P164700** (ECM incorrect coding) is stored in the engine control module (address word 0001 (ECM), etc.).
- Navigation is not activated (Figure 2 and Figure 3).
- Bluetooth is unavailable.
- Audi smartphone interface, including CarPlay or Android Auto, is not available.
- Voice recognition is unavailable (in all cars except A3 Cabriolet. For A3 Cabriolet, see TSB 2038136: *91 Voice recognition is not available or not enabled*).

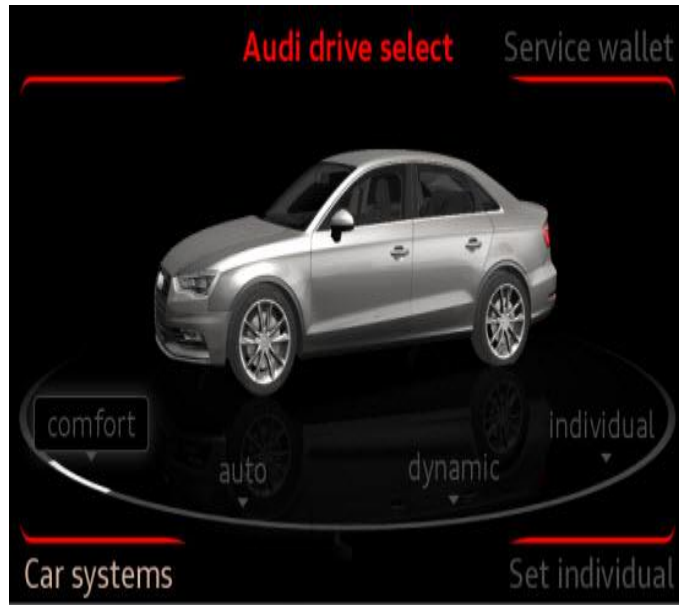


Figure 1. Audi drive select functions unavailable and greyed out.

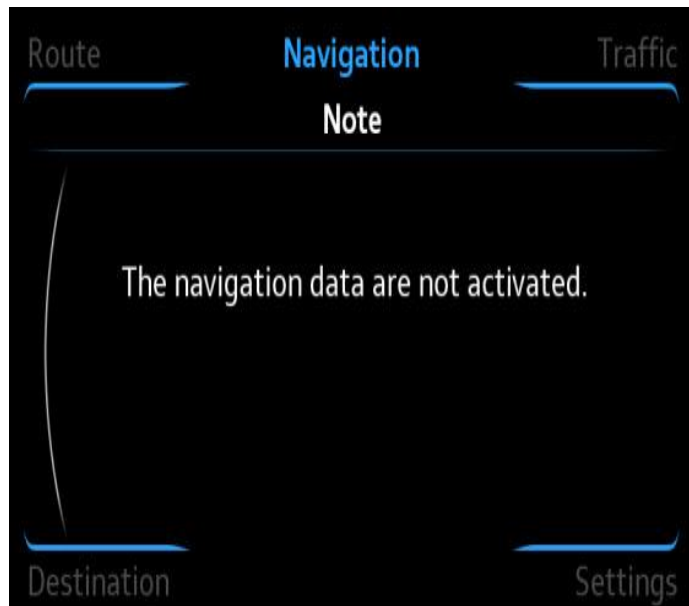


Figure 2. Navigation not activated message (Original MIB HMI).



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Figure 3. Navigation not activated message (New MIB2 HMI).

Workshop findings:

The following DTC is stored in the engine control module (ECM), J623 (address 0001):

- **DTC P164700** (Checking coding/versions of control modules in drivetrain).

Technical Background

Audi drive select, ACC, regular cruise control, navigation, Audi smartphone interface, Bluetooth, and voice recognition are functions controlled by activation keys, which are stored in certain control modules in the vehicle. These activation keys are designed to allow the customer to purchase features/functions as an aftersales add-on. Some features are standard in the North American market but optional in other markets, so the activation codes are preprogrammed into the control modules when a car for the North American market leaves the factory. The activation keys are stored in an AUDI AG backend server and can be obtained through the SVM Activations test plan.

The following scenarios can cause the issues listed in the *Condition*:

- Replacement or vehicle-to-vehicle swap of the data bus diagnostic interface (Gateway), J533 (address word 0019), without running the SVM Recovery Activation test plan (automatically added in 19-GFF replacement test plan), or if the test plan is executed and fails.
- Replacement of the information electronics control module 1 (MMI), J794 (address word 005F), without running the SVM Recovery Activation test plan (automatically added in 5F-GFF replacement test plan), or if the SVM Activation test plan is executed and fails.
- Replacement of the complete lock set in the vehicle without running the SVM Activations test plan, or if the test plan fails.



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Note:

Always run the appropriate GFF Replacement test plan for an ECU when replacing the control module. Do not rely on SVM spec/actual or SVM configuration.

- **DTC P164700** (Checking coding/versions of control modules in drivetrain) is set in one or more of the control modules on the Powertrain CAN bus when the ACC or regular cruise control function is not activated in the Gateway. This is by design to indicate to the technician that the feature will not be functional until the activation is completed in the Gateway module.

Production Solution

Not applicable.

Service

Required equipment:

- ODIS Tester.

Time to complete update:

- Varies based on concern and solution: 30-90 minutes.



Note:

Please submit an ODIS feedback to expedite the development of a new test plan.

Repair procedure:

1. **For MMI related concerns (Navigation/Bluetooth/Smartphone Interface/Voice Recognition):** Enter the Red Engineering Update menu to view the status of all activation keys of the information electronics control module 1 (MMI), J794 (address word 005F): *Red Engineering Menu >> System >> Activation Keys*. It is not possible to view the activation keys of the data bus diagnostic interface (Gateway), J533 (address word 0019) without using ODIS.

For other non-MMI related concerns (Drive Select/ACC/Cruise Control): Skip to the repair procedure below.

2. **For A3 MIB1:** Hold north-west soft key + BACK button for 5-10 seconds (Press the BACK button first).

For A6 and A7 MIB2: Hold north-west soft key + BACK button for 5-10 seconds (Press the BACK button first).

For TT, R8, B9, and Q7: Hold left NAV toggle UP + right Media toggle DOWN for 5-10 seconds (Press NAV toggle up first).



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ACTIVATION KEY DEFINITIONS:

Legal = The activation key is activated in the MMI and the function should be active. If the function remains inactive, contact TAC.

Temporarily withdrawn or Temp illegal = This indicates that the SVM activation test plan was not completed (Figure 4). This status is normal for all parts that have been swapped from a different vehicle. Perform the SVM Activations test plan as indicated below, under *Repair Procedure*.

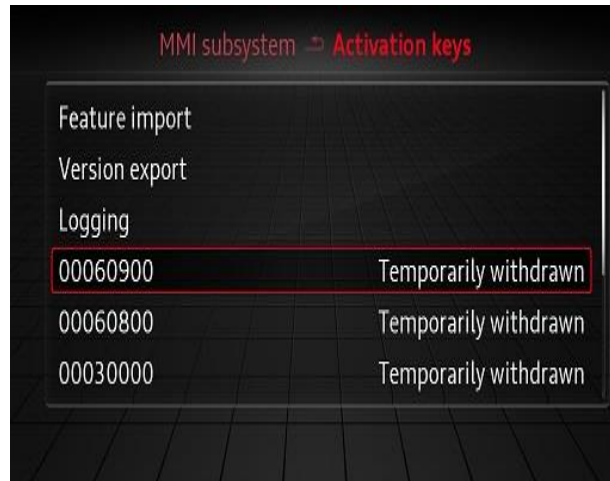


Figure 4. Activation keys showing “Temporarily withdrawn”.

Illegal = This indicates that the activation key currently stored in the MMI is not for the vehicle in which it is currently installed. This status is normal for all service parts. If the part is original, this can be an indication of a software issue. Follow the *Repair Procedure* below.

Repair Procedure:

1. There is a known issue with the activations keys stored in the MMI where they can become corrupt, thus the first step will be to delete the activation keys in the MMI. Delete the activations of the affected system using the ODIS test plan *DIAGNOSIS >> START DIAGNOSIS >> SPECIAL FUNCTIONS >> “SVM – Erase activations”* (Figure 5).

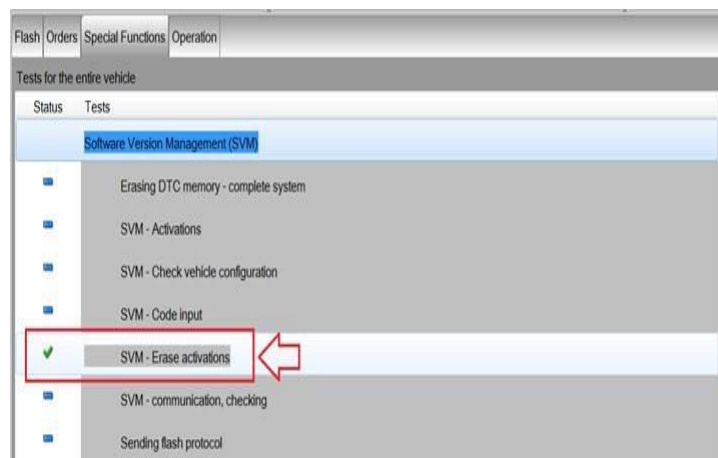


Figure 5. SVM – Erase activations.

2. When prompted choose the appropriate system to delete activations based on the customer’s concern:
 - For concerns with Navigation, Bluetooth, Audi smartphone interface, or voice recognition, select option -1- for the MMI (Information Electronics Control Module 1).
 - For concerns with Audi drive select, adaptive and regular cruise control, select option -2- for the Gateway (Data Bus On Board Diagnostic Interface) (Figure 6).



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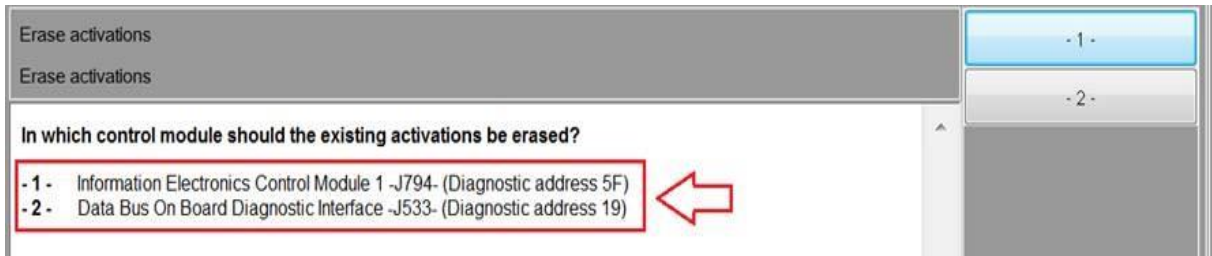


Figure 6. MMI (Information Electronics Control Module 1); Gateway (Data Bus On Board Diagnostic Interface).

3. After deleting the activations it may be required to adapt the component protection of the entire vehicle system. To do this select the test plan “Diagnostic Interface f.Data.component.protection (basis)” under “Special Functions >> Component Protection functions”.
4. Next, execute the SVM Activations test plan at *DIAGNOSIS >> START DIAGNOSIS >> SPECIAL FUNCTIONS >> SVM Activations >> PERFORM TEST >> -2- Obtain existing activations from server for replacement control module?*

This test plan will recover all activation codes for both the MMI and Gateway functions.

5. When prompted, select “obtain existing activations” (Figure 7).

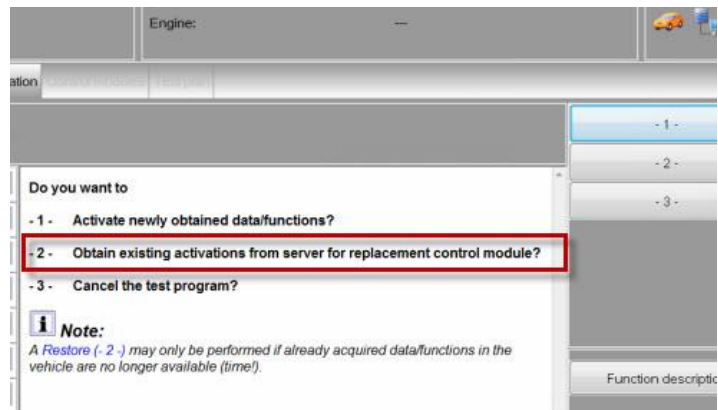


Figure 7. Obtain existing activations.

6. Next, recheck the functionality. A three-finger reset may be required of the MMI system when performing the activations with the MMI (see the attached file *mib_mmi_shortcut_keys.pdf*). A reset is not required if the Gateway activations were recovered.
7. If the problem persists, then contact TAC. No hardware replacement is authorized under this bulletin.

Warranty

This TSB is informational only and not applicable to any Audi Warranty.



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Additional Information

The following Technical Service Bulletin will be necessary to complete this procedure:

- TSB 2038136, *91 Voice recognition is not available or not enabled.*

All parts and service references provided in this TSB (2042506) are subject to change and/or removal. Always check with your Parts Department and/or ETKA for the latest information and parts bulletins. Please check the Repair Manual for fasteners, bolts, nuts, and screws that require replacement during the repair.

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