



SIB 09 02 18

2020-08-26

NEW ECU VALIDATION NEEDED AFTER REPLACING CERTAIN CONTROL MODULES

This Service Information Bulletin (Revision 1) replaces SIB 09 02 18 **dated November 2018**.

What's New (Specific text highlighted):

- Models
- Manual ECU validation description enhanced (attachment)
- Screenshots updated (attachment)
- Warranty Information updated

MODEL

E-Series	Model Description	Production Date
F90	M5 Sedan	All
F97	X3 M Sports Activity Vehicle (SAV)	All
F98	X4 M Sports Activity Coupe (SAC)	All
G01	X3 SAV	All
G02	X4 SAC	All
G12	7 Series Sedan	03/2019
G30	5 Series Sedan	All
G32	6 Series Gran Turismo (GT)	All
F44	2 Series Gran Coupe	All
F91	M8 Convertible	All
F92	M8 Coupe	All
F93	M8 Gran Coupe	All
F96	X6 M SAC	All
G05	X5 SAV	All
G06	X6 SAC	All
G07	X7 SAV	All
G14	8 Series Convertible	All
G15	8 Series Coupe	All
G16	8 Series Gran Coupe	All
G20	3 Series Sedan	All
G29	Z4 Roadster	All

SITUATION

With introduction of the new Headunit HU-H3 (MGU Media Graphics Unit), there is a new protection mechanism against tampering.

If one or more of the following components needs to be replaced, the secure connection between them must be re-established:

- MGU
- TCB Telematic Communication Box (ATM-02)
- RSE Rear Seat Entertainment and/or
- KOMBISP18 instrument cluster

Prior to re-establishing this connection, an electronic certificate must be created in the BMW backend for importing into the Vehicle.

CAUSE

After the replacement of one of the mentioned Modules, the Control Module needs a valid certificate for it to communicate with the other Modules.

CORRECTION

With introduction of ISTA 4.14.1x, the certificates can be created either automatically, or alternatively in manual steps (refer to attachment).

PROCEDURE

Refer to the attachment for the manual procedure to create a certificate in case the automatic procedure fails.

WARRANTY INFORMATION

This Service Information Bulletin provides Technical Information to aid in understanding the situation described above.

QUESTIONS REGARDING THIS BULLETIN

Technical inquiries	Submit feedback at the top of this bulletin
Warranty inquiries	Submit an IDS ticket to the Warranty Department
Parts inquiries	Submit an IDS ticket to the Parts Department

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Supporting Materials

[picture_as_pdf B090218_Attachment_1.pdf](#)

New protection against tampering - control unit encoding

In G05, G15 and subsequent vehicles, the HU-H3 (formerly MGU), TCB, RSE and instrument cluster control units are linked together. This should prevent tampering with vehicles.

If one or more of the components are exchanged, the connection must then be re-established.

In order to re-establish the connection, an electronic certificate must be created in a BMW backend and imported into the vehicle.

The manual process is described below:

Cases	Vehicle information	Vehicle management	Service plan	Favorites	Workshop supplies/ operating fluids	Measuring technique
Repair/maintenance	Troubleshooting	Service functions	Software update	Control unit exchange	Vehicle modification	

Abbreviation	Control unit name	Exchanged
HU-H	Headunit High	<input type="checkbox"/>
IHKA	Integrated automatic heating / air conditioning system	<input type="checkbox"/>
KAFAS	Camera-based driver assist system	<input type="checkbox"/>
KOMBI	Instrument panel	<input checked="" type="checkbox"/>
PCU	Power Control Unit	<input type="checkbox"/>
PMA	Parking maneuvering assistant	<input type="checkbox"/>
RAM	Receiver audio module	<input type="checkbox"/>
SAS	Optional equipment system	<input type="checkbox"/>
SMBF	Front passenger seat module	<input type="checkbox"/>
SMFA	Seat module, driver	<input type="checkbox"/>
SPSM	Side order passenger seat module front left	<input type="checkbox"/>

Note:
In order to complete the exchange of the control unit already fitted in the vehicle, the relevant control unit must be selected.

Display action plan

1. Go to "vehicle management" → "Control unit exchange"
2. Select the exchanged control unit in the "After exchange" tab and then calculate the measures plan. Then ISTA will automatically include the control unit validation in the measures plan.

Cases	Vehicle information	Vehicle management	Service plan	Favorites	Workshop supplies/ operating fluids	Measuring technique
Hit list	Test plan	Programming plan				

Type	Planned actions	Source	Status
PRG	Program RAM	Logistics	<input type="checkbox"/>
PRG	Program ZGM	Logistics	<input type="checkbox"/>
COD	Code BDC	Logistics	<input type="checkbox"/>
COD	Code HU-H	Logistics	<input type="checkbox"/>
COD	Code KOMBI	Logistics	<input type="checkbox"/>
COD	Code RAM	Logistics	<input type="checkbox"/>
FCA	Activate release code KOMBI	Logistics	<input checked="" type="checkbox"/>
Preparation/follow-up operations			
ABL	CBS Service Inclusive selection	System	<input type="checkbox"/>
ABL	Control units – validation after control unit exchange	System	<input type="checkbox"/>
ABL	Delete fault memory	System	<input type="checkbox"/>
ABI	Instrument cluster: Initialization of secure Ethernet communication	System	<input type="checkbox"/>

Buttons: Back, Display Service Case report, Perform service function, Discard action plan, Calculate action plan, Perform action plan

3. If ISTA cannot carry out automatic validation, a warning about the absence of control unit validation is displayed.

Operations	Vehicle information	Vehicle management	Service plan	Favourites	Workshop/ Operating fluids	Measuring devices
Hit list	Test plan	Programming plan				

Type	Planned actions	Origin	State
COD	Encoding SMFAH	Logistics	<input checked="" type="checkbox"/>
COD	Encoding SPNMVL	Logistics	<input checked="" type="checkbox"/>
COD	Encoding SPNMVR	Logistics	<input checked="" type="checkbox"/>
COD	Encoding VDP	Logistics	<input checked="" type="checkbox"/>
COD	Encoding VIP	Logistics	<input checked="" type="checkbox"/>
Pre-/Postprocessing			
ABL	CBS Service Inclusive sel	System	<input type="checkbox"/>
ABL	Check EPS initialisation	System	<input type="checkbox"/>
ABL	Control unit reset FAS	System	<input checked="" type="checkbox"/>
ABL	Delete fault memory	System	<input type="checkbox"/>
ABL	Follow-up operation for roof function centre	System	<input type="checkbox"/>
ABI	Instrument panel: Initialisation of stored ethernet communication	System	<input type="checkbox"/>

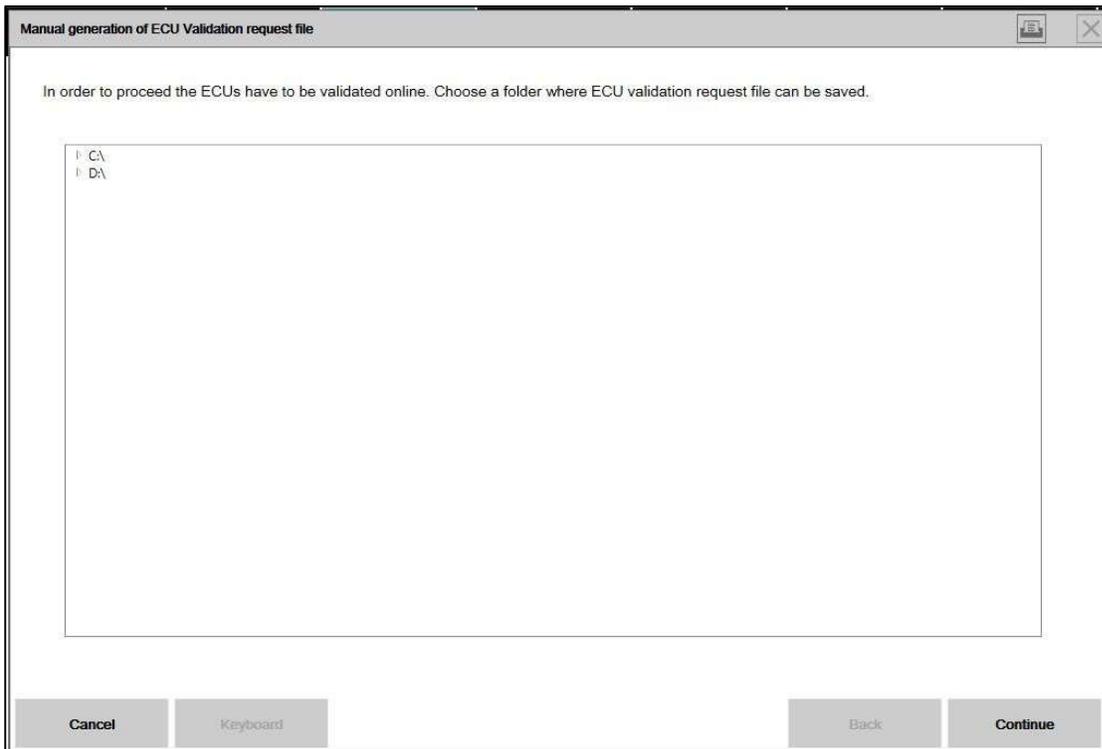
Error

The online control unit validation service is not available. Continue with the manual generation of a control unit validation file.

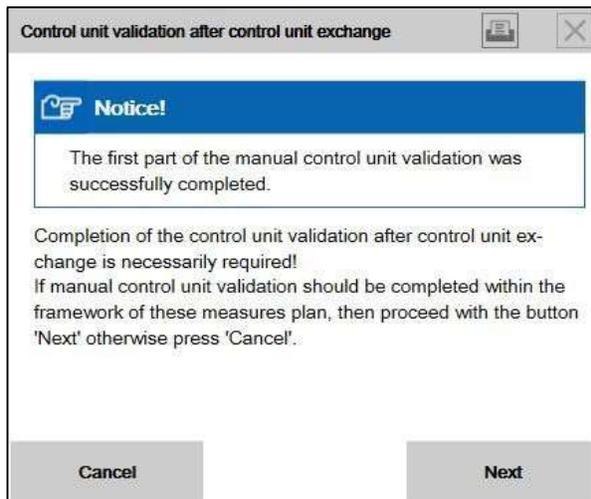
Details **OK**

Buttons: Back, Display operations report, Execute service function, Reject measures plan, Calculate measures plan, Execute measures plan, Cancel, Next

4. By clicking on the "Next" button, ISTA generates the required **ValidationRequest_VIN_xxx.json** file and opens a file dialogue to save it. The file **needs to be stored and uploaded** via DCSnet later.



5. ISTA displays a note confirming that the file was successfully saved. At this point, you can exit the process using the "Cancel" button. After processing the measures plan, the session can be closed.

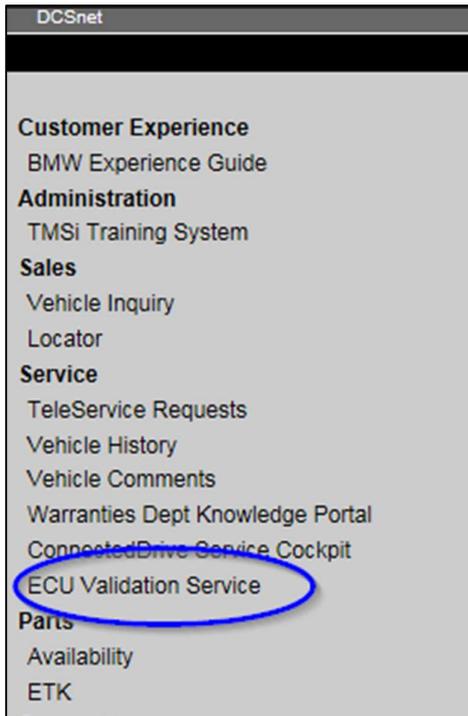


The vehicle must not be handed over to the customer without successful control unit validation.

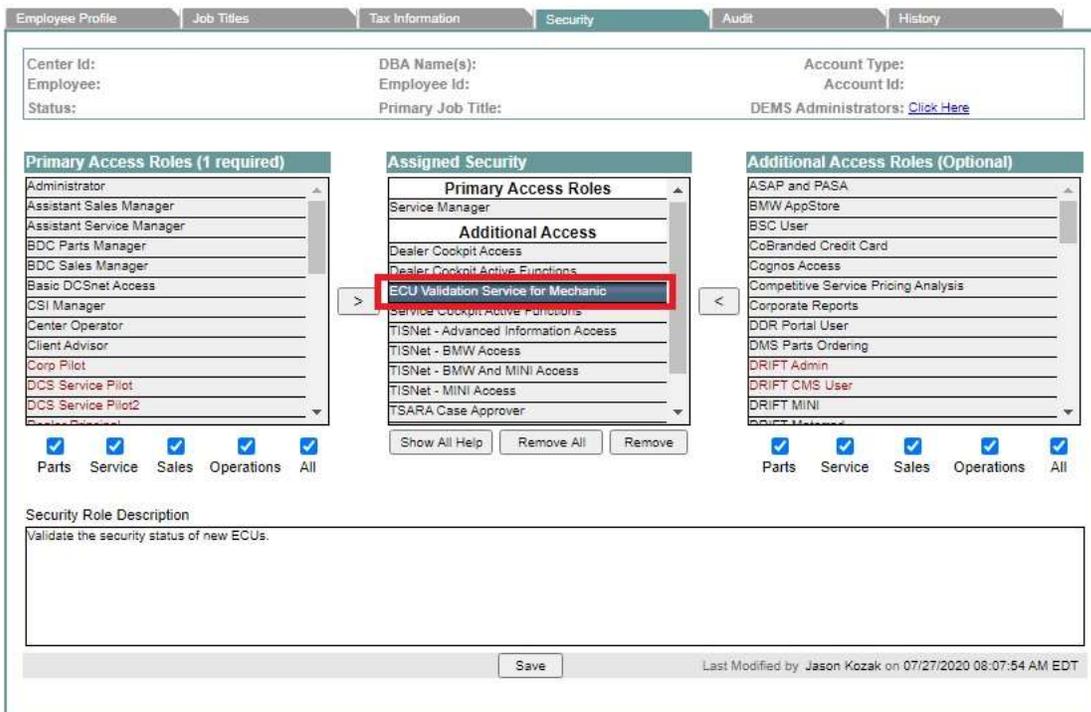
Various vehicle functions are not available without control unit validation, corresponding fault memories are set

DCSnet

6. Open DCSnet and select “ECU Validation Service” under “Service”.



If the ECU Validation Service Menu is not showing up, please check you Access Roles in DEMS. If the ECU validation Service Role is missing, please contact your DEMS Administrator for getting access.



7. Upload the previously generated and downloaded ValidationRequest_VIN17_xxx.json file

ECU Validation Service

Please note: misuse of this application is liable to prosecution.
On this page you can validate the security status of the new ECUs starting with new models after July 2018. The validation could be necessary after a new ECU was mounted in the car.
In order to do this, please follow the steps in ISTA to unmount & mount the ECUs.
If the validation is necessary via this service, ISTA will provide the files to upload here and after successful validation the download is started automatically.
Then you can continue the ECU mounting process in ISTA.

Upload validation request

By using this service, you agree to the following terms and conditions:

1. Please avoid unnecessary requests, as they increase the load and the number of certificates that have to be managed in the backend.
2. If you submit a request for a third party, you are responsible for checking the authenticity and authorization of the request.
3. The security of all BMW vehicles depend on you. If you are not entirely sure about your requests, please do not use this application.
4. Privacy Notice: When using this application, the following personal data is collected and processed by BMW AG (Petuelring 130, 80788 Munich, Germany) and in some cases by its subsidiaries according to data protection law, primarily for the purposes of long-term auditing, authentication, authorization, process control as well as for ensuring proper operation of the application:
 - Username
 - VIN (vehicles)

If you do have questions or do want report problems please refer to the individual contacts on the S-GATE homepage by using the Home link at the very top of the Portal and mention the application name "ECU Validation".

Technical information: Cluster: 1 | Host: 1 | Environment: EMEA-PROD | Version: 20200602.130123-release_202023_P13_S2 | Built at: 2020-06-02 13:18 © Copyright 2020 BMW Group

8. The System checks the file, after a few seconds, a new **ValidationRequest_VIN17_xxx_response.json** file will be offered for downloading. This is subsequently required by ISTA.

Start a new ISTA session

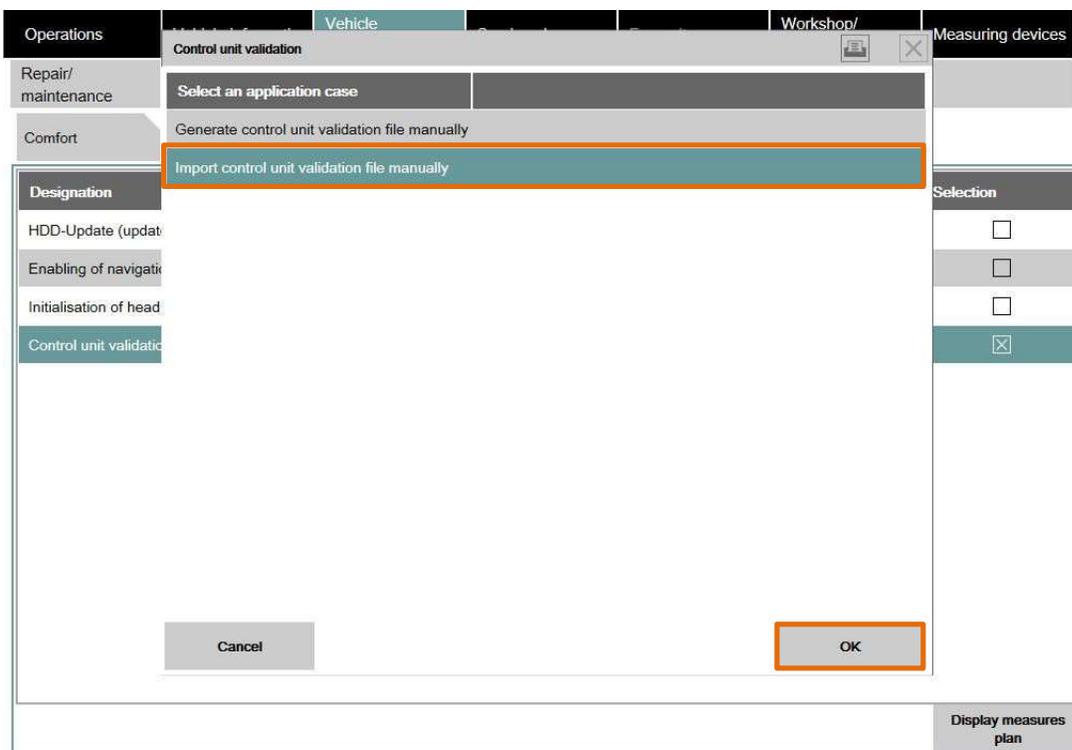
9. In order to import the json file, select "ECU Validation" in the "Additional Software" tab.

Operations	Vehicle information	Vehicle management	Service plan	Favourites	Workshop/ Operating fluids	Measuring devices
Repair/ maintenance	Troubleshooting	Service functions	Software update	Control Unit Replacement	Vehicle modification	
Comfort	Advanced	Additional software				

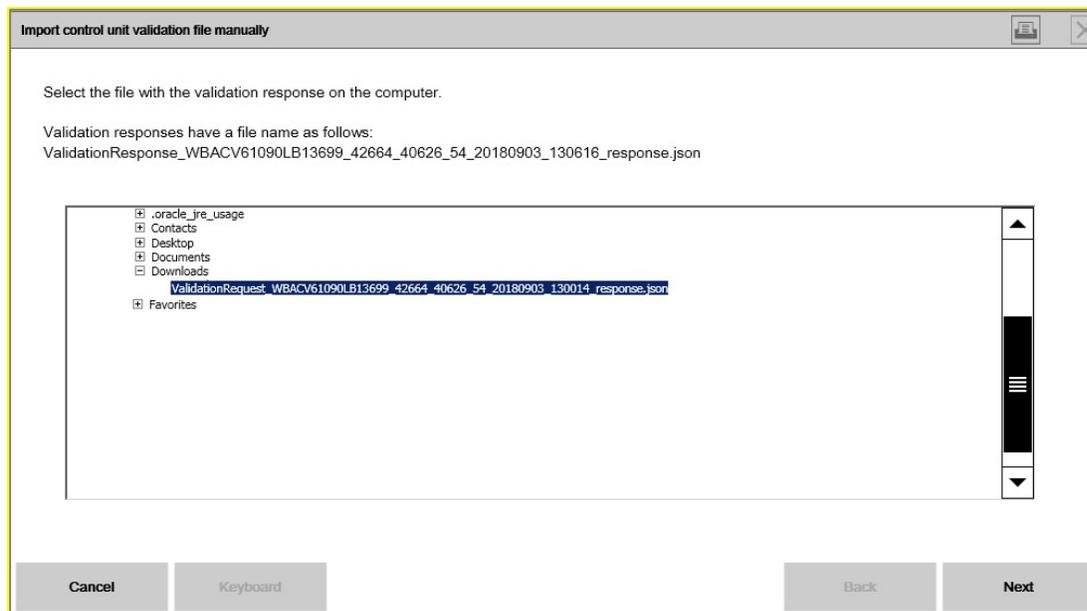
Designation ▲	Selection
ECU Validation	<input type="checkbox"/>
Enabling of navigation maps	<input type="checkbox"/>
HDD-Update (update of navigation maps / entertainment data)	<input type="checkbox"/>

Display measures plan

10. In order to import the validated file, select "Import control unit validation file manually" and confirm with "OK".



11. Select the file **ValidationRequest_VIN17_xxx_response.json** in the file dialogue and confirm with "Continue".



12. The file is written into the vehicle and checked.

Operations	Vehicle information	Vehicle management	Service plan	Favourites	Workshop/ Operating fluids	Measuring devices
Repair/ maintenance	Troubleshooting	Service functions	Software update	Control Unit Replacement	Vehicle modification	
Comfort	Advanced	Additional software				

Designation	Selection
HDD-Update (update of navigation maps / entertainment data)	<input type="checkbox"/>
Enabling of navigation maps	<input type="checkbox"/>
Initialisation of head unit component prote	<input type="checkbox"/>
Control unit validation	<input checked="" type="checkbox"/>

Ongoing background process

The control unit validation is currently being executed.

Display measures plan



Finally calculate the measures plan and work through the detected service functions.

The system confirms the successful implementation of the received certificates and finishes the measures plan.