Release Notes Programming

Passenger Cars

ISTA	4.20.2x
ISTA Service Data	4.20.20
ISTA/P	3.67.0

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1 General notes

With the launch of ISTA 4, the functionality for programming has been integrated in ISTA.

The following series can be dealt with using ISTA/P:

- E Series

The following series can be dealt with using ISTA 4:

- F, G and I Series

These Release Notes contain information for both programming systems.

The Release Notes list all known faults and faults that are currently still unresolved, with possible workarounds which are important for the Retailer Organisation. Please contact Technical Support if additional faults occur on the vehicle. In particular in the following cases:

- vehicle-related programming faults / encoding faults and activation faults
- functional faults on the vehicle

With ISTA 4, it is now also possible to send feedback relating to programming directly to BMW AG. Selecting the "Feedback" symbol (envelope symbol) displays the feedback screen with input boxes.

i	If a new fault pattern is included in a release, this is indicated in the heading with *** NEW ***. This is no longer indicated in the follow-up release.

2   Overview of the I levels contained

I levels newly added or updated in this ISTA version are marked in **BOLD**.

F, G, I series (ISTA 4)

Series group	I level
F001 (F0x, RR4, RR5, RR6)	F001-19-11-510
F010 (F06, F1x)	F010-19-11-520
F020 (F2x, F3x, F80, F82, F83, F87)	**F020-19-11-530**
F025 (F15, F16, F25, F26, F85, F86)	F025-19-11-520
F056 (F39, F4x, F5x, F6x)	**F056-19-11-530**
S15A (G01, G02, G1x, G3x, RR1x, RR31, F90, F97, F98)	**S15A-19-11-530**
S15C (G08, G38)	**S15C-19-11-530**
S18A (G05, G06, G07, G14, G15, G16, G20, G21, G28, G29, F40, F44, F91, F92, F93, F95, F96)	**S18A-19-11-530**
I001 (I01, I12, I15)	**I001-19-11-530**

I levels correspond to the ISTA Service Data version on the front page.

E Series (ISTA/P)

Series group	I level
E065 (E65, E66)	E065-17-11-545
E060 (E60, E61, E63, E64)	E060-16-11-500
E070 (E70, E71, E72)	E070-16-11-500
E89x (E81, E82, E84, E87, E88, E89, E90, E91, E92, E93)	E89x-18-07-520
R056 (R55, R56, R57, R58, R59, R60, R61)	R056-17-03-504
RR01 (RR1, RR2, RR3)	RR01-18-03-510

Info on the integration levels

i	PuMA measures or similar documents sometimes refer to an I level for the solution to a problem. In this case it is important to know which ISTA release contains the I level.

The name of the I level indicates, if it

1. is contained in the current ISTA release,

2. was already contained in a previous ISTA release or

3. will be provided in a future ISTA release.

<u>Series group</u> e.g. **F020** - <u>year</u> **2017** - <u>month</u> (**3, 7 or 11**) - <u>version</u> (**>= 500**)

Assuming the current release contains:	S15A-17-03-506
Then the following I level is not available yet:	S15A-17-07-501
Then this I level was already contained in an older ISTA release:	S15A-16-11-503
Then this I level was already contained in an older ISTA release:	S15A-17-03-505

3   Innovations

The following interesting innovations are included, amongst others.

ISTA 4

New models can be dealt with

Benefit: The new vehicles F44, F93, F95, F96 can be dealt with.

Process for deblocking component protection

The component protection is extended to the vehicles G11, G12 version as of 07/2015 and F15, F16, F85, F86 with version as of 07/2016.

As well as the HU-H2 (formerly NBT Evo), the component protection is also active since 3/2018 for the HU-B2 (formerly Entry Evo) and also in the HU-H3 MGU since 7/2018.

The process is identical for both control units and is documented in the ISTA user guide.

The user guide can be opened in ISTA using the "?" button.

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.

i	**The automatic control unit validation works as of ISTA 4.16.1x.**
	As a prerequisite, the necessary settings must be made in the ISPI Admin Client. These are described in the following.

This process can **take place automatically** with ISTA 4.16.1x once the affected workshop systems (ISPI Admin Client) are correctly configured and there is an online connection to the BMW backend.

The required settings for the ISPI Admin Client are described in the ISPI Administrator Manual (Application: ISPI Admin Client (administration area) / ISPI Admin Client: Functions / ISPI Admin Client: Certification management).

If the prerequisites for the automatic process do not exist, technical support can help to manually validate the control units.

The manual process is described below:

1. Select the exchanged control unit in the "After Replacement" tab and then calculate the measures plan.

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	

Before Replacement	After Replacement

Short name	Description	Replaced	
ACSM	Crash safety module	☐	▲
AHM	Trailer module	☐	☰
AL	Active steering	☐	
AMPT	Top HiFi amplifier	☐	
BDC	Body Domain Controller	☐	
CON	Controller	☐	
DDE	Digital diesel electronics	☐	
DSC	Dynamic Stability Control	☐	
EDC	Vertical Dynamics Management	☐	
EGS	Electronic transmission control	☐	
EHC	Electronic ride height control	☐	▼

Hint: To finalize the replacement of the already installed ECU, select the corresponding control unit.

Display measures plan

Then ISTA will automatically include the control unit validation in the measures plan.

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

Measures plan	Final report

Type	Planned actions	Origin	State ℹ
	Pre-/Postprocessing		
ABL	Delete fault memory	System	◯
ABL	Ethernet port configuration (ENS)	System	◯
ABL	Head unit: Initialisation of stored ethernet communication	System	◯
ABL	Initialisation of component protection for the head unit	System	◯
ABL	Run the Power-down command	System	◯
ABL	Update online services	System	◯
ABL	Validating control units after control unit exchange	System	◉
UPD	SVT update	System	◯
UPD	Write of I-Level	System	◯
UPD	Write of vehicle order	System	◯
UPD	Write of vehicle profile	System	◯

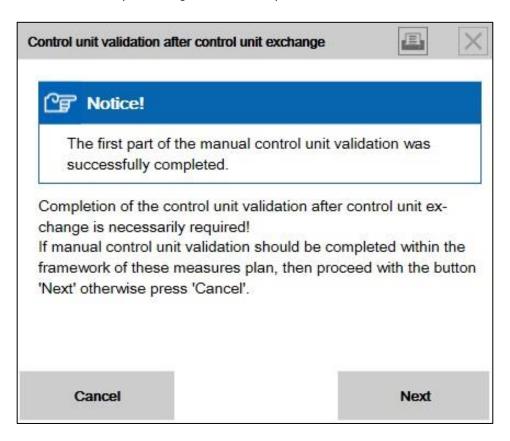| Back	Display operations report	Execute service function	Reject measures plan	Calculate measures plan	Execute measures plan

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

Control unit validation after control unit exchange

⚠️ **Warning!**

Automatic control unit validation is not possible or has failed.

Control unit validation after control unit exchange is required!

The procedure is as follows:
If the control unit validation should still be manually carried out within the framework of these measures plan , then proceed with the button 'Next' otherwise press 'Cancel'.

Cancel	Next

3. By clicking on the "Next" button, ISTA generates the required ValidationRequest_VIN_xxx.json.zip file and opens a file dialogue to save it. The file must be sent to technical support later via PuMA.

Manual generation of ECU Validation request file

In order to proceed the ECUs have to be validated online. Choose a folder where ECU validation request file can be saved.

C:\
D:\

| Cancel | Keyboard | | Back | Continue |

4. 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.

Control unit validation after control unit exchange

Notice!

The first part of the manual control unit validation was successfully completed.

Completion of the control unit validation after control unit exchange is necessarily required!
If manual control unit validation should be completed within the framework of these measures plan, then proceed with the button 'Next' otherwise press 'Cancel'.

| Cancel | Next |

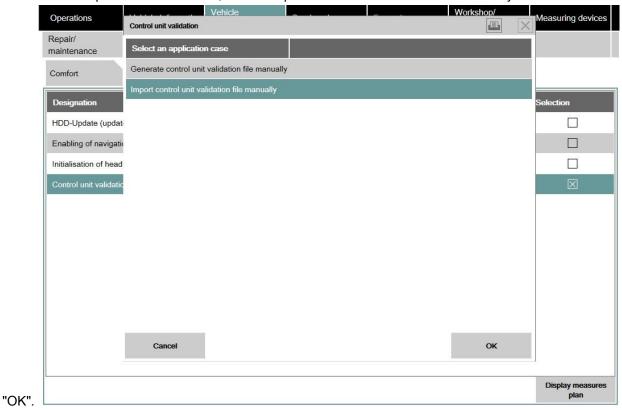| ⚠	The vehicle must not be handed over to the customer without successful control unit validation.
	Various vehicle functions are not available without control unit validation, corresponding fault memories are set.

PuMA

5. Please send the saved json.zip file to technical support attached to a PuMA message.

6. Technical Support will send you back a validated version of the file as file type json for the affected vehicle. This is subsequently required by ISTA.

Start a new ISTA session

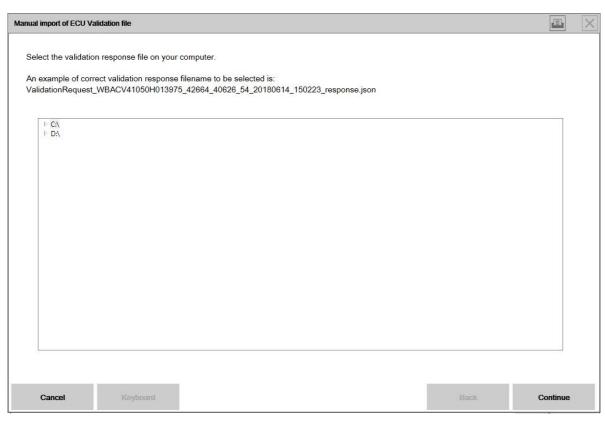7. In order to import the json file, select "ECU Validation" in the "Additional Software" tab.

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	☐
Enabling of navigation maps	☐
HDD-Update (update of navigation maps / entertainment data)	☐

Display measures plan

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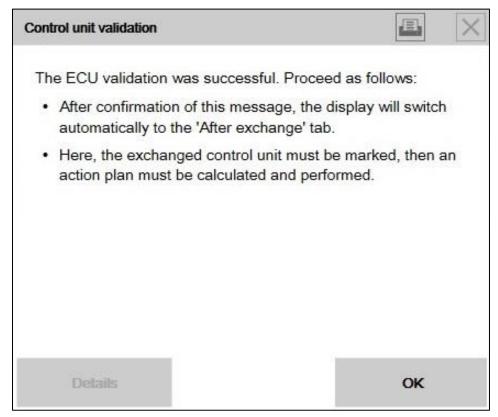

"OK".

9. Select the ValidationRequest_VIN_xxx_response.json file in the file dialogue and confirm with "Continue" .

⚠	Unzip the ZIP file and import the json file into ISTA.

Manual import of ECU Validation file

Select the validation response file on your computer.

An example of correct validation response filename to be selected is:
ValidationRequest_WBACV41050H013975_42664_40626_54_20180614_150223_response.json

▷ C:\
▷ D:\

| Cancel | Keyboard | | Back | Continue |

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

Control unit validation

The ECU validation was successful. Proceed as follows:

- After confirmation of this message, the display will switch automatically to the 'After exchange' tab.

- Here, the exchanged control unit must be marked, then an action plan must be calculated and performed.

| Details | | OK |

11. After confirming the note, ISTA displays the tab for control unit exchange. Select the exchanged control unit and calculate and work through the measures plan.

Check for programming restrictions due to virus protection/firewall software

Before programming, ISTA checks if communication between the vehicle and ISTA is restricted due to virus protection/firewall software on the ISTA computer.

In this case, ISTA displays a pop-up with a note about blocked interfaces.

Please also observe the following Release Notes entry in this regard:

- HU-H (formerly NBT) - No programming possible (firewall, virus protection)

4 Known faults F, G, I Series

4.1 * NEW * G38 - DME with fault memory 0x1F2108 after programming

Fault description:

After programming, the fault memory 0x1F2108 is displayed in ISTA.

Background: ISTA alternately calculates different software versions for the DME.

Model series affected:

G38 vehicles.

Measure / Workaround:

Reprogram the DME with ISTA.

The correct DME software is programmed if the fault memory 0x1F2108 is no longer displayed.

Fault corrected by:

Expected with ISTA 4.20.3x.

Affected application:

ISTA 4

4.2 * NEW * G05 - Execution stop with alternative I level

Fault description:

At the start of the programming session an execution stop occurs with a reference to the Release Notes.

ISTA offers the option of programming the vehicle with an alternative I level S18A-19-07-5xx.

Model series affected:

G05 vehicles with 6-cylinder petrol engine and version 03/2019 and older.

Measure / Workaround:

Programming with alternative I level.

Fault corrected by:

Expected for ISTA 4.21.1x.

Affected application:

ISTA 4

4.3 * NEW * G05, G06, G07 - activation code Technical Campaign when programming to 19-11 or later

Fault description:

When programming to S18A-19-11-5xx more recent, an activation code Technical Campaign for the VIP control unit is scheduled.

Model series affected:

G07 and G05, G06 vehicles with special equipment 2VR, 2VW, 2VF.

Measure / Workaround:

Import the activation code into the vehicle

Fault corrected by:

Affects vehicles with version before November 2019.

Affected application:

ISTA 4

4.4 I12, I15 and I01 - Execution stop with alternative I level

Fault description:

At the start of the programming session an execution stop occurs with a reference to the Release Notes.

ISTA offers the option of programming the vehicle with an alternative I level I001-19-07-5xx.

Model series affected:

I12, I15 and I01 vehicles with range extender in the Europe region.

Measure / Workaround:

Programming with alternative I level.

Fault corrected by:

Expected mid-November.

Affected application:

ISTA 4

4.5 RR11, RR12, RR31 - Execution stop with alternative I level

Fault description:

At the start of the programming session an execution stop occurs with a reference to the Release Notes.

ISTA offers the option of programming the vehicle with an alternative I level S15A-19-07-5xx.

Model series affected:

Vehicles RR1, RR12, RR31.

Measure / Workaround:

Programming with alternative I level.

Fault corrected by:

Expected with ISTA 4.21.1x

Affected application:

ISTA 4

4.6 Odometer adjustment pop-up

Fault description:

A pop-up about odometer adjustment is displayed during programming.

Model series affected:

G05, G06, G07, G14, G15, G16, G20, G21, G28, G29, F40, F44, F91, F92, F93, F95, F96 and G11, G12 vehicles, as of life cycle impulse.

Measure / Workaround:

If the odometer reading is less than 500 km, the message can be ignored.

If the odometer reading is more than 500 km, contact Technical Support.

Fault corrected by:

Expected with ISTA 4.20.3x.

Affected application:

ISTA 4

4.7 High beam assistant - activation code Technical Campaign when programming to 19-07 or later

Fault description:

For programming to S18A-19-07-5xx or S15A-19-07-5xx or later, an activation code Technical Campaign for the KAFAS control unit is scheduled.

The reason is that the function is activated retrospectively for the customer.

Model series affected:

G05, G07, G14, G15, G20, G29 and G11, G12 vehicles, as of life cycle impulse with special equipment 5AC.

Measure / Workaround:

Import the activation code into the vehicle

Fault corrected by:

Affects vehicles with version before July 2019.

Affected application:

ISTA 4

4.8 HU-H2 - Reference to repair measure

Fault description:

When programming a vehicle with HU-H2 NBTEvo, a note is displayed about a HU-H2 programming failure.

Model series affected:

Vehicles F0x, F1x, F2x, F3x, F4x, F5x, F6x, F8x, F90, G0x, G1x, G3x, I01, I1x, RRx with HU-H2.

Measure / Workaround:

1) Follow the note and carry out the repair measure (service function) for the HU-H2. This can take up to 20 minutes.

2) Calculate and execute measures plan.

Pay attention to final work.

Fault corrected by:

HU-H2s from a limited production period are affected by the fault.

Please observe PuMA measure 64862978.

Affected application:

ISTA 4

4.9 HU-H3 (Head Unit High 3) / RSE control unit cannot be encoded

Fault description:

Encoding the HU-H3 MGU-01 or RSE fails repeatedly.

Model series affected:

G0x, G1x, G2x, F4x, F9x vehicles with MGU-01 control unit

Measure / Workaround:

Assign HU-H3 control unit manually for programming in ISTA.

Fault corrected by:

Currently open

Affected application:

ISTA 4

4.10 KAFAS does not respond any more after programming

Fault description:

After programming, the KAFAS control unit no longer responds.

Model series affected:

G05, G07, G14, G15, G20, G29 vehicles with I level 18-11-5xx.

Measure / Workaround:

1) Let vehicle go to sleep. KAFAS then responds again.

2) Start new ISTA session, calculate and carry out measures plan.

Fault corrected by:

Currently open

Affected application:

ISTA 4

4.11   After programming, SRS/HRS is allocated for installation

Fault description:

After vehicle programming, one or more radar sensors are allocated for installation.

Model series affected:

Vehicles G0x, G1x, G2x, G3x, F90, RR1x, RR31 with short-range sensors SRSNVR, SRSNVL, HRSNR, HRSNL.

Measure / Workaround:

Please contact technical support about managing the vehicle.

Fault corrected by:

Expected with ISTA 4.21.1x.

Affected application:

ISTA 4

4.12 F0x - programming not possible, control units are requested for installation

Fault description:

ISTA 4 instructs one or several of the specified control units for installation, although they are already fitted in the vehicle.

Model series affected:

Vehicles F01, F02, F03, F04, F07 with production date until March 2011 and the following control units:

- TEL-ULF260, TEL-ULF2HI, TEL-E15GSM

- MMC-01, MMC-01-FIRMWARE

- AMP-HIFI01, AMP-TOP70

- SDARS-01

- LRR-01

Measure / Workaround:

The vehicle can be dealt with using ISTA/P.

AN IBAC activate code is required for this. This can be requested from technical support.

Fault corrected by:

Currently open

Affected application:

ISTA 4

4.13 ISTA 4 - Information on BDC exchange or programming cancellation gateway control units

i	The exchange of the BDC is again supported with ISTA 4.09.1x.

Fault description:

When carrying out the special measures plan in the event of a BDC exchange, or due to a programming abort of the gateway control unit, the following pop-ups appear repeatedly:

- Requesting that the ignition be switched on

- SYS-0012 Identification Error

- Connection to control unit Unknown interrupted

Model series affected:

Vehicles with the control units FEM or BDC.

Measure / Workaround:

Confirm pop-ups until the special measures plan has been carried out.

Fault corrected by:

Currently still open.

Affected application:

ISTA 4

4.14 Invalid IP address for BN2020Ethernet control units

Fault description:

During vehicle management, one of the following Ethernet-capable control units should be programmed:HU-H, RSE, ATM, KOMBI, ACC, ICAM, KAFAS

At the start of the session, a note appears indicating that the IP address is invalid. The Ethernet programming can fail if the following steps are not followed:

Model series affected:

All F, G, I Series

Measure / Workaround:

1. End ISTA session

2. Carry out a battery reset

3. Restart the session

4. If fault message still appears: Check the Ethernet wiring in the vehicle using the wiring diagram in ISTA

5. If fault message still appears: Contact Technical Support

Fault corrected by:

Currently still open

Affected application:

ISTA 4

5 Known faults E Series (ISTA/P)

5.1 Vehicle order import fails due to antivirus software and firewall

	IMPORTANT! In individual cases, the vehicle order-import fails because of installed security software (antivirus software or firewall). After the session starts, the vehicle identification with ISTA/P fails. (BMW-internal locations are not affected by the fault) **Measure / Workaround:** For more details, see ISPI Dealer Self Support entry 51219. **Affected application:** ISTA/P