SI B12 17 17
Engine Electrical Systems

December 2017
Technical Service

SERVICE ACTION: INSPECT / REWORK DME CONNECTOR

Please perform the procedure outlined in this Service Information on all affected vehicles before customer delivery. In the event the customer has already taken delivery of the vehicle, please perform the procedure the next time the vehicle is in the shop.

This Service Information bulletin replaces SI B12 17 17 **dated October 2017**

What's New:

• The quantity for bulk PN 61 13 6 920 760 (Polyester-glass mat wrap) changed to "As needed."

• Warranty Information section re-formatted

MODEL

F30 (3 Series Sedan)

With the B58 engine produced from 8/2015 to 11/2016

With the B46 engine produced from 8/2016 to 11/2016

AFFECTED VEHICLES

This Service Action involves the F30 3 Series Sedan produced with the B46 and B58 engines as indicated above.

Vehicles which require this Service Action to be completed will show it as "Open" when checked either in AIR, the "Service Menu" of DCSnet (Dealer Communication System) or with the Key Reader.

Note: Affected vehicles were produced in BMW Plant Rosslyn, South Africa. Equivalent models from other BMW plants are not affected, as they were built with components from a different supplier.

SITUATION

Due to missing sealing pins in the unused wiring slots of DME connector A368*1B, moisture ingress could occur increasing the risk of corrosion or electrical short circuits between pins.

A check engine light (MIL) or various Check Control messages could be displayed indicating functional failures affecting Dynamic Stability Control (DSC) and Electronic Power Steering (EPS) systems.

CAUSE

The DME harness connector may have been manufactured incorrectly with the necessary sealing pins missing from the empty wiring slots of the DME connector.

CORRECTION

Inspect and rework, or replace the DME connector harness section and DME as described and illustrated in the attachment.

1. Remove connector A368*1B as described to carefully inspect both the connector and the DME pins for any signs of corrosion or water ingress.
2. If corrosion or damage is found, the connector harness section and DME will need to be replaced. In such a case, DME TeileClearing approval is required prior to DME replacement.
3. If the connections are clean and dry it is only necessary to inspect the connector for missing sealing pins and install replacements as needed.

PROCEDURE

Refer to the attachment.

PARTS INFORMATION

Part Number	Description	Quantity
61 12 8 794 765	Blind plug (connector sealing plugs)	1
UPDATE! 61 13 6 920 760	Polyester-glass mat wrap (Wire harness) repair tape, L=7.5m, W=19mm)	As needed
61 13 1 372 391	Cable tie	As needed

Only if replacing the connector harness:

Part Number	Description	Quantity
61 12 8 793 506	Repair wiring harness DME	1
Refer to ETK	DME control unit B46	1
Refer to ETK	DME control unit B58	1

WARRANTY INFORMATION

UPDATE! Reimbursement for this Service Action campaign repair will be via normal claim entry utilizing the following information:

Defect Code:	0061490400	
Labor Operation:	**Labor Allowance**	**Description:**
00 64 932	8 FRU	Checking and reworking the DME connector only

Or:

UPDATE! **Replacing Wire Harness and the DME in conjunction with another Vehicle Programming and Encoding Repair**

During the same workshop visit, if a vehicle also requires another Technical Campaign or repair that also includes programming and encoding the control units, the programming procedure may only be invoiced one time.

Labor Operation:	Labor Allowance	UPDATE! Description:

00 64 934	19 FRU	Checking the DME connector, installing the replacement wiring harness and replacing the DME control unit (Programming and encoding control units was done in conjunction with a different campaign or repair during the same repair visit)

Or:

UPDATE! **Replacing Wire Harness, the DME with Vehicle Programming and Encoding**

Labor Operation:	Labor Allowance	UPDATE! Description:
00 64 933	27 FRU	Checking the DME connector, installing the replacement wiring harness, replacing the DME control unit and programming and encoding control units (includes connecting an approved battery charger/power supply and performing a vehicle test)

UPDATE! The labor operations listed above are Plus labor operation codes.

And, as needed:

UPDATE! **Sublet – Bulk Materials**

Sublet Code 4	Up to $5.00	Reimbursement for the repair-related bulk materials

Sublet reimbursement calculation for claiming the “used quantities” of repair-related bulk materials:

- BMW part numbers are at dealer net plus your center’s handling; and/or
- Other materials not available through BMW and obtained locally are at “cost plus 20 percent.”

And, as applicable:

UPDATE! **Alternative Mobility Solution (AMS)**

This Service Action repair qualifies for Alternative Mobility Solution (AMS) expense reimbursement, claim this item under the Defect Code noted above as follows:

- Sublet Code 2 - Itemize the AMS sublet amount on the repair order and in the claim comment section.

Please refer to SI B01 29 16 for additional information.

UPDATE! **Vehicle Programming and Encoding**

A. ISTA automatically reprograms and encodes all the vehicle control modules that do not have the latest software i-level. If one or more control module failures occur “during” this programming procedure:

   • Please claim this “consequential” control module-related repair work under the defect code listed in this bulletin with the applicable KSD2/AIR labor operations.

B. For control module failures that occurred “prior” to performing this programming procedure:

• When “covered” under an applicable limited warranty, claim this control module-related repair work using the applicable defect code and labor operations in KSD2/AIR.

Posted: Thursday, December 28, 2017

ATTACHMENTS

View PDF attachment **B121717_Attachment**.

Procedure to check and/or repair the DME wiring harness connector A368*1B.

Warning: Working on 12 V vehicle electrical systems.

Risk of short circuits! Risk of fire!

For additional information see:
- 61 00 … Safety information on handling the vehicle battery
- 61 00 / 12 00 … Notes on disconnecting and connecting the vehicle battery
- 61 12 … Notes on the intelligent battery sensor (IBS)

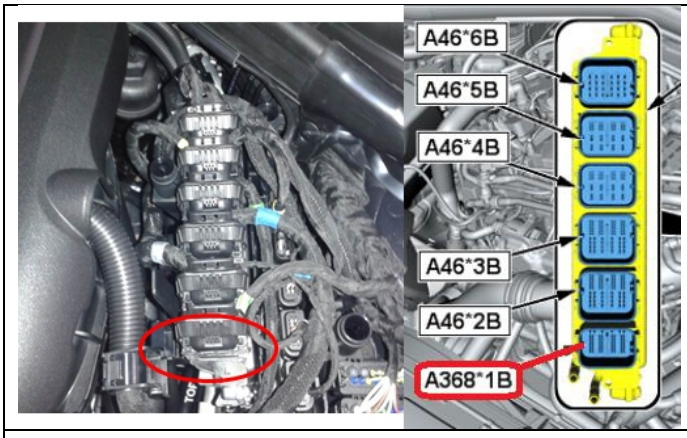
1. Check connector:

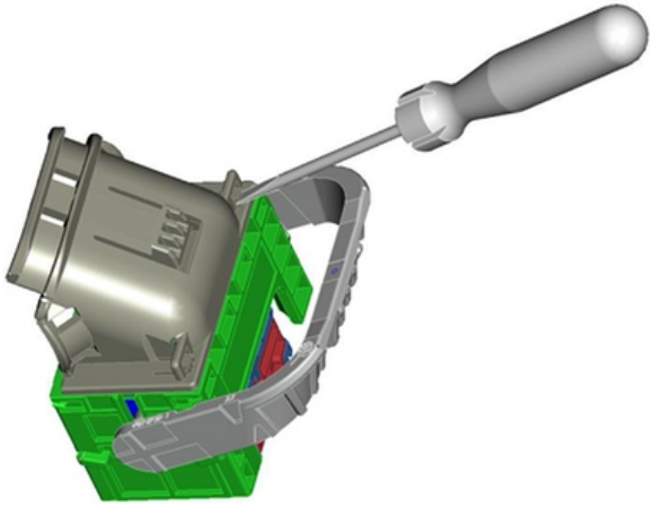
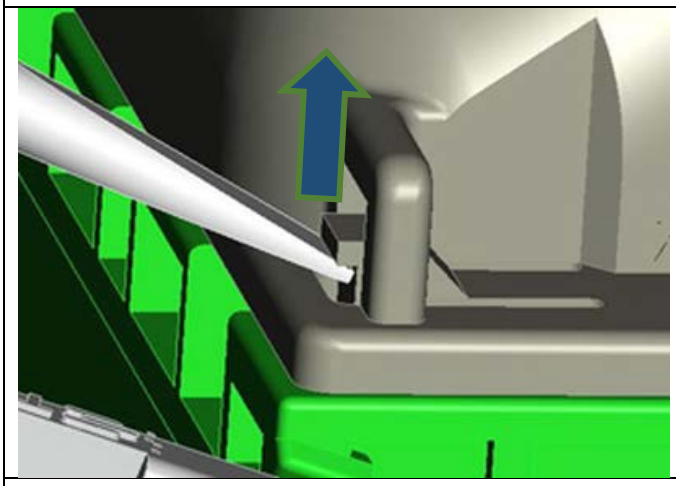
1a.Slacken nut (1) and detach battery earth lead from battery.

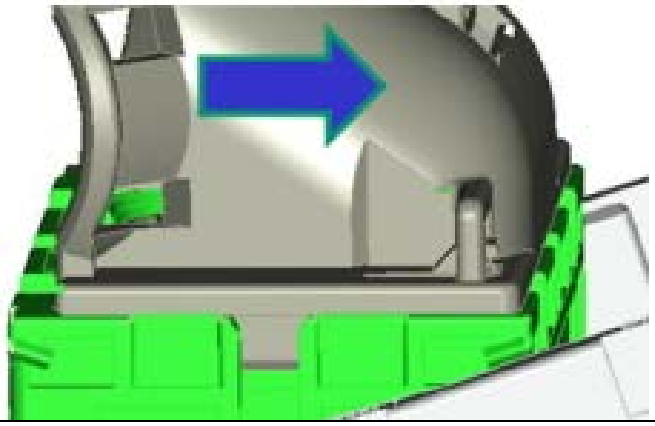
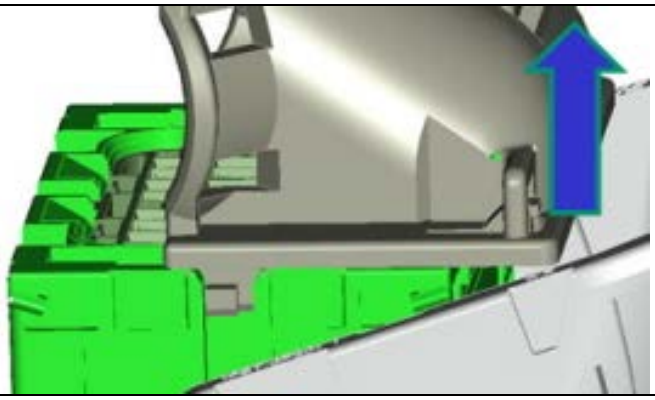
Note: Do not pry off using a tool.

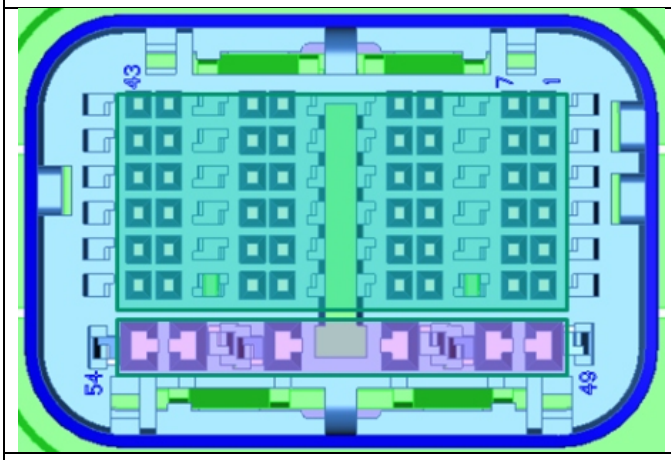
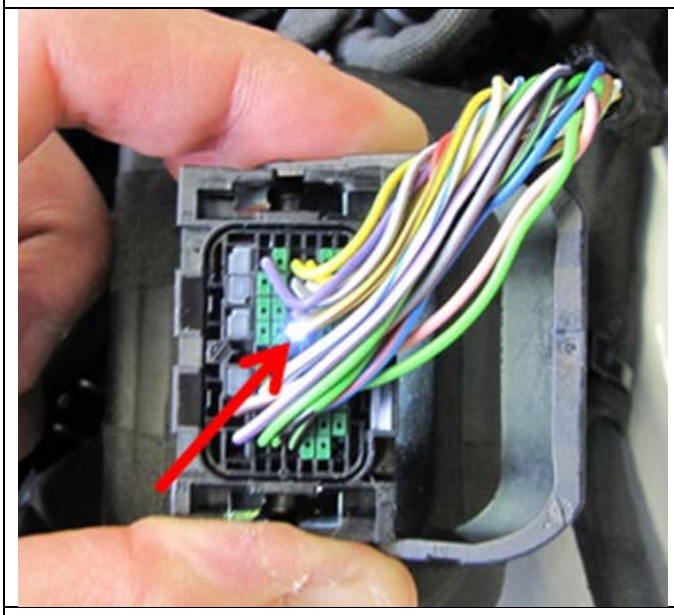
For an auxiliary battery: Disconnect battery earth lead of auxiliary battery.

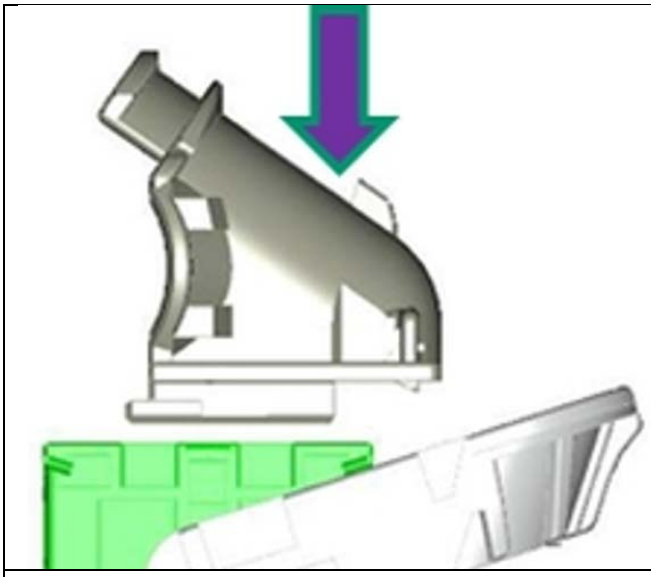
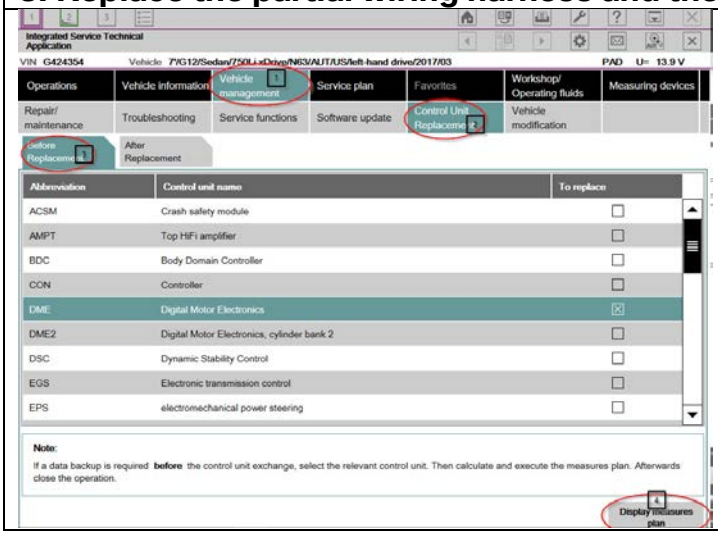
1b. Remove the cover of the DME control unit (circled, shown on B58 engine).

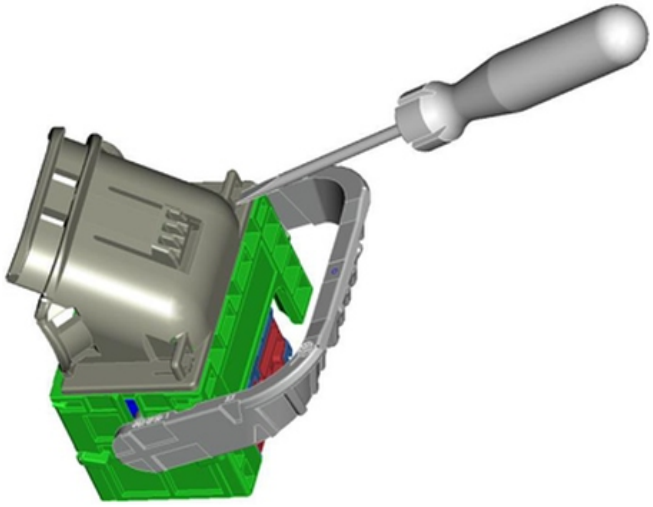
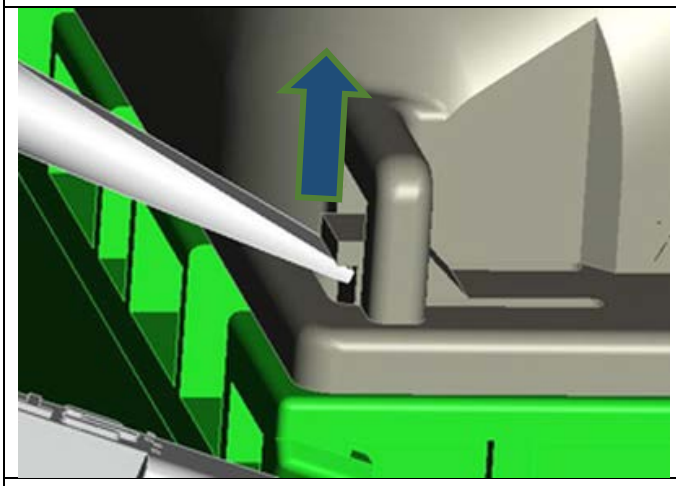
	1c. Locate connector A368*1B and remove it from the DME.
	1d. Check for water residue or corrosion in the connector and in the connector chamber of the DME control unit (photo below).
	1e. Evaluation: If <u>no</u> water residue can be found on either component, proceed to **"2. Rework the connector".** If <u>water residue or corrosion is observed</u> in the connector, proceed to **"3. Replace partial wiring harness and DME control unit".**
2. Rework the connector:	

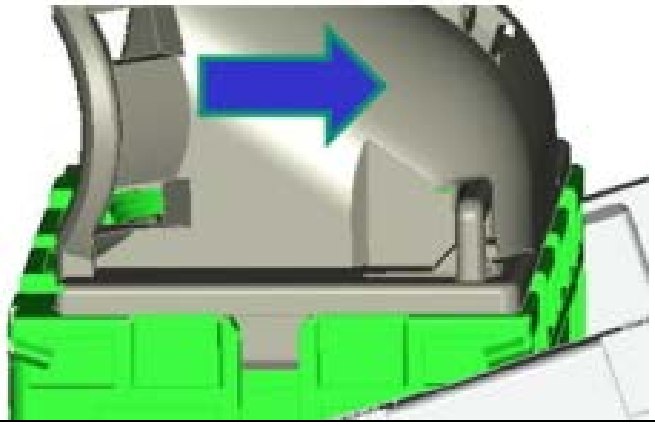
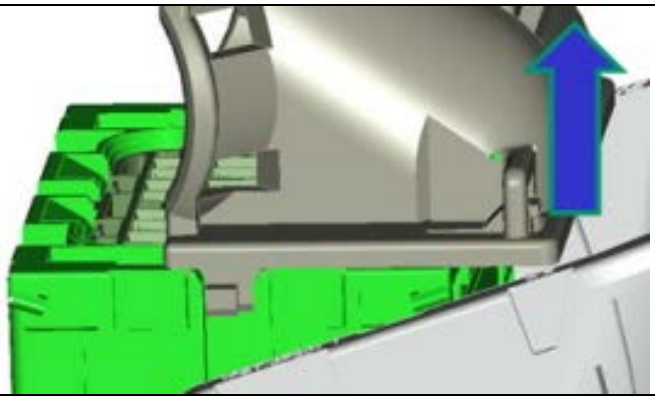
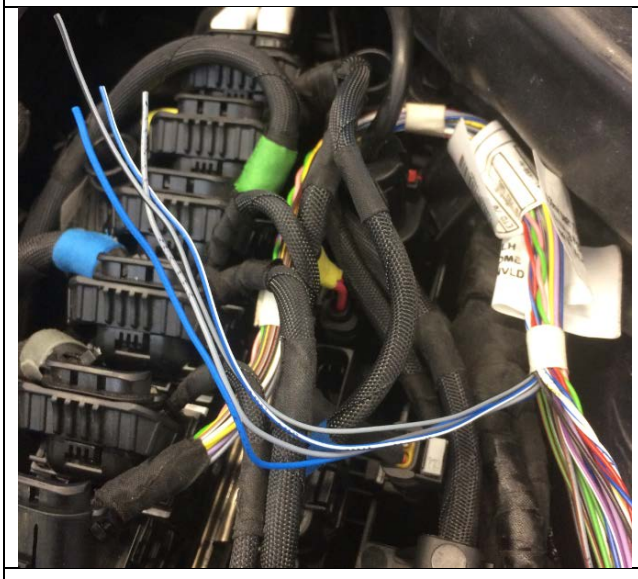
	2a. Remove the cable strap (arrow) on connector A368*1B.
	2b. Carefully remove the protective cap from the connector using a suitable tool.
	Lift the two locking tabs up

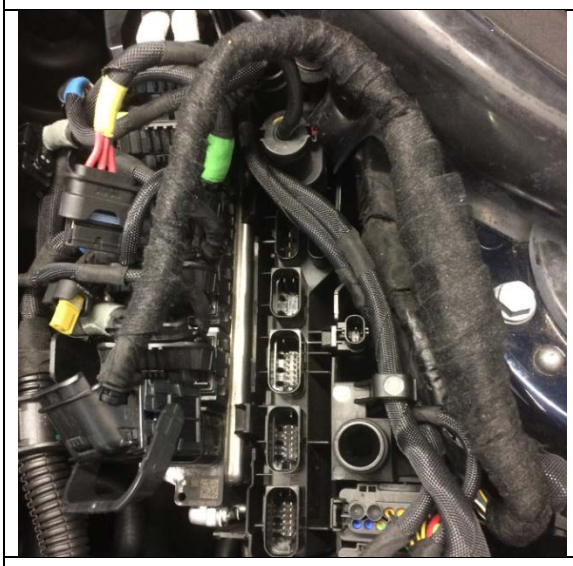
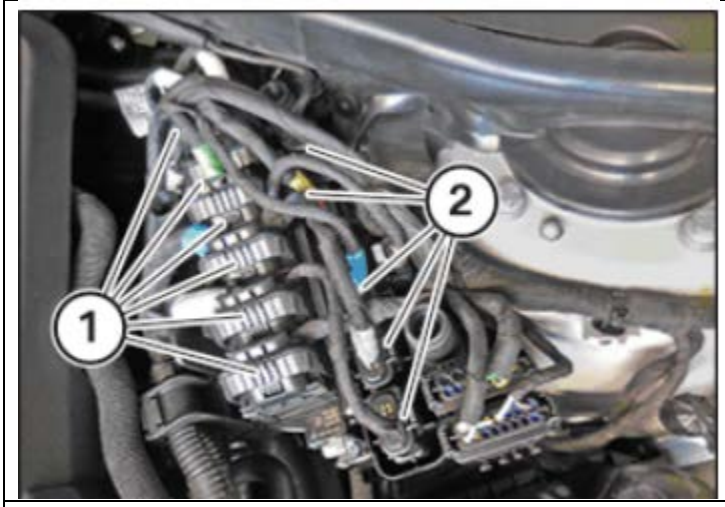
	Slide the protective cap in the direction of the lock lever
	Lift the protective cap off the connector
	2c. Remove approximately 4” of the insulating tape on the wiring harness from connector A368*1B

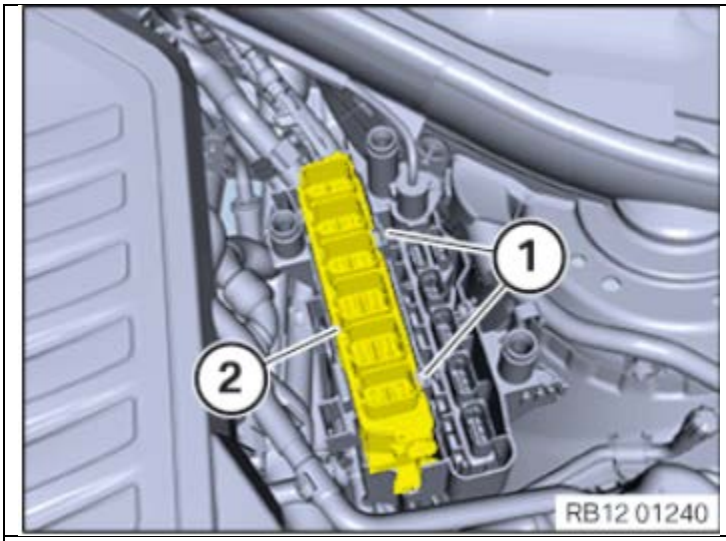
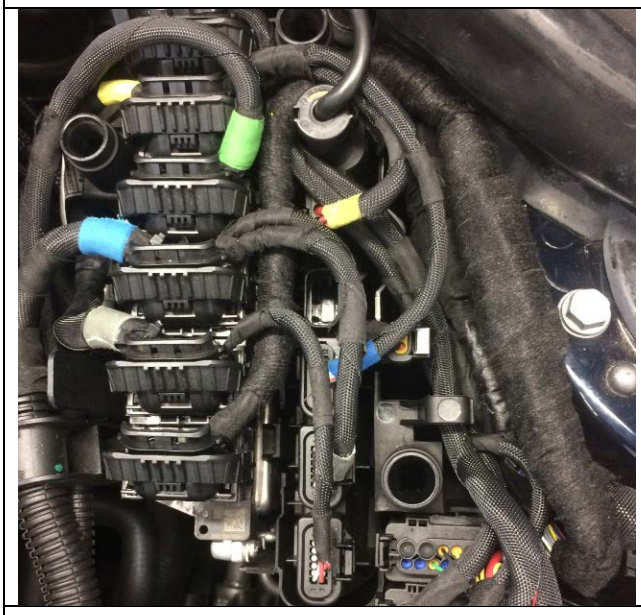
	2d. All slots in the connector must be occupied with a wire or sealing plug.
	2e. Install suitable sealing plugs (Repair kit P/N 61 12 8 794 765) into all of the open chambers. Fit green sealing plugs into the open chambers in positions 1 thru 48 on connector A368*1B Fit “natural colored” sealing plugs into the open chambers in positions 49 thru 54
	2f. Assembly verification: Shine a flashlight from the front of the connector to locate any open chambers (arrow). The best viewing perspective is vertically downwards from above the housing. Install any remaining sealing plugs.

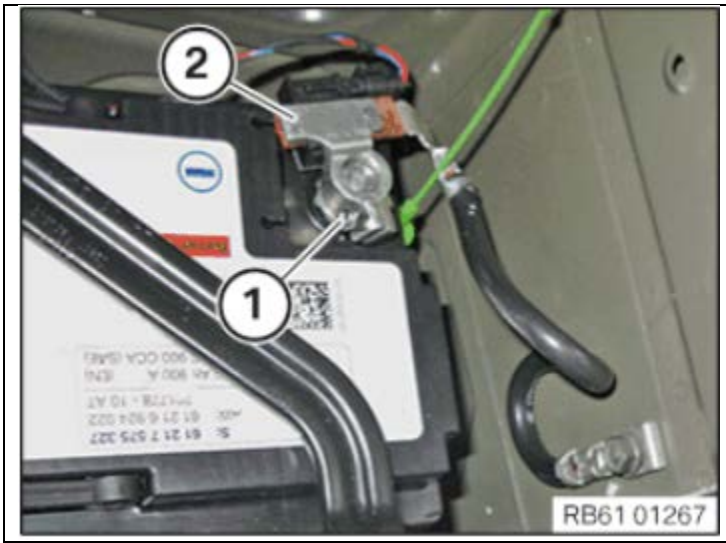
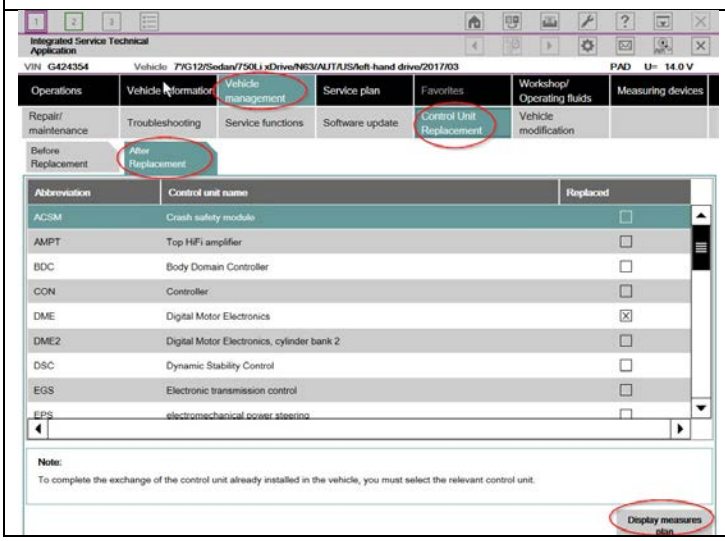
	2g. Attach protective cap and replace cable strap
	2h. Wrap the wiring harness with repair tape (P/N 61 13 6 920 760) up to the connector and reassemble.
3. Replace the partial wiring harness and the DME control module	
	3a.Reconnect A368*1B and 12V battery. Connect a BMW-approved battery/power supply (SI B04 23 10). Begin guided ECU replacement of the DME control unit using the latest version of ISTA Next. Disconnect Battery charger, 12V battery, and A358*1B. For an auxiliary battery: Reconnection and disconnect battery earth lead of auxiliary battery will be required.

	3b. Remove the cable strap (arrow) on both connector A368*1B and the repair harness.
	3c. Carefully remove the protective cap from the connector using a suitable tool on both connector A368*1B and the repair harness.
	Lift the two locking tabs up

	Slide the protective cap in the direction of the lock lever
	Lift the protective cap off the connector
	3d. Route the repair harness in the installation position (Repair Kit 61 12 8 793 506). Compare the wire positions and colors of connector A368*1B and the repair harness. Separate and insulate the individual wires which are not required in the new wiring harness section with the “natural colored” shrink tubing.

	3e. Using the supplied butt connectors, splice in the replacement wiring harness, one wire at a time, using the black shrink tubing. The splices should be staggered over a 4” area as shown. Caution: Wire colors may be duplicated in the wire harness. Verify the correct circuits are connected by comparing pin locations. Hint: NanoMQS Wire stripping tool SI B04 30 15 Universal Crimping Die SI B04 32 06
	3f. Wrap the wiring harness with repair tape (P/N 61 13 6 920 760) up to the connector.
	3g.Unlock all connectors (1) from front to back and unplug them from the DME control unit. Unlock and pull all connectors (2) off the power distribution box (PDM).

	3h.Unlock clamps (1) and remove the DME control unit (2) towards the top. Slide the replacement DME control unit (2) into the holder for the DME control unit and lock with the clamps (1).
	3i.Rout the repaired harness as shown and connect A368*1B.
	3j.Replace the cover of the DME control unit. Ensure the repaired harness is not pinched, rubbing on a sharp edge, and is fully covered by the DME control unit cover.

	3k.Connect battery earth lead with intelligent battery sensor (IBS) (2) to negative battery terminal. Tighten nut (1) to 5Nm.
	3l. Complete the guided replacemnet of the DME contol module using the latest version of ISTA Next. Note: Always connect a BMW-approved battery/power supply (SI B04 23 10)