

TECHNICAL BULLETIN
JTBO0372NAS2
12 AUG 2014



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NOTE: The information in Technical Bulletins is intended for use by trained, professional Technicians with the knowledge, tools, and equipment required to do the job properly and safely. It informs these Technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by 'do-it-yourselfers'. If you are not a Retailer, do not assume that a condition described affects your vehicle. Contact an authorized Jaguar service facility to determine whether this bulletin applies to a specific vehicle.

This reissue replaces all previous versions. Please destroy all previous versions. Only refer to the electronic version of this Technical Bulletin in TOPIx.

Changes are highlighted in gray

SECTION: 310-01

Fuel Tank Service Fix

AFFECTED VEHICLE RANGE:

S-TYPE (X200)

Model Year: 2005
VIN: N05049-N52047

Engine: V8 S/C 4.2L Petrol

MARKETS:

NAS

CONDITION SUMMARY:

Situation: Due to a change in design, the fuel tank has a new service part. Should the existing fuel tank require replacement, it will be necessary to perform a conversion so the new service part can be used. This conversion is only necessary once; for any possible future repairs to the fuel tank, only the affected components will require repair / replacement.

Cause: This is due to a change in fuel tank design.

Action: If fuel tank replacement is required, follow the Service Instruction outlined below.

PARTS:

C2Z29212	(Item 1) Fuel tank	Quantity: 1
C2D25079	(Item 2) Fuel pump	Quantity: 1
C2D25076	(Item 3) Flange	Quantity: 1
C2Z7361	(Item 4) Gasket	Quantity: 1
C2Z7352	(Item 5) Retaining ring	Quantity: 1
C2Z8500	(Item 6) Pipe - fuel feed	Quantity: 1
C2Z21711	(Item 7) Strap - tank LH	Quantity: 1
C2Z21684	(Item 8) Strap - tank RH	Quantity: 1
C2Z10210	(Item 9) Heatshield	Quantity: 1
C2Z4771	(Item 10) Hose - fuel filler	Quantity: 1
XR858662	(Item 11) Heat-sleeve	Quantity: 1
XR858628	(Item 12) Evaporator pipe	Quantity: 1
XR858660	(Item 13) Electronic control unit (ECU)	Quantity: 1
XR858670	(Item 14) Fuel tank harness	Quantity: 1
AAU5884J	(Item 15) Cable tie - 150mm (L) X 2mm (W)	Quantity: 8
C2C8870	(Item 16) M6 nut with flange	Quantity: 2

C2D13865	(Item 17) M5 nut with flange	Quantity: 2
XR858671	(Item 18) Cabin overlay wiring harness	Quantity: 1
	(Item 19) Suitable tape (to be sourced locally)	Quantity: 1
	(Item 20) Suitable adhesive (to be sourced locally)	Quantity: 1

TOOLS:

310-123



E80148

Remove/Install Locking Ring, Fuel Tank.
310-123

WARRANTY:

NOTE: Vehicles eligible for Safety Recall R176 must be repaired under that program.



NOTE: Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to TOPIx to obtain the latest repair time.



NOTE: DDW requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero.

DESCRIPTION	SRO	TIME (HOURS)	CONDITION CODE	CAUSAL PART
Fuel tank service fix	19.92.08	5.0	01	C2Z29212



NOTE: Normal Warranty policies and procedures apply.

SERVICE INSTRUCTION:

This Service Instruction is applicable to 4.2L Supercharged V8 vehicles ONLY. Refer to JTB00373 for 3.0L V6 / 4.2L naturally aspirated engine vehicles.




NOTE: Vehicles eligible for Safety Recall R176 must be repaired under that program.

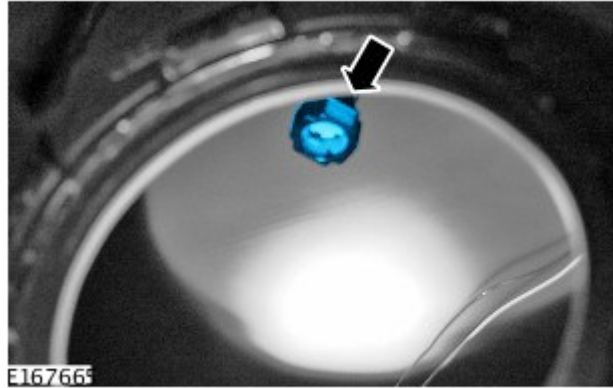


NOTE: Refer to Parts for 'Item' information.


1. Remove the rear seat cushion (see TOPIx Workshop Manual, Section 501-10).
2. Remove the rear seat right-hand bolster (see TOPIx Workshop Manual, Section 501-10).
3. Remove the floor aperture cover.
4. Remove the existing fuel tank assembly (see TOPIx Workshop Manual, Section 310-01).
5. Remove fuel tank supply pipe from existing tank assembly and retain for reinstallation.
6. Remove and discard the fuel tank heat shield.
7. Remove and discard the fuel tank securing straps.
8. Remove and discard the fuel filler link hose.

9.  **NOTE: To achieve correct reading on the Instrument Cluster, make sure to connect to the new fuel pump module. Failure to do this will give a false or incorrect reading on the Instrument Cluster.**

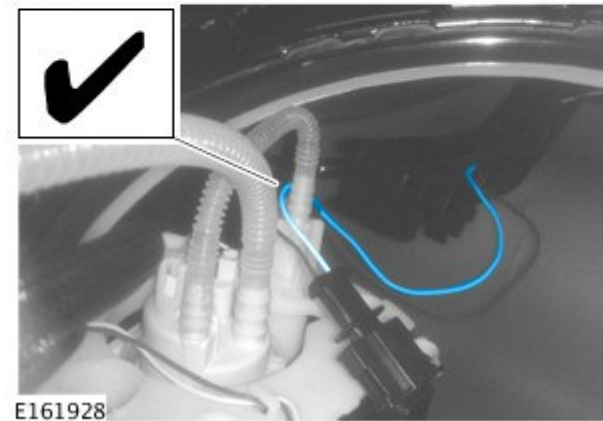
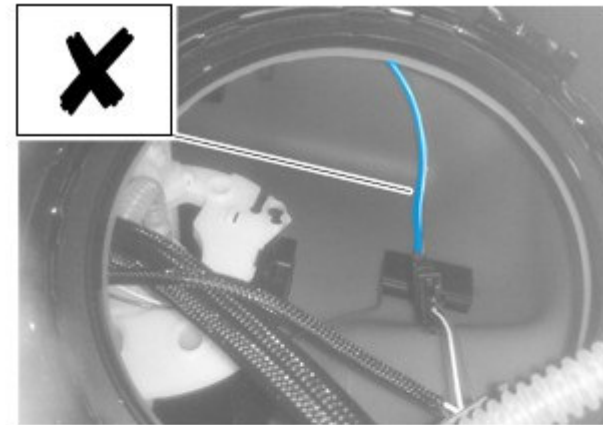
Install the new fuel pump (Item 2) to the new tank (Item 1).



10.  **NOTE: A new gasket MUST be installed (Item 4).**

 **NOTE: Note the route of the wiring harness when fitting the new fuel pump; failure to do this may give a false or incorrect reading on the Instrument Cluster.**

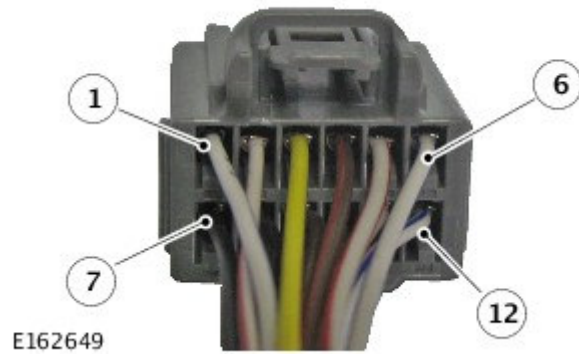
Connect the fuel pump wiring harness electrical connector to the flange electrical connector (Item 3).



11. Using special tool 310-123, secure fuel tank retaining ring (Item 5) to the fuel tank flange (Item 3).

12.  **NOTE: pin location as viewed from the rear of the electrical connector.**

Carry out a fuel tank sender unit resistance test.



E162649

13. Carry out an electrical test to make sure the fuel tank sender unit reads correctly.

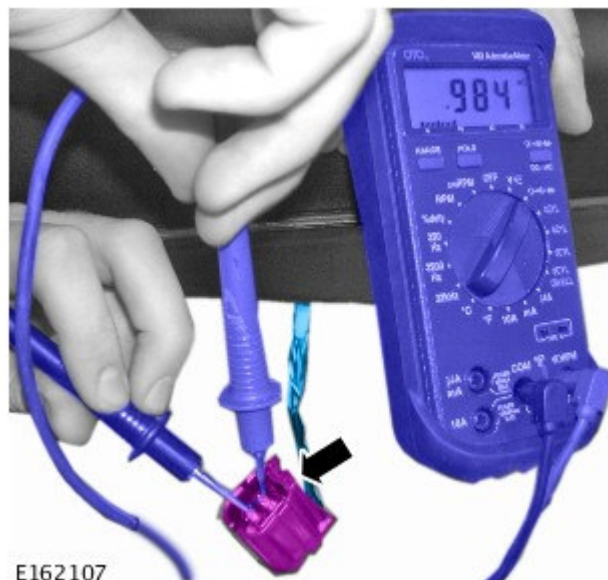
- Temporarily connect the wiring harness electrical connector to the fuel tank flange.
- Using a suitable multi-meter, check the resistance between pin 9 Brown/Red and pin 5 White/Red; approximately 50 Ohms with an empty tank.
- Using a suitable multi-meter, check the resistance between pin 9 Brown/Red and pin 6 White/Blue; approximately 50 Ohms with an empty tank.



E162106

14. Turn the tank upside down to fully extend the fuel level sender float.

15. Using a suitable multi-meter, check the resistance between pin 9 Brown/Red and pin 5 White/Red; approximately 984 Ohms with an empty tank.



E162107

16. Using a suitable multi-meter, check the resistance between pin 9 Brown/Red and pin 6 White/Blue; approximately 460 Ohms with an empty tank.

- Once the resistance checks have been completed, disconnect the fuel tank wiring harness connector from the fuel tank flange; this will be connected in step 60.

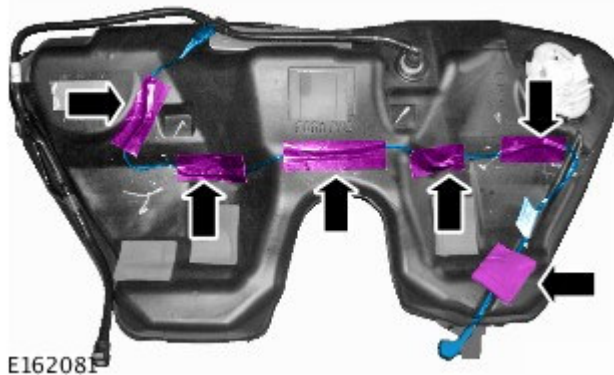


17. Install the new evaporator pipe (Item 12) to the new fuel tank (Item 1).

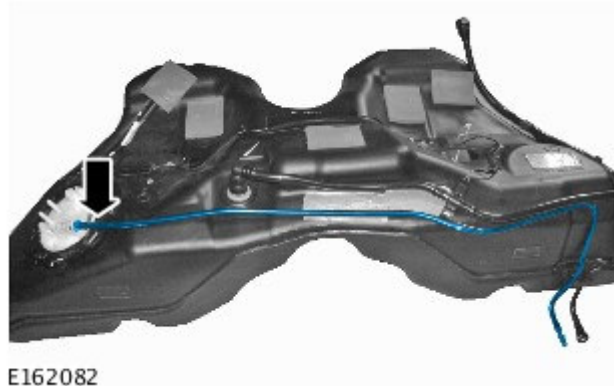


18. Install the new fuel tank wiring harness (Item 14).

- Using suitable tape (Item 19), secure the fuel tank wiring harness to the fuel tank (Item 14).

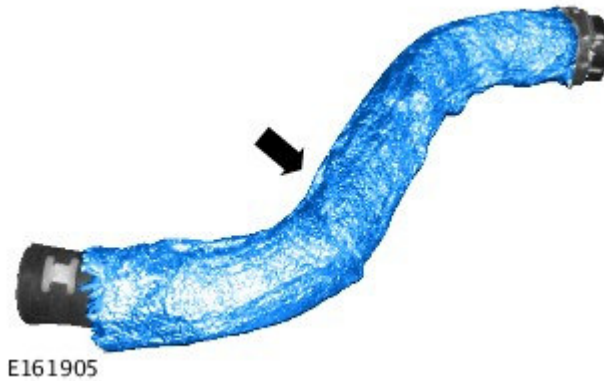


19. Install the existing fuel feed pipe to the new fuel tank (Item 1).



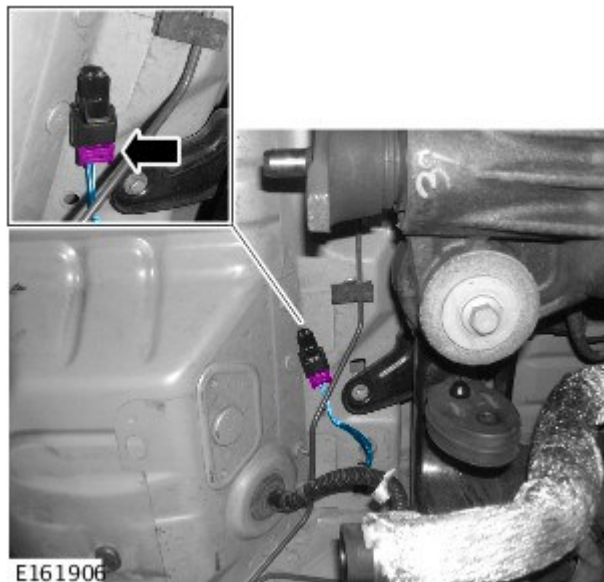
E162082

- 20.** Install heat sleeve (Item 11) over the fuel tank filler hose (Item 10).



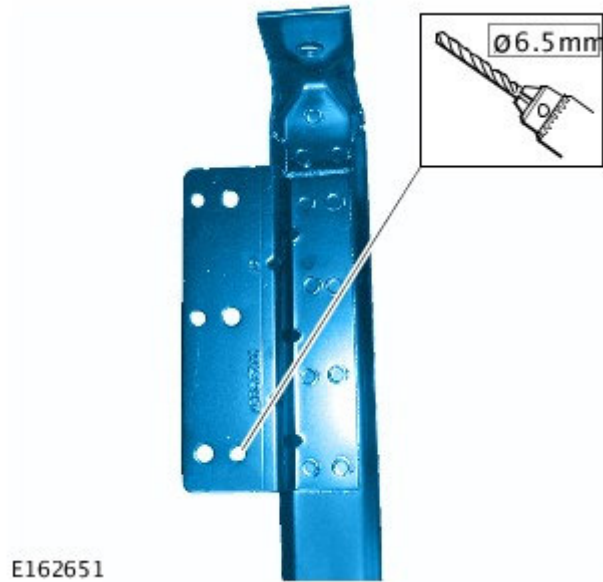
E161905

- 21.** Install the new fuel tank filler hose to fuel filler neck.
- 22.** Install harness blanking plug (supplied with item 14) to the existing redundant connector and secure to the body.

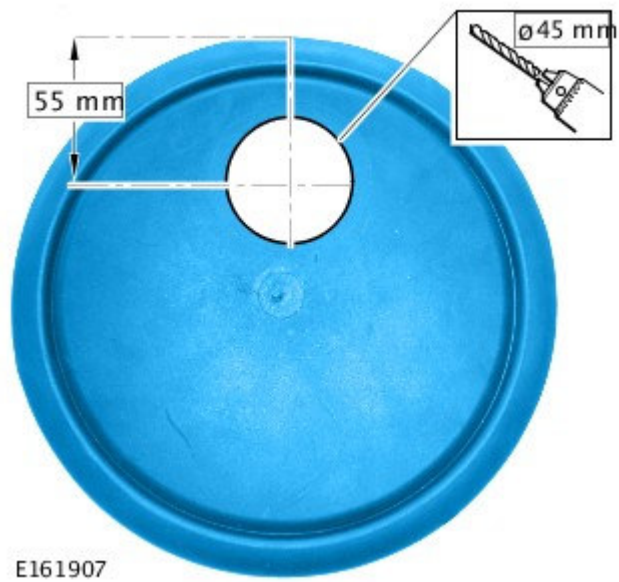


E161906

- 23.** Take the new fuel tank strap brackets (Items 7 and 8) and:
- using a suitable 6.5mm drill bit, drill the right-hand strap bracket (Item 8);
 - loosely fit both straps to the heelboard and allow to hang.



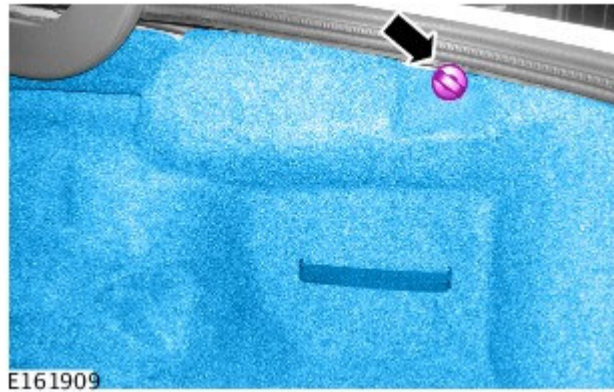
- 24. Install the new fuel tank heat shield (Item 9).
- 25. Using a suitable tool, make a hole 45mm in the floor aperture cover.



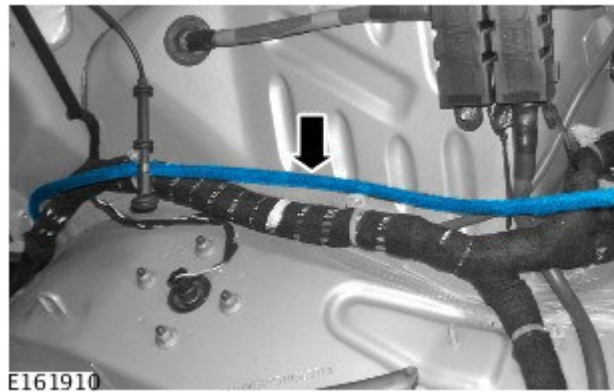
- 26. Remove the rear seat right-hand bolster bracket.



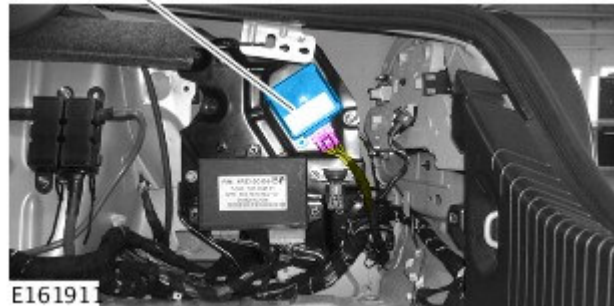
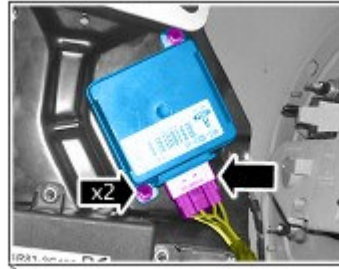
27. Remove the luggage compartment rear right-hand trim.



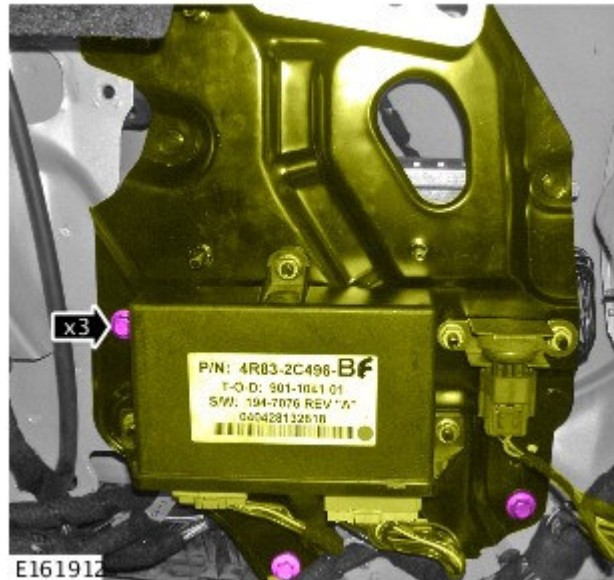
28. Position cabin overlay wiring harness loosely in position (Item 18).



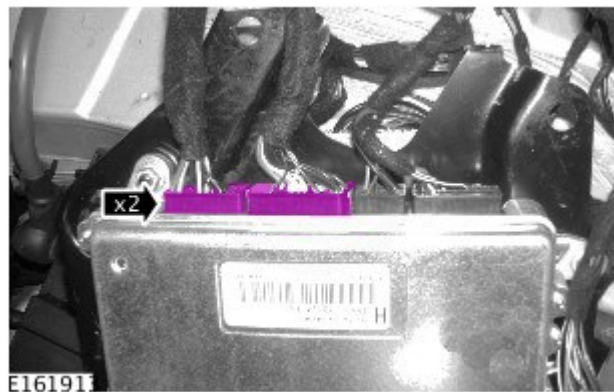
29. Remove the existing fuel pump ECU.



30. Remove for access the fuel pump ECU mounting bracket.




31. Disconnect the harness connectors from Rear Electronic Module (REM).



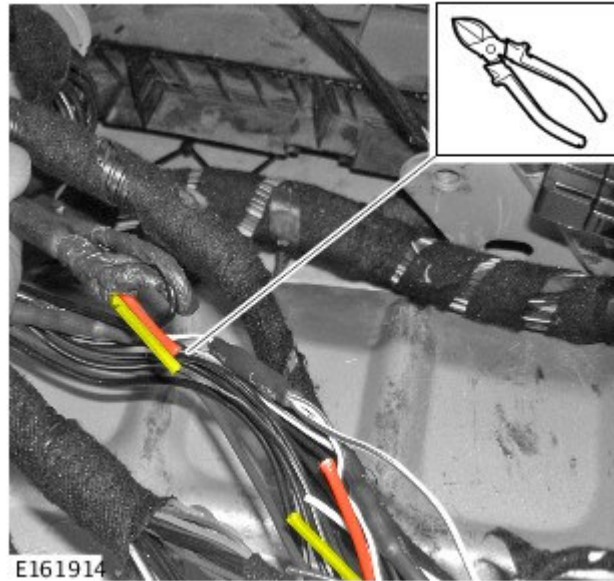
32. Splice new overlay harness to existing vehicle harness (see TOPIX Workshop Manual, Section 418-02).

- Carry out steps 32-46.

33.  **NOTE: Remove only a suitable amount of wiring harness insulation as required to access the wiring.**

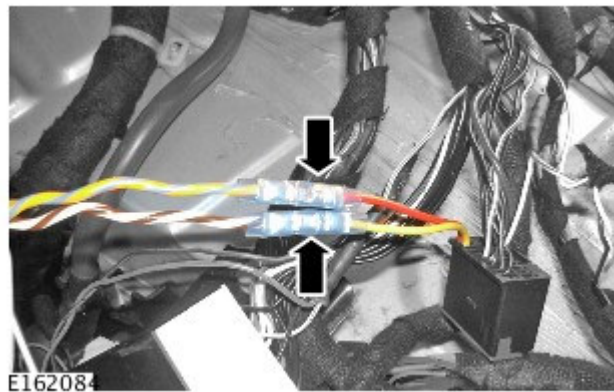
 **NOTE: Make the cut as close to the base as possible to give maximum length to carry out the splice.**

Cut Red wire (CA101 pin 11).



34. Using the supplied butt connector, connect the Red wire (CA101 pin 11) to the new overlay harness Grey/Yellow wire.

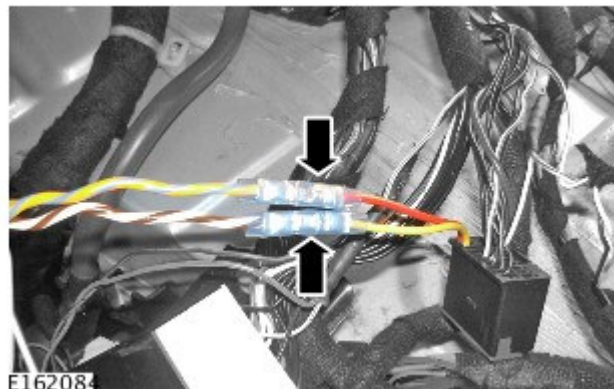
- Using a suitable tool, crimp the connector for Grey/Yellow to Red (pin 11 in CA101).



35. Cut Yellow wire (CA101 pin 12)

36. Using the supplied butt connector, connect the Yellow wire (CA101 pin 12) to the new overlay harness Brown/White wire.

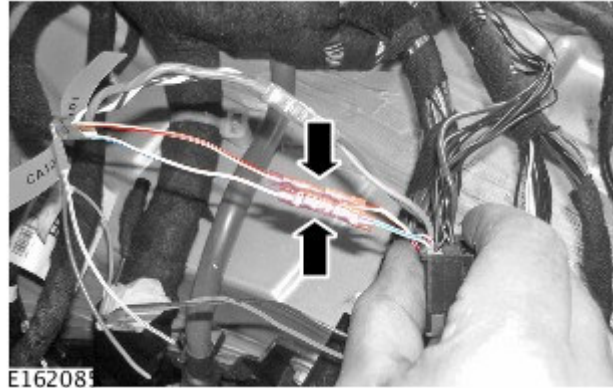
- Using a suitable tool, crimp the connector for Yellow to Brown/White (pin 12 in CA101).



37. Cut White/Red wire (CA101 pin 15).

38. Using the supplied butt connector, connect the White/Red wire (CA101 pin 15) to the new overlay harness White/Red (labeled for the CA101connector) wire.

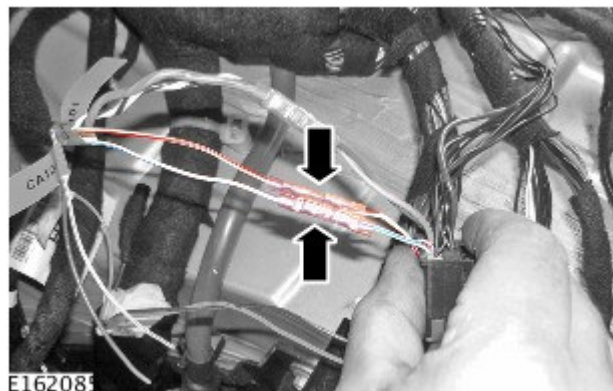
- Using a suitable tool, crimp the connector for White/Red to White/Red (pin 15 in CA101).



39. Cut White/Blue wire (CA101 pin 16).

40. Using the supplied butt connector, connect the White/Blue wire (CA101 pin 16) to the new overlay harness White/Blue (labeled for the CA101 connector) wire.

- Using a suitable tool, crimp the connector for White/Blue to White/Blue (pin 16 in CA101).



41. Cut Brown/Red wire (CA103 pin 23).

42. Using the supplied butt connector, connect the Brown/Red wire (CA103 pin 23) to the new overlay harness Brown/Red (labeled for the CA103 connector) wire.

- Using a suitable tool, crimp the connector for Brown/Red to Brown/Red (pin 23 in CA103).

43.  **NOTE: 'T' splice connection; both ends of the original harness must be connected to the overlay harness.**

Remove a section of insulation from the White/Blue wire (CA103 pin 19) to make a 'T' splice.

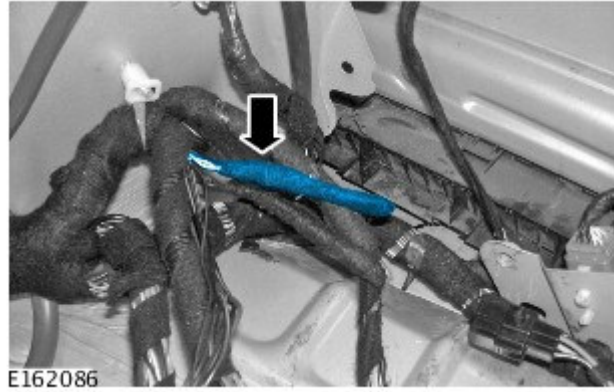
44. Remove a section of insulation from the White/Blue wire (CA103 pin 19) to make a 'T' splice.

45. Using the supplied butt connector, connect the White/Red wire (CA109 pin 19) in a 'T' splice to the new overlay harness White/Red (labeled for the CA103 connector) wire.

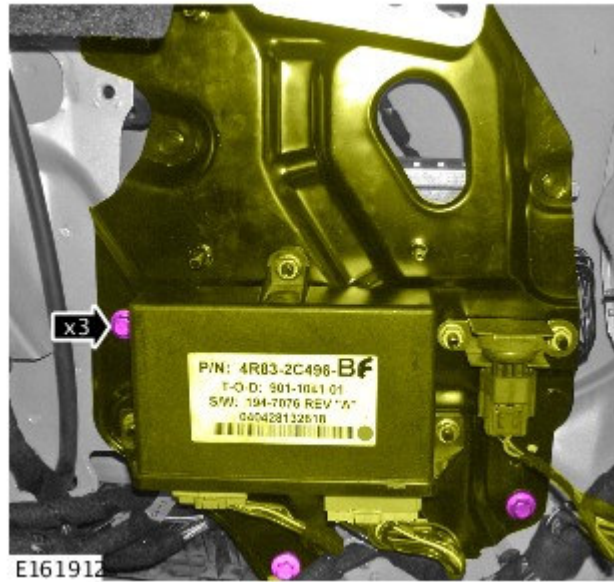
- Using a suitable tool, crimp the connector for White/Red to White/Red (pin 19 in CA103).



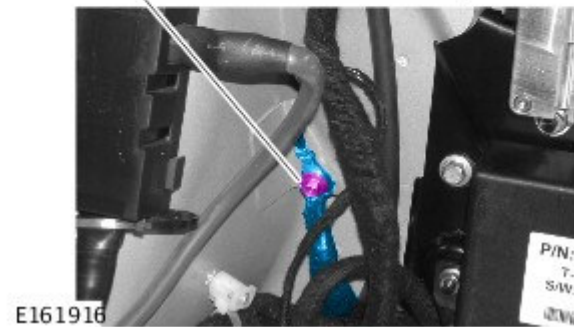
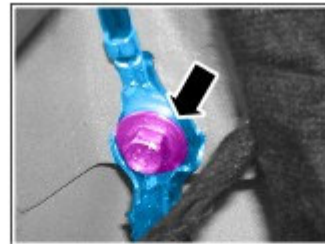
- 46. Using suitable electrical tape, insulate the wiring harness and position the wiring harness to one side.



- 47. Install the fuel pump ECU mounting bracket.



- 48. Connect ground lead from overlay harness (Ground C156).

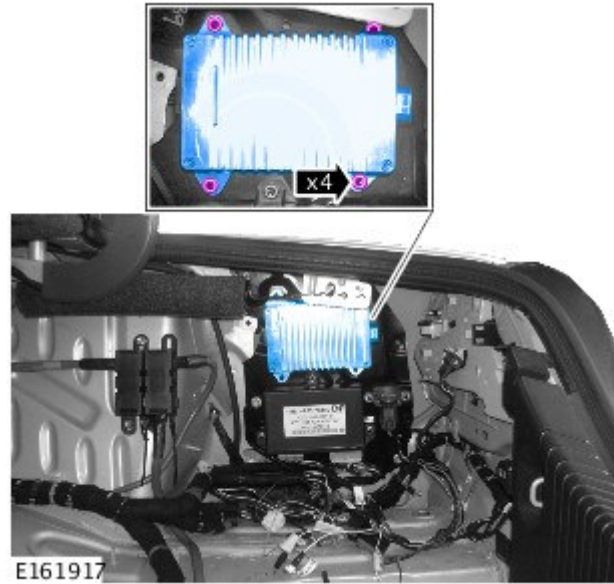


- 49.  **NOTE: Fixings are different sizes 5mm**

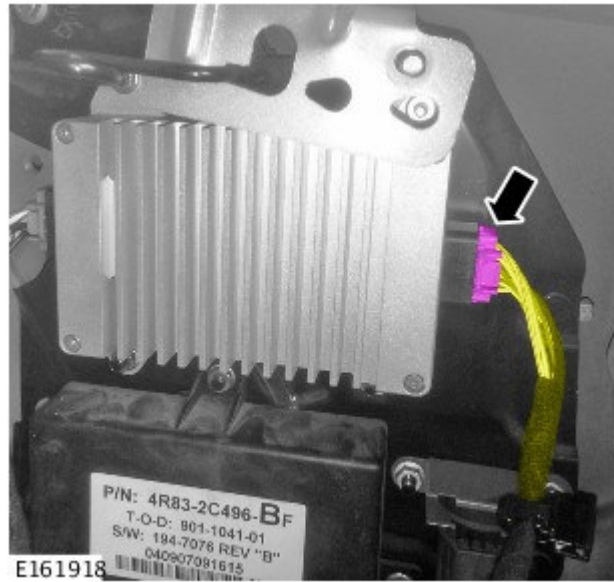
and 6mm.

Install new ECU module.

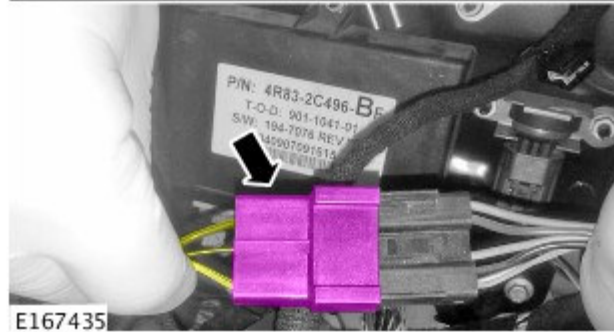
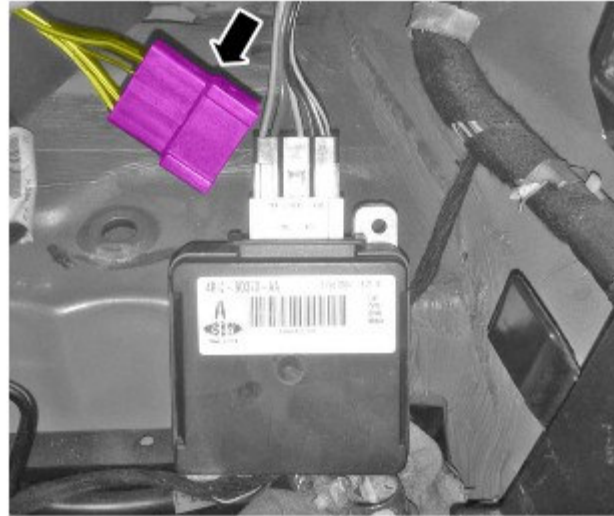
- Secure using 2 x M5 nuts (Item 17) and 2 x M6 nuts (Item 16).
- Torque to 5Nm.



50. Connect Link harness to the new fuel pump ECU (Item 18).



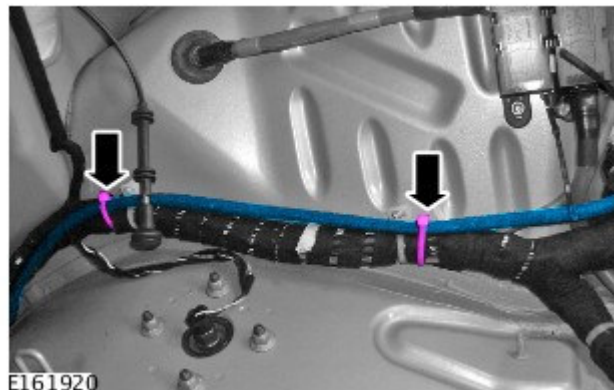
51. Connect Link harness (male connector) to the original fuel pump ECU harness connector (CA283).



52. Make sure that all of the harnesses are secured.



53. Using suitable cable ties (Item 15), install the cabin overlay wiring harness (Item 18).



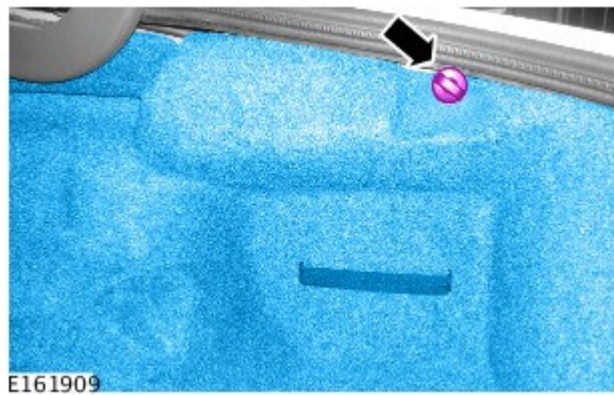
54. Install the rear seat right-hand bolster bracket.


- Torque to 11Nm



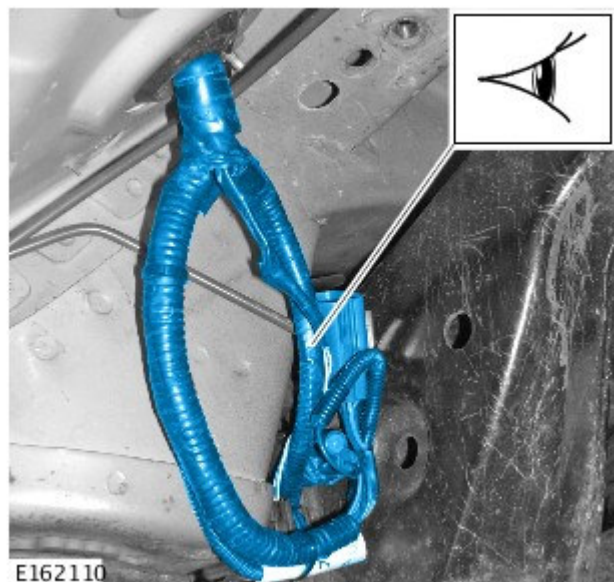
55. Install the rear seat right-hand bolster (see TOPIX Workshop Manual, Section 501-10).

56. Install the luggage compartment rear right-hand trim.

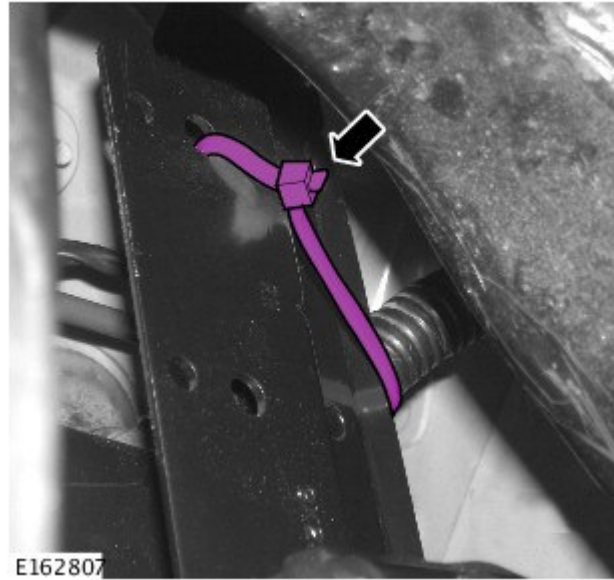


57.  **NOTE: Position the wiring harness to one side prior to the installation of the new fuel tank.**

Install fuel tank (see TOPIX Workshop Manual, Section 310-01).



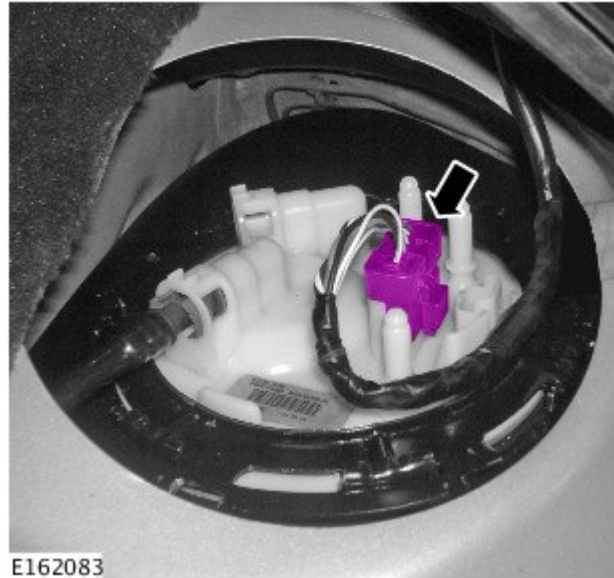
- 58.** Using a suitable cable tie (Item 15), secure the existing vehicle harness to the right tank strap bracket (Item 8).



- 59.** Secure the electrical connectors to the right tank strap bracket (Item 8).



- 60.** Connect the fuel tank sender unit electrical connector to the fuel tank sender unit.



61. Install overlay wiring harness and wiring harness grommet to floor aperture cover.

- Using a suitable adhesive (Item 20), glue the wiring harness grommet to the floor aperture cover.



62. Install the rear seat cushion (see TOPIX Workshop Manual, Section 501-10).

63. Add fuel to the fuel tank and confirm fuel pump and fuel gauge operation.