

2004-2008 RX-8 - REPAIR PROCEDURE RECALL 0516J

RECALL NOTE

- The REPLACEMENT PROCEDURE was revised on 02/22/17.
- Changes are noted below in red beside the change bar.

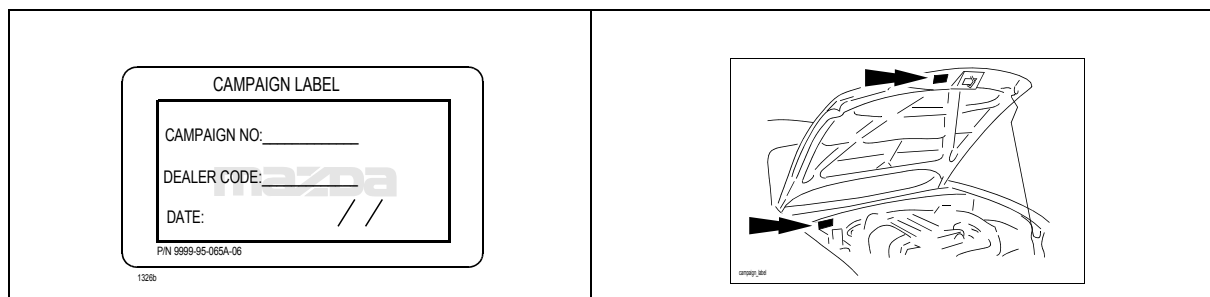
A. VEHICLE INSPECTION PROCEDURE

1. Verify that the vehicle is within the following range:

Model Year	VIN Range	Build Date Range
2004-2008	JM1 FE**** 40 100053 – 140891	From April 10, 2003 through February 18, 2008
	JM1 FE**** 50 140892 – 161178	
	JM1 FE**** 60 200012 – 207471	
	JM1 FE**** 70 207473 – 214011	
	JM1 FE**** 80 214012 – 216619	

- If the vehicle is within the above range, proceed to Step 2.
 - If the vehicle is not within the above range, return vehicle to the customer or inventory.
2. Perform a Warranty Vehicle Inquiry using your eMDCS System and inspect vehicle for Campaign Labels **Recall 0516J** attached to the vehicle's hood or bulkhead. Refer to eMDCS System - Warranty Vehicle Inquiry Results table below.

NOTE: Be sure to verify Recall number as the vehicle may have multiple Recall labels.



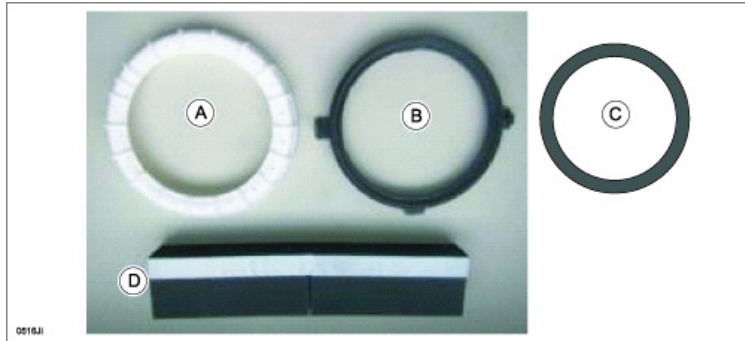
eMDCS System - Warranty Vehicle Inquiry Results:

If eMDCS displays:	Campaign Label is:	Action to perform:
RECALL 0516J OPEN	Present	Contact the Warranty Hotline at (877) 727-6626 option 3 to update vehicle history.
	Not present	Proceed to "B. REPAIR PROCEDURE".
RECALL 0516J CLOSED	Present	Return vehicle to inventory or customer.
	Not present	Complete a label and apply to vehicle's hood or bulkhead.
RECALL 0516J is not displayed	Does not apply	Recall does not apply to this vehicle. Return vehicle to inventory or customer.

B. FUEL PUMP RING REPLACEMENT PROCEDURE

(PARTS INFORMATION)

Use Kit (F1Y1-42-A1X) containing the following parts:



	Part Name	Number of Pieces
A	Fuel Pump Ring	2
B	Retainer	2
C	Fuel Pump Gasket	2
D	Heat Insulation Pad	2

(TOOL INFORMATION)

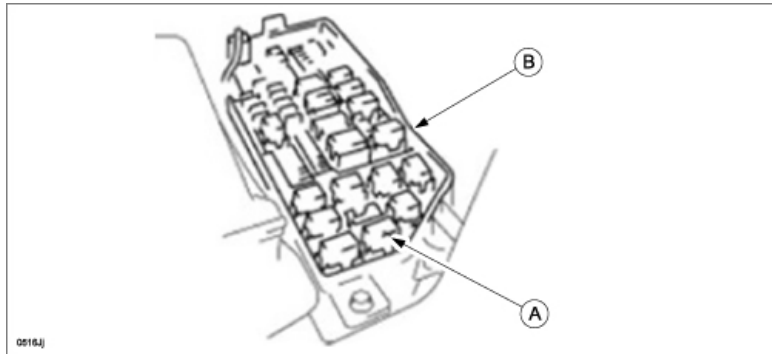
	Tool Name	Number of Pieces	
A	Fuel Pump Ring Wrench	1	

WARNING:

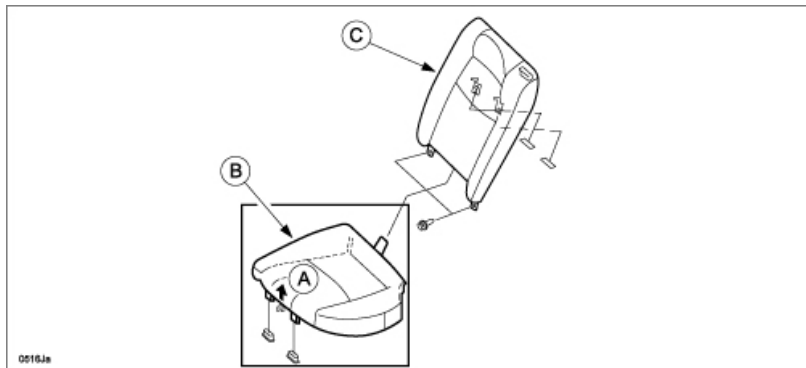
- Fuel is extremely flammable. Always keep sparks and flame away from fuel. Ignition may cause death or serious injury, or damage to equipment.
- Fuel line spills and leakage from the pressurized fuel system are dangerous. Fuel can ignite and cause serious injury or death and damage.
- Fuel can irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure".
- A person charged with static electricity could cause a fire or explosion, resulting in death or serious injury. Before performing work on the fuel system, discharge static electricity by touching the vehicle body.

CAUTION: If there is foreign material on the connecting area of the quick release connector, it might damage the connector or fuel pipe. When the quick release connector has been disconnected, clean the connecting area before reconnecting it to prevent damage.

1. Perform the fuel line safety procedure.
 - a. Remove the fuel-filler cap to release the pressure inside the fuel tank.
 - b. Remove the fuel pump relay (A) from the main fuse block (B).



- c. Start the engine.
 - d. After the engine stalls, crank the engine several times.
 - e. Turn the ignition switch to the LOCK position.
 - f. Install the fuel pump relay.
2. Remove the rear seat cushion (both right and left sides). Lift the front edge (A) of the rear seat cushion (B) in the direction of the arrow, leaving the rear seat back (C) in place.

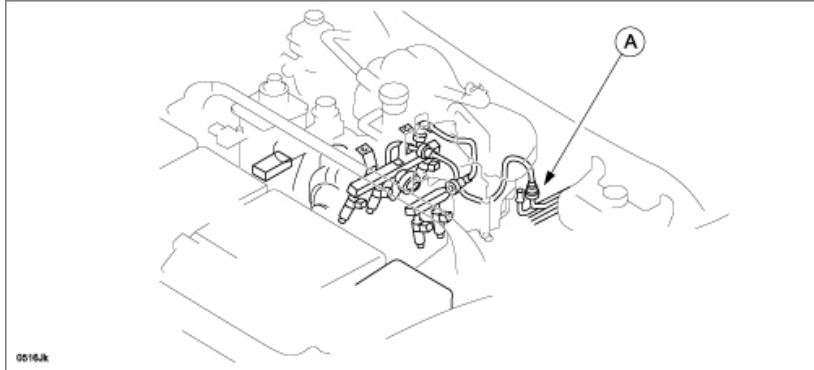


3. Remove the service hole cover.
4. Check the fuel gauge indication. If the fuel gauge indicates less than 1/4, go to step 6.
5. Drain fuel from the fuel tank (only when the fuel gauge indicates 1/4 or more).

CAUTION: When the fuel gauge indicates 1/4 or more, the fuel level is higher than the installation surface of the fuel pump and the fuel suction pipe bracket. Due to this condition, fuel may spill or leak out when performing the next steps. Therefore, make sure to drain fuel out until the fuel tank becomes less than 1/4 full (according to the fuel gauge indication).

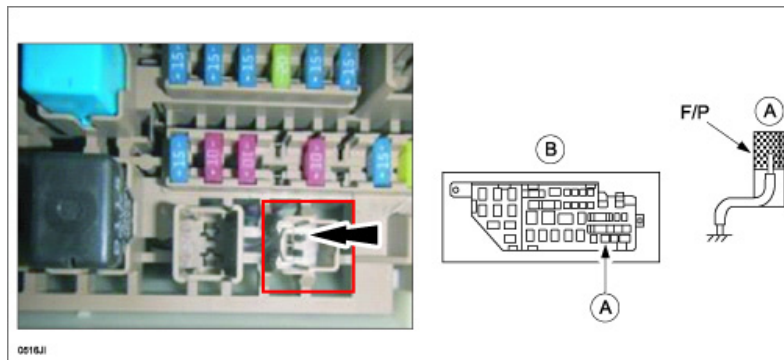
WARNING: A person charged with static electricity could cause a fire or explosion, resulting in death or serious injury. Before draining fuel, make sure to discharge static electricity by touching the vehicle body

- a. Disconnect the quick release connector (A) in the engine compartment.



- b. Attach a long hose to the disconnected fuel pipe and drain the fuel into a proper fuel receptacle.
c. Ground the check connector (A) terminal F/P in the main fuse block (B) to the body using a jumper wire.

CAUTION: Shorting the wrong terminal of the check connector may cause electrical malfunctions. Make sure to short only the specified terminal.



- d. Turn the ignition switch to the ON position and operate the fuel pump.

CAUTION: The fuel pump may malfunction if it is operated without any fuel in the fuel tank (fuel pump idling). Constantly monitor the amount of fuel being discharged and immediately stop operation of the pump when barely any fuel is being discharged.

- e. When no fuel is barely being discharged from the hose, turn the ignition switch to the LOCK position.

NOTE: When operating the fuel pump with a full fuel tank, fuel discharge will become erratic after approximately 10 min, but will continue for approximately 10 min more (and barely any fuel will be discharged). At this time the fuel gauge needle will be at the 1/4 position.

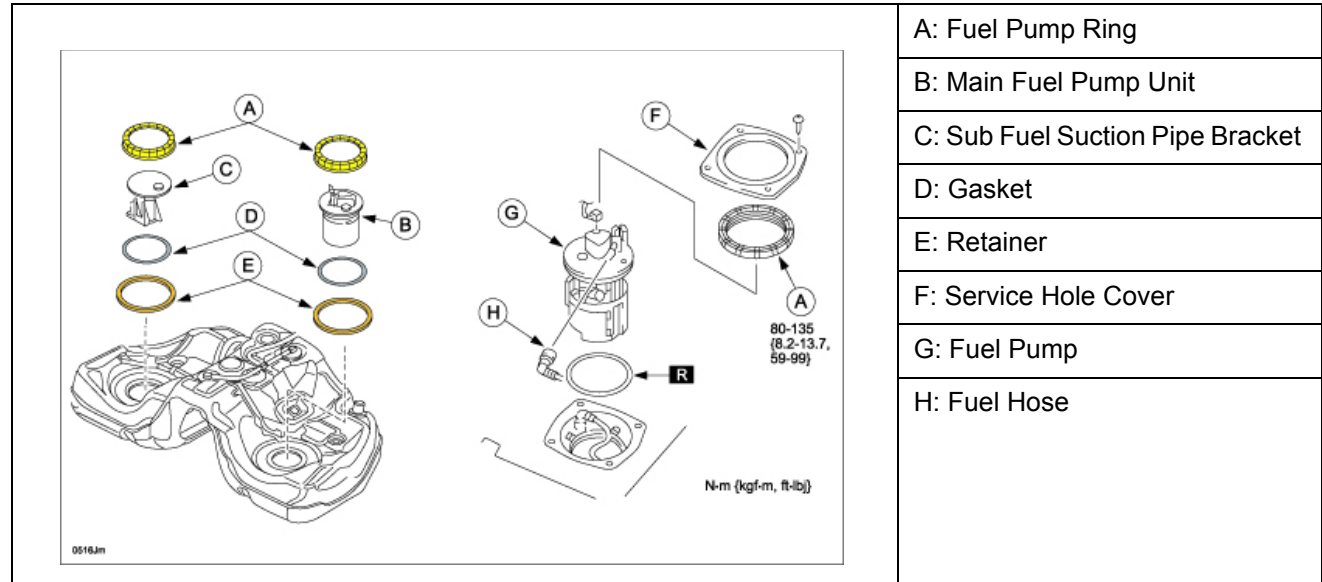
- f. Disconnect the jumper wire.

6. Disconnect the negative battery cable.

7. Replace the fuel pump ring with a modified one and the gasket and retainer with new ones.

CAUTION: DO NOT LEAVE THE FUEL TANK FOR A LONG TIME IN CONDITION THAT THE FUEL PUMP RING IS NOT INSTALLED. If the fuel tank is left for a long time without the fuel pump ring installed, the shape of the fuel tank where the fuel pump ring is installed could be deformed from swelling, making it difficult to install the fuel pump ring. Therefore, install a new one immediately after removing the old fuel pump ring. To complete the replacement in a short time:

- Place the replacement parts near the vehicle
- Complete the replacement at one side before proceeding to other side

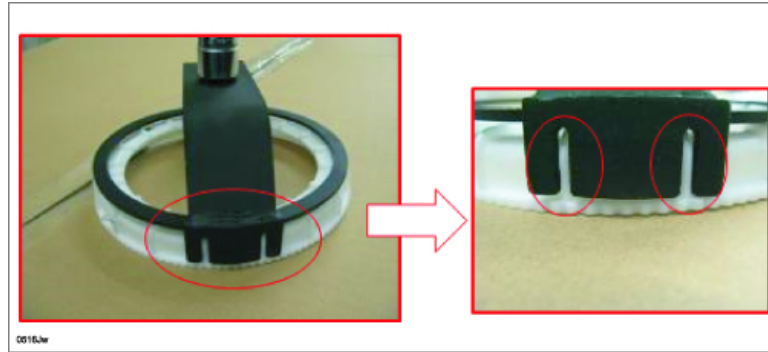


Main side (Fuel pump unit side)

- a. Disconnect the connector.
- b. Disconnect the quick connector (fuel hose).
- c. Remove the fuel pump ring using SST (Fuel Pump Ring Wrench).

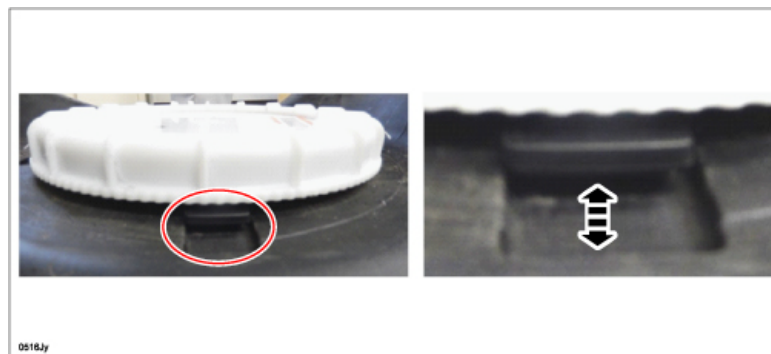


NOTE: Fit the groove of the SST into the rib of the fuel pump ring.



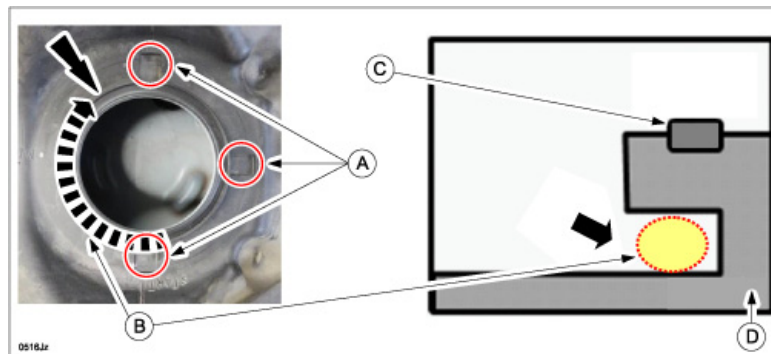
CAUTION:

- The fuel pump ring could be damaged if the SST is used with any play between the fuel pump ring and the SST. Securely attach the SST so that there is no gap between the SST tabs and the side of the fuel pump ring.
- The fuel suction pipe might be damaged, if the fuel pump unit is lifted too much. Make sure to lift the pump only a small amount.
- **When removing the fuel pump ring, be careful to not let the retainer lift up. Otherwise, they will rotate together and the fuel pump ring will not be able to be removed.**



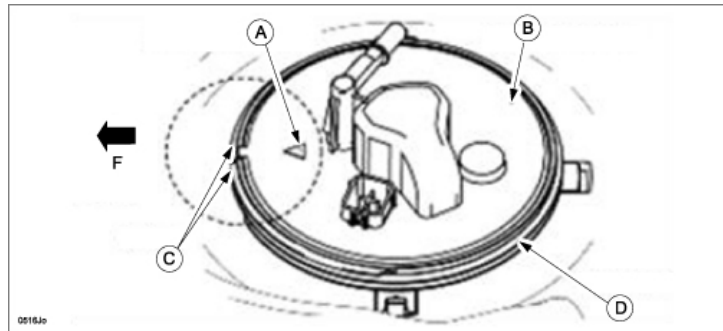
- d. Replace the **Main Fuel Pump assembly (B)**, retainer and gasket with new ones.

CAUTION: Before installing the retainer, clean up the retainer fixing (A) / installing portions (B) of the fuel tank where sand or dust can accumulate. (C=Gasket, D=Fuel Tank)

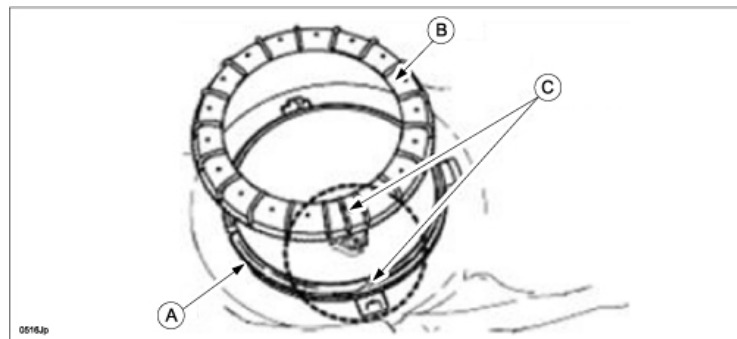


e. Install the modified fuel pump ring.

1. Align the alignment mark (B) on the fuel pump unit (A) with the notch (C) on the retainer (D) as shown.



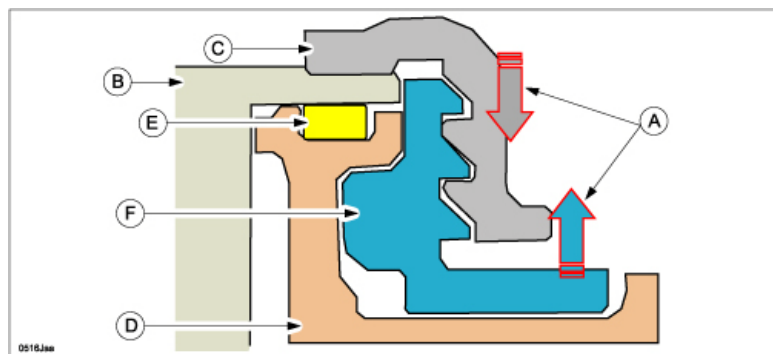
2. Align the positions of the retainer (A) and fuel pump ring (B) as shown (C), and tighten them one full rotation by hand.



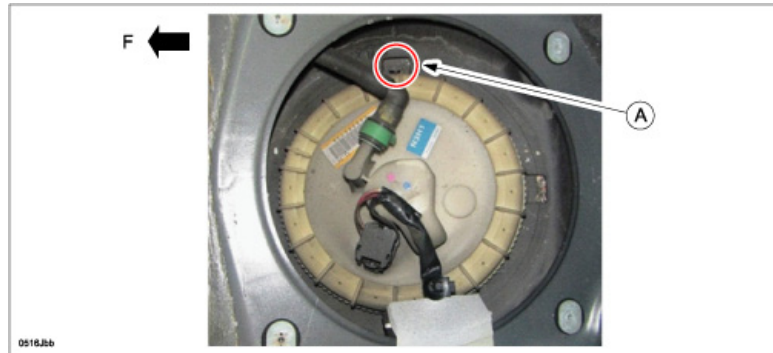
NOTE: If the retainer and fuel pump ring cannot be tightened by hand, remove the fuel pump ring, verify that there is no damage or misalignment on the retainer and fuel pump ring, and then tighten again.

CAUTION:

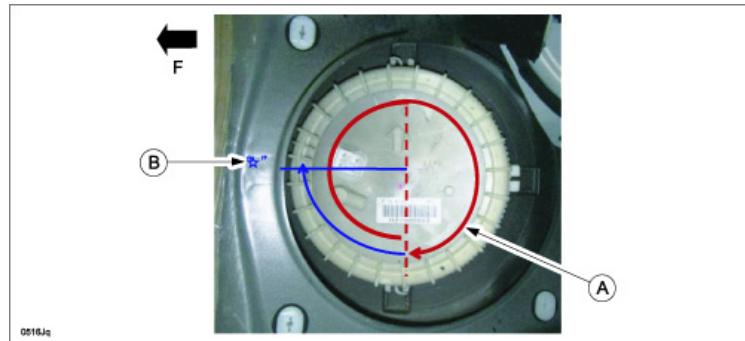
- The fuel pump ring could be damaged if the SST is used with any play between the fuel pump ring and the SST. Securely attach the SST so that there is no gap between the SST tabs and the side of the fuel pump ring.
- **When tightening the fuel pump ring, DO NOT let the retainer lift up (A). If the retainer comes off from the fixing portions, the retainer spreads, the threads jams, and it reaches the specified torque before rotating to the specified position “*”.**
(B=Fuel Pump Unit, C= Fuel Pump Ring, D=Fuel Tank, E= Gasket, F=Retainer)



The fixing portion (A) can lift up easily.

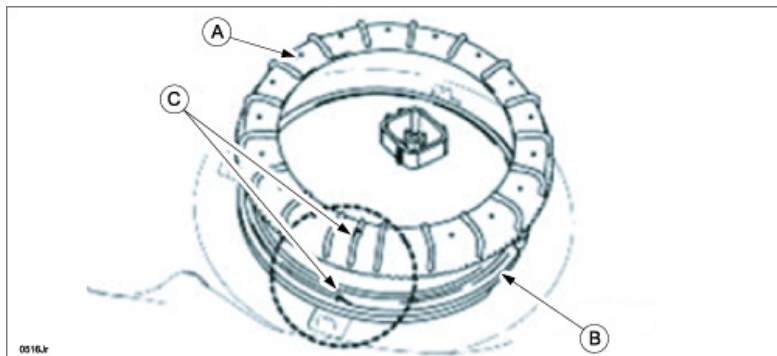


3. While keeping the alignment mark and the retainer notch aligned, tighten the fuel pump ring to the rotation angle (50-140 degrees) and specified torque (80-135 Nm, 8.2-13.7 kgfm, 59-99 ft lbf) using the SST. Total angle for step 2 and step 3 is 410-500 degrees: One full rotation (A) and tighten so the start position (3 ribs) comes to the star mark (B) using the SST (F=front of vehicle).



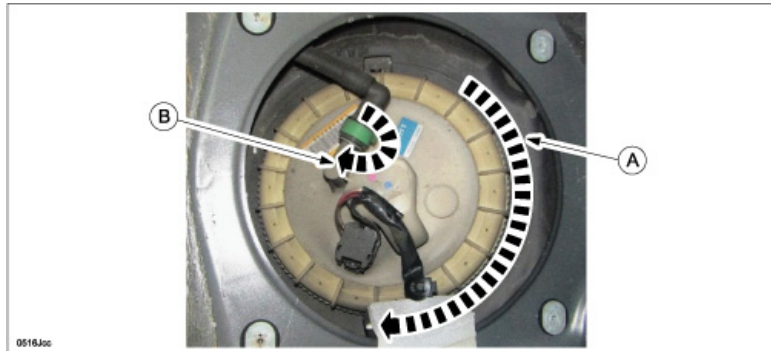
Sub side

- a. Disconnect the connector.
- b. Remove the fuel pump ring (A) using SST.
- c. Replace the retainer (B) and gasket with new ones.

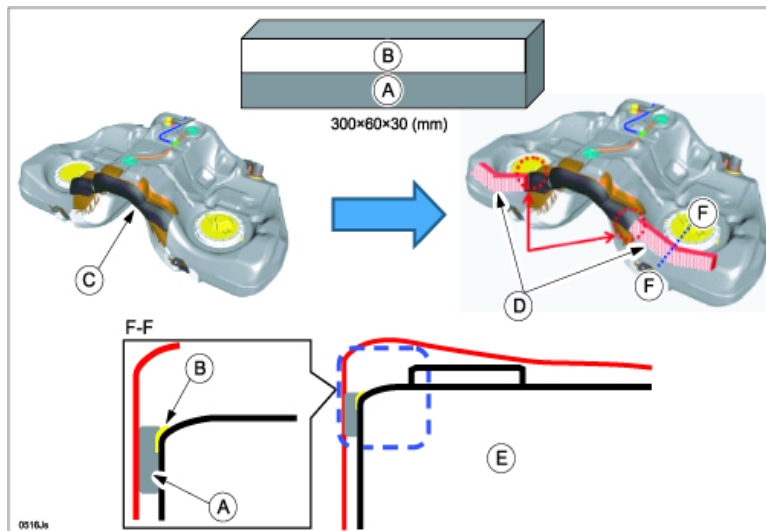


- d. Install the modified fuel pump ring with the same procedure as the main side (aligning the positions of the fuel pump ring (A) and retainer (B) as shown (C)).

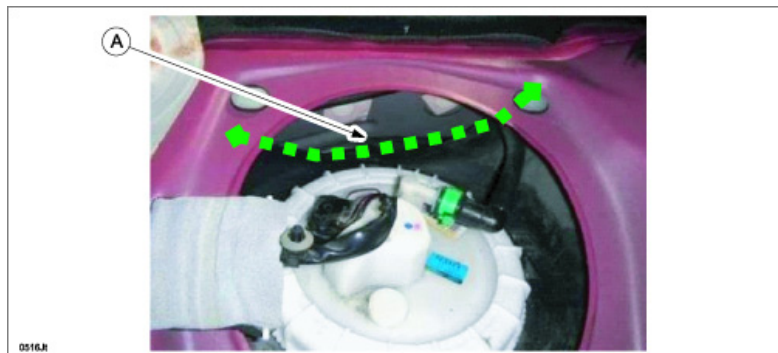
8. *****IMPORTANT***** Perform "Fuel Leak Inspection" after the fuel pump unit installation.
 - a. Start driving the vehicle from a standstill or brake suddenly 5 to 6 times at a low speed.
 - b. Stop the vehicle and verify from inside the vehicle that there is no fuel leakage around the fuel ring (A) and quick connector (B).



9. Attach two heat insulation pads (A) with tape (B) to the fuel tank (E) on either side (D) of the existing pad (C).



- a. Clean the fuel tank where the pad will be attached (A).



- b. Remove the backing tape and attach the pad to the fuel tank as shown.

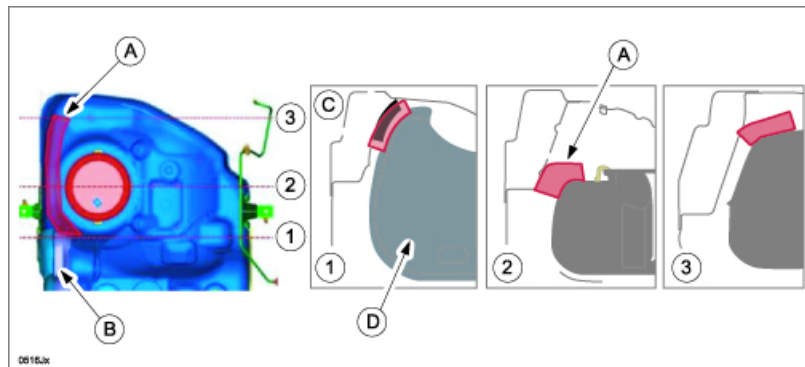
NOTE:

- Attach the pad so it connects without clearance to the existing pad in the central portion of the fuel tank.
- Attach the pad onto the tank without clearance between the body and the tank.
- After attaching the pads, confirm that the tape is stuck securely.



Attach the new pads (A) with the existing pad (B) as follows.

1	Attach the pad to the existing pad in the central portion of the tank.
2	Attach the pad between the body (C) and the fuel tank (D) so that there is no clearance between the body and the fuel tank.
3	



- c. Attach the pad on the sub side repeating steps a and b.
10. Install the service hole cover with four (4) screws.
11. Install the rear seat cushion.
12. Refill the fuel tank with any removed fuel.

C. CAMPAIGN LABEL INSTALLATION

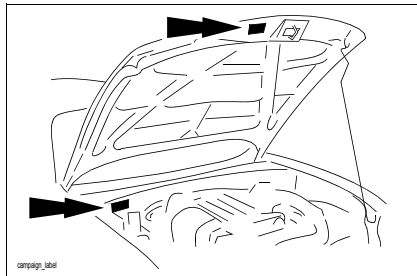
1. Fill out a blue "Campaign Label" (9999-95-065A-06) with Campaign No: "0516J", your dealer code, today's date.

CAMPAIGN LABEL	
CAMPAIGN NO:	_____
DEALER CODE:	_____
DATE:	__ / __ / __

P/N 9999-95-065A-06

1328b

2. Affix it to the hood or bulkhead as shown:



campaign_label

3. Return the vehicle to customer.