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TO: All Mazda Dealership General Managers, Service and Parts Managers

DATE: December 2016

**SUBJECT: 2004-2008 RX-8 - Fuel Leak at Fuel Pump Rings
Safety and Emission Recall 0516J**

Mazda Motor Corporation has decided that a defect which relates to motor vehicle safety exists in certain 2004-2008 RX-8 vehicles produced from April 10, 2003 through February 18, 2008.

On the fuel tank of certain RX-8 vehicles, the resin fuel pump rings, which are located on the top surface of the fuel tank, may deteriorate by heat from the engine and exhaust pipes due to insufficient heat insulating performance. Continuous use of the vehicle may allow the deterioration to progress, leading to a crack in the fuel pump rings and subsequent fuel leak, which may increase a risk of fire.

The purpose of this recall is to replace the fuel pump rings with new ones and install heat insulation pads onto the fuel tank. However, due to limited availability of repair parts, inspection of the fuel pump rings will be performed first and Not OK vehicles will be immediately repaired. The owners of OK vehicles will be asked to wait until repair parts are available and they will receive a second notification as soon as the parts are ready.

Owners of affected vehicles will be notified of this recall by first class mail beginning December 23, 2016.

Important Emission Notice: California Department of Motor Vehicles and the Commonwealth of Massachusetts, in conjunction with the California Air Resources Board and the Environmental Protection Agency for the State of Massachusetts, have implemented the Registration Renewal/Recall Tie-In Program, which requires the completion of Emission Recalls prior to registration renewal. Mazda dealers must provide customers a Vehicle Emission Recall – Proof of Correction Certificate (p/n 9999-95-ERPC-99 available in MStore) upon completion of the recall. Instruct customers to keep the certificate until needed for registration renewal

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Important Safety Notice: The National Traffic and Motor Vehicle Safety Act prohibits the delivery of any subject vehicle without performing the necessary repair for defects or failures. Failure to perform applicable recalls before delivery can result in extensive dealer fines and penalties from the Federal Government. Therefore, you must complete this recall for all affected vehicles in your inventory prior to delivery.

To help you effectively perform this recall, Mazda has developed the following resources:

1. Parts and warranty information and repair procedure documents are available on eMDCS and MS3 (Mazda Service Support System) websites via MXConnect.
2. For technical assistance, contact the Technical Assistance Hotline at (888) 832-8477, Option 3.
3. For warranty questions, contact the Warranty Hotline at (877) 727-6626, Option 3.
4. For parts questions, contact the Corporate Dealer Assistance Group at (877) 727-6626 Option 2.

Please make certain the appropriate personnel in your dealership are aware of these resources and are familiar with the details of this recall before responding to customer inquiries.

We apologize for any inconvenience this recall may cause you and your customers. Your understanding and support in carrying out this campaign is greatly appreciated.

Because Driving Matters, Safety Matters. Your Safety is Important to Mazda.

Sincerely,

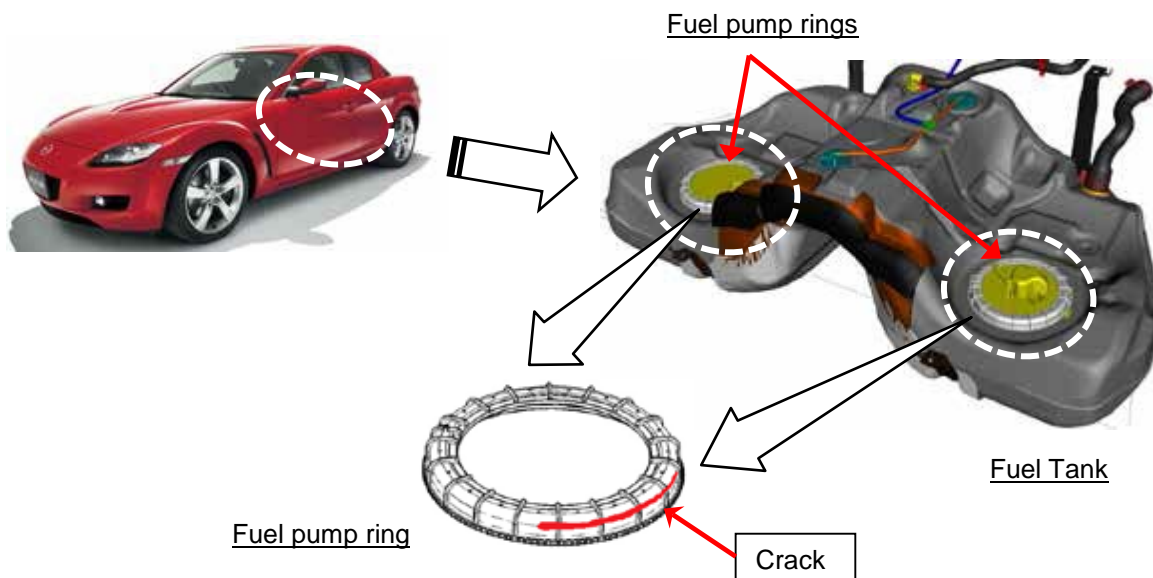
A handwritten signature in black ink, appearing to read 'A. Ikemoto', with a stylized flourish at the end.

Akira Ikemoto

Director, Technical Services Division
Mazda North American Operations

CONDITION OF CONCERN

On the fuel tank of certain RX-8 vehicles, the resin fuel pump rings, which are located on the top surface of the fuel tank, may deteriorate by heat from the engine and exhaust pipes due to insufficient heat insulating performance. Continuous use of the vehicle may allow the deterioration to progress, leading to a crack in the fuel pump rings and subsequent fuel leak, which may increase a risk of fire.



SUBJECT VEHICLES

Model	Subject VIN range	Subject production date range
2004-2008 RX-8	JM1 FE**** 40 100053 – 140891 JM1 FE**** 50 140892 – 161178 JM1 FE**** 60 200013 – 207471 JM1 FE**** 70 207473 – 214011 JM1 FE**** 80 214012 – 216619	From April 10, 2003 through February 18, 2008

The asterisk symbol “*” can be any letter or number.

OWNER NOTIFICATION

Mazda will notify U.S. owners by first class mail beginning December 23, 2016.

PARTS INFORMATION

Description	Part number	Quantity	Notes
Pump ring set	F1Y1-42-A1X	1	Components: Fuel pump rings (2) Retainers (2), Gaskets (2) Heat insulation pads (2)
Campaign Label	9999-95-065A-06	1=50 labels	Obtain in Mazda e-Store (no charge)
Vehicle Emission Recall Proof of Correction Certificate *	9999-95-ERPC-99	1=50 certificates	

PARTS AND WARRANTY INFORMATION
Safety and Emission Recall 0516J

* California Department of Motor Vehicles and the Commonwealth of Massachusetts, in conjunction with the California Air Resources Board and the Environmental Protection Agency for the State of Massachusetts, have implemented the Registration Renewal/Recall Tie-In Program, which requires the completion of Emission Recalls prior to registration renewal. Mazda dealers must provide customers a **Vehicle Emission Recall – Proof of Correction Certificate** (p/n 9999-95-ERPC-99) upon completion of the recall.

WARRANTY CLAIM PROCESSING INFORMATION

	Only inspection of fuel pump rings
Process Number	AG025A
Symptom Code	99
Damage Code	99
Part Number Main Cause	7777-SP-M23
Quantity	0
Labor Operation Number	XXMAAXCX
Labor Hours	0.3 hrs.

	Inspection & Fuel pump rings replacement & Pads installation	Inspection & Fuel pump rings replacement & Pads installation (Includes fuel extraction)
Process Number	AG025B	AG025B
Symptom Code	99	99
Damage Code	99	99
Part Number Main Cause	F1Y1-42-A1X	F1Y1-42-A1X
Quantity	1	1
Labor Operation Number	XXMABXRX	XXMACXRX
Labor Hours	1 hr.	1.5 hrs.

RENTAL CAR INFORMATION

Mazda recommends the usage of the MCVP loaner vehicle when available. If all MCVP loaner vehicles are in use and unavailable, and the customer needs a rental car, then use your local rental facility and offer a rental car. Be sure that every effort is made to repair the car within one business day or less in order to allow the next customer the same experience.

Rental Car Warranty Claim Information

	MCVP Vehicle Preferred	Rental Agency Vehicle
Warranty Type Code	N/A MCVP does not require claim submission	A
Symptom Code		99
Damage Code		99
Part Number Main Cause		5555-05-16JR
Part Quantity		0
Labor Operation Code		MM024XRX
Labor Hours		00
Sublet – Rental Car		
Sublet Invoice Number		Number from Rental Invoice or Dealer Purchase Order
Sublet Type Code		Enter "Z9" (other)
Sublet Amount		Up to \$30.00 per day for the number of days customer had rental car
Sublet Text		Number of days rental car was supplied to customer

Rental expenses exceeding the two-day limit will require prior DSM Authorization, as outlined in the Mazda Rental Car Reimbursement Program policy.

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

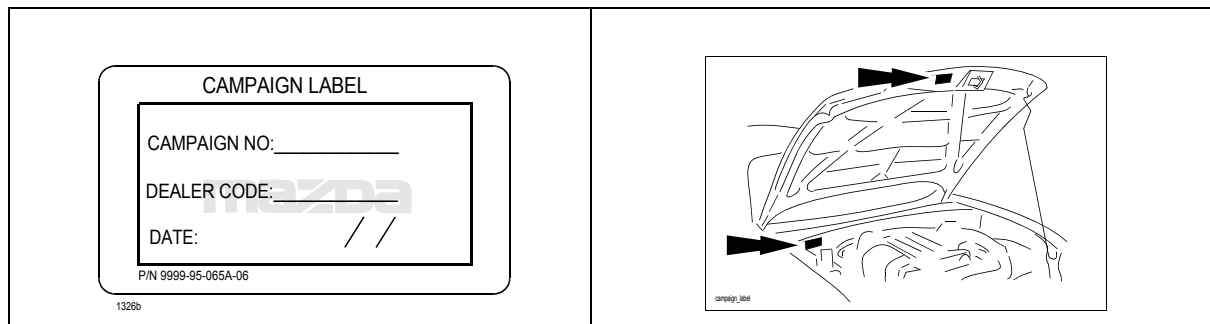
A. VEHICLE INSPECTION PROCEDURE

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.



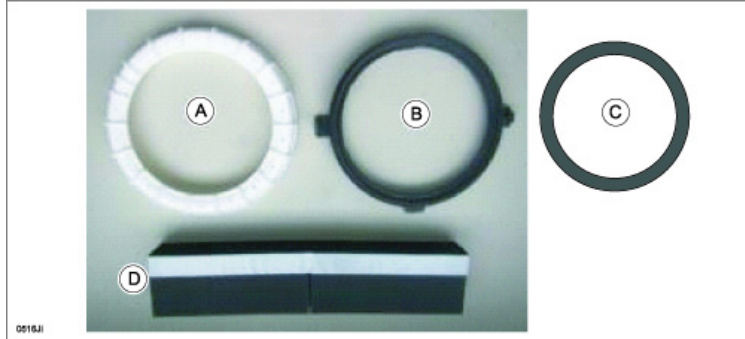
eMDCS System - Warranty Vehicle Inquiry Results:

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)

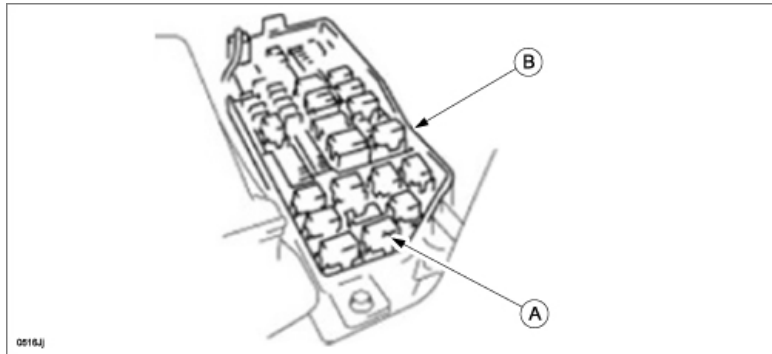
	Tool Name	Number of Pieces	
A	Fuel Pump Ring Wrench	1	

WARNING:

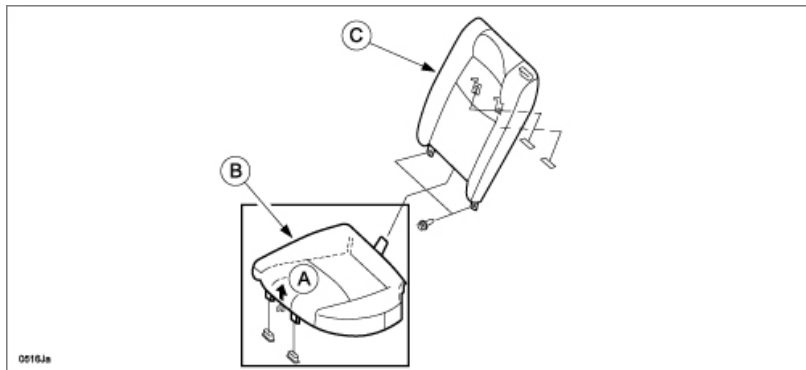
- Fuel is extremely flammable. Always keep sparks and flame away from fuel. Ignition may cause death or serious injury, or damage to equipment.
- Fuel line spills and leakage from the pressurized fuel system are dangerous. Fuel can ignite and cause serious injury or death and damage.
- Fuel can irritate 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.

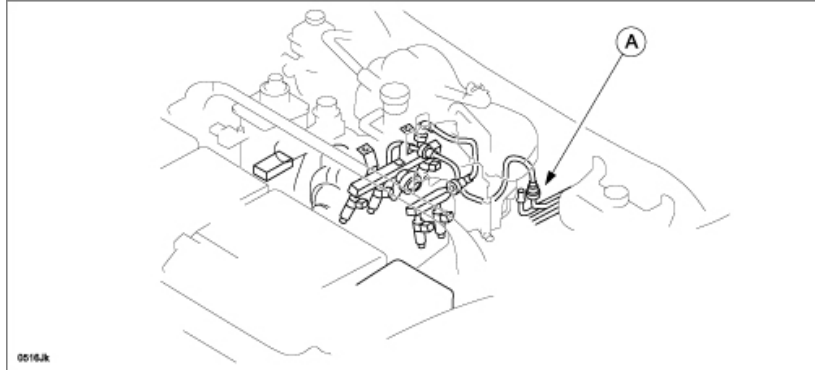


3. Remove the service hole cover.
4. Check the fuel gauge indication. If the fuel gauge indicates less than 1/4, go to step 6.
5. Drain fuel from the fuel tank (only when the fuel gauge indicates 1/4 or more).

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).

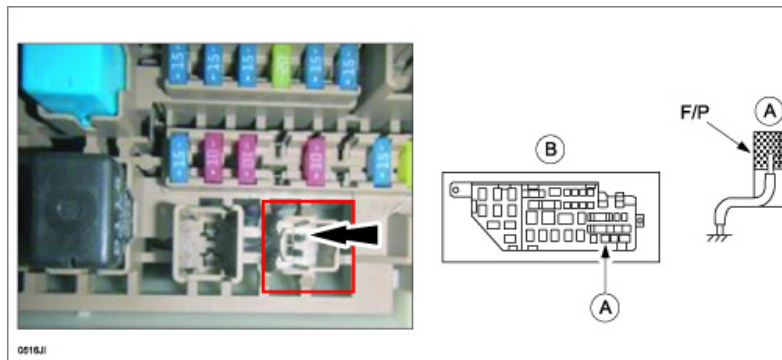
WARNING: A person charged with static electricity could cause a fire or explosion, resulting in death or serious injury. Before draining fuel, make sure to discharge static electricity by touching the vehicle body

- 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.

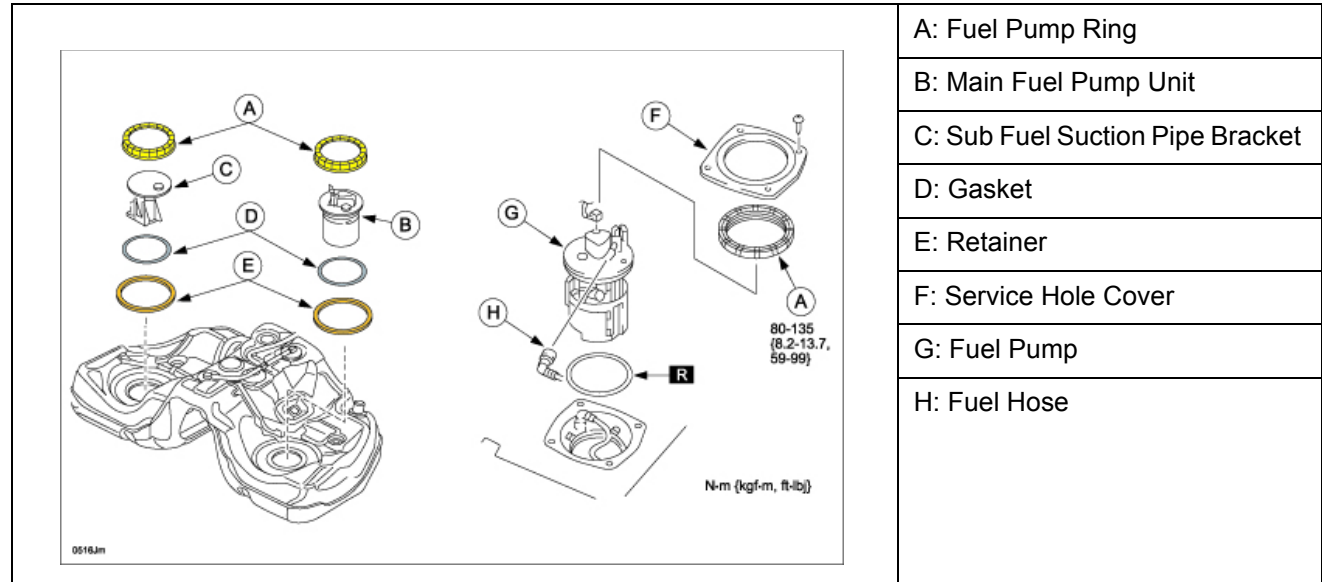
- f. Disconnect the jumper wire.

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

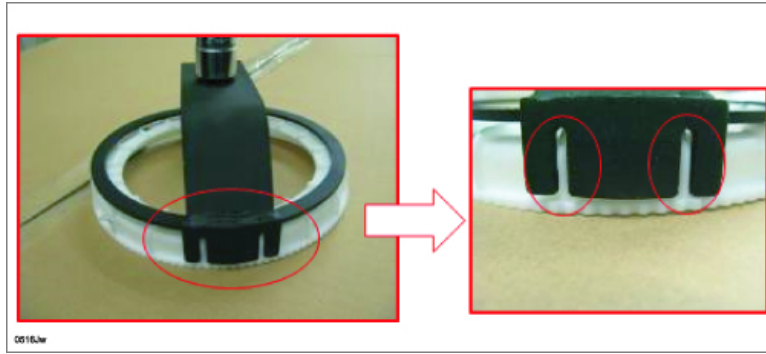


Main side (Fuel pump unit side)

- 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.



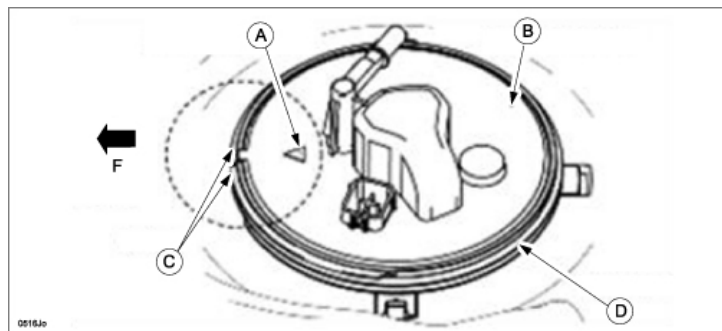
CAUTION:

- 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.

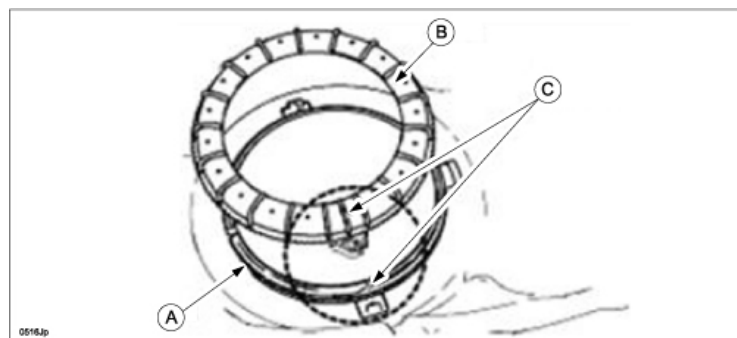
d. Replace the retainer and gasket with new ones.

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.



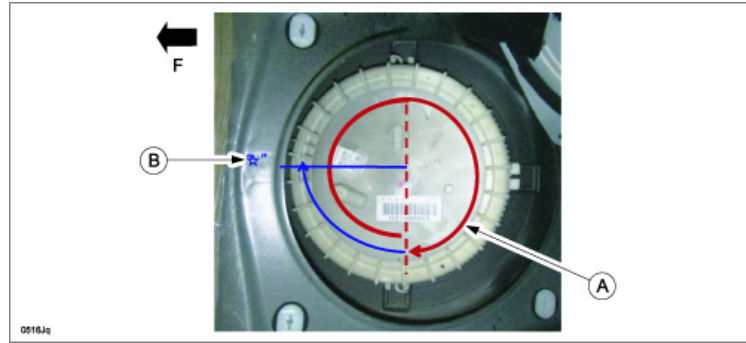
2. Align the positions of the retainer (A) and fuel pump ring (B) as shown (C), and tighten them one full rotation by hand.



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.

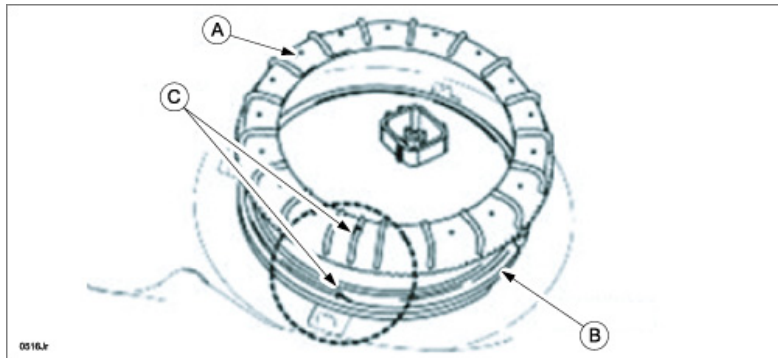
CAUTION: The fuel pump ring could be damaged if the SST is used with any play between the fuel pump ring and the SST. Securely attach the SST so that there is no gap between the SST tabs and the side of the fuel pump ring.

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).



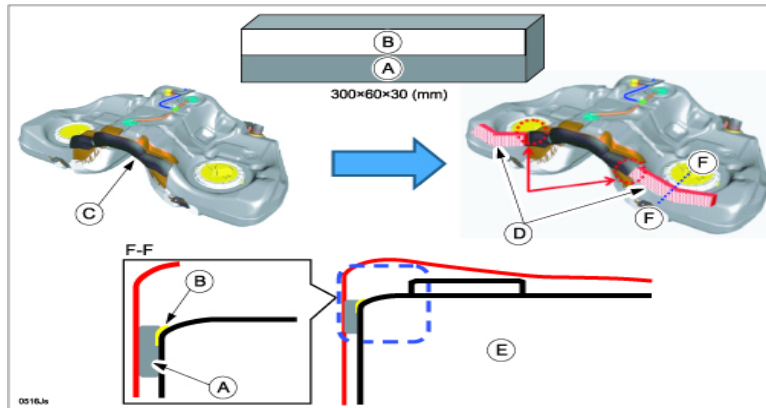
Sub side

- a. Disconnect the connector.
- b. Remove the fuel pump ring (A) using SST (49F 042 001).
- c. Replace the retainer (B) and gasket with new ones.

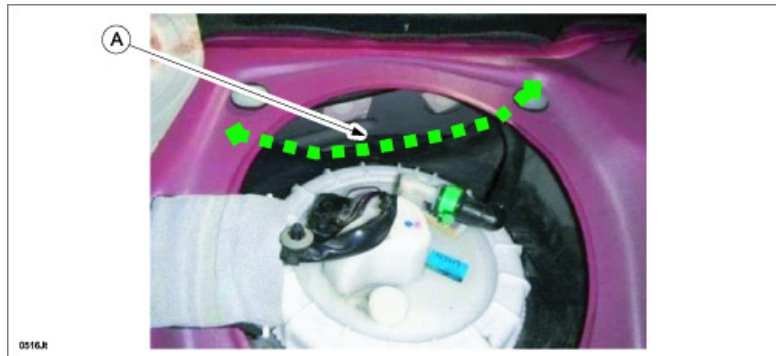


- d. Install the modified fuel pump ring with the same procedure as the main side (aligning the positions of the fuel pump (A) and retainer (B) as shown (C)).
8. Perform "Fuel Leak Inspection" after the fuel pump unit installation.
 - a. Start driving the vehicle from a standstill or brake suddenly 5 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 pump unit.

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.

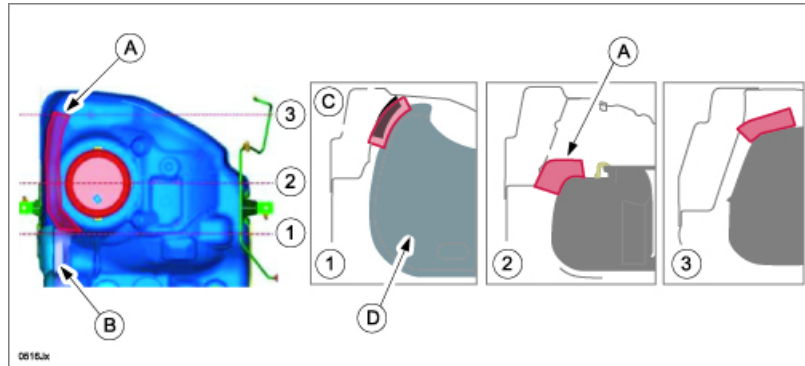
NOTE:

- 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

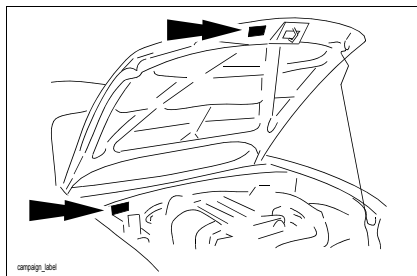
CAMPAIGN NO: _____

DEALER CODE: _____

DATE: / /

P/N 9999-95-065A-06

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



- 3. Return the vehicle to customer.