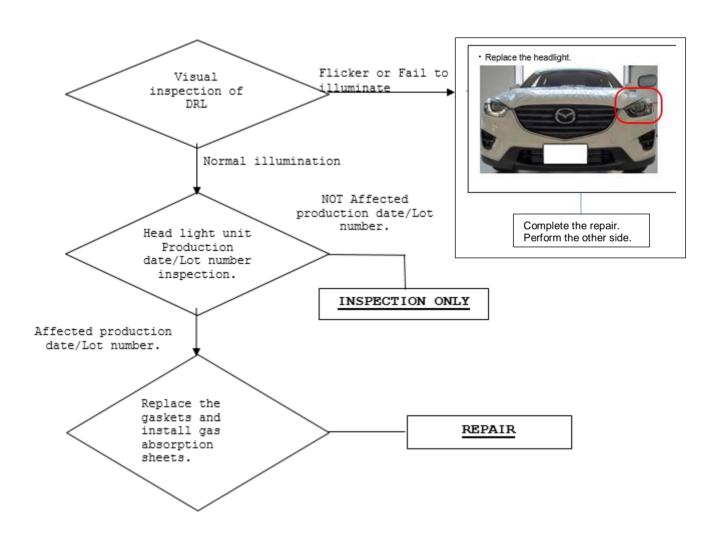
# 2016 Mazda CX-5 – Daytime Running Lights (DRL) May Fail - Safety Recall 4320A



### Flow Chart (explains one side of headlight) – DRL Inspection Only.

# **1. VEHICLE INSPECTION PROCEDURE**

Verify that the vehicle is within the following ranges:

2016 Model Year Mazda CX-5 vehicles, equipped with LED Daytime Running Light (DRL)

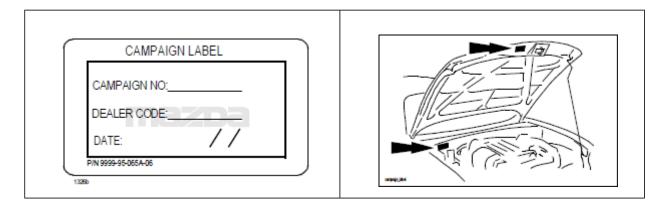
Model	Subject VIN range	Subject range	production	date
2016 CX-5	$111/13$ K $E^{00000}$ ( $-11$ 6000017 / $-751376$	From November 3, 2014 through December 7, 2015		

The asterisk symbol "\*" can be any letter or number.

- If the vehicle is within the above ranges, proceed to <u>Visual and Production date</u> <u>Inspection and Repair Procedure</u>
- If the vehicle is not within the above ranges, return vehicle to the customer or inventory.

Perform a Warranty Vehicle Inquiry using your eMDCS System and inspect vehicle for Campaign Label Recall 4320A 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 4320A OPEN	Present	Email Dealer Recall Help or Contact Warranty Hotline at (877) 727-6626 option 3 to update vehicle history.
	Not present	Proceed to "REPAIR INSPECTION and PROCEDURES".
RECALL 4320A CLOSED	Present	Return vehicle to inventory or customer.
	Not present	Proceed to "3. CAMPAIGN LABEL INSTALLATION".
RECALL 4320A IS NOT PRESENT	Does not apply	Recall does not apply to this vehicle. Return vehicle to inventory or customer.

# Part /Tool information

Name	Detail	Quantity	Image
GASKET KIT (PN: KAYL-51-0A2)	Black gasket	4	0
	Gas absorption sheet (For absorption sulfur released from gray gasket remaining in the front combination light housing)	4	
Soft shop rags	For prevent scratches	1	N/A
Pick tool	For Gasket installation	1	N/A
Ruler or small screwdriver	For gas absorption sheet installation	1	N/A
Length of wire, string	For gasket installation and Gas absorption sheet installation	1	N/A

# Technical guide

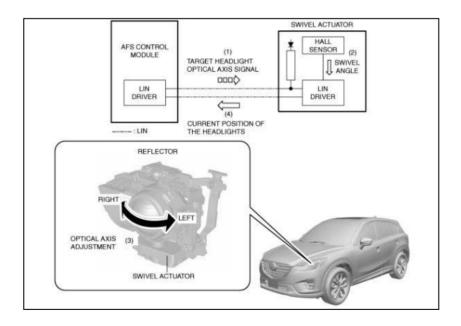
 AFS\*\*
 Front image
 Back image

 Image
 Image
 Image

 Image
 Image
 Image

Check before repairing the affected vehicle.

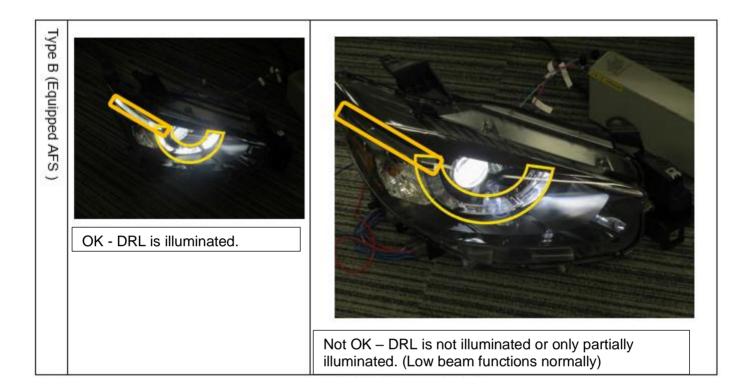
AFS\*\*...Adaptive Front Lighting system which enhances the range of visibility when the headlights are turned on by pointing the optical axis of the headlights in the direction in which the vehicle is advancing according to the steering operation. The swivel actuator constantly detects the headlight swivel angle from the hall sensor built into the actuator, and inputs the swivel angle to the AFS control module via LIN communication.



# A. VISUAL INSPECTION

- 1. Park the vehicle and turn on the engine.
- 2. Turn on the low beam.

Check the illumination of the DRL position lighting and determine if they are lighting up and not flickering. (Marked by yellow area with shown the image) For more detail, refer to inspection chart below.



#### Judgement

- If both Daytime Running Lamp (DRL) does not light up or the DRL is flickering, replace the both headlight assemblies and complete the repair.
- If either Daytime Running Lamp (DRL) does not light up or the DRL is flickering, replace the affected headlight assembly and go to the next step, B. (Inspect working Head Light production date and lot number)
- If both Daytime Running Lamp (DRL) light up, and are not flickering go to next step B.
- (Inspect working Head Light production date and lot number)

### **B. Head Light Production Date Inspection**

- 1. Open the hood.
- 2. Check the production date by confirming information sticker **or** printed lot number for both head lights. (These images are for example of right side of head light. You can inspect the production date without removing the headlamps)



Production date inspection	① Production date (White sticker on middle information)	2 Lot number (Printed by white letter)		
Examples	K071 51 0400 48950795 04 20160405 16 00 W2 85 7L *Example Image	FD05 *Example Image		
Conversion table	Read the number and separate a year, month, date. i.e: 2016 04 05+ <u>Date: 01 to 31.</u> <u>Month: April.</u> *Date April 5, 2016	Align the alphabet to Year and Month.		
		Alphabet         A         B         C         D         E         F           Year         2011         2012         2013         2014         2015         2016		
		Year         2011         2012         2013         2014         2015         2016           Month         Jan         Feb         Mar         Apr         May         Jun		
		india van reb indi 7.pr indy ban		
		Alphabet G H K M N P		
		Year 2017 2018 2019 2020 2021 2022		
		Month Jul Aug Sep Oct Nov Dec		
Affected number (date)	<b>20141001</b> <b>20151120</b> October 1 <sup>st</sup> , 2014 to November 20, 2015	DM01to EN20 October 1 <sup>st</sup> , 2014 to November 20, 2015		

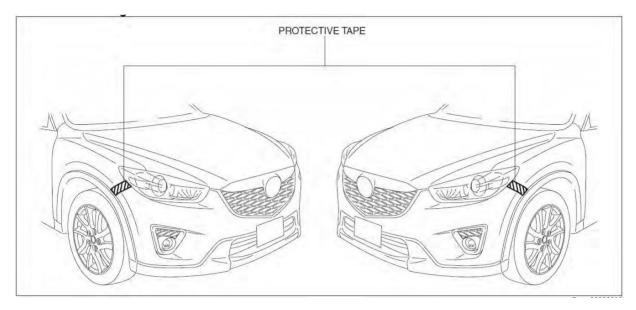
#### Judgement

- If both headlamp assemblies are not in the affected production date or lot number range, the repair is complete. **Submit for inspection to close the recall**.
- If one or both of the headlamp assemblies are in the affected production date or lot number in range of the headlight, remove the affected head light(s) and replace the gasket with new one and install the gas absorption sheet. Go to step C.

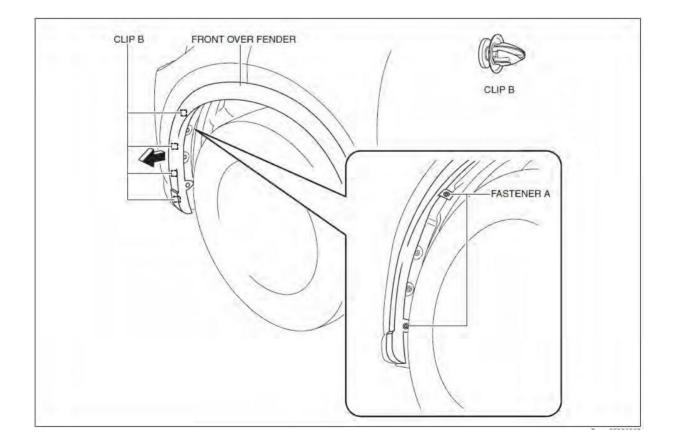
### C. FRONT BUMPER REMOVAL/INSTALLATION

#### Caution

• Affix the protective tape to the position (vehicle body side) shown in the figure to prevent scratches and damage.



 Disconnect the negative battery cable. (See <u>NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION</u> [SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION
 Remove fasteners A.

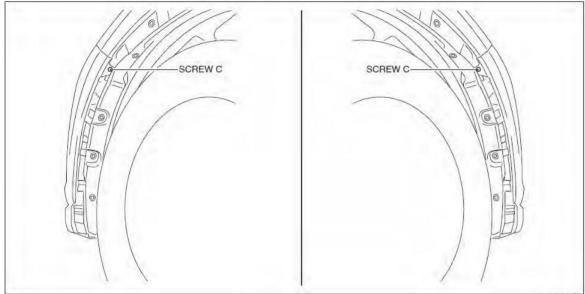


3. Pull the front over fender in the direction of the arrow shown in the figure, set the front over fender out of the way while detaching clips B.

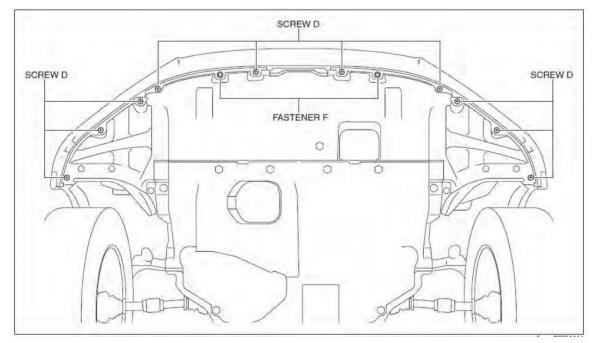
#### Caution

• After removing clips B, insert a rag between the front fender panel and the front over fender to prevent the front fender panel and clips B from being damaged.

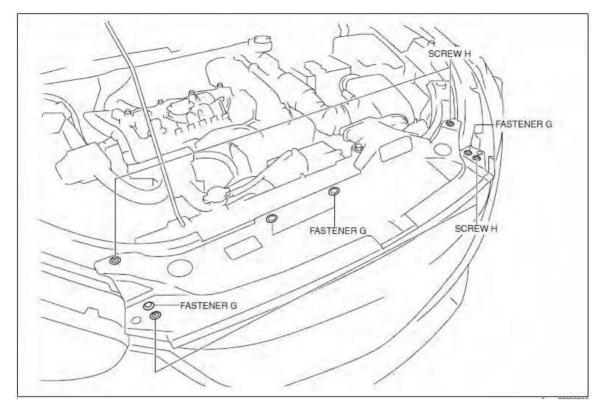
4. Remove screws C.



#### 5. Remove screws D.



- 6. Remove fasteners F.
- 7. Remove the seal board upper. (See <u>SEAL BOARD UPPER REMOVAL/INSTALLATION.)</u>
- 8. Remove fasteners G.



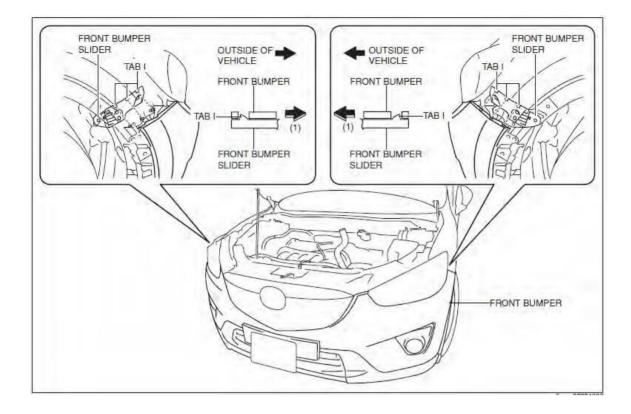
9. Remove screws H.

10. Pull the front bumper in the direction of the arrow (1) shown in the figure, then remove tabs

#### Caution

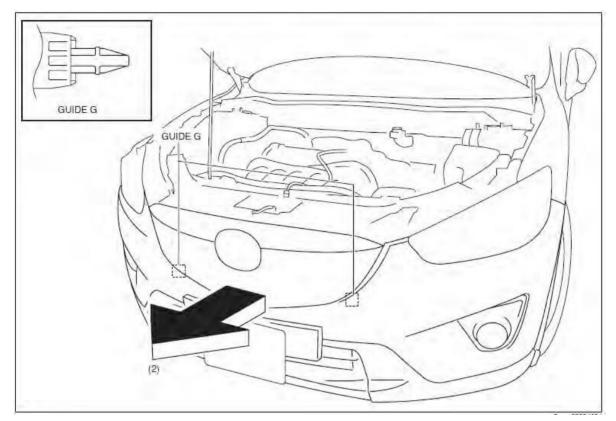
• The front bumper and front bumper slider are engaged firmly. If they are disengaged forcibly the bumper could fall and be damaged. Perform the servicing carefully when disengaging the front bumper from the front bumper slider.

• When disengaging the front bumper from the front bumper slider, the front bumper could fall and be damaged. Support the front bumper so that it does not fall.



11. Remove the front bumper from the front bumper slider.

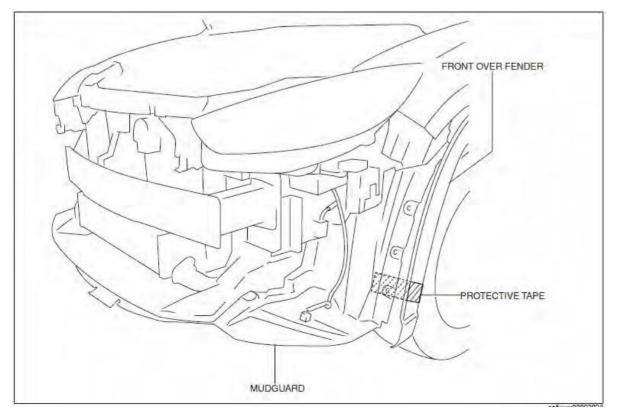
12. Pull the front bumper in the direction of the arrow (2) shown in the figure and remove it while detaching guides G.



13. Disconnect the front fog light connector. (with front fog lights)

14. Disconnect the front ultrasonic sensor connector. (with parking sensor system) Caution

After removing front bumper, it may hit the front over fender and cause a damage and/or injury.
 Perform the following procedure to prevent the front over fender from being damaged.
 Fix the front over fender and front fender panel with protective tape.



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#### FRONT COMBINATION LIGHT REMOVAL/INSTALLATION

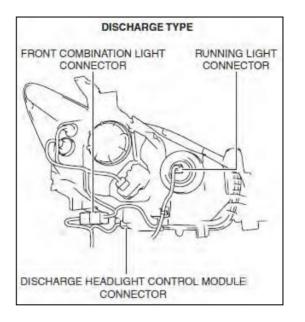
#### Warning

• Incorrect servicing of the discharge headlights could result in electrical shock. Before servicing the discharge headlights, always refer to the service warnings. (See DISCHARGE HEADLIGHT SERVICE WARNINGS.)

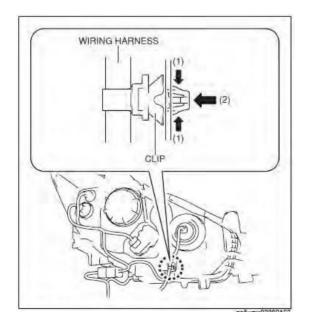
#### Note

• Fogging or condensation on the inside of the front combination lights may occur due to a natural phenomenon occurring as a result of a temperature difference between the interior and exterior of the combination lights. However, it has no effect on the light performance because the temperature inside the front combination lights rises after illuminating the headlights or a period of time has elapsed.

1. Disconnect the connector.



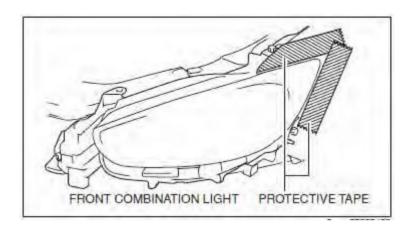
- While pressing the clip tab in the direction of the arrows (1) shown in the figure, press the clip in the direction of the arrow (2) shown in the figure to detach the clip tab and front combination light (LH of discharge type).
- 3. Remove the clip (LH of discharge type).



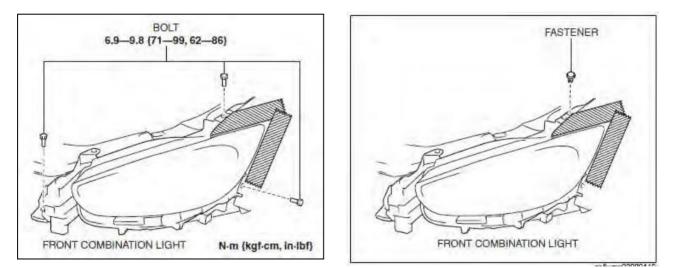
4. To prevent scratches or damage, affix protective tape to the position shown in the figure.

#### Caution

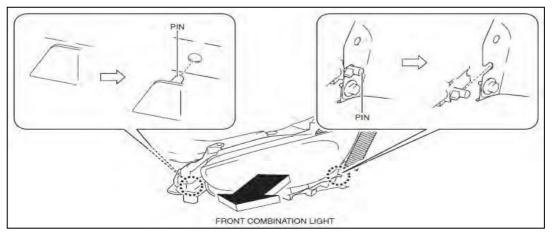
• When the front combination light is removed from the body, perform the procedure after affixing protective tape to the body. Otherwise, the body could interfere with the front combination light and cause scratching or damage to the body.



5. Remove the bolts and the fastener

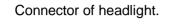


6. Pull the front combination light in the direction of the arrow shown in the figure and pull out the front combination light pin from the body.



7. Remove the front combination light and proceed to Step D. Gasket replacement procedure.

### D. Gasket replacement procedure



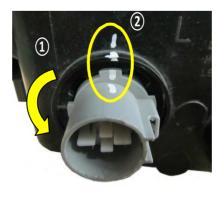
- A : Connector A
- B : Connector B



- 1. Replace the gaskets with the new black supplied gaskets of connector A and connector B and install the two gas absorption sheets.
- Note: You may find a black gasket from a prior repair at connector B. Replace it anyway. Install gas absorption sheet at connector B. Go to gas absorption sheet installation procedure.



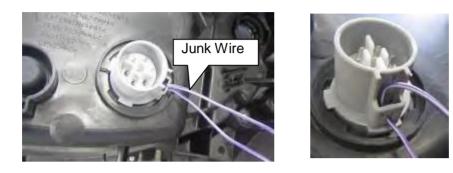
In order to easily reference locking/unlocking the connector, ①Make sure it is fully locked position (fully turned left and stopped position) then ②Mark before removing.



2. Thread a piece of thin spare wire or string tie through the locking tab of the connector

\*Prevents the headlamp connecter from falling into the headlamp assembly (Connector B) Caution: Be careful not to damage the headlight lens (scratch etc...) or deform the terminal.

- Thread a piece of thin spare wire or string tie through the locking tab of the connector.



- Unlock the connector from the headlamp and make room between housing and connector to allow for the removal of the O ring. Recommend watching video B and replacing that O ring first along with installing the gas absorption sheet. It is the easier of the two O rings. Then watch video A and replace connector A O ring. It will be more difficult as the connector cannot be turned 90 degrees as shown in the connector B photos below.
- Using a pick tool, hook and pull the gasket off of the connector and out of the headlamp.

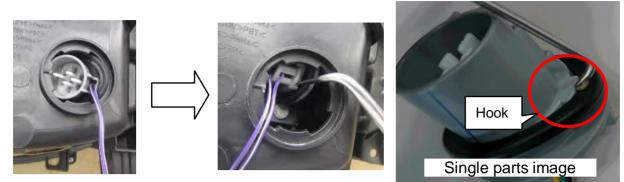
Connector A -



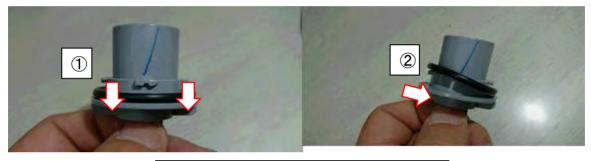
3. Install the gasket with new one (black one). Thread the new gasket onto the spare wire or string.



- Push the O ring gasket into the four hooks at the bottom of the connector.



- Note Connector A will not drop down far enough to turn 90 degrees. This O ring has limited room and visibility. Watch Video A



OK: Gasket has seated.
 NG: Gasket is not seated on the hook.



4. Pull the wire and remove from connector. Lock the connector shown the image below.



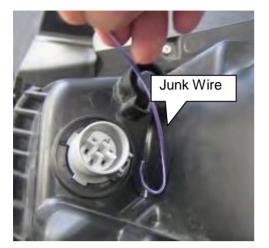




① OK: Fits on rib protrusion.

### 5. Replace O ring for connector B.

Caution: Be careful not to damage the headlight lens (scratch etc...) or deform the terminal.





- Unlock and make a gap between housing and connector.
- Use a pick tool, pull the gasket toward the outside.

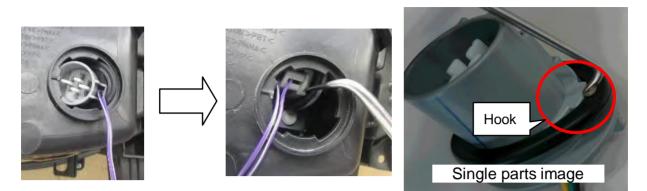


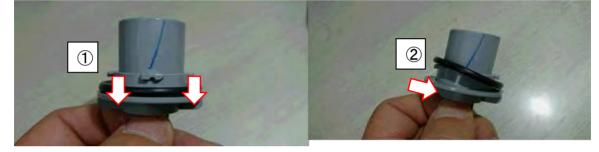


6. Install the gasket with new one (black one). Thread the new gasket onto the spare wire or string.

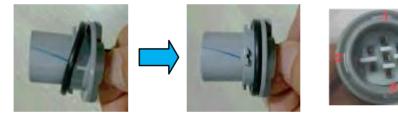


- Push the O ring gasket into the four hooks at the bottom of the connector.





OK: Gasket has seated.
 NG: Gasket comes out from the hook.



7. Leave the wire at connector B for the next repair



8. Go to Step E Gas absorption sheet installation procedure.

### E. Gas absorption sheet installation procedure. Watch Video.

Note: Gas absorption sheet installation is only through Connector B as shown the picture below.

Connector of headlight.

A. Not necessary to unlock the connector for gas absorption sheet only for O ring replacement.

B. Connector is \_\_\_\_\_unlocked and dropped down inside the headlamp in order to install the gas absorption sheet.



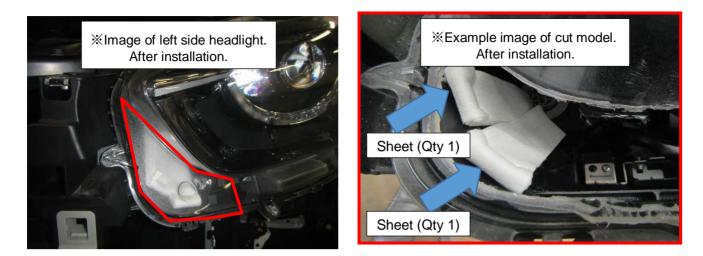
- 1. Prepare a gas absorption sheet and use your finger, or tweezer, short ruler to install.
- 2. **Peel off the adhesive tape back of gas absorption sheet. Caution:** Do not break the ply formation of the gas absorption sheet.





3. Install gas absorption sheet (2 pieces per one side) inside the connector hole.





- 4. Re-install connector B.
- 5. Make sure all connector is locked. (There is marked where the lock position at yellow circle.)





① OK: Fits on rib protrusion.

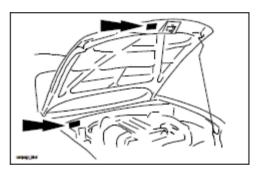
- 6. Remove the spare wire or string.
- 7. Reverse order of removal.
- 8. Repair other headlamp if necessary. Go back to Step D
- 9. Install the head light(s) with front bumper.
- 10. Check the headlight aiming.
- 11. Go to campaign label installation

# F. CAMPAIGN LABEL INSTALLATION

1. Fill out a blue "Campaign Label" (9999-95-065A-06) with Campaign No: "4320A", your dealer code, today's date.



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



3. Return the vehicle to customer.