

SUBJECT:	No:	SR-15-011		
SRS WARNIN	DATE:	October, 2015		
SAFETY	MODE	L: 2012 i–MiEV & 2014 Mirage		
CIRCULATE TO:	[X] GENERAL MANAGER	[X] PARTS MANAGER		[X] TECHNICIAN
[X] SERVICE ADVISOR	[X] SERVICE MANAGER	[X] WARRANTY PROCESSOR [X] SALES MAI		[X] SALES MANAGER

#### PURPOSE

Due to an improper manufacturing process control, the electrical resistance inside the impact sensor for the SRS air bag system may have increased. As a result, abnormal communication may be detected by the ECU causing the SRS warning light to illuminate. If a vehicle is involved in a collision necessitating frontal, side, and/or curtain air bag deployment when the SRS warning light is illuminated, frontal air bag deployment could be delayed and/or the side and curtain air bags may not deploy.

This campaign bulletin instructs dealers to (1) replace the impact sensors for SRS and (2) use MUT–III to detect and delete related DTCs.

#### **AFFECTED VEHICLES**

Certain 2012 i—MiEV vehicles built between October 28, 2011 and September 7, 2012 Certain 2014 Mirage vehicles built between July 27, 2013 and November 20, 2013

# **IMPORTANT**

Affected new or used inventory vehicles must be repaired before the vehicle is delivered. Dealers must check their inventory vehicles' VINs on the Warranty Superscreen to verify whether the vehicle is involved in this recall campaign. It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by the notification under a sale or lease until the defect or non-compliance is remedied.

## **CUSTOMER NOTIFICATION**

A letter will be sent to all owners of affected vehicles telling them to contact their local Authorized Mitsubishi Motors dealer to have the SRS impact sensors replaced. A sample copy of the customer notification letter appears at the end of this bulletin.

#### **REQUIRED EQUIPMENT**

#### The following equipment is needed to read and erase DTCs from all ECUs:

- VCI (Vehicle Communication Interface) or VCI Lite MB991824 or MB992744V.
- MEDIC Laptop/Tablet with A/C power adapter 520924, or FZG1MK2.
- MUT-III main harness 'A' (blue connector at the DLC end) MB991910 or MB992745V.
- USB 2.0 cable MB991827 or RRAR1MBR–108L.

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### **REQUIRED OPERATIONS**

Before starting this campaign procedure, **CHECK THE WARRANTY SUPERSCREEN** to verify if the vehicle is an affected VIN for this campaign and this campaign procedure has not already been completed.

**NOTE:** Any i–MiEV repairs must be completed by a certified i–MiEV technician at a certified Mitsubishi i–MiEV dealer. Please ensure the main drive battery's charge is properly maintained while it is not being serviced.

## **IMPORTANT**

For i-MiEV, please ensure the main drive battery is fully charged prior to vehicle delivery. If the vehicle cannot be immediately repaired, the main drive battery should be charged while the vehicle is waiting for repairs. This will limit customer inconvenience and maximize customer satisfaction.

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- To avoid personal injury or death, on vehicles equipped with air bags, disable the supplemental restraint system before attempting any steering wheel, steering column, air bag, occupant classification system, seat belt tensioner, impact sensor, or instrument panel component diagnosis or service.
- Disconnect and isolate the battery negative (ground) cable, then wait two minutes for the system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the supplemental restraint system. Failure to take the proper precautions could result in accidental air bag deployment.
- At no time should any source of electricity be permitted near the inflator on the back of a non-deployed air bag. When carrying a non-deployed air bag, the trim cover or air bag cushion side of the unit should be pointed away from the body to minimize injury in the event of an accidental deployment.

## **GENERAL INFORMATION: For Replacement of Impact Sensors**

#### 

The SRS may not operate properly if an impact sensor is not installed correctly, increasing the risk of personal injury.



There is a tab located on the back of the impact sensor that slots into the mounting surface. To ensure proper installation, make sure the tab is inserted into the slot on the mounting surface as shown.

(2014 Mirage front impact sensor shown as example.)

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Use only hand tools when removing or installing impact sensors.

Torque to the proper specification to prevent damage.

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Handle the front impact sensors with extreme care as they are fragile. The impact sensor must be replaced If it is dropped or damaged. If a replacement impact sensor is discovered to be dented, cracked, deformed, or rusted, obtain a new part to complete the repair.

#### !! IMPORTANT !!

Make sure the old impact sensors and new impact sensors are kept separate. The new sensors may be identified by the individual sensor part number (8651A245).



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#### FIGURE 3. How to Release Impact Sensor from Connector







- 1. To partially release connector from sensor:
  - a. Depress the locking tab (white).

b. Slide outer connector body (yellow) away from sensor. Sensor will be partially released.

- 2. To fully remove connector from sensor:
  - a. Depress the locking tab again.
  - b. Slide the entire connector off of the impact sensor.
- 3. To reconnect sensor and connector:

Push connector onto sensor until locking mechanism engages.



# **REPLACEMENT PROCEDURE: Mirage Front Impact Sensors**

- 1. Place the Power switch in the LOCK (OFF) position.
- 2. Record the customer presets for Radio, Audio, Clock, and other equipment that will be cleared when the negative terminal of the auxiliary battery is disconnected.



3. Disconnect the negative (–) terminal of the auxiliary battery and wrap the disconnected negative (–) cable with electrical wire–insulating tape.

WARNING Wait at least two minutes after removing the negative battery terminal before doing any further work to prevent accidental air bag deployment. The condenser installed in the SRS–ECU keeps a required voltage to deploy airbags for a certain period of time even after the Power switch is turned OFF. Do not perform any operation during this period as incidental airbag deployment may occur.

4. Disconnect both front impact sensor connectors. [Refer to FIGURE 3 at the beginning of this bulletin.]



- 5. Remove the front impact sensor fitting bolts.
- 6. Remove the front impact sensors.
- 7. Connect the new front impact sensor connectors. [Refer to FIGURE 3 at the beginning of this bulletin.]
- 8. Install the new front impact sensors with the fitting bolts.

Torque specification:  $9.0 \pm 2.0 \text{ N-m}$ (80 ± 17 in.-lb)

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The SRS may not operate properly if an impact sensor is not installed correctly, increasing the risk of personal injury. Refer to Figure 1 at the beginning of this bulletin for proper alignment.



#### **REPLACEMENT PROCEDURE: Mirage Side Impact Sensors**



- 1. Remove the rear seat cushion pad and cover.
  - a. Pull the rear seat hooks up to unlock the rear seat cushion.
  - b. Remove the rear seat cushion pad and cover by lifting it upward.

- 2. Remove the front and rear scuff plates (RH side shown in illustration).
- 3. Remove the lower center pillar trim cover, then remove the lower center pillar trim (RH side shown).





Disconnect the seat belt pre-tensioner connector (LH side shown).

Using a flat—tipped screwdriver, pull out the locking button of the wiring harness side connector, then release the lock.

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5. Remove the **2** seat belt retractor bolts (LH side shown).







6. Remove the fitting nut of the side impact sensor.



- 7. Unlock and remove the connector from the side impact sensor. [Refer to FIGURE 3 at the beginning of this bulletin.]
- 8. Remove the side impact sensor.
- Connect the connector to the new side impact sensor. [Refer to FIGURE 3 at the beginning of this bulletin.]
- 10. Install the new side impact sensor with the fitting nut.

Torque specification:  $9.0 \pm 2.0 \text{ N-m}$ (80 ± 17 in.-lb)

11. Repeat the same procedure on the opposite side (steps 1 - 10) to replace both side impact sensors. Replacement is required on **BOTH** sides.

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The SRS may not operate properly if an impact sensor is not installed correctly, increasing the risk of personal injury. Refer to Figure 1 at the beginning of this bulletin for proper alignment.



- 12. Reinstall remaining components in reverse order of removal.
- 13. Remove tape and connect the negative (-) terminal of the 12V battery. Reinstall battery cover.

Torque specification:  $6.0 \pm 2.0 \text{ N}-\text{m}$  (53 ± 17 in–lb)

#### **INSPECTION PROCEDURE: Mirage**

 Turn on the Power switch and confirm that the SRS warning light blinks for 6–8 seconds, and then goes off. If the light does not extinguish, perform troubleshooting as shown in the Service Manual, Group 52B Supplemental Restraint System (SRS) –> SRS Airbag Diagnosis –> Check Chart for Diagnostic Trouble Codes. 2. Use MUT–III to check for DTCS. Clear all DTCs in the list shown below. Then repeat step 1 until the DTCs do not return.

**NOTE:** If any other DTCs occur that are not listed below, refer to the Service Manual for diagnosis. Then clear the DTCs.

DTC	Diagnostic Item	DTC	Diagnostic Item
B1416	Malfunction of Inside Front Impact Sensor (LH)	B1428	Side Impact Sensor (RH) Communication Error
B1417	Front Impact Sensor (LH) Voltage Error	B1429	Side Impact Sensor (RH) Communication Impossible
B1418	Front Impact Sensor (LH) Communication Error	B1436	Malfunction of Side Impact Sensor (LH)
B1419	Front Impact Sensor (LH) Communication Impossible	B1437	Side Impact Sensor (LH) Voltage Error
B1426	Malfunction of Side Impact Sensor (RH)	B1438	Side Impact Sensor (LH) Communication Error
B1427	Side Impact Sensor (RH) Voltage Error	B1439	Side Impact Sensor (LH) Communication Impossible

3. Reset customer presets for Radio, Audio, Clock, and other equipment before returning the vehicle to the customer.

## **REPLACEMENT PROCEDURE: i-MiEV Front Impact Sensors**



- 1. Place the Power switch in the LOCK (OFF) position.
- 2. Record the customer presets for Radio, Audio, Clock, and other equipment that will be cleared when the negative terminal of the auxiliary battery is disconnected.



Disconnect the negative (–) terminal of the auxiliary battery and wrap the disconnected negative (–) cable with electrical wire—insulating tape.

WARNING Wait at least two minutes after removing the negative battery terminal before doing any further work to prevent accidental air bag deployment. The condenser installed in the SRS–ECU keeps a required voltage to deploy airbags for a certain period of time even after the Power switch is turned OFF. Do not perform any operation during this period as incidental airbag deployment may occur.



- 4. Remove **2** bolts and **5** fasteners on both left and right front splash shields to access the fog light and front combination light assembly connectors.
  - **NOTE:** Arrows indicate fastener locations. Bolts are circled in red.
- 5. Disconnect the fog light and front combination light assembly connectors.

6. Remove **8** fasteners as shown in the following illustration. Unhook the claws located at the upper left and upper right corners of the front bumper (see Section A – A).



7. Refer to the following illustration to complete front bumper assembly removal.

The fender fastener shown in the upper right hand corner of the above illustration (and circled in red below) is different than the other fasteners.



The bumper is secured to the mounting bracket by **2** clips (circled in red below). The bumper is aligned by the mounting tab (shown by the red square below). Carefully pull to detach the bumper clips from the mounting bracket.



8. Disconnect both front impact sensor connectors. [Refer to FIGURE 3 at the beginning of this bulletin.]





- 9. Remove the front impact sensor fitting bolts.
- 10. Remove both front impact sensors.
- 11. Connect the new front impact sensor connectors. [Refer to FIGURE 3 at the beginning of this bulletin.]
- 12. Install the new front impact sensors with the fitting bolts.

Torque specification:  $11.0 \pm 3.0$  N-m (97 ± 26 in.-lb)

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The SRS may not operate properly if an impact sensor is not installed correctly, increasing the risk of personal injury. Refer to Figure 1 at the beginning of this bulletin for proper alignment.

13. Reinstall the front bumper assembly.

**NOTE:** In order to reinstall the bumper, you must align the mounting tab first (shown in step 6).

- 14. Reconnect the fog light and front combination light assembly connectors.
- 15. Reinstall the bolts and fasteners on both left front and right front splash shield.

Torque specification:  $5 \pm 2 \text{ N-m} (44 \pm 17 \text{ in-lb})$ 

# **REPLACEMENT PROCEDURE: i-MiEV Side Impact Sensors**

1. Remove the rear seat cushion pad and cover.



- a. Pull the rear seat hooks forward to unlock the rear seat cushion.
- b. Remove the rear seat cushion pad and cover by lifting it upward while simultaneously pulling the rear seat hooks forward.

2. Remove the front and rear scuff plates and lower center pillar trim.

The front scuff plate is held on by **10** claws. The rear scuff plate is held on by **4** claws and **1** clip (RH side shown in illustration).

- a. Carefully remove the claws from their slot as indicated by the white arrows.
- b. Carefully detach the clip as indicated by the black arrow.
- c. Remove the lower anchor bolt, then remove the lower center pillar trim (it is not secured by any claws or clips).





3. Remove the fitting nut for the side impact sensor.

- 4. Unlock and remove the connector from the side impact sensor. [Refer to FIGURE 3 at the beginning of this bulletin.]
- 5. Remove the side impact sensor.
- 6. Connect the connector to the new side impact sensor. [Refer to FIGURE 3 at the beginning of this bulletin.]
- 7. Install the new side impact sensor with the fitting bolt.

Torque specification:  $11.0 \pm 3.0$  N-m (97  $\pm 26$  in.-lb)

8. Repeat the same procedure on the opposite side (steps 1 - 7) to replace both side impact sensors.

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The SRS may not operate properly if an impact sensor is not installed correctly, increasing the risk of personal injury. Refer to Figure 1 at the beginning of this bulletin for proper alignment.



**NOTE:** Side impact sensor replacement is required on **BOTH** sides.

- 9. Reinstall the center pillar lower trim.
- 10. Reinstall and tighten the lower anchor bolt.

#### Torque specification: $40 \pm 10$ N-m ( $30 \pm 7$ ft-lb)

- 11. Reinstall the front and rear scuff plates.
- 12. Reinstall the rear seat cushion pad and cover.

13. Remove tape and connect the negative (-) terminal of the 12V battery. Reinstall battery cover.

Torque specification:  $5 \pm 1$  N-m ( $44 \pm 8$  in-lb)

## **INSPECTION PROCEDURE: i-MiEV**

- Turn on the Power switch and confirm that the SRS warning light blinks for 6–8 seconds, and then goes off. If the light does not extinguish, perform troubleshooting as shown in the Service Manual, Group 52B Supplemental Restraint System (SRS) –> SRS Airbag Diagnosis –> Check Chart for Diagnostic Trouble Codes.
- 2. Use MUT–III to check for DTCS. Clear all DTCs in the list shown below. Then repeat step 1 until the DTCs do not return.

**NOTE:** If any other DTCs occur that are not listed below, refer to the Service Manual for diagnosis. Then clear the DTCs.

DTC	Diagnostic Item	DTC	Diagnostic Item
B1406	Malfunction of Front Impact Sensor	B1426	Malfunction of Side Impact Sensor (RH)
B1407	Front Impact Sensor (RH) Voltage Error	B1427	Side Impact Sensor (RH) Voltage Error
B1408	Front Impact Sensor (RH) Communication Error	B1428	Side Impact Sensor (RH) Communication Error
B1409	Front Impact Sensor (RH) Communication Impossible	B1429	Side Impact Sensor (RH) Communication Impossible
B1416	Malfunction of Front Impact Sensor (LH)	B1436	Malfunction of Side Impact Sensor (Front: LH)
B1417	Front Impact Sensor (LH) Voltage Error	B1437	Side Impact Sensor (LH) Voltage Error
B1418	Front Impact Sensor (LH) Communication Error	B1438	Side Impact Sensor (LH) Communication Error
B1419	Front Impact Sensor (LH) Communication Impossible	B1439	Side Impact Sensor (LH) Communication Impossible

3. Fully charge the i–MiEV Main drive lithium–ion battery. Reset customer presets for Radio, Audio, Clock, and other equipment before returning the vehicle to the customer.

## PARTS INFORMATION

#### Use the genuine Mitsubishi Parts listed below.

Vehicle Applicability	Description	Part Number	Qty
2012 i–MiEV	Impact Sensor Kit	8651 4 266	1
2014 Mirage		003 TA200	•

NOTE: Each kit (P/N 8651A266) contains 4 Impact sensors (P/N 8651A245).

### WARRANTY INFORMATION

Scenario #	Campaign Op#	Labor Time	Repair Description	Part Number	
1	C1511A01	1.0			
		IMIEV	Baulass the CDC lumest Conserve on		
		C1511A01		involved vehicles only	8651A266
		0.8	involved venicles only.		
		Mirage			

#### Warranty/Recall Campaign Claim Information

#### Enter all claims as claim type 'C' – Recall/Campaign Claims.

Please follow the campaign instructions when entering each claim in order to select the applicable operation code that correctly matches up with the work that was actually performed. A claim example is provided below.

#### Only certain 2012 MY i-MiEV and 2014 MY Mirage models.

#### **Claim Header Section:**

	Service Warranty Warranty Claim
Claim Entry Vehi Campaign Information	cle Information       Enter in the first 6 characters of the applicable campaign number: C1511A.       /QR
Campaign Operation No Miles/Km 15500 VIN JA Service Technician	Enter As       TSR         This campaign is for replacement of the SRS impact sensors on certain 2012MY IMiEV (2012-13 in Canada) and 2014 Mirage models.         Repair Da         Check the Open Campaign area of the Superscreen each time to be certain of a vehicle's eligibility. Only VINS showing C1511A open are involved.
Spec Value *	Duplicate Recall *
Dealer: 99320 Ref No: Claim No: Adj:	VIN: Claim Status: Incomplete Model and Year:
	Save & Continue Main Menu

After entering the required customer data, vehicle information, selecting the applicable repair campaign and scenario performed, (please note there is only 1 possible repair scenario for this <u>campaign</u>), and then hitting the "<u>Save and Continue</u>" button, the system will automatically fill–in several fields.

CAMPAIGN	INFORMATION	C1511A - Replace SRS Impact	
Campaign Operation No	C1511A	SRS Impact	0010013
		Sensor Kit Repair Order No	EX12345
Miles / KM	15,500		
VIN	JA3215H1XCU013185 Repair Date In	10 / 30 / 2015 Repair Date Out	10 / 30 / 2015

### Labor and Parts:

There is only 1 repair scenario for this campaign. The Superscreen will show if a vehicle is involved in the specific campaign.

Campaign <u>C1511A01</u> requires the SRS Impact Sensors to be replaced and claimed using a kit.

### Parts:

#### Only the impact sensor kit (# 8651A266) may be claimed for either i-MiEV or Mirage.

Part Nur	iber to Labor Operatio	n Lookup on Labor Page			res O	NO .	
Delete	Part No	Part Description	Qty	Unit Pric	e	Part Amount	Primar
E	8651A266	IMPACT SENSOR KIT	1				۲
							0
1	1						0

## Labor:

	MI	TSUBISHI ALER LINK		1	A Service Warranty Recall Claim	<i>'</i>		H	7	
	Clain	n Entry	Vehicle Information	Corporate	e-Reports	DMS Interface	PQR/VQR		PRC C	enter
Vehicle			Parts	Step 3: Labo	or	PWA	Review			
Add Pa	age -	Labor Infor	mation							
Delete	Sublet	Labor Op	Lab	or Operation Description		Qty		Hours Sublet /	Amt Hr	tal Labor s Amt
If inv	/olv	ed in C15	11A01 (claim the o	peration and labo	or time based o	on the models shown)				
	(	C1511A01	I-MiEV : Replace the S	SRS sensors on invo	lved vehicles	1		1.0	1.0	xx.xx
		C1511A01	Mirage: Replace the S	RS sensors on invol	ved vehicles	1		0.8	0.8	xx.xx

# **Rental Cars:**

If there is a need to provide the owner with a rental car, claim the applicable charges in this section of the claim on the lower portion of the labor entry screen.

Select	Labor Operation	Labor Operation Description		Amount
	SHO	SPECIAL HANDLING ORDER	SHO Parts Order	
	RENTACAR	RENTAL CAR CHARGES	Days Reason ⊘electore> ▼ Rental Company Invoice Number	
	95300040	FREIGHT CHARGES	Freight Company Invoice Number	
	95200040	TOWING CHARGES	Towing Company Invoice Number	

# **Replaced Parts Retention:**

Retain all replaced parts for the standard parts retention holding period of 30 days past the end of month claim statement where the claim was shown as paid.



Mitsubishi Motors North America, Inc. 6400 Katella Avenue

Cypress, CA 90630 Telephone: 714-372-6000 www.mitsubishicars.com

This notice applies to your vehicle, \_\_\_\_

Date: October, 2015

Dear Mitsubishi Owner,

This notice has been sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

Reason for notice:	Mitsubishi Motors North America, Inc. (MMNA) has decided that a defect which relates to motor vehicle safety exists in certain 2014 Mirage and 2012 i-MiEV vehicles. Due to an improper manufacturing process control, the electrical resistance inside the impact sensor for the air bag system may increase causing the Supplemental Restraint System (SRS) warning light to illuminate.
	In the event of a crash necessitating deployment of the frontal, side and/or curtain air bags when the SRS warning is illuminated for this condition, the frontal air bag may have a delayed deployment and/or the side and curtain air bags may not deploy at all.
What you should do:	Please contact your local Authorized Mitsubishi Motors dealer and schedule an appointment to have the recall remedy performed on your vehicle free of charge. When you bring your vehicle in, please show the dealer this letter. (If you misplace this letter, the dealer will still make this inspection/repair to your vehicle.)
What your dealer will do:	The dealership will replace the impact sensors with new parts.
How long will it take?	The time needed for impact sensor replacement is approximately <b>1.2</b> hrs. The dealer may need your vehicle for a longer period of time due to service scheduling issues, but every effort will be made to minimize your inconvenience.

If you experience any problem having your vehicle repaired promptly and/or at no charge, please inform us by calling the Mitsubishi Customer Relations Department at **888-648-7820**. Hours: Monday through Friday 7 a.m. to 4 p.m. (Pacific Time).

If, after contacting Mitsubishi Customer Relations, you still have a problem getting this repair made promptly and/or without charge, write to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, D.C. 20590, or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153), or go to http://www.safercar.gov.

If you have already encountered a problem with the air bag system impact sensors and had them replaced as a result of this specific condition and have paid for the repair, you may send your original repair order or invoice, **and** original receipt/proof of payment to the following address for reimbursement consideration:

Mitsubishi Customer Relations Department, P.O. Box 6400, Cypress, CA 90630-0064

If you are the lessor of this vehicle, please forward a copy of this notice to the lessee within ten days to comply with federal regulations.

We appreciate your prompt attention to this matter.

Sincerely,

Mitsubishi Motors North America, Inc.

C1511A