



# SERVICE CAMPAIGN BULLETIN

SB-10055644-7030

SUBJECT:			No: <b>SC-14-001REV</b>
<b>2012 – 2013 OUTLANDER SPORT/RVR KOS ECU SERVICE CAMPAIGN – UNABLE TO START IN LOW TEMPERATURE CONDITIONS – REVISED</b>			DATE: <b>April, 2014</b>
			MODEL: <b>2012–2013 Outlander Sport/RVR</b>
CIRCULATE TO:	<input checked="" type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY PROCESSOR	<input checked="" type="checkbox"/> SALES MANAGER

***This bulletin supercedes SC-14-001, issued March, 2014 to add technical tips and the Remote Engine Start accessory remote registration procedure. Changes are italicized and indicated by ◀***

## PURPOSE

Due to a manufacturing error, certain 2012 – 2013 Outlander Sport/RVR vehicles were built with a KOS ECU that could fail in low temperature conditions. As a result, the engine cannot be started and the doors, tailgate, and steering control cannot be locked or unlocked. Once the KOS module is exposed to warmer temperatures, all affected functions will operate as designed.

This campaign bulletin instructs dealers to replace the KOS ECU with a counter measure unit, and re-register the F.A.S.T. Key(s) and TPMS transmitters.

## AFFECTED VEHICLES

Certain 2012 Outlander Sport/RVR vehicles built December 26, 2011 to June 1, 2012 and certain 2013 Outlander Sport/RVR vehicles built July 20, 2012 to February 28, 2013.

## IMPORTANT

**To maximize customer satisfaction with the quality of their vehicle, affected new or used inventory vehicles should be remedied before the vehicle is delivered. Dealers must check their inventory vehicles' VINs on the Warranty Super Screen to verify whether the vehicle is involved in this service campaign.**

## CUSTOMER NOTIFICATION

A letter will be sent to all owners of affected vehicles requesting them to schedule an appointment with their local Authorized Mitsubishi Motors dealer to have their KOS ECU replaced. **When an appointment is made, please advise the customer to bring ALL F.A.S.T. Keys for registration to the new KOS ECU.** A copy of the customer notification letter appears at the end of this bulletin.

## 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.

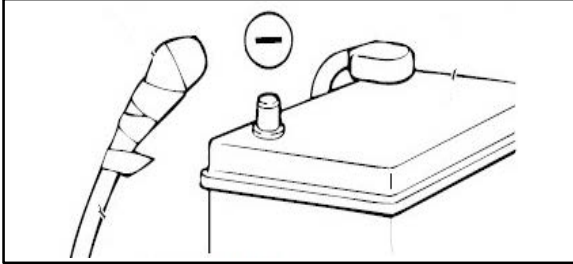
## SPECIAL EQUIPMENT

**The following equipment is needed to write the VIN into the KOS ECU and re-register the F.A.S.T. Key(s) and TPMS transmitters:**

- VCI (Vehicle Communication Interface) or VCI Lite – MB991824 or MB992744.
- MEDIC Laptop computer with A/C power adapter – 520924, or 547708.
- MUT-III main harness 'A' (blue connector at the DLC end) – MB991910 or MB992745.
- USB 2.0 cable – MB991827 or MB992747.

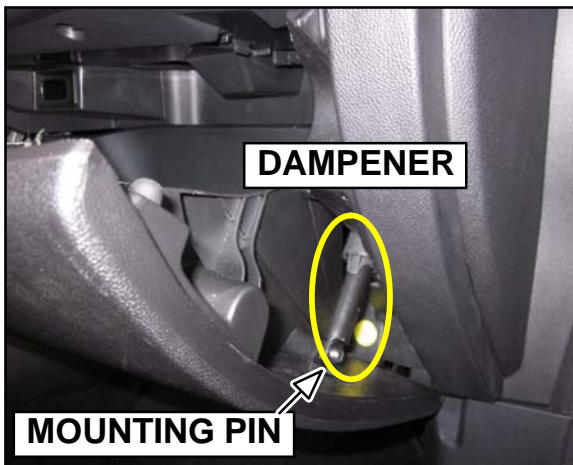
## REPLACEMENT PROCEDURE

**NOTE:** Replacement of KOS ECU requires re-registration of all F.A.S.T. Keys. Ensure all F.A.S.T. Keys are available.

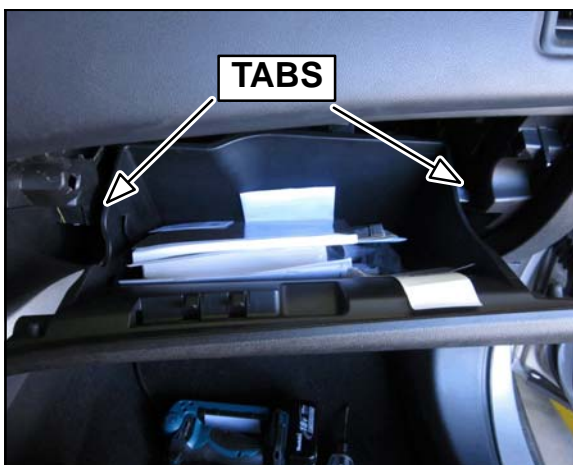


1. If the vehicle is not equipped with the optional OEM navigation unit, please record all radio station presets and reprogram when replacement is completed.
2. Open the hood. Disconnect the negative (-) cable terminal from the battery and insulate it with electrical tape.

**NOTE:** During re-installation, torque negative (-) cable terminal to  $44 \pm 8$  in-lb.

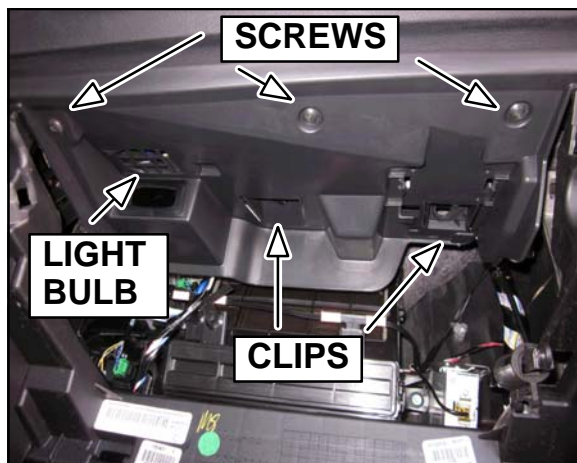


3. Open the glove box. Slide the dampener off the glove box door mounting pin with your fingers to disconnect it.



4. Squeeze the glove box sides together to release (2) tabs. Dismount the glove box from the bottom support to remove it.

**NOTE:** Bottom support not shown.

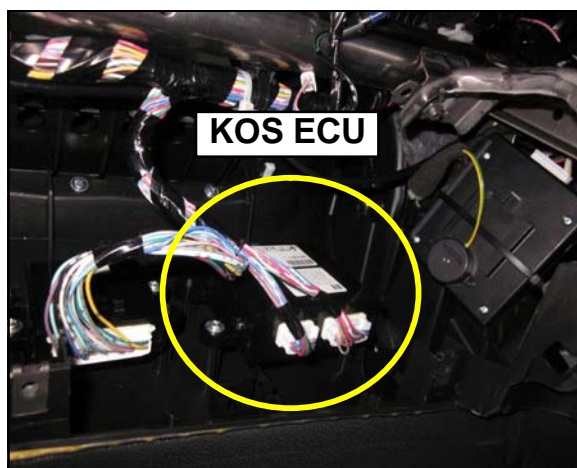


5. Unscrew (3) screws and detach (2) clips to drop the glove box top cover. Do not remove it at this time.

**NOTE:** Please use a 90 degree pick to release and remove the center-mounted clip.

**NOTE:** The remaining clip remains attached to the glove box top cover after removal.

6. *Disconnect the key slot wiring harness and glove box light bulb. Then remove the glove box top cover.*

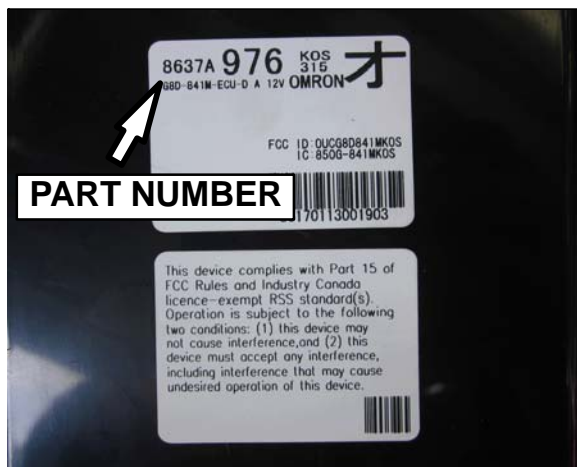


**IMPORTANT:** Ensure Step 2 (negative battery cable disconnection) is completed prior to completing Step 7. Removing and installing a KOS ECU with the negative battery cable connected may cause the following DTCs to appear:

- KOS ECU – B241B (ESL Power Circuit Open)
- OSS ECU – B1145 (ESL Drive Circuit Fail)
- OSS ECU – B1143 (ESL Status Fail)
- OSS ECU – B1152 (ESL Drive Circuit Fail (ESL))

7. Locate the KOS ECU on the underside of the dash panel and disconnect (2) connectors. Unscrew (2) screws and remove the KOS ECU.

**NOTE:** The KOS ECU is labeled in the upper right hand corner. See the illustration in the next step.



8. **Ensure the correct replacement KOS ECU part number is used. Please reference the Parts Information section for more information.** Install the replacement KOS ECU, (2) screws, and re-connect (2) connectors.

**NOTE:** Part number 8637A976 is shown for illustration purposes only.

9. Complete Steps 2–6 in reverse order to re-assemble the vehicle

## KOS ECU VIN WRITING AND F.A.S.T. KEY REGISTRATION PROCEDURE

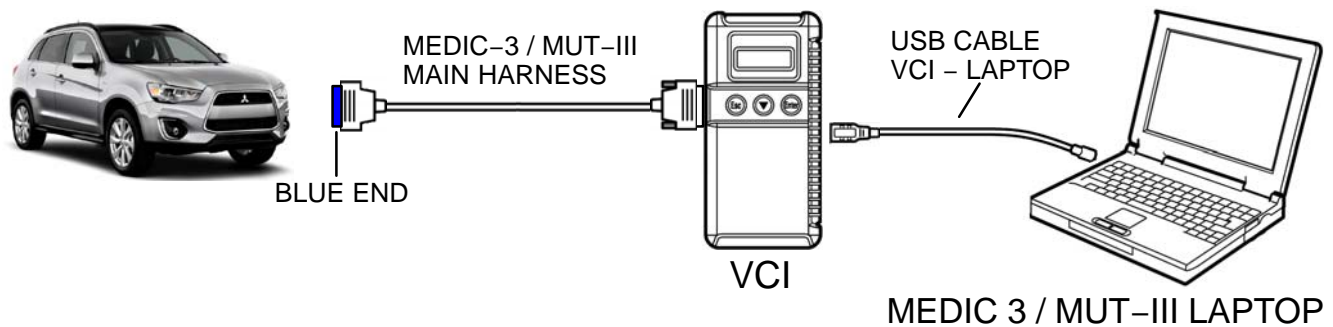
**NOTE:** Ensure all non-genuine electronic accessories are removed from the accessory socket. Connected accessories may interfere with the VIN writing and F.A.S.T. Key registration procedure.

**NOTE:** Electrical wave interference from a high energy power source, such as a power transformer or EV charging station, may interfere with the VIN writing and F.A.S.T. Key registration procedure. Please move the vehicle away from any high energy power source.

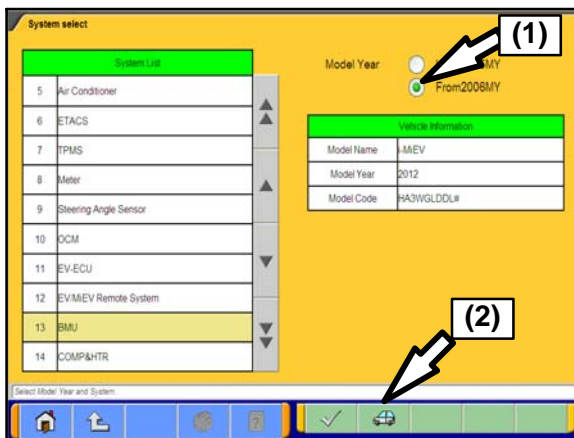
1. Connect the equipment as follows:

- Turn the laptop computer on.
- Connect the USB cable to the VCI or VCI Lite.
- When the laptop displays the MUT-III main screen, connect the USB cable to the laptop.
- Connect the MUT-III main harness with the blue DLC connection to the VCI or VCI Lite.
- Connect the blue connector of the MUT-III main harness to the vehicle's data link connector.

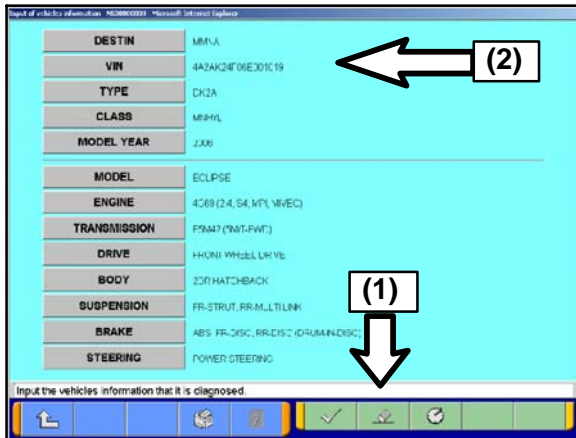
**NOTE:** VCI shown for illustration purposes only.



2. Place the F.A.S.T. Key fob in the key slot located in the glove box.
3. Push the engine switch to the "ON" position. The vehicle cannot be turned "ON" since the KOS ECU was replaced. The "Key Not Detected" warning will display on the Multi-information display. Please proceed with the VIN writing procedure.
4. From the MEDIC main page,
- a. Click on MUT-III.
  - b. Select "System Select".

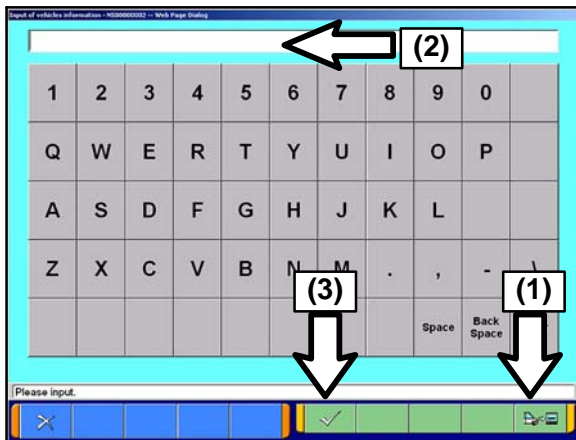


- c. Make sure the "From 2006MY" button is selected (1). Click on the car icon at the bottom of the screen (2).



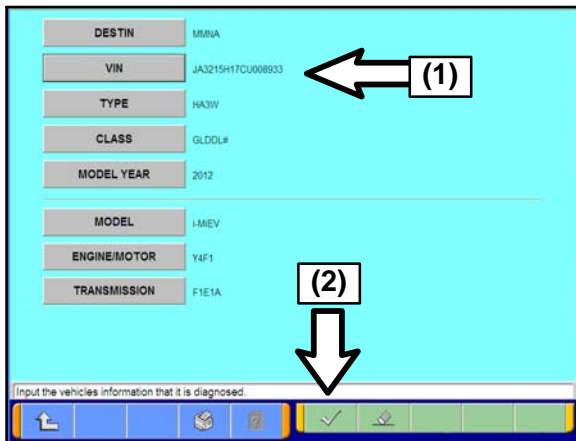
- d. If the VIN listed does not match the vehicle you are working on, click on the eraser icon at the bottom of the screen (1).

Click on the VIN button (2).



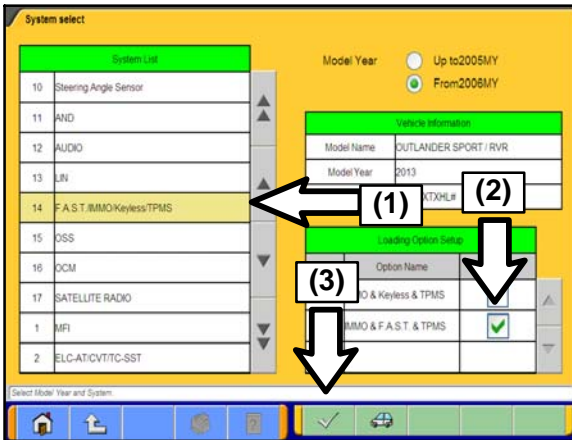
- e. Click on the icon in the lower RH corner of the screen to have the MUT-III automatically read the VIN (1). If a message appears saying that the VIN cannot be read automatically, manually type the 17 digit VIN into the VIN field (2).

When the VIN is entered correctly, click on the "OK" (check mark) icon to continue (3).



- f. Ensure the VIN entered is correct (1).  
 Click on the "OK" (check mark) icon to continue (2).

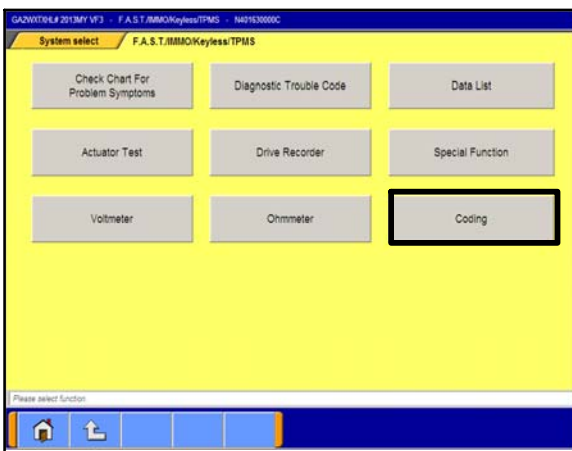




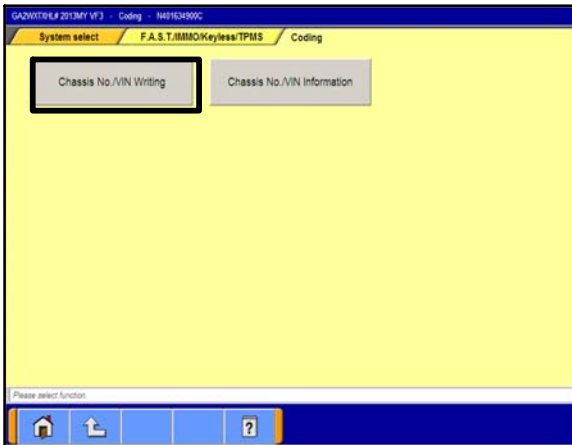
g. Scroll down the System List and select “F.A.S.T./IMMO/Keyless/TPMS” (1).

In the Loading Option Setup, select “IMMO & F.A.S.T. & TPMS” (2).

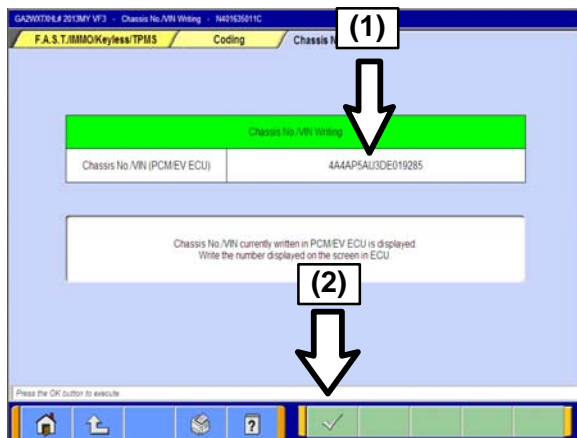
Click on the “OK” (check mark) icon to continue (3).



h. Select “Coding”.

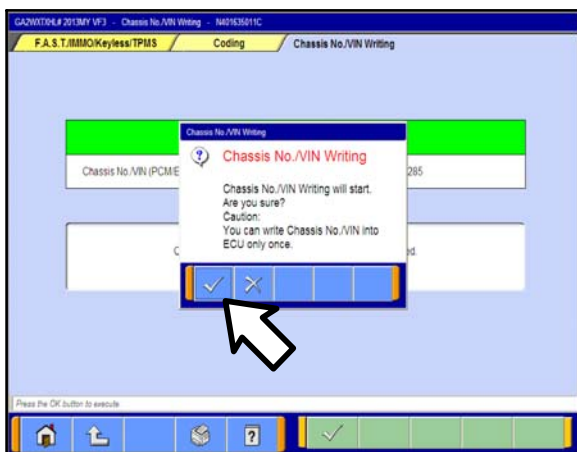


i. Select “Chassis No./VIN Writing”.



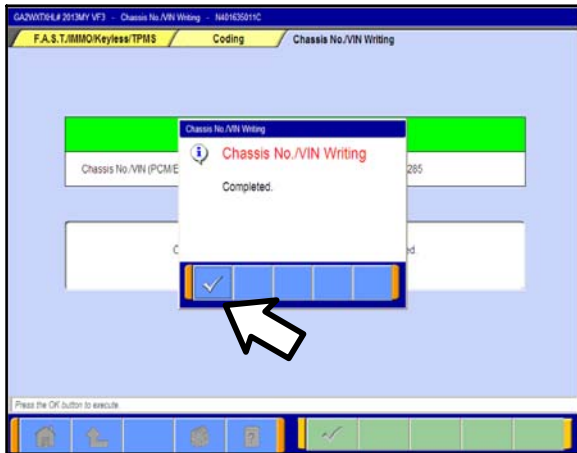
- j. The VIN written into the PCM is displayed (1). Confirm the displayed VIN matches the VIN plate or FMVSS Label located on the driver's side b-pillar.

Click on the "OK" (check mark) icon to continue (2).

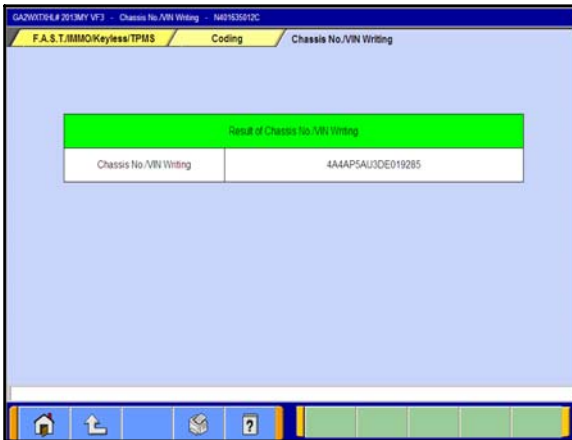


- k. The Chassis No./VIN Writing prompt will appear. Click on the "OK" (check mark) icon to begin.

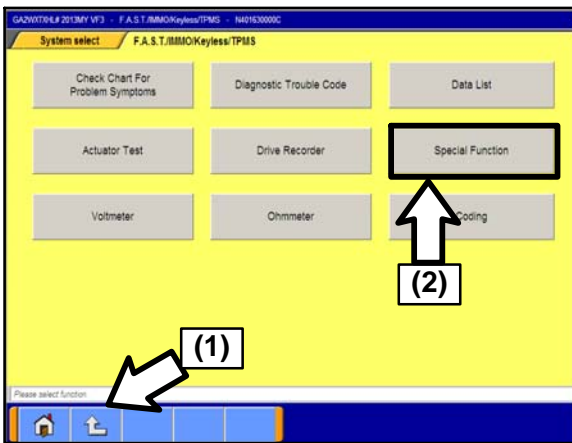
**NOTE:** The vehicle will turn "ON" during the VIN writing procedure. This is normal. Please proceed.



- l. Confirmation of Chassis No./VIN Writing completion will prompt. Click on the "OK" (check mark) icon to continue.

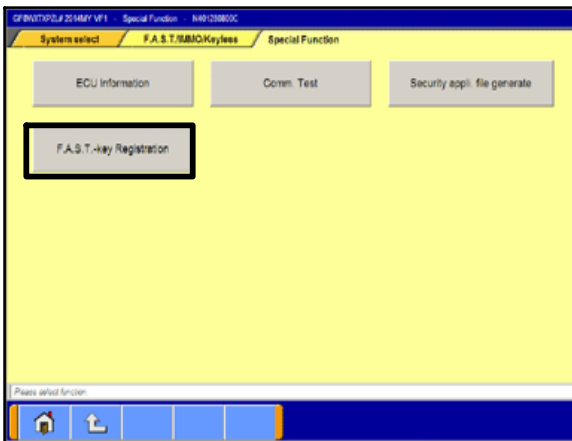


- m. The Results of Chassis No./VIN Writing will display. Ensure the VIN is correct.



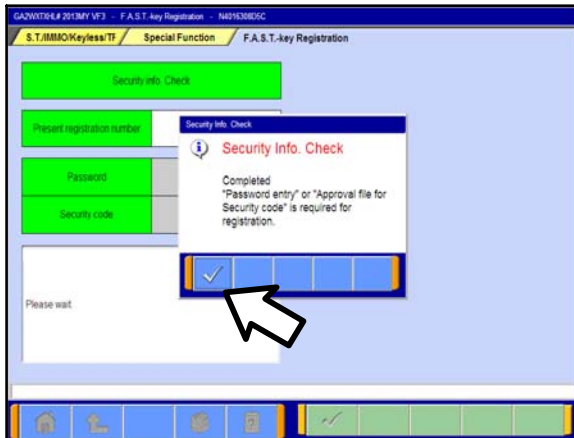
- n. Click on the “back” icon (1) until you reach the “F.A.S.T./ IMMO/Keyless/TPMS” screen.

Select “Special Function” (2).

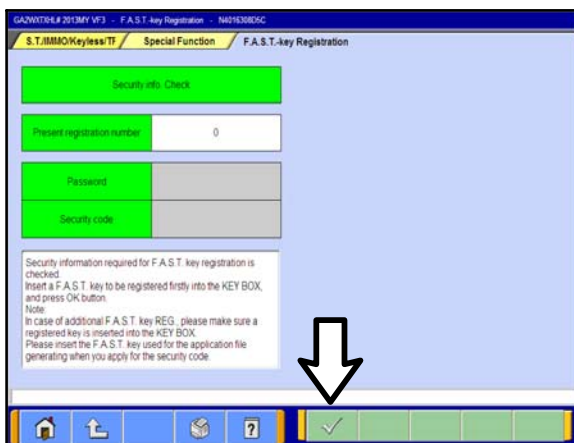


- o. Select “F.A.S.T.–key Registration”.



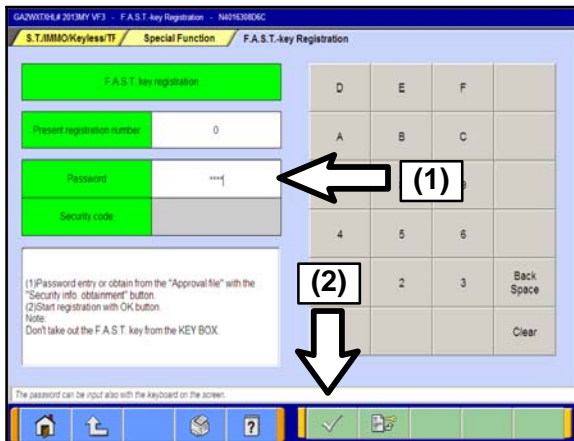


p. The Security Info. Check will display. Click on the “OK” (check mark) icon to continue.



q. Access the Key Register Password on Mitsubishi Dealer Link to obtain the password for F.A.S.T. Key registration.

r. Click on the “OK” (check mark) icon to continue.



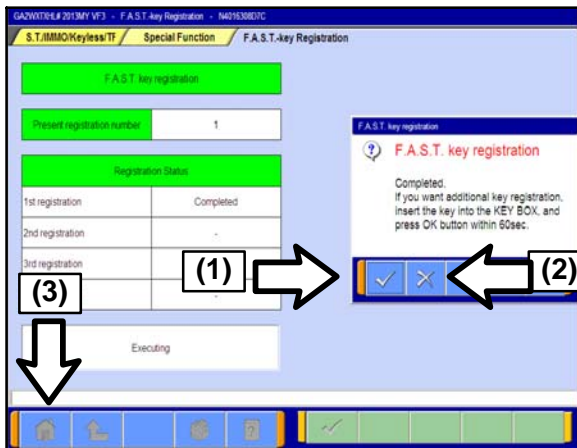
s. Enter the password (1).

Click on the “OK” (check mark) icon to begin F.A.S.T. Key registration (2).

**NOTE:** The “Key Not Detected” warning will display on the Multi-information display. Please proceed with the F.A.S.T. Key registration procedure.

**NOTE:** The vehicle will turn “ON” during the F.A.S.T. Key registration procedure. This is normal. Please proceed.

**NOTE:** If F.A.S.T. Key registration is not successful, move the vehicle away from any high energy power source, ensure all non-genuine electronic accessories are removed from the accessory socket, and remove all accessories from the F.A.S.T. Key fob, such as a key ring, and try again.



- t. When F.A.S.T. Key registration completes, the system prompts the user to insert any additional F.A.S.T. Key fobs into the key slot within 60 seconds of completing the previous registration.

After inserting another key fob, click on the “OK” (check mark) icon to register another F.A.S.T. Key (1).

Once all F.A.S.T. Key fobs are registered, click on the “Cancel” icon to complete F.A.S.T. Key registration (2).

- u. Start the engine to ensure the F.A.S.T. Key is registered properly. Turn the engine off.
- v. Click the Home icon to return to the MEDIC main page (3).

### ***TPMS TRANSMITTER and REMOTE ENGINE START (if equipped) ACCESSORY REMOTE REGISTRATION PROCEDURE***

1. From the MEDIC main page,
  - a. Click on MUT-III.
  - b. Select “System Select”.
  - c. Select “F.A.S.T. / IMMO / Keyless / TPMS”.
  - d. Select “IMMO & F.A.S.T. & TPMS” and click on the “OK” (check mark) icon.
  - e. Select “Special Function”.
  - f. Select “Tire Pressure Sensor ID Registration”.
  - g. Select “4tires ID Reg. (Change tire PRS.)”. Click on the “OK” (check mark) icon.
  - h. When the following prompt displays, “4 SNSR ID Registration Do you want to start? Note finish ID Registration within 20 minutes”, click on the “OK” (check mark) icon.

**NOTE:** All four tire pressure sensor IDs must be registered within 20 minutes. If not registered within 20 minutes, **ALL** ID codes registered in the TPMS controller will be erased and the registration procedure must be restarted from the beginning.

- i. Select any wheel. Decrease the tire pressure to under 25 psi and by reducing the air pressure by more than 3psi at one time. Once the TPMS transmitter ID code registration is successful for that wheel, the TPMS transmitter ID code will display on the MUT III / MEDIC screen.

**IMPORTANT** The MUT III / MEDIC cannot identify which registered TPMS transmitter corresponds with which wheel. To match the wheel to the ID code, write down which wheel and the ID code that displays on the MUT III / MEDIC screen when the wheel is successfully registered.

**NOTE:** You may begin registration with any of the four TPMS transmitters. The tire pressure sensor ID registration does not require any specific order.

**NOTE:** It may take approximately one minute for the ID code to be displayed on the MUT III / MEDIC screen. If the ID code is not displayed within one minute, reduce the tire pressure

by at least another 3 psi. If it still does not display, turn the wheel 180 degrees and reduce the tire pressure by at least another 3 psi again.

**NOTE:** If at least one TPMS transmitter ID Code can be registered, then the TPMS transmitter that cannot be registered may be faulty.

**NOTE:** If none of the TPMS transmitters ID Codes can be registered, the KOS ECU may be faulty.

**NOTE:** Repeat Step i until all four wheels are completed and all four TPMS transmitter ID codes are registered.

- j. When registration is complete, the phrase “4 SNSR ID Registration Completed.” is displayed. Select “OK”.

**NOTE:** The TPMS indicator will be illuminated due to detection of low tire pressure.

2. *Wait at least one minute. With the engine switch in the “ON” position, set the tire pressure according to the tire pressure listed in the Tire & Loading Information Placard affixed to the driver’s door sill.* ◀
3. Check the data list for “Registered ID reception, Tire 1, 2, 3, 4” . If “YES” is displayed for each tire, the TPMS transmitters were successfully registered. If “NO” is displayed for any tire, drive the vehicle for approximately 5 minutes, then check the data list again. If “NO” is still displayed, repeat Steps 1–3 again.
4. *With the engine switch in the “ON” position, determine if the TPMS indicator is illuminated. If illuminated, ensure the tire pressure is set correctly on all four tires and repeat this step.* ◀
5. Erase DTCs from the ECU. From the MEDIC main page,
  - a. Click on MUT–III.
  - b. Select “Special Function”.
  - c. Select “All DTCs”.
  - d. Select “Erase and read all DTCs”.
6. *If DTC B241B, B1145, B1143, or B1152 appear, open and close the driver’s door with the engine switch in the “OFF” position, then start the engine. Turn off the engine and perform “Erase and read all DTCs” again. If these DTCs re–appear, troubleshoot per the applicable service manual.* ◀

*If any other DTCs appear, troubleshoot per the applicable service manual.*

7. If applicable, reprogram the radio station presets.
8. *If the vehicle is equipped with the accessory Remote Engine Start (RES) system, re–register the RES accessory remote as follows:* ◀

**NOTE:** *If you do not hear the confirmation beeps during any of the steps in the accessory remote registration procedure, please restart the procedure from Step 8a.* ◀

- a. *Open the driver’s door and sit in the driver’s seat with the engine switch in the OFF position. Ensure all doors, windows, hood, and liftgate are closed. Have the accessory remote readily available.* ◀

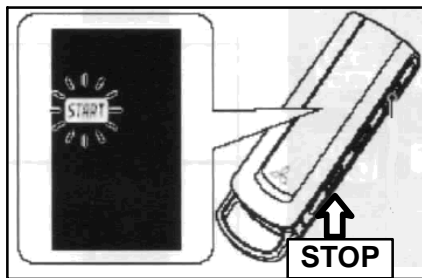
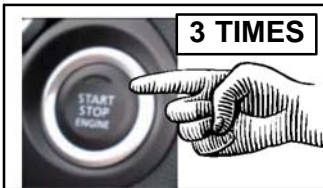
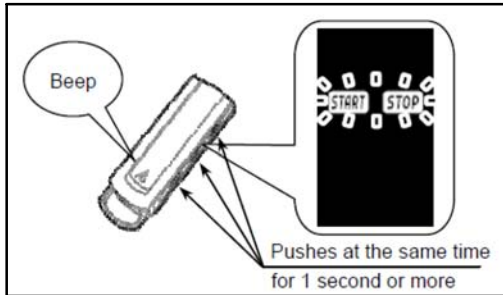


- b. *Press the engine start/stop switch 15 times. This step must be completed within 10 seconds. The ECU will beep once to confirm this step was completed successfully.* ◀

c. Within 5 seconds of completing Step 8b, depress the (3) buttons on the accessory remote as follows:

i. Press "Stop" and "Start" and continue to hold.

ii. While holding "Stop" and "Start", press "Function" and hold all (3) buttons for at least 1 second.

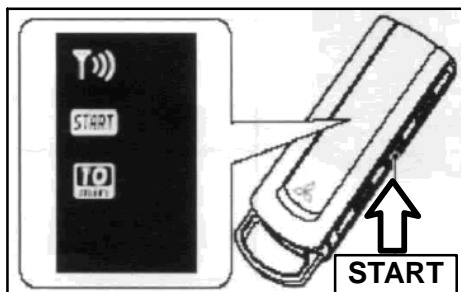
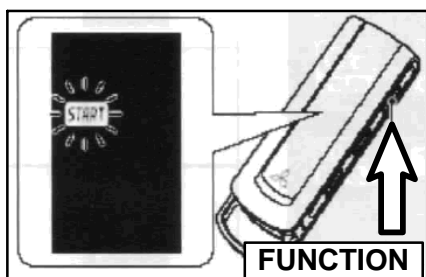


iii. The accessory remote will beep and the "Start" and "Stop" lights will blink to confirm this step was completed successfully. If this step was not completed successfully, wait until you hear 3 beeps (approximately 25 seconds) and restart from Step 8b.

d. While the "Start" and "Stop" lights on the accessory remote are blinking, press the Engine start/stop switch 3 times in 1 second intervals (press – wait 1 second – press – wait 1 second – press – done). The ECU will beep once to confirm this step was completed successfully.

e. Press and hold "Stop" on the accessory remote for at least 1 second. The vehicle will beep twice to confirm this step was completed successfully.

f. Within 10 seconds of completing Step 8e, press the unlock button on the F.A.S.T. Key 3 times. The door locks will automatically lock and unlock once, and then lock and unlock again after several seconds.



- g. Confirm operation of the RES accessory remote. ◀
- i. Press and release “Function”. The “Start” light will blink on the accessory remote. ◀
- ii. Press and hold “Start” for 1 second or longer until a beep is heard from the accessory remote. ◀
- iii. When the wireless communication is successfully completed, the engine will start.. ◀

9. If the vehicle is a 2012 Outlander Sport/RVR and KOS ECU Part Number **8637A527** was used, complete the campaign claim and enter campaign operation number **C1402Z01**.

If the vehicle is a 2013 Outlander Sport/RVR and KOS ECU Part Number **8637A976** was used, complete the campaign claim and enter campaign operation number **C1403Z01**.

## PARTS INFORMATION

Use the genuine Mitsubishi Part listed below:

Description	Part Number	Quantity
KOS ECU for <u>2012</u> Outlander Sport/RVR	8637A527	1
KOS ECU for <u>2013</u> Outlander Sport/RVR	8637A976	1

A supply of kits will be automatically shipped to dealers to allow for rework of **all in-stock / new unsold vehicle(s)**. Dealers will also be **force allocated stock** using a formula based on the proximity and percentage of applicable registered VINs by zip code.

Please refer to Parts Bulletin 54-US-001-14 for additional information.

## WARRANTY INFORMATION

There is only one repair scenario.

#	Repair Procedures		Repair Scenario	Labor Time Allowance
1	Replace KOS ECU	Replace the keyless operating system control unit	C1402Z01 for 2012 MY C1403Z01 for 2013 MY	.7 hours

## WARRANTY / SERVICE 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 codes that correctly match up with the work that was actually performed. A claim example is provided below.

Certain 2012 & 2013 MY Outlander Sport/RVR with a Keyless Operating System (KOS)

Required Operation to be performed by model year	Labor Operation	Labor Time
1. 2012MY – Replace KOS ECU	<u>C1402Z01</u>	<u>.7 hrs.</u>
2. 2013MY – Replace KOS ECU	<u>C1403Z01</u>	<u>.7 hrs.</u>

Claim Header Section: 2012 and 2013MY Outlander Sport/RVR – KOS ECU Replacement

The screenshot shows the 'Service Warranty' claim entry interface. The 'Campaign Information' section is highlighted with callouts:

- Callout 1:** Enter in the first 6 characters of this campaign labor operation: C1402Z for Japan built 2012MY vehicles (JA) or C1403Z for US built 2013MY vehicles (4A).
- Callout 2:** This campaign is for the replacement of the KOS ECU on certain 2012MY and 2013MY Outlander Sport/RVR models with a keyless operating system (KOS).
- Callout 3:** Check the Open Campaign area of the Superscreen each time to be certain of a vehicle's eligibility. Only VINs showing C1402Z or C1403Z as open are involved.

The form fields shown include:

- Campaign Operation No:** C1402Z.. or C1403Z
- Miles/Km:** 5000
- VIN:** JA (2012) or 4A (2013)
- Service Technician:** [Dropdown]
- Service Advisor:** [Dropdown]
- Spec Value \*:** [Text Field]
- Duplicate Recall \*:** [Checkbox]
- Dealer:** 99320
- Ref No:** [Text Field]
- VIN:** [Text Field]
- Claim No:** [Text Field]
- Adj:** [Text Field]
- Claim Status:** Incomplete
- Model and Year:** [Dropdown]

Buttons at the bottom: Save & Continue, Main Menu



After entering the required customer data, vehicle information and applicable campaign operation number, depending on the model year and "Repair Performed" scenario that is selected from the menu, hitting the "Save and Continue" button will automatically fill-in several fields. Please note there is only 1 possible repair scenario for this campaign.

CAMPAIGN INFORMATION					
Campaign Operation No	C1402Z (2012MY) or C1403Z (2013MY)	2012MY and 2013MY Outlander Sport with KOS	Repair Performed	C1402Z or C1403Z Replace KOS ECU	
Miles / KM	5,000		Repair Order No	EX12345	
VIN		Repair Date In	03 / 25 / 2013	Repair Date Out	03 / 25 / 2014

**Service Campaign Claim Example:**

Follow these instructions for performing the replacement of the KOS ECU on certain 2012MY and 2013MY Outlander Sport/RVR models with KOS.

**PARTS:**

There is only one repair scenario and it requires the replacement of the KOS ECU.

Scenario #1 – on 2012MY vehicles – replace the KOS ECU

Part # 8637A527

Show Part Number to Labor Operation Lookup on Labor Page Yes

	Delete	Part No	Part Description	Qty	Unit Price
1	<input type="checkbox"/>	8637A527	CONTROL UNIT,ENG	1	xxx.xx
2					

Scenario #1 – on 2013MY vehicles – replace the KOS ECU

Part # 8637A976

Show Part Number to Labor Operation Lookup on Labor Page Yes

	Delete	Part No	Part Description	Qty	Unit Price
1	<input type="checkbox"/>	8637A976	CONTROL UNIT,ENG	1	xxx.xx
2					

**LABOR:**

The full service campaign labor operation number of either: C1402Z01 for 2012MY vehicles or C1403Z01 for 2013MY vehicles and the allowed labor time of .7 hours will be automatically entered as a result of your 'Repair Performed' scenario selected from the "Vehicle" page.

MITSUBISHI DEALER LINK														
Claim Entry		Vehicle Information		Corporate		e-Reports		DMS Interface		PQR/VQR		PRC Center		
Vehicle		Parts		Step 3: Labor		PWA		Review						
Add Page - Labor Information														
Delete	Sublet	Labor Op	Labor Operation Description			Qty	Hours / Sublet Amt	Total Labor Hrs	Total Labor Amt					
		for 2012MY C1402Z01	Replace KOS ECU	for 2012MY vehicles (VINS that start with JA)			1	0.7	0.7	XX.XX				
		or												
		for 2013MY C1403Z01	Replace KOS ECU	for 2013MY vehicles (VINS that start with 4A)			1	0.7	0.7	XX.XX				



**Mitsubishi Motors North America, Inc.**  
6400 Katella Avenue  
Cypress, CA 90630  
Telephone: 714-372-6000  
www.mitsubishicars.com

AFFECTED VEHICLES  
MODEL: 2012 – 2013 Outlander Sport

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

Date: March, 2014

Re: Customer Satisfaction Campaign SC-14-001

Dear Mitsubishi Owner,

Mitsubishi Motors always strives to build vehicles with the highest level of quality, plus continuously improve the level of quality with every vehicle built. We are recommending the following product improvement be performed on certain 2012 Outlander Sports built December 26, 2011 to June 1, 2012 and certain 2013 Outlander Sports built July 20, 2012 to February 28, 2013.

**Recommended Product Improvement:**

Due to a manufacturing error, the Keyless Operation System Electronic Control Unit (KOS ECU) may fail in low temperature conditions. As a result of this failure, the engine cannot be started and the doors, tailgate, and steering cannot be locked or unlocked.

**What your dealer will do:**

Your Authorized Mitsubishi dealer will replace the KOS ECU, **free of charge**. This replacement will take approximately **1.0** hour to complete. However, the dealer may need your vehicle for a longer period of time due to scheduling. Every effort will be made to minimize your inconvenience.

**What you should do:**

Please contact your local Authorized Mitsubishi dealership to schedule an appointment. Although not required, it is recommended to bring this letter when you take your vehicle into the dealership. **Please bring all Free-Hand Advanced Security Transmitter (F.A.S.T.) keys with you to the dealership. The keys must be reprogrammed to work with the new KOS ECU.**

If you have any questions regarding this customer satisfaction campaign, please contact us:

Mitsubishi Customer Relations Department  
P.O. Box 6400  
Cypress, CA 90630-0064  
Phone 1-888-648-7820  
Hours: Monday – Friday 7 a.m. – 4 p.m. Pacific Time

If you have already encountered a problem based on the above condition and have paid for the repair, you may send your original receipts and/or other adequate proof of payment to the following address for reimbursement consideration:

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

We appreciate your prompt attention to this matter, and apologize for any inconvenience.

Sincerely,

Mitsubishi Motors North America, Inc.

C1402Z