



Technical Service Bulletin

SUBJECT:		No: TSB-16-54-005	
UNABLE TO RE-REGISTER IMMOBILIZER ID AFTER REPLACING ETACS ECU		DATE: October, 2016	
		MODEL: 2014-16 Outlander	
CIRCULATE TO:	<input 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 type="checkbox"/> SALES MANAGER

PURPOSE

After replacing the ETACS ECU in vehicles without KOS, a “Key Error” message will be displayed on MUT-III SE when re-registration of the immobilizer ID fails.

This TSB provides dealers a revised procedure to re-register the immobilizer ID after replacing the ETACS ECU.

BACKGROUND

The failure of the ID re-registration may be caused by the Secret Key Code (SKC) value of the engine ECU being rewritten unexpectedly by the ETACS ECU. This results in unmatching SKC values between the engine ECU and ETACS ECU, which in turn causes failure of the ID re-registration of the immobilizer.

AFFECTED VEHICLES

2014-2016 Outlander vehicles without KOS, built before July 2016.

REPAIR PROCEDURE

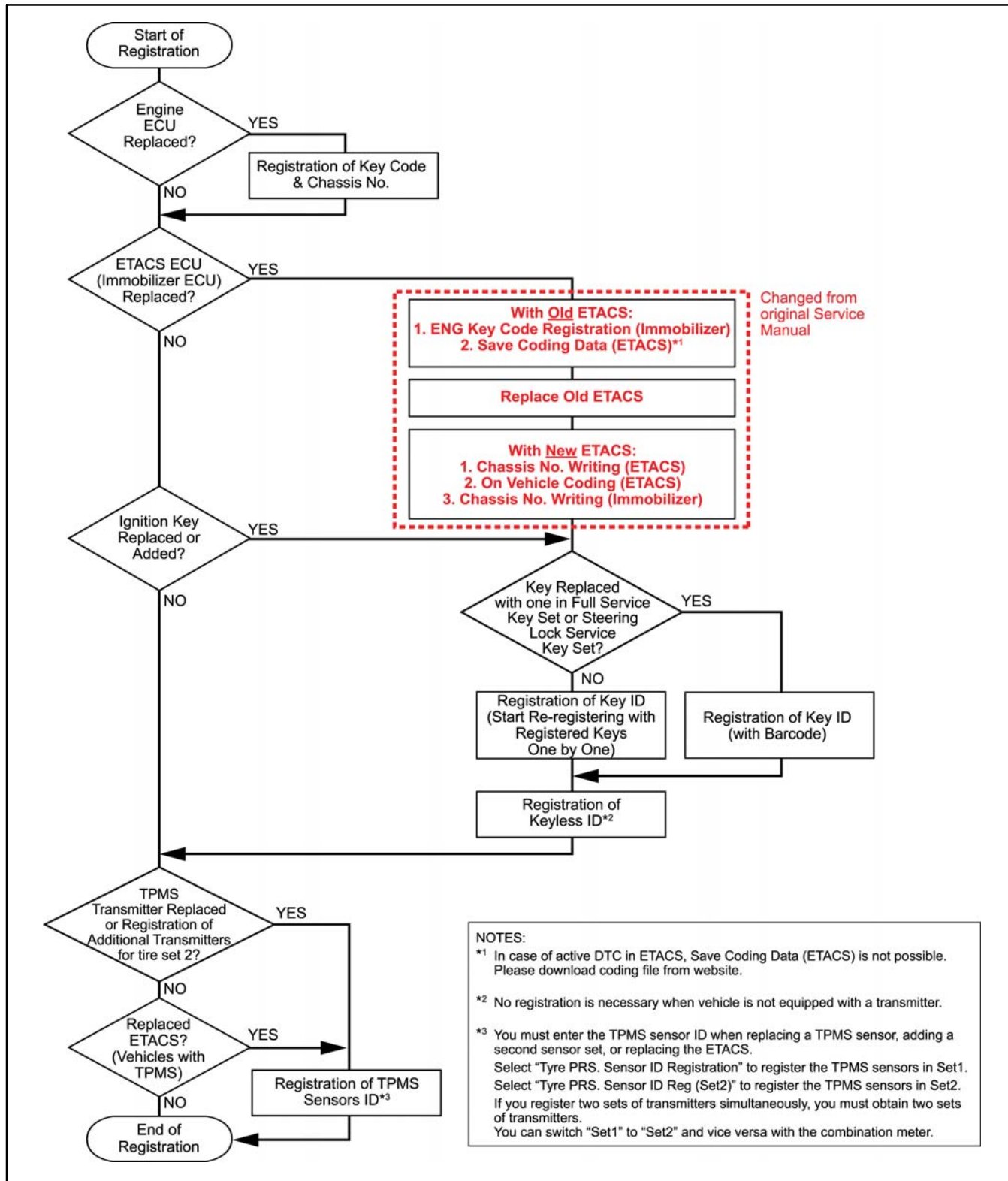
EQUIPMENT

The following equipment is needed to re-register the immobilizer ID after replacing an ETACS ECU.

- VCI (Vehicle Communication Interface) or VCI Lite – MB991824 or MB992744.
- MEDIC Laptop/Tablet with A/C power adapter – 520924, or FZG1MK2.
- MUT-III main harness 'A' (blue connector at the DLC end) – MB991910 or MB992745.
- USB 2.0 cable – MB991827 or MB992747.
- For Standalone MUT-III units, MUT-III Reprogramming Database **N16031** or higher.

A. REGISTRATION FLOW CHART

Please note changes from original Service Manual instructions in **red**.



NOTES:

- *1 In case of active DTC in ETACS, Save Coding Data (ETACS) is not possible. Please download coding file from website.
- *2 No registration is necessary when vehicle is not equipped with a transmitter.
- *3 You must enter the TPMS sensor ID when replacing a TPMS sensor, adding a second sensor set, or replacing the ETACS. Select "Tyre PRS. Sensor ID Registration" to register the TPMS sensors in Set1. Select "Tyre PRS. Sensor ID Reg (Set2)" to register the TPMS sensors in Set2. If you register two sets of transmitters simultaneously, you must obtain two sets of transmitters. You can switch "Set1" to "Set2" and vice versa with the combination meter.

B. PAIRING VEHICLE TO MUT-III SE

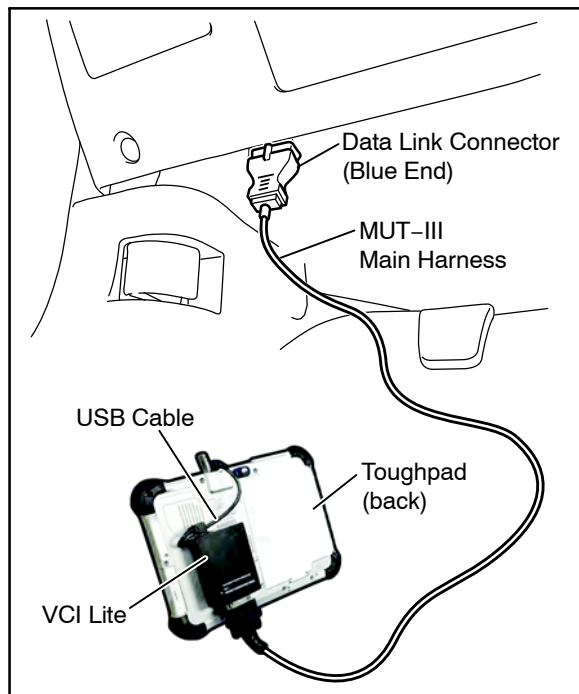
!! IMPORTANT !!

Start the procedure with the old ETACS ECU installed in the vehicle.

NOTE: VCI Stand-alone reprogramming is not available for this procedure.
The laptop/tablet and the VCI must remain connected for the entire procedure.

1. Connect the equipment as follows:

NOTE: VCI Lite and MEDIC 4.0 Toughpad shown for illustration purposes only.



- Turn the MEDIC PC/tablet on. If the battery indicator in the lower right hand corner of the screen does not show a full charge, it is recommended that either the battery be charged prior to beginning, or be used with the A/C power adaptor connected.
- Connect the USB cable to the VCI/VCI Lite.
- When the laptop/tablet displays the MUT-III main screen, connect the USB cable to the device.
- Connect the MUT-III main harness with the blue DLC connection to the VCI/VCI Lite.
- Connect the blue connection of the MUT-III main harness to the vehicle's data link connector.
- Turn the VCI power switch ON. Verify that the indicator lamp in the upper right corner of the screen is green.

CAUTION

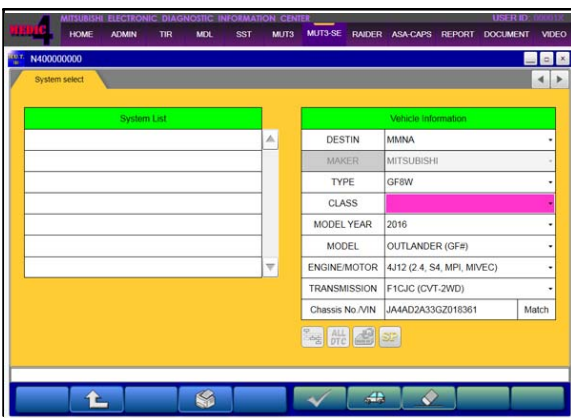
DO NOT DISTURB THE HARNESS CABLES OR CONNECTIONS DURING THE CODING PROCESS AS IT COULD CAUSE THE CONTROL UNIT TO LOSE DATA. IF THE USB CABLE IS DISCONNECTED DURING THIS PROCEDURE, A WARNING MESSAGE WILL DISPLAY.

2. Turn the ignition switch to the "ON" position.

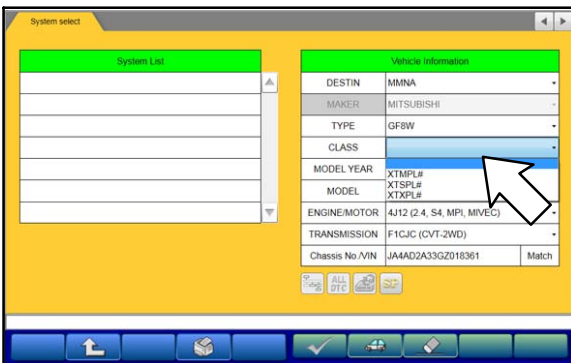


- Using MEDIC, from the main page, click the "MUT3-SE" icon at the top center of the screen to open MUT-III SE.

Click the STV button.

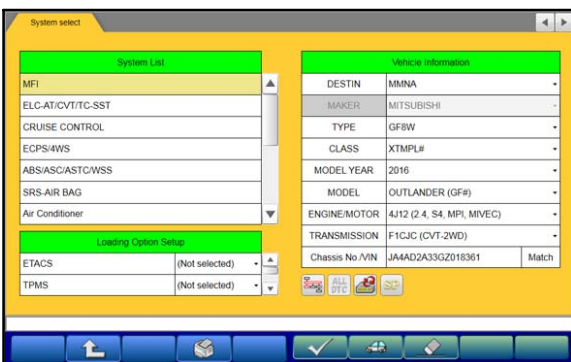


- The System Select screen opens and populates with some basic information from the vehicle.

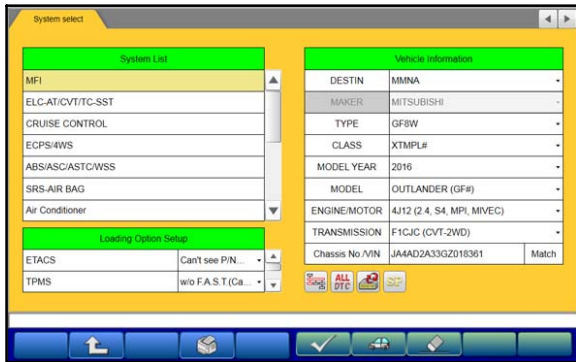


- Look at the label on the passenger side B pillar to identify the appropriate class.

Then select the correct class from the drop-down list.

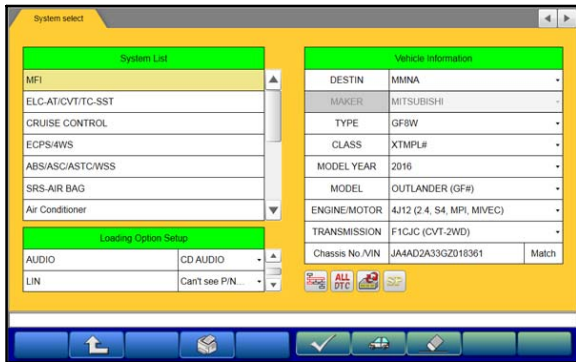


- The System List should now populate with vehicle information.

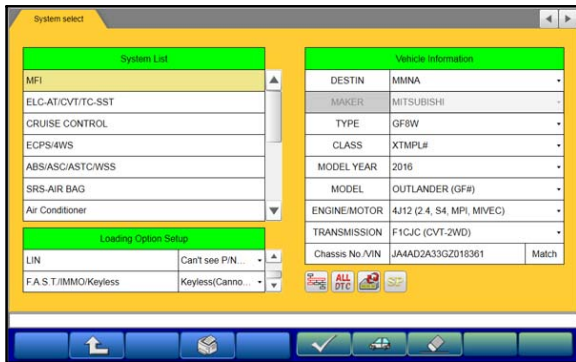


7. Under Loading Option Setup, make the following selections:

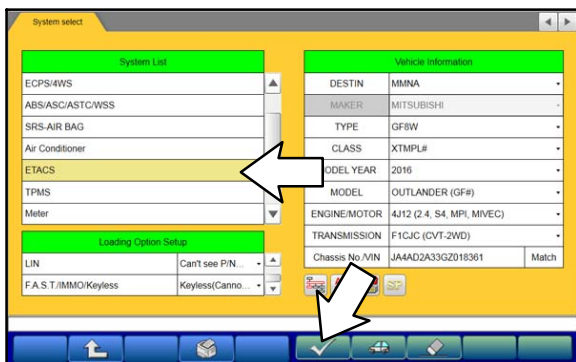
- ETACS: “Can’t See P/N”
- TPMS: “w/o F.A.S.T.”



8. Scroll down in Loading Option Setup and fill in selections with appropriate vehicle data.

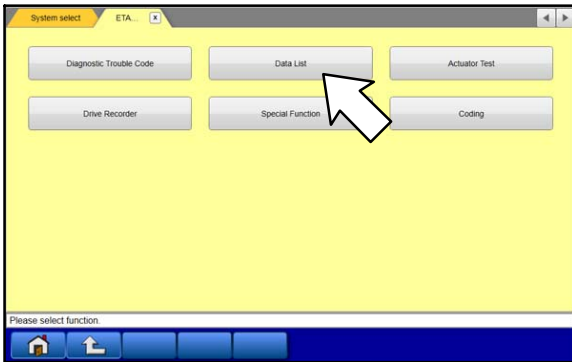


9. For “F.A.S.T./IMMO/Keyless” select “Keyless.”

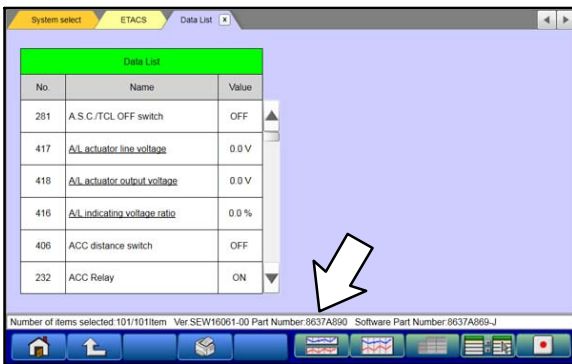


10. Obtain ETACS ECU part number for coding to the new ECU.

- Under System List, select “ETACS” then click the check mark at the bottom of the screen.



b. In the ETACS menu, select “Data List.”



c. Read and record the part number located in the bottom of the screen.

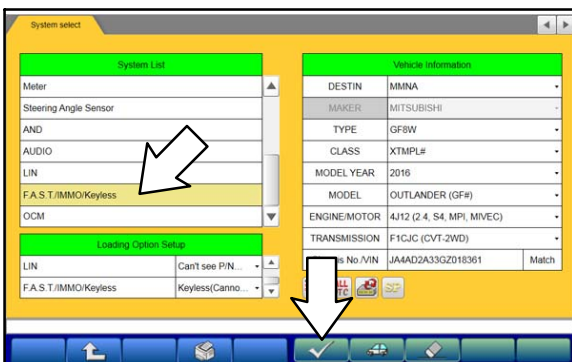
NOTE: This part number will be necessary, along with the VIN, to retrieve the correct coding file. Always use the original part number.

d. Click the Home icon to return to the main menu.

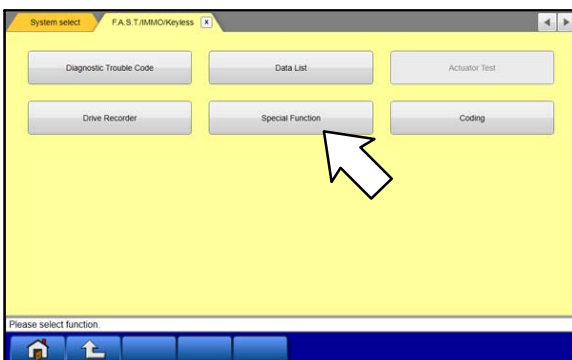
C. IMMOBILIZER REGISTRATION PROCEDURE (VEHICLES WITHOUT KOS)

!! IMPORTANT !! Start the procedure with the old ETACS ECU.

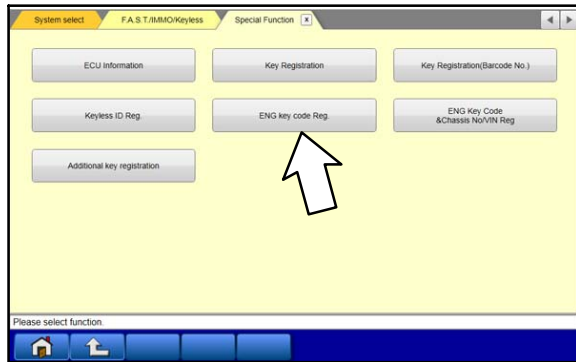
1. Perform ENG key code registration (Immobilizer).



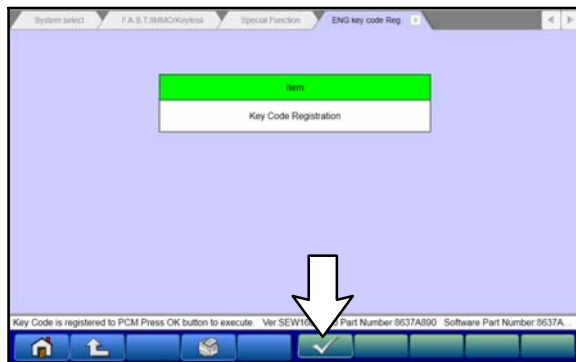
a. From the System List, select “F.A.S.T./IMMO/Keyless” then click the check mark at the bottom of the screen.



b. Click “Special Function.”

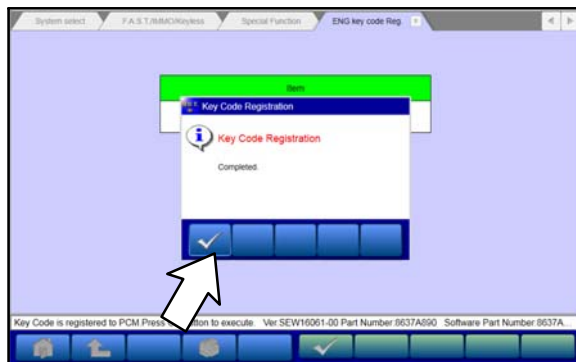


c. Click “ENG key code Reg.”



d. Click the check mark at the bottom of the page to execute the “Key Code Registration.”

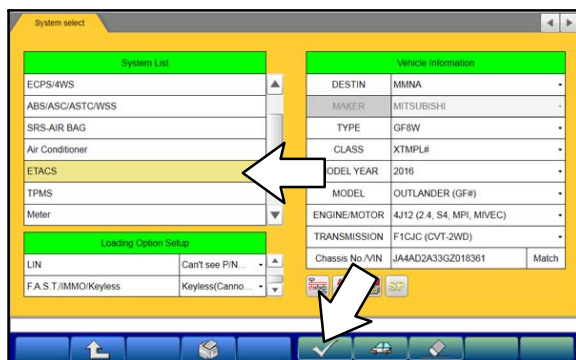
NOTE: The Secret Key Code (SKC) will be newly copied from the ETACS immobilizer to the Engine ECU.



e. The “Completed” message will appear after the command is successfully executed. Click the check mark to continue.

NOTE: If a DTC is set in the ETACS, it is not possible to save the coding. In case of a DTC, download the Variant Coding file for ETACS from the MDL through MEDIC. After downloading the Variant coding file for ETACS, proceed to step 4, Chassis No./VIN Writing (ETACS).

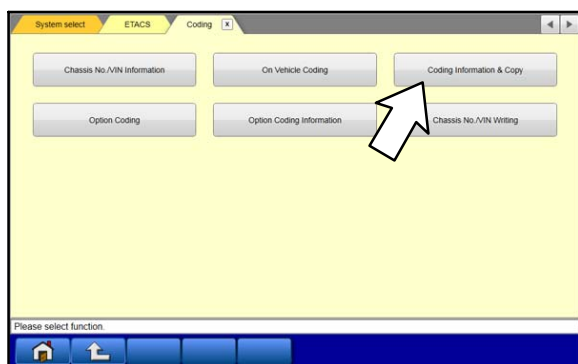
2. Save the ETACS Coding Data.



a. Select “ETACS” in the System List, then click the check mark at the bottom of the screen.



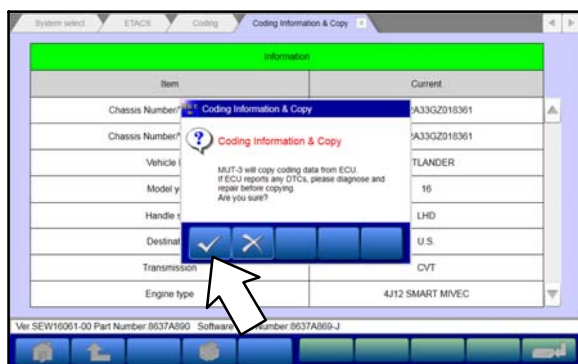
b. Select “Coding” in the ETACS system menu.



c. Select “Coding Information & Copy” in the ETACS Coding menu.



d. Click the Save button to save the ETACS coding data “.kon” file from the old ETACS to the MUT—III HDD.

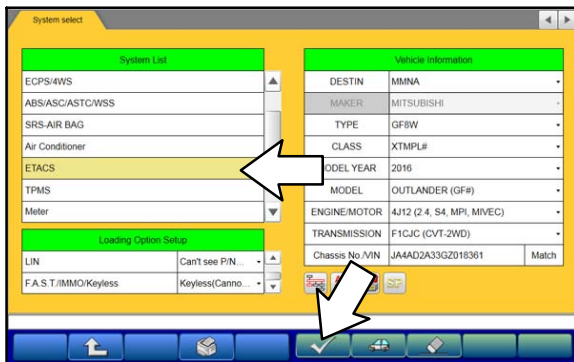


e. A “Coding Information & Copy” message will appear. Read the message, then click the check mark to confirm and save the coding data.



- f. A “File Save Complete” message will appear. Click the check mark to confirm and exit.

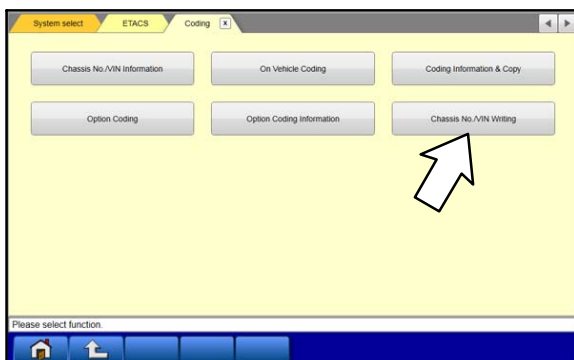
3. Replace the old ETACS with the new ETACS. Follow procedures in the applicable Service Manual.
4. Perform Chassis No./VIN Writing (ETACS).



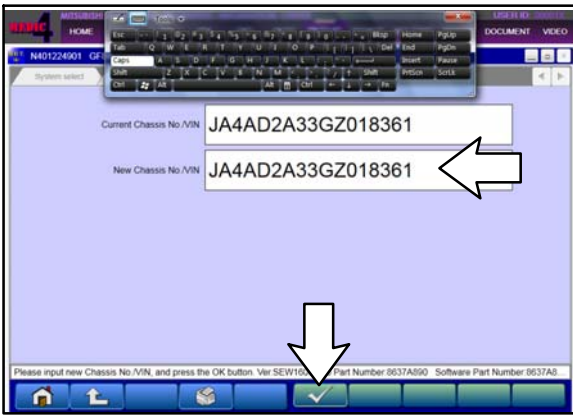
- a. Go back to the System Select screen and select “ETACS” in the System List, then click the check mark at the bottom of the screen.



- b. Click “Coding” in the ETACS system menu.



- c. Click “Chassis No./VIN Writing” in the ETACS Coding menu.



- d. Enter the original VIN in the “New Chassis No./VIN” input field.

Click the check mark at the bottom of the screen to confirm.

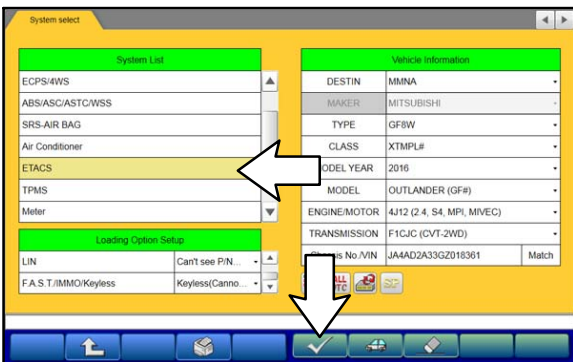
NOTE: If using Toughpad, it may be necessary to activate the keyboard from upper left of the screen.



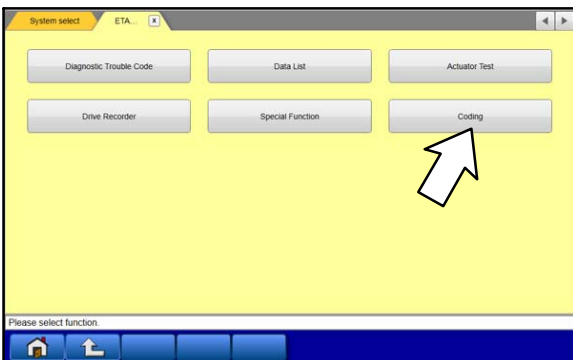
- e. A message will appear “Chassis Number or VIN will not be changed. Are you sure?”

Click the check mark in the dialog box to confirm and execute the chassis number registration command.

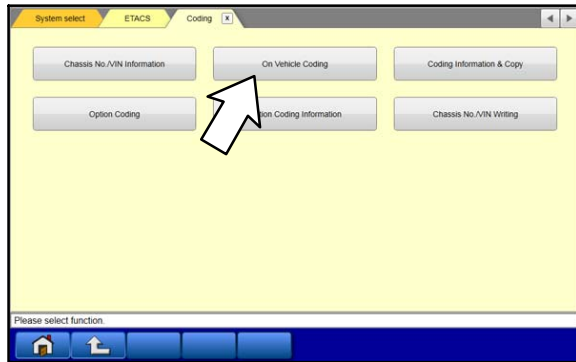
5. Perform On Vehicle Coding (ETACS).



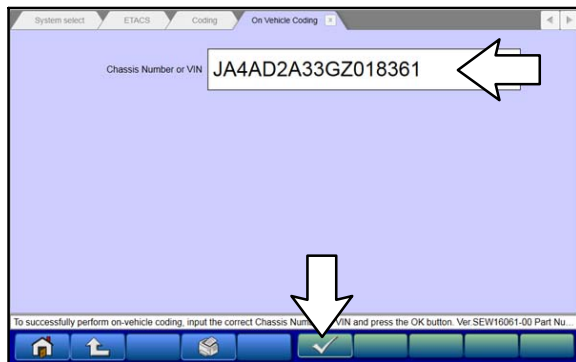
- a. Go back to the System Select screen and select “ETACS” in the System List, then click the check mark at the bottom of the screen.



- b. Click “Coding” in the ETACS system menu.

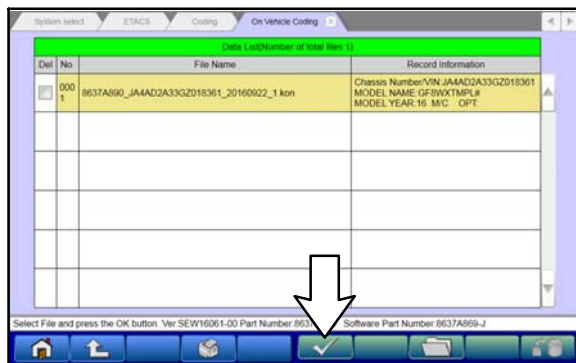


c. Click “On Vehicle Coding” in the ETACS Coding menu.



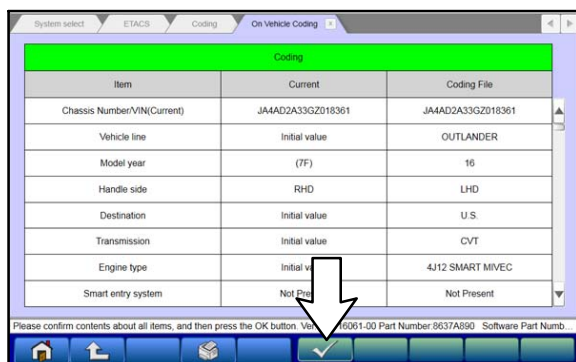
d. Enter the original VIN in the “Chassis Number or VIN” input field.

Click the check mark to confirm.



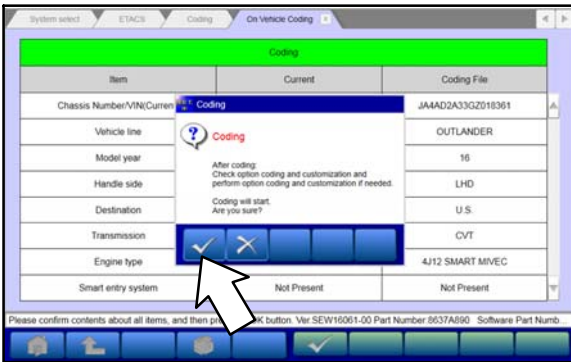
e. The coding “.kon” file is displayed in the Data List.

Click the check mark at the bottom of the page to confirm.

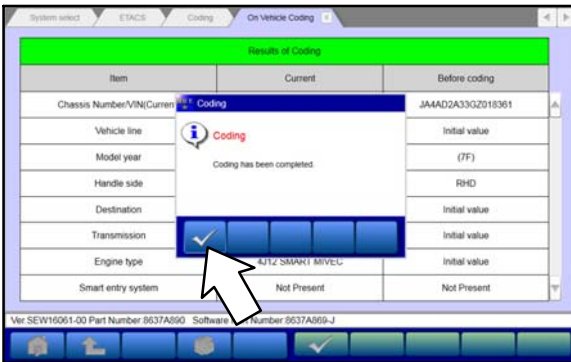


f. The current ETACS coding data and coding file data will be displayed.

Click the check mark at the bottom of the page to confirm.



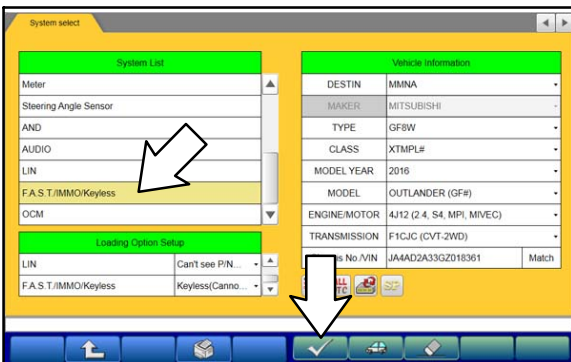
g. In the “On Vehicle Coding” dialog box, click the check mark to confirm and execute the ETACS variant coding.



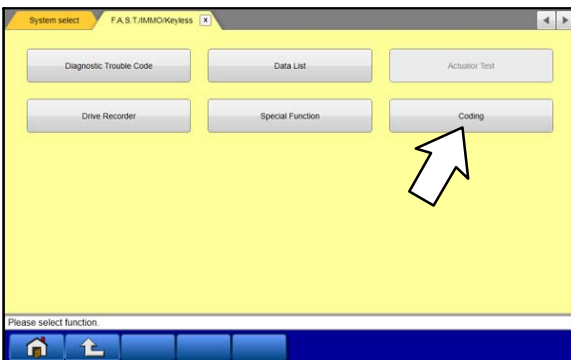
h. A “Coding has been completed.” message appears in the dialog box.

Click the check mark to display the new ETACS coding data.

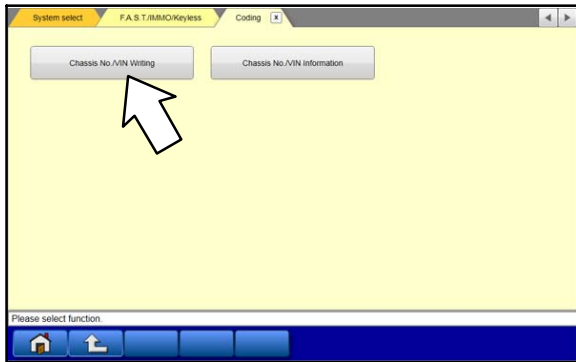
6. Complete Chassis No./VIN Writing (Immobilizer).



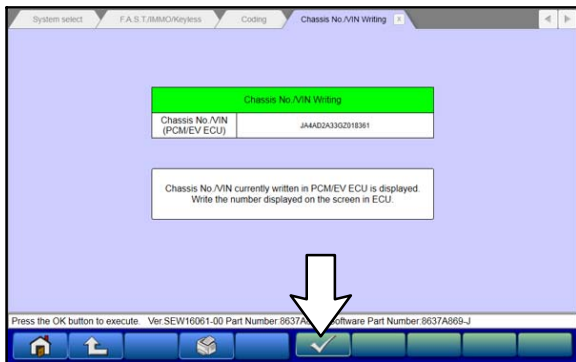
a. Click the home button to go back to the System Select menu. Select “F.A.S.T./IMMO/Keyless” from the System list, then click the check mark at the bottom of the screen.



b. Click “Coding.”

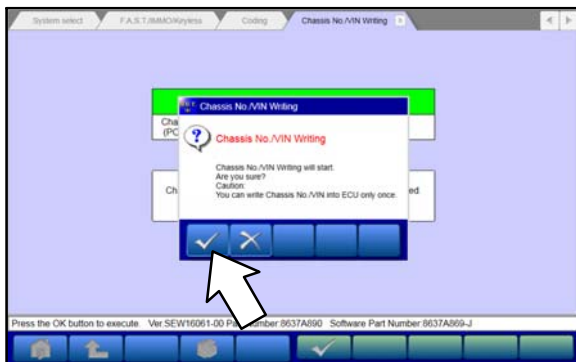


- c. Click “Chassis No./VIN Writing” in the Coding menu.



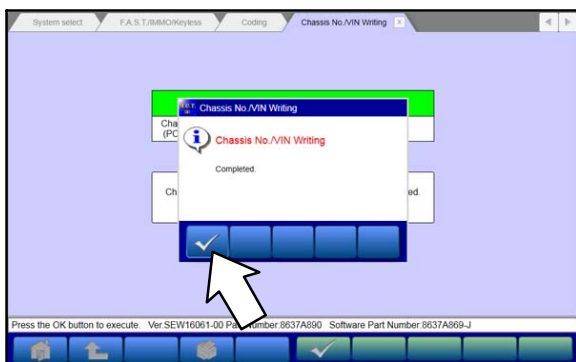
NOTE: It will take approximately 5 seconds before the VIN appears. This is the number which is programmed in the Engine ECU.

- d. Click the check mark at the bottom of the screen to confirm.



- e. In the “Chassis No./VIN Writing” dialog box, click the check mark to confirm and execute the Immobilizer Chassis No. Writing.

At this point, the Secret Key Code and chassis number programmed in the Engine ECU are copied to the ETACS immobilizer.



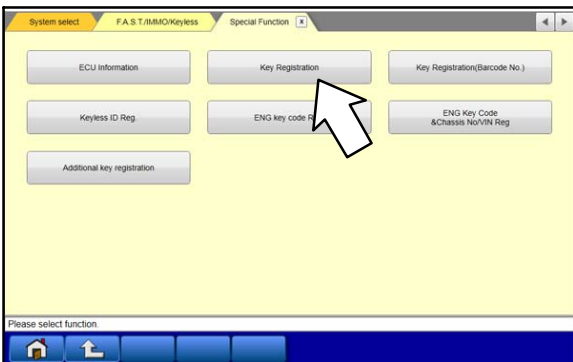
- f. Click the check mark in the dialog box when it shows “Completed.”

Now the Engine ECU, immobilizer, and original keys all contain the same Secret Key Code.

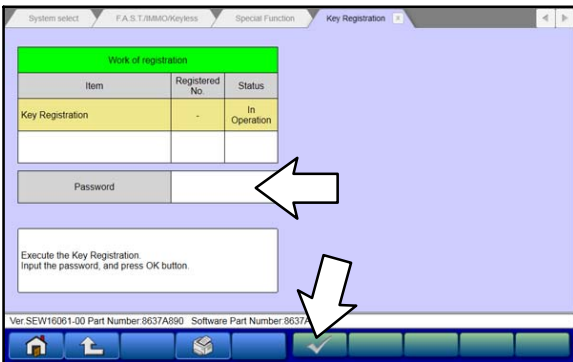
7. Complete key registration (Immobilizer).



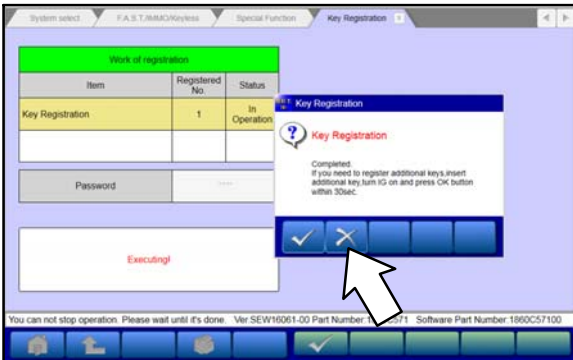
a. Return to the Immobilizer menu and select "Special Function."



b. Click "Key Registration."



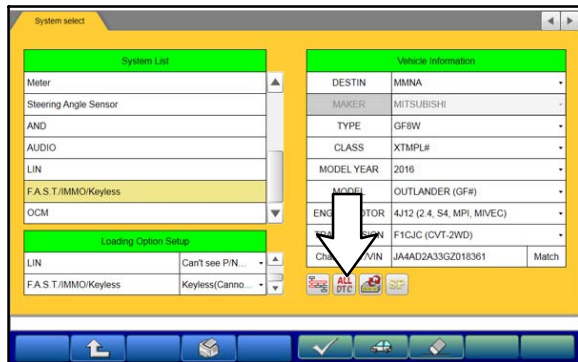
c. Enter the Immobilizer password for Outlander in the input field, then click the check mark to confirm and start registration of the original keys.



d. The Key Registration dialog box will show a "Completed" message when a key is successfully registered. Repeat the procedure shown in the message until all keys are registered.

Click the Cancel button (X mark) to stop the registration when all keys are registered.

8. Perform the RKE learning procedure for all keys registered to the vehicle.
For detailed instructions, refer to the ID Codes Registration Instructions on MDL under **parts_service > service tech resources > Service Related Items > ID Codes Registration Instructions.**
9. Perform TPMS registration for all tires.
For detailed instructions, refer to the appropriate Service Manual.
10. Perform an Erase and Read All DTCs.

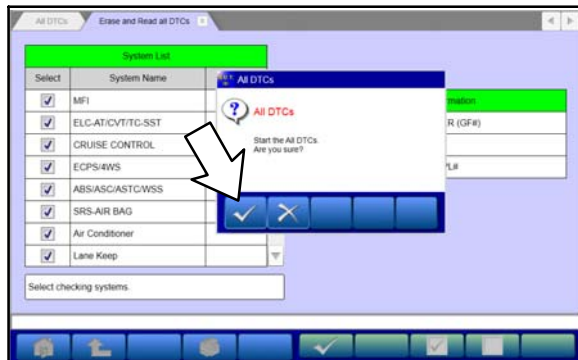


- a. Click the home button to go back to the System Select menu.

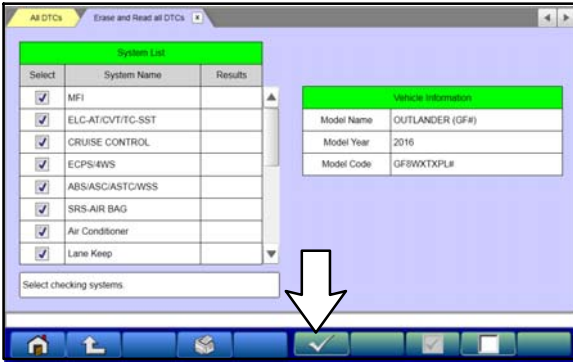
Click the "ALL DTC" button.



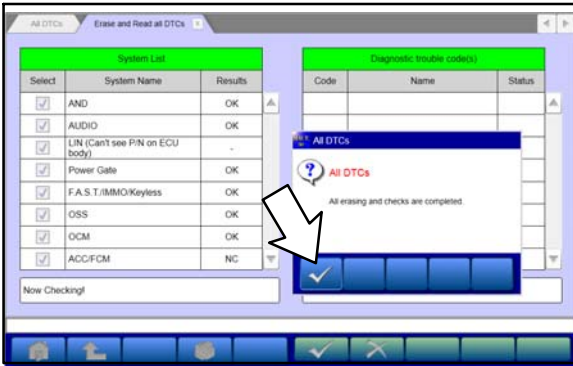
- b. Select "Erase and Read All DTCs."



- c. A window will pop up asking you to confirm DTC erasing. Click the check mark for DTC erasing and reading to begin.

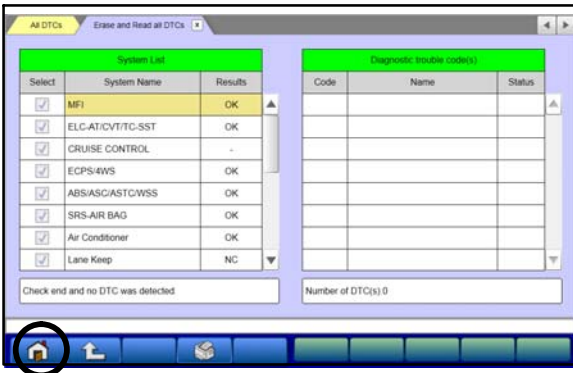


- d. The “System List” on the left side of the screen will have all selections checked. Do not change these selections. DTCs may be set if the vehicle is equipped with options that are unchecked.
- e. Click the check mark to continue.



11. When DTC erasing is completed, click the check mark in the pop-up message that reads “All erasing and checks are completed.”

- a. If DTCs return after reprogramming, click the check mark to clear the window. Diagnose and repair per the Service Manual.



- b. If DTCs do not return, click the check mark to clear the window, then click the Home icon at the lower left of the screen to return to the main menu.

12. Turn off the ignition switch and disconnect the MUT-III.

PARTS INFORMATION

The following parts are listed for reference only. Order only the Genuine Mitsubishi Parts listed below if needed.

Description	Model	Model Year	Part Number	Quantity
ETACS ECU	Outlander	2014	8637A883	1
		2014-2015	8637A887	1
		2014-2016	8637A890	1

WARRANTY INFORMATION

This bulletin is supplied as technical information only and is not an authorization to repair. If an affected vehicle is reported with the described condition, diagnose the condition, repair as described in this bulletin and submit a normal warranty claim using the following information.

Nature Code: 59D

Cause Code: 990

Labor Operation No.: 548501 PE

Time Allowance: 0.9 hrs.

Warranty Coverage: 5/60 Basic Coverage