Technical Service Bulletin

SUBJECT: ECM REPROGRAMMING FOR MIL ILLUMINATION, MIS–DETECTION OF DTC P0300 – REVISED			No: TSB–13–13–001REV
			DATE: March, 2013
			MODEL: See below
CIRCULATE TO:	[ ] GENERAL MANAGER	[ ] PARTS MANAGER	[X] TECHNICIAN
[X] SERVICE ADVISOR	[X] SERVICE MANAGER	[X] WARRANTY PROCESSOR	[ ] SALES MANAGER

This bulletin supercedes TSB–13–13–001, issued January, 2013 to add symptoms to the Purpose and add Affected Vehicles. Changes are italicized and indicated by ◀.

PURPOSE

This TSB provides a field fix procedure to address false MIL illumination with DTC P0300 (Random/multiple cylinder misfire detected) stored in the ECM under the following conditions:

1. During cold engine start, rough or partial clutch operation *(manual transmission only)* may cause powertrain vibration similar to a misfire and cause false MIL illumination. ◀
2. *At high engine speeds with low load condition, a CVT downshift can cause powertrain vibration similar to a misfire and cause false MIL illumination.* ◀
3. *At high engine speeds, improper Misfire Monitoring (P0300) threshold values may cause false MIL illumination.* ◀

New software revises improper Misfire Monitoring (P0300) threshold values to false MIL illumination. ◀

AFFECTED VEHICLES

2011 *& 2013* Outlander Sport (RVR) with 2.0L engine ◀
2011 *& 2013* Lancer with 2.0L engine ◀
2013 Lancer with 2.4L engine, FED emissions. ◀
2011 *& 2013* Lancer Sportback with 2.0L engine ◀
2013 Lancer Sportback with 2.4L engine, FED emissions and ***CVT transmission*** ◀
2013 Outlander with 2.4L engine, FED emissions ◀

REQUIRED OPERATIONS

Reprogram the ECM with the new software. See the ECM Reprogramming Chart for new software information.

The following equipment is needed to reprogram the ECM.

- VCI (Vehicle Communication Interface) – MB991824.
- Laptop computer with A/C power adaptor – 520924, or MIT547708.
- MUT–III main harness 'A' (blue connector at the DLC end) – MB991910.
- USB 2.0 cable – MB991827.
- "Engine Compartment/Control Module" labels – p/n MSSF024G00.
- *MEDIC–3 update at 176 or higher.* ◀
- *For Standalone MUT–III units, reprogramming CD 01/13* ◀

If an affected vehicle has a Malfunction Indicator Lamp (MIL) illuminated and DTCs other than described above are listed in ECM memory (before reprogramming), follow diagnostic instructions for the applicable DTCs per the service manual information. Do not reprogram the ECM until the reason for other DTCs being set is corrected.

Continued

Copyright 2013, Mitsubishi Motors North America, Inc. (3982)

The information contained in this bulletin is subject to change. For the latest version of this document, go to the Mitsubishi Dealer Link, MEDIC, or the Mitsubishi Service Information website *(www.mitsubishitechinfo.com)*.

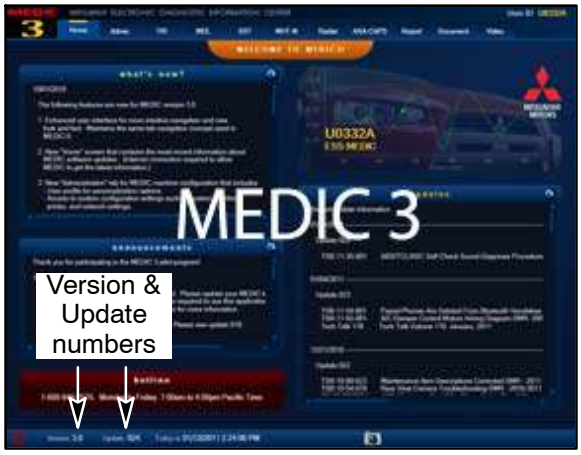
ECM REPROGRAMMING CHART

MODEL	CURRENT PART NO.	DATA NO.	DISPLAY ON MUT−III AFTER REPROGRAMMING		
			New Part No.	New S/W Part #	
2011 MODELS					◀
11 Outlander Sport CAL 4B11 D4 CVT	*1860B637*	*1862B700*	*1860B637*	*1860B63705*	◀
11 Outlander Sport (RVR) NAS 4B11 D4 CVT	*1860B638*	*1862B701*	*1860B638*	*1860B63804*	◀
11 Outlander Sport (RVR) NAS 4B11 D4 M/T	1860B665	1862B699	1860B665	1860B66504	
11 Lancer/Lancer Sportback CAL 4B11 D4 MT	*1860B362*	*1862B695*	*1860B362*	*1860B63205*	◀
11 Lancer/Lancer Sportback CAL 4B11 D4 CVT	*1860B363*	*1862B696*	*1860B363*	*1860B63305*	◀
11 Lancer/Lancer Sportback FED 4B11 D4 M/T	1860B364	1862B697	1860B364	1860B36405	
11 Lancer/Lancer Sportback FED 4B11 D4 CVT	*1860B365*	*1862B698*	*1860B365*	*1860B36505*	◀
2013 MODELS					
13 Outlander Sport (RVR) NAS 4B11 D4 MT	*1860C037*	*1862B706*	*1860C037*	*1860C03701*	◀
13 Outlander Sport (RVR) NAS 4B11 D4 CVT	*1860C038*	*1862B702*	*1860C038*	*1860C03801*	◀
13 Lancer/Lancer Sportback NAS 4B11 D4 MT	*1860C035*	*1862B707*	*1860C035*	*1860C03501*	◀
13 Lancer/Lancer Sportback NAS 4B11 D4 CVT	*1860C036*	*1862B703*	*1860C036*	*1860C03601*	◀
13 Lancer NAS 4B12 D4 MT	*1860C039*	*1862B708*	*1860C039*	*1860C03901*	◀
13 Lancer/Lancer Sportback NAS 4B12 D4 CVT	*1860C040*	*1862B704*	*1860C040*	*1860C04001*	◀
13 Outlander NAS 4B12 D4 CVT	*1860C041*	*1862B705*	*1860C041*	*1860C04101*	◀

REPAIR PROCEDURE

1. Check the underside of the hood to verify there is no Authorized Modification label previously installed to indicate this reprogramming has already been done. If a label is present and the "ROM ID #" on the label matches the "New S/W Part No." in the table on page 1 of this bulletin, the ECM is at the latest level and reprogramming is not necessary.

For MEDIC 3 users only: (MUT–III users go to step 5)

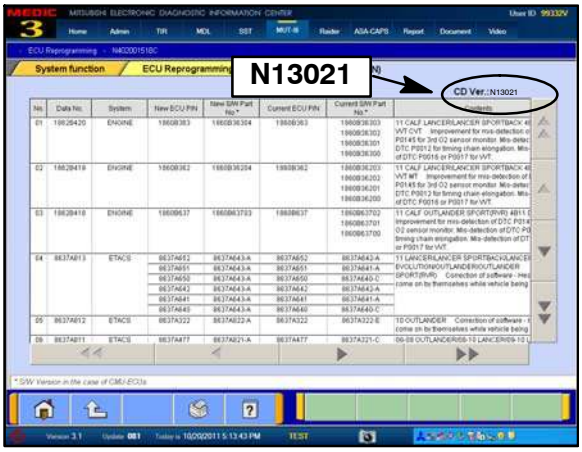


2. *Verify the MEDIC 3 is at version 3.2 and update 176 or higher.*
*If your **MEDIC 3 update is at least 176**, continue with the Reprogramming Procedure on page 4.*

*If your **MEDIC 3 update is below 176**, update your MEDIC 3 as follows.*

3. Select the MEDIC 3 Admin tab and click on "Updates."

4. If the Medic Update screen advises updates are available, click the "Begin" button. After the updates are complete, **GO TO THE REPROGRAMMING PROCEDURE ON PAGE 4.**



5. **STANDALONE MUT−III SCAN TOOL VIEWER (STV) ONLY: (MEDIC 3 USERS GO TO THE REPROGRAMMING PROCEDURE ON PAGE 4).** Verify that your MUT−III has the most current version of the reprogramming database:

a. From the MUT−III Main Page:

- Select “Special Function”
- Select “ECU Reprogramming”
- Select “Database File Display−CAN”
- *Confirm the database number displayed at the top right of the chart is **N13021 or higher**.* ◀

(1) *If the database number displayed on your MUT−III is **N13021** or greater, continue to the Reprogramming Procedure on page 4.*

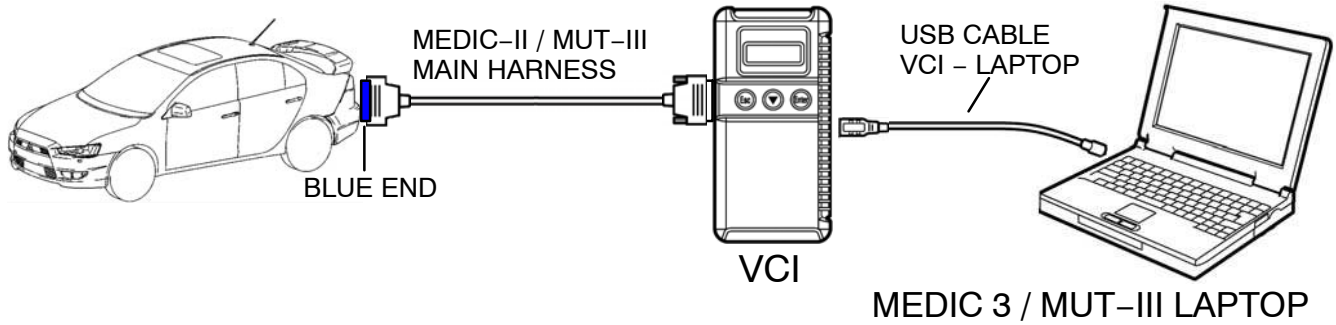
(2) *If the database number displayed on your MUT−III is lower than **N13021**, locate the Yellow MUT−III Reflash CD 01/13 and follow the instructions on the CD label to update your MUT−III.*

REPROGRAMMING PROCEDURE

CONNECT A BATTERY CHARGER TO THE VEHICLE'S BATTERY DURING THE REPROGRAMMING PROCEDURE. DO NOT ALLOW THE BATTERY CHARGER TO TIME OUT. BATTERY VOLTAGE (AS MEASURED AT THE BATTERY POSTS WITHOUT ELECTRICAL LOAD) MUST BE KEPT AT 12.4V OR HIGHER IN ORDER TO REPROGRAM THE ECM. MEASURE THE BATTERY VOLTAGE AND CHARGE AS NECESSARY.

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

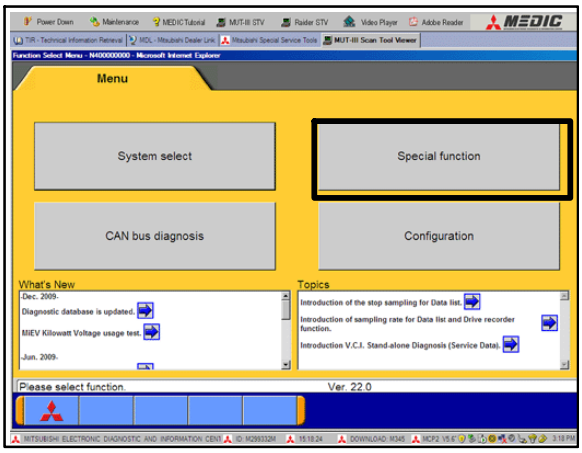
Connect the equipment as follows:



- Turn the laptop computer on. If you're running on battery power and the charge indicator in the lower right hand corner of the screen does not show a full charge, it is recommended that either the laptop battery be charged prior to beginning, or that reprogramming be completed with the A/C power adaptor connected to the laptop.
- Connect the USB cable to the VCI.
- 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.
- Connect the blue connector 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. INTERRUPTION DURING THE REPROGRAMMING PROCESS COULD CAUSE THE CONTROL UNIT TO LOSE DATA OR PREVENT FUTURE REPROGRAMMING. IF THE USB CABLE IS DISCONNECTED DURING THIS PROCEDURE, A WARNING MESSAGE WILL DISPLAY.**

ECM Reprogramming



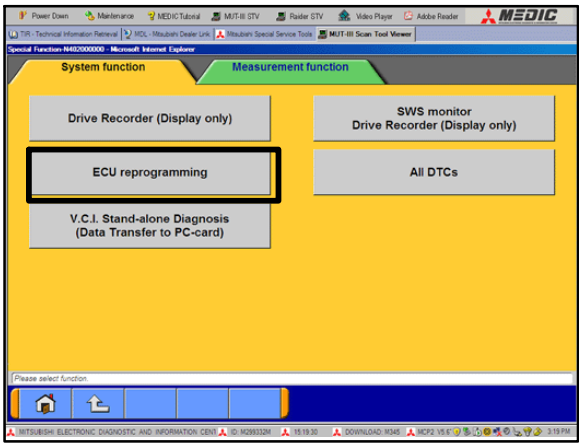
1. Conduct the following steps to reprogram the ECM.
   a. Turn the ignition switch to the ON position.

      For vehicles equipped with the F.A.S.T. System, the transmitter must remain in the vehicle for the entire procedure.

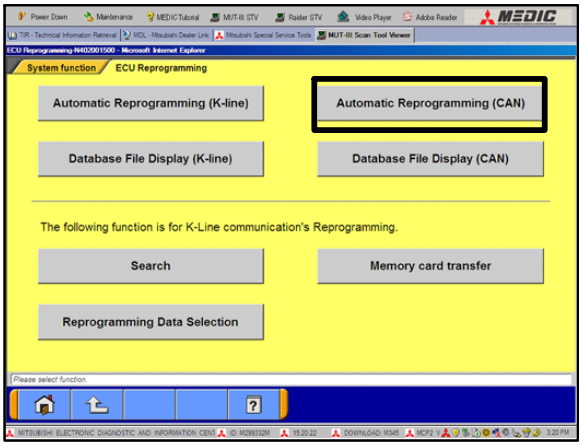
      For vehicles equipped with OSS, press the START/STOP button twice without applying the brake. The LED in the button should be green.

   b. If using MEDIC 3, from the main page, click the MUT–III STV icon at the top center of the screen.

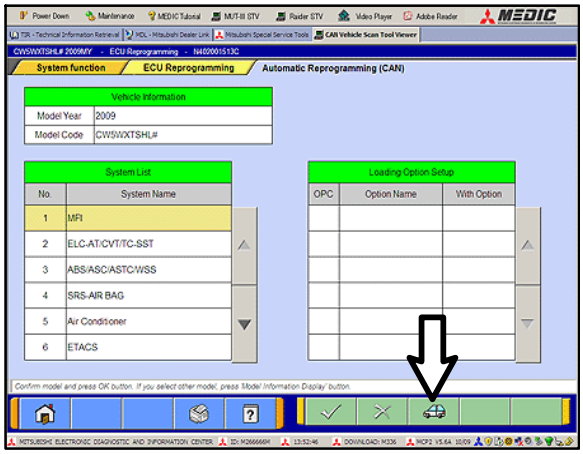
   c. Select “Special Function.”



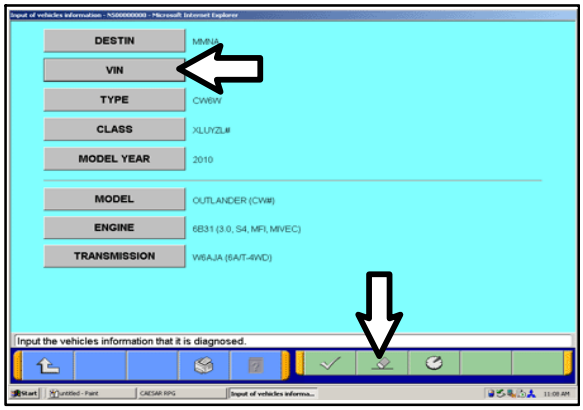
   d. Select “ECU reprogramming.”



   e. Select “Automatic Reprogramming (CAN).”

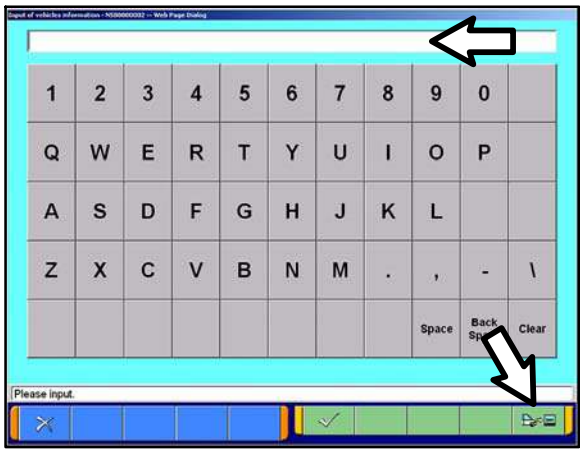


f. Click on the car icon at the bottom of the page.



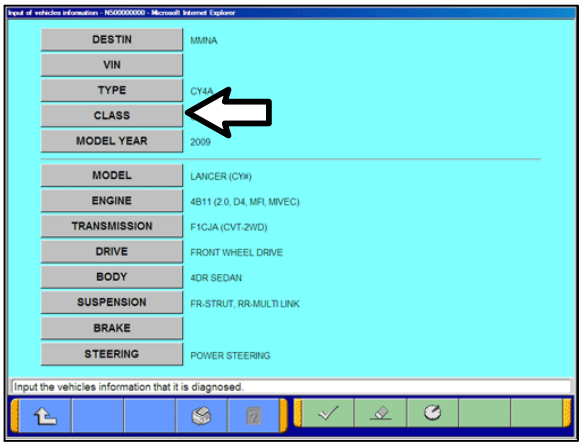
g. If the VIN or vehicle description displayed does not match the vehicle you are working on, click on the eraser icon at the bottom of the page to erase the existing data.

Select VIN by clicking on the VIN button.



h. Click on the icon in the lower RH corner of the screen to have the MUT–III automatically read the VIN. If a message appears saying that the VIN cannot be input automatically, manually type the 17 digit VIN into the VIN field at the top of the page.

Make sure the VIN is correct and click on the check mark.

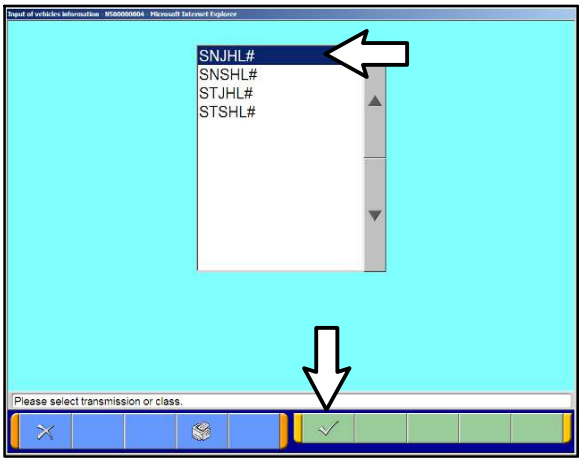


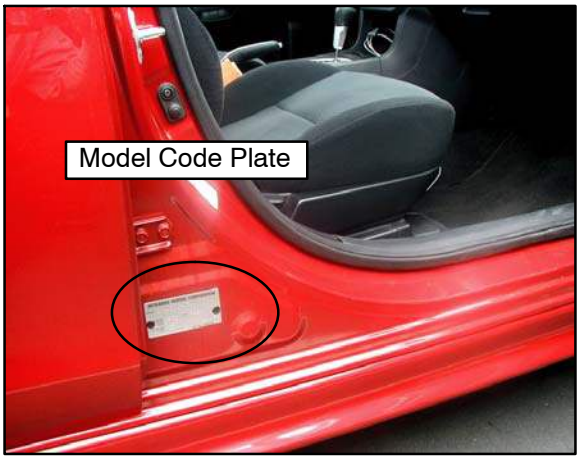
i. A window may pop up asking you to select either the transmission type or vehicle class. Click the check mark to clear the window.

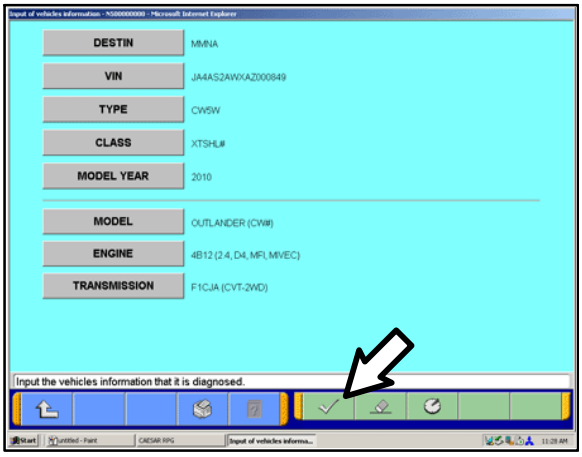
j. Click on the CLASS button and make the appropriate selection from the menu, Then click the check mark at the bottom of the page.

NOTE: Vehicle class can be found on the Vehicle Information Code Plate attached to the base of the RH b–pillar (see photo below). Vehicle class is part of the model code.

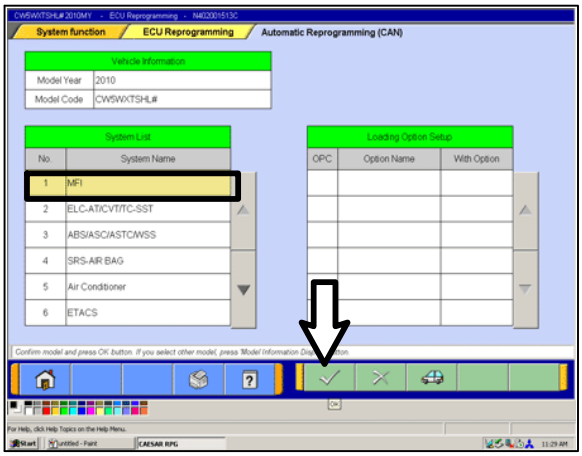
Click the check mark to enter the class.





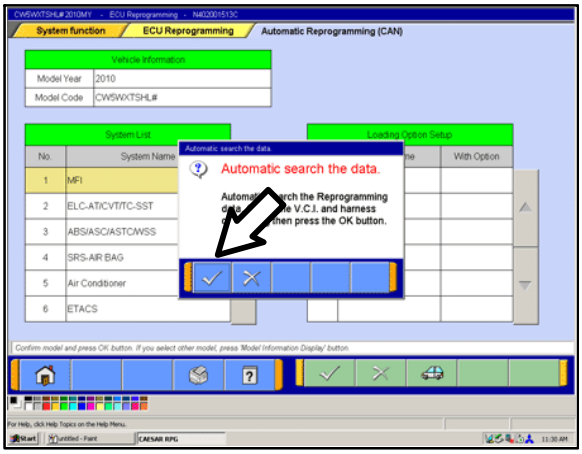


i. Confirm that all data matches the vehicle and click the check mark at the bottom of the page.



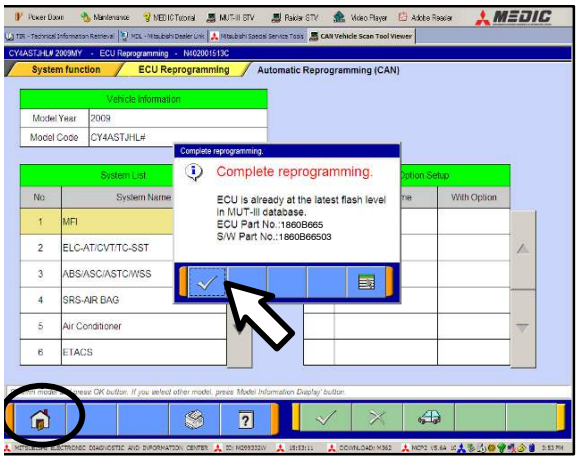
j. MFI should be highlighted as the default. If not, click on it to highlight it.

Click the check mark at the bottom of the page.



k. A message will advise you that the system will "Automatic search the data."

Click the check mark to continue.



ECM TO LATEST VERSION

If a "Complete Reprogramming" message **does not** appear, continue with step l.

If this message is displayed, the ECM software is already at the most current level. Do not continue with this reprogramming procedure. **This TSB does not apply.**

Click the check mark to clear the window, then click on the Home icon at the lower left corner of the screen to return to the System Select main page.

Turn off the ignition switch and disconnect the MUT–III. Turn off and disconnect the battery charger. Conduct normal diagnosis using the service manual.

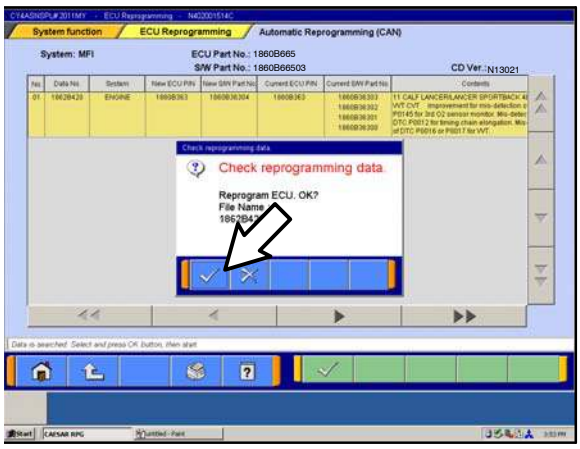
l. The CAN database screen will display.

Confirm the database number at the top right of the table is ***N13021*** or higher.

If more than one row is displayed in the table, refer to the ECM Reprogramming Chart on page 1 to select the proper Data No. for this procedure and select the appropriate row.

Click on the correct row to highlight it.

Click on the check mark to continue.

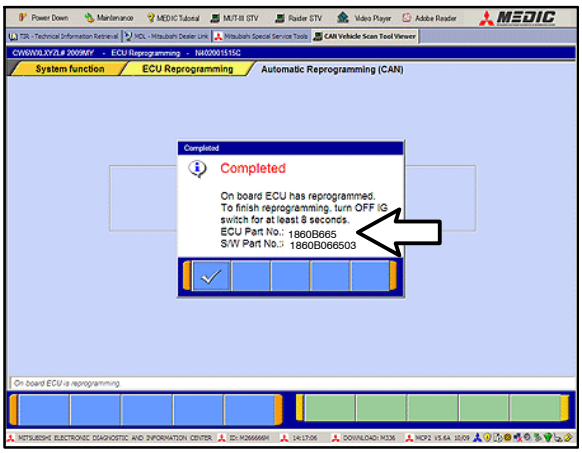


m. A message will ask you to “Check reprogramming data.”

n. Click on the check mark to begin reprogramming.

It will take up to 5 minutes for reprogramming to complete.

⚠ CAUTION	**The Daytime Running Lights and both the engine and condenser fans will automatically be turned on during reprogramming. Care should be taken to insure nothing gets caught in the moving blades. The radio will be turned off and you will also hear a chime in the interior for a short period of time. These are normal conditions.**

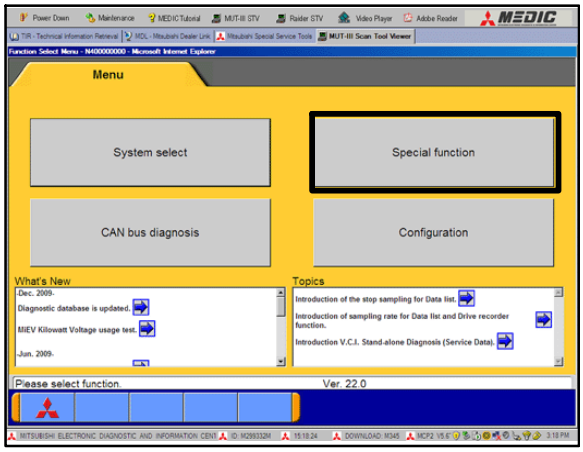


o. This message will display when ECM reprogramming is successfully completed. Confirm the “New S/W P/N” displayed matches the table on page 1 of this TSB.

p. You will be prompted to turn the ignition switch to the OFF position, wait at least 8 seconds, then turn it back on.

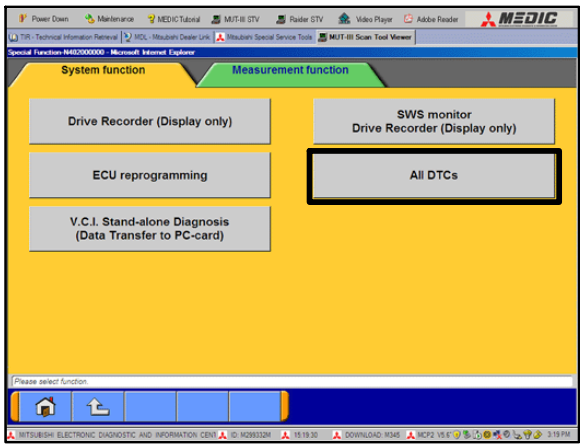
q. Click the check mark and you will be returned to the “ECU Reprogramming” page.

2. Click the Home icon at the lower left corner of the page to return to the System Select main page.

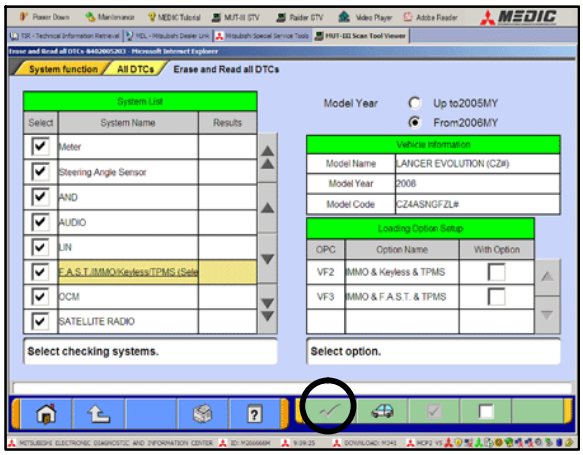


3. Using the MUT–III, check and erase ALL DTCs from all systems as follows.

   a. Select “Special Function.”

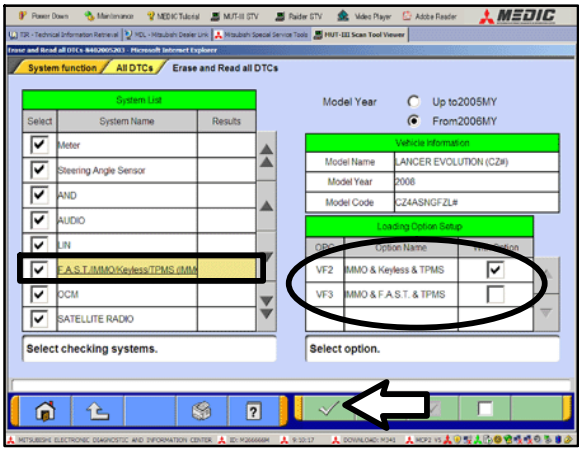


   b. Select “All DTCS,” then select ERASE AND READ ALL DTCS.



   c. The 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.

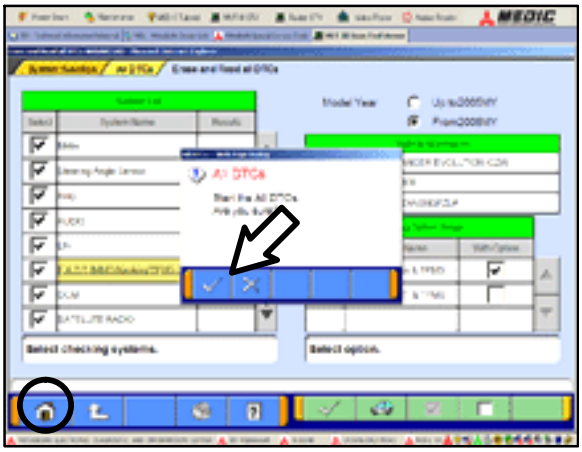
      Note the check mark at the bottom of the page is inactive (not highlighted).



d. In the left column, scroll to and click FAST/IMMOB/KEYLESS/TPMS. In the right column, check the correct option code (VF#) from the Loading Options Setup list. This will activate the check mark at the bottom of the page.

- Vehicles with regular keyless entry (buttons on a multi–function key), select VF2.
- Vehicles with F.A.S.T. Key (including OSS), select VF3.

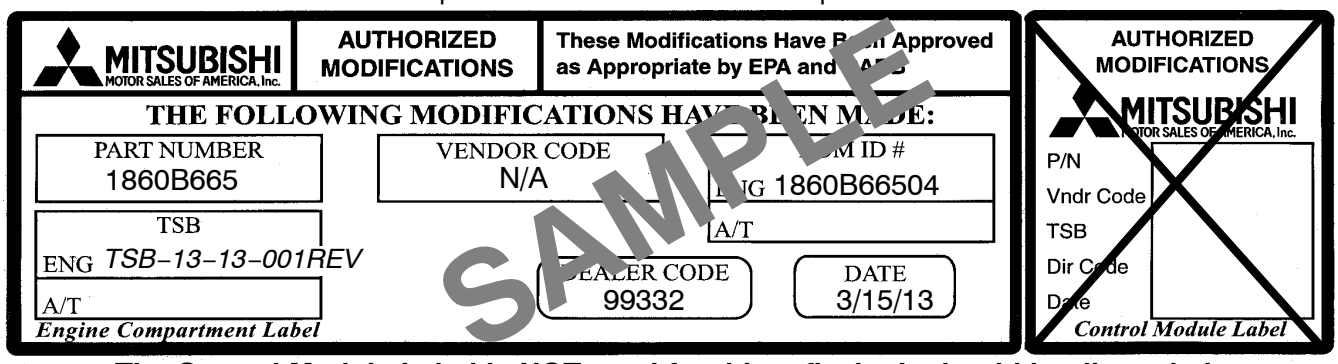
Click the check mark to continue.



4. A window will pop up asking you to confirm DTC erasing. Click the check mark for DTC erasing and reading to begin.
5. When DTC erasing is completed, a window will pop up.
   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 in the lower left of the screen to return to the main menu.
6. Turn off the ignition switch and disconnect the MUT–III. Turn off and disconnect the battery charger.

7. Using a ball–point pen, enter the appropriate Engine Control Module (ECM) part number, Software Part Number (ROM ID#), this Technical Service Bulletin number *(TSB–13–13–001REV),* your dealer code, and the current date on the Engine Compartment / Control Module Label (p/n MSSF024G00). The Vendor Code is not applicable. Labels are available from your facing PDC. ◀

The information shown on this sample label is for 2011 Outlander Sport. Other model information is different. ◀



The Control Module Label is NOT used for this reflash. It should be discarded.

8. Carefully remove all dirt and oil from a vacant area near the VECI label on the underside of the hood, and affix the *Engine Compartment Label* (LH side, above) to that area.
9. Test drive the vehicle to confirm the MIL does not illuminate and proper operation.

PARTS INFORMATION

Use only the Genuine Mitsubishi Parts listed below.

Description	Model	Part Number
Label, Engine Compartment	All	MSSF024G00

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.

ECM Reprogramming for DTC P0300 – Random/multiple cylinder misfire detected

Nature Code: 05P *Cause Code:* 490

Labor Operation No.: 138501 13 *Time Allowance:* 0.3 hr.

Warranty Coverage: Emissions Coverage – Refer to the Superscreen for individual vehicle warranty coverage terms.

Special Warranty Information: Normal warranty procedures apply.