



MEDIC UPDATE

TECHNICAL SERVICE BULLETIN

| | | | |
|--|---|--|--|
| SUBJECT: | | No: TSB-07-13-007 | |
| ENGINE CONTROL MODULE REPROGRAMMING FOR THROTTLE HESITATION | | DATE: July, 2007 | |
| | | MODEL: 2007 Outlander | |
| CIRCULATE TO: | <input type="checkbox"/> GENERAL MANAGER | <input checked="" type="checkbox"/> PARTS MANAGER | <input checked="" type="checkbox"/> TECHNICIAN |
| <input type="checkbox"/> SERVICE ADVISOR | <input checked="" type="checkbox"/> SERVICE MANAGER | <input checked="" type="checkbox"/> WARRANTY PROCESSOR | <input type="checkbox"/> SALES MANAGER |

PURPOSE

Affected vehicles have incorrect parameters in the Engine Control Module (ECM) software that may cause the feeling of a hesitation or throttle lag. The condition is mostly noticed when depressing the accelerator at slow speeds following a deceleration, as in accelerating after making a turn.

IMPORTANT!!!

THIS REPROGRAMMING PROCEDURE MUST BE COMPLETED AT THE SAME TIME AS TSB 07-23-006 FOR REPROGRAMMING THE TRANSMISSION CONTROL MODULE WHEN YOU HAVE COMPLETED THE STEPS FOR THIS REPROGRAMMING PROCEDURE, DO NOT DISCONNECT THE SCAN TOOL AND IMMEDIATELY BEGIN THE PROCEDURES FROM TSB 07-23-006.

Reprogram the ECM as described in this bulletin. See the chart under **AFFECTED VEHICLES** below to assist in determining if a vehicle requires reprogramming. Then refer to the attachments on page 14 for information on software part numbers for confirmation of to which level the control unit is programmed.

AFFECTED VEHICLES

2007 Outlander. See chart below for specific vehicle production dates.

| Control Unit | Specification | Built Prior to | First VIN (last 8) |
|--------------|---------------|----------------|--------------------|
| ECM | FED 2WD | May 28, 2007 | 7Z021125 |
| | CA 2WD | June 1, 2007 | 7Z021522 |
| | FED 4WD | May 31, 2007 | 7Z021383 |
| | CA 4WD | June 1, 2007 | 7Z021534 |
| TCM | ALL | May 31, 2007 | 7Z021366 |

NOTE: ALL VEHICLES BUILT PRIOR TO MAY 28 REQUIRE REPROGRAMMING OF THE ECM.

ALL VEHICLES BUILT STARTING JUNE 1, 2007 WILL ALREADY BE PROGRAMMED TO THE LATEST SPECIFICATION. DO NOT REPROGRAM THESE VEHICLES.

REQUIRED OPERATIONS

The following equipment is needed to reprogram the ECM.

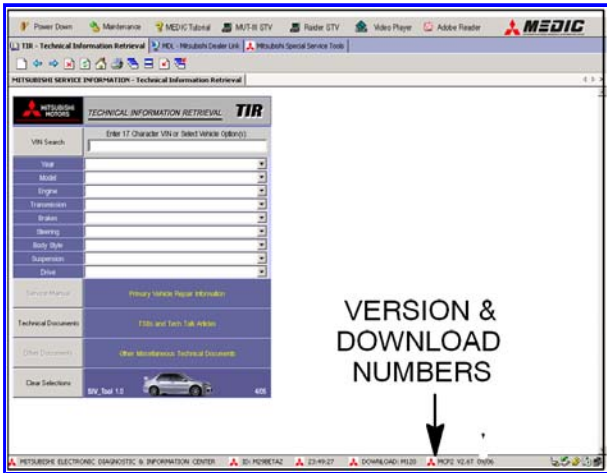
- VCI (Vehicle Communication Interface) - MB991824
- Laptop computer - 520924 or 528535
- MUT-III main harness 'A' (blue connector at the DLC end) - MB991910
- USB 2.0 cable - MB991827

- "Engine Compartment/Control Module" labels - p/n MSSF-024G-00
- MEDIC II Download at M160 or higher.

If an affected vehicle has a Service Engine Soon (SES) lamp illuminated and DTCs listed in the ECM memory (before reprogramming), follow diagnostic instructions for the applicable DTCs per the service manual information. Do not reprogram either control module until the reason for DTCs being set is corrected.

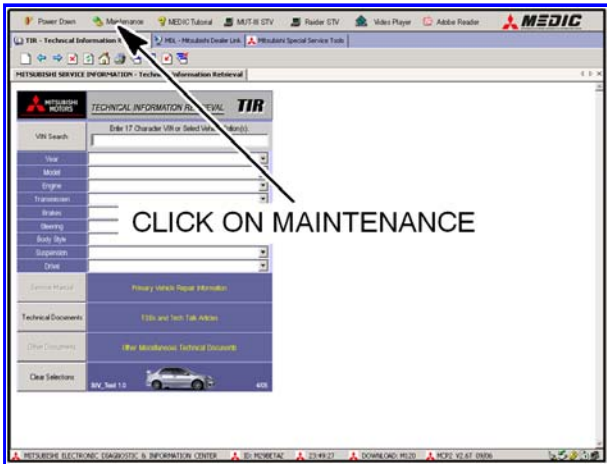
1. Check the underside of the hood to verify that there is no label previously installed to indicate that this reprogramming has already been done.
2. Verify the MEDIC II / MUT III/STV version and download numbers.

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

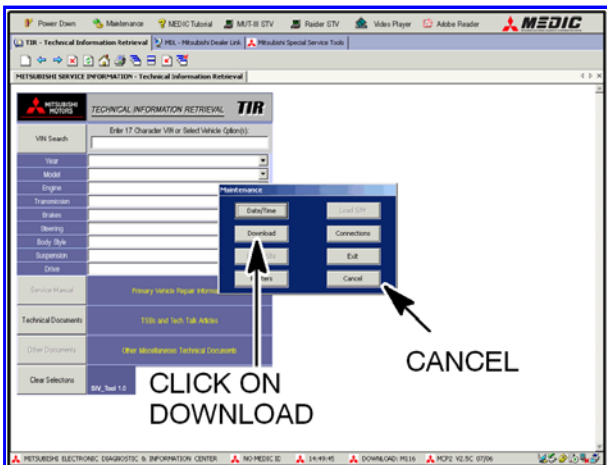


a. Verify that the MEDIC II is at version 4.0A and at download M160 or higher.

If your **MEDIC II Down-load is below M160**, update your MEDIC II as follows.



b. On the MEDIC II main screen, click on "Maintenance."



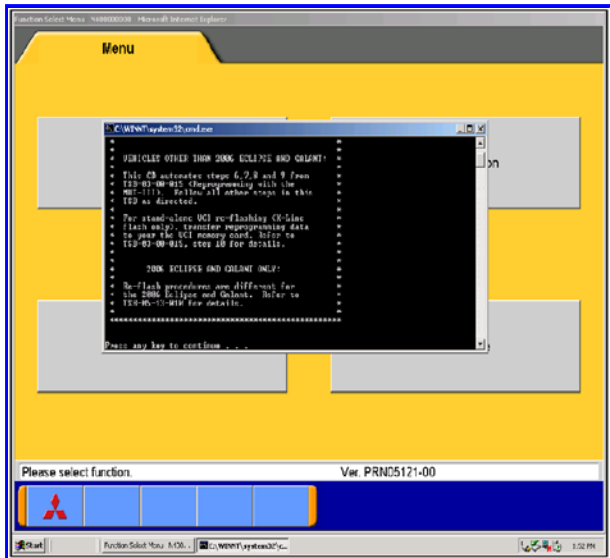
c. Click on "Download". After the download completes, click on "Cancel" to exit the "Maintenance" window.

GO TO THE REPROGRAMMING PROCEDURE ON PAGE 4.

3. **Scan Tool Viewer (STV) ONLY (MEDIC-II USERS go to the Programming Procedure on page 4).** Verify that

your MUT-III has the most current version of the reprogramming database:

- a. Select "Special Function", then select "ECU Reprogramming."
- b. Select "Database File Display." The database version is displayed in the top right corner of the screen. Make sure the database version is **N07061 or greater**.
- c. If the database version is N07061 or greater, reprogram the PCM as described in the **Programming Procedure** beginning on page 4.
- d. If the database version is less than N07061, you must transfer the new reprogramming data from the Reflash Update CD 08/07 to the MUT-III hard drive as follows:



1. Install **Reflash Update CD 08/07** into the PC's DVD-ROM drive.
2. Follow the instructions on the screen. The system will automatically transfer the reprogramming data onto the PC's hard drive.
3. Continue to the Reprogramming Procedure.

REPROGRAMMING PROCEDURE

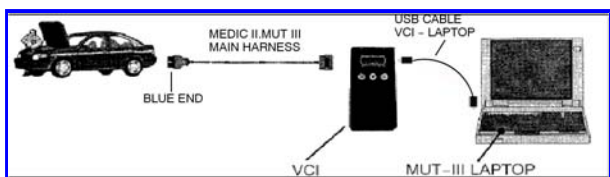
BATTERY VOLTAGE (AS MEASURED AT THE BATTERY POSTS WITHOUT ELECTRICAL LOAD) MUST BE KEPT AT 12.4V OR HIGHER IN ORDER TO REPROGRAM THE TCM. MEASURE THE BATTERY VOLTAGE AND CHARGE AS NECESSARY. DURING REPROGRAMMING, A BATTERY CHARGER SHOULD BE CONNECTED TO THE VEHICLE'S BATTERY. DO NOT ALLOW THE CHARGER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

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

Connect the equipment as follows:

1. Connect the USB cable to the VCI.
2. When the laptop displays the MUT-III main screen, connect the USB cable to the laptop.
3. Connect the MUT-III main harness with the blue DLC connection to the VCI.
4. Connect the blue connector of the MUT-III main harness to the vehicle's data link connector.
5. Turn the VCI power switch ON. Verify that the indicator lamp in the upper right corner of the screen is green.

NOTE: If the USB cable is disconnected during this procedure, a warning message will display. Close the message display by clicking on the OK button and check USB connections.



DO NOT DISTURB THE HARNESS CABLES OR CONNECTIONS. INTERRUPTION DURING THE REPROGRAMMING PROCESS COULD CAUSE THE CONTROL UNIT TO LOSE DATA OR PREVENT

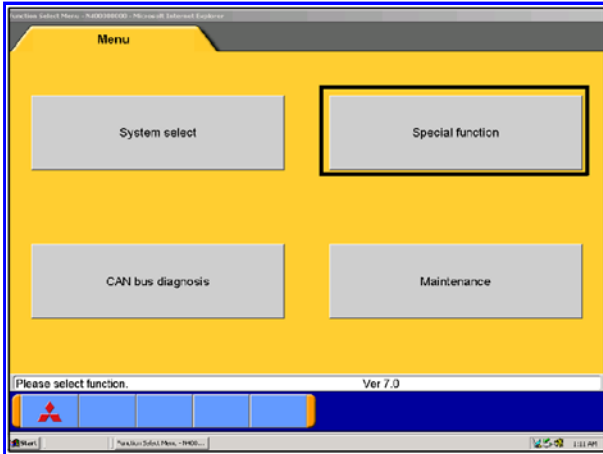


FUTURE REPROGRAMMING.

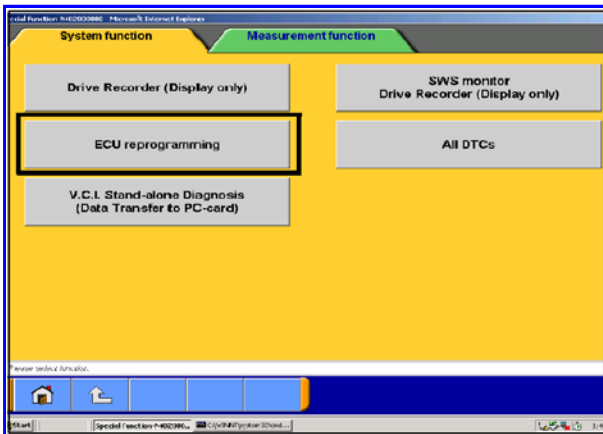
ECM Reprogramming

1. Conduct the following steps to reprogram the ECM.

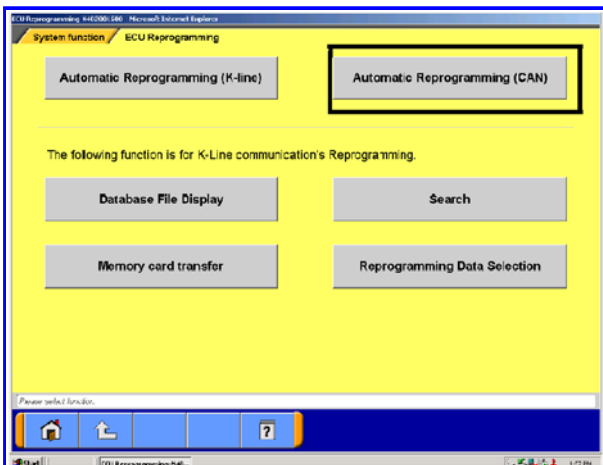
- a. Turn the ignition key or knob (F.A.S.T. equipped) to the ON position. If the vehicle is equipped with the F.A.S.T. System, the fob must remain in the vehicle for the entire procedure.



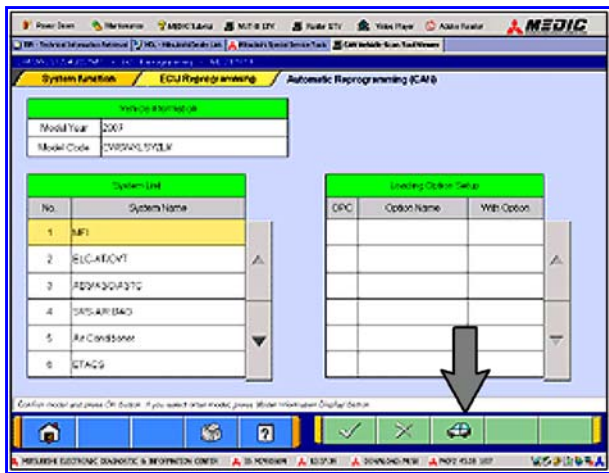
- b. Select "Special Function."



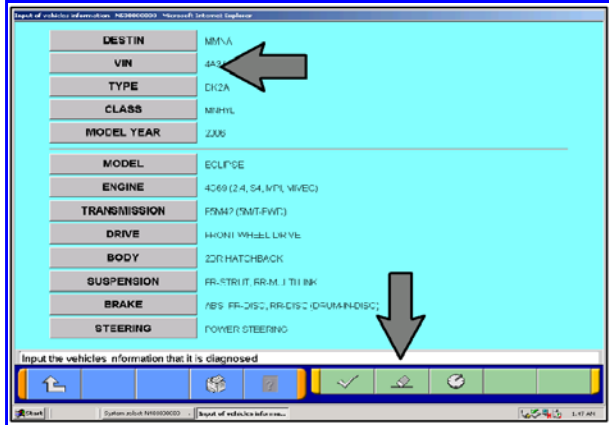
- c. Select "ECU reprogramming."



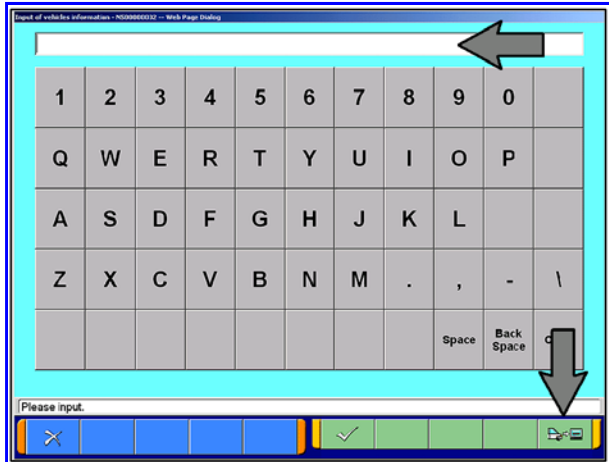
- d. Select "Automatic Reprogramming (CAN)."



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



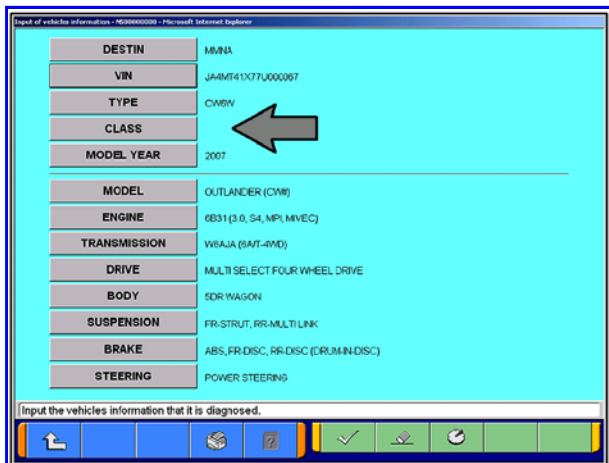
f. Click on the Eraser Icon at the bottom of the page. Select VIN by clicking on the button.



g. Click on the icon in the lower RH corner of the screen to have the MUT III automatically read the VIN.

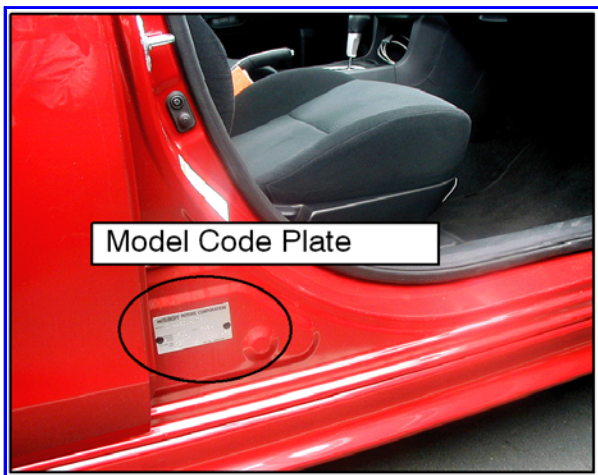
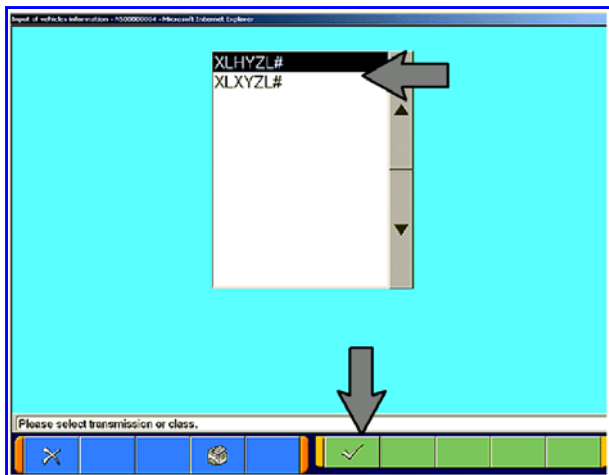
If a message appears saying that the VIN cannot be input automatically, manually type the 17 digit VIN into the VIN field.

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



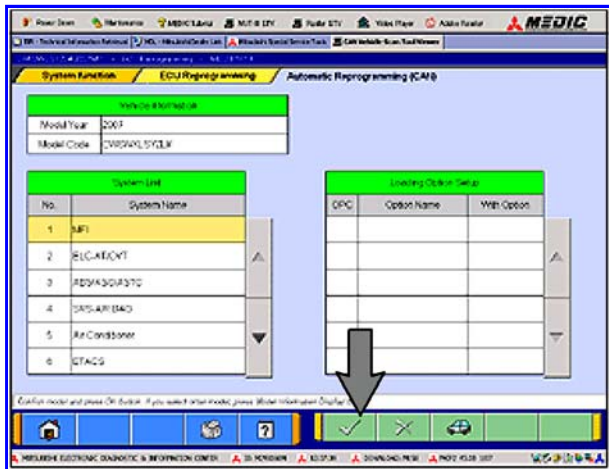
h. If it was not completed automatically, input the vehicle class. Click on the CLASS button, select the appropriate class from the menu (below left) and then click the check mark at the bottom of the page. Vehicle class can be found on the Vehicle Information Code Plate riveted to the base of the RH b-pillar (see photo below right). The class is part of the model code.

Click the check mark to enter the class. Confirm that all of the data is correctly entered and click the check mark at the bottom of the page



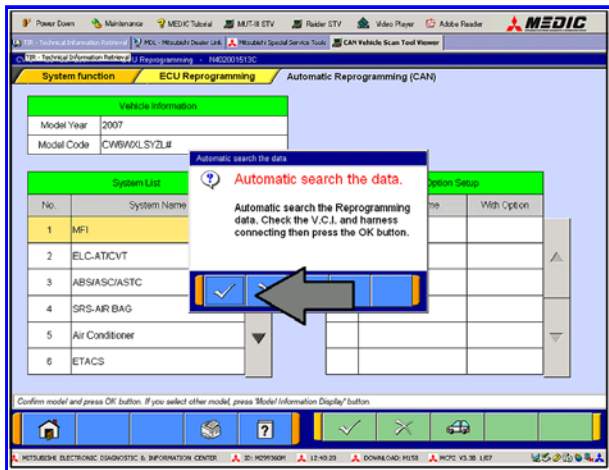
i. MFI should already be highlighted. If not, click on it to highlight it.

Click on the check mark at the bottom of the page.



j. A message will advise you that the system will "Automatic Search the data."

Click on the check mark to continue.

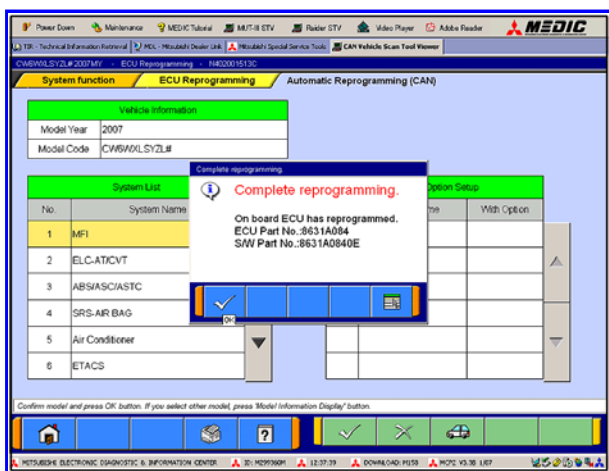


NOTE: If this screen **does not** appear, continue with step k.

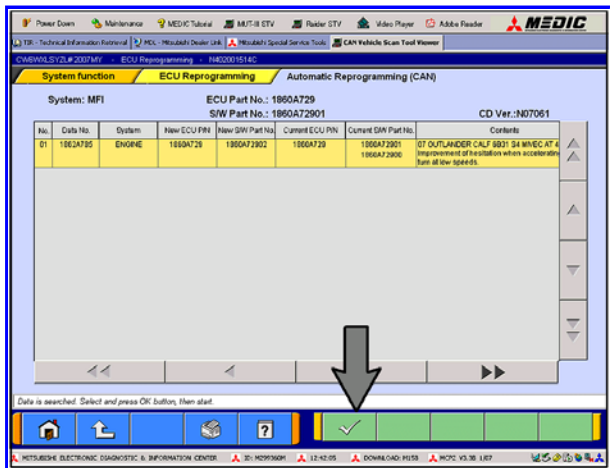
If the ECM is already reprogrammed for this concern, this screen will display. If this message displays, do not continue with this reprogramming procedure. Review the Affected Vehicles chart on page 1 and the charts in attachment 1 on page 14 of this TSB to determine if this vehicle may have been partially or completely updated. If the chart indicates that the TCM may still need updating, proceed to **TSB-07-23-006** to conduct TCM reprogramming.

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.

It is possible that the ECM has the latest software update, but the TCM may still be to the old specification and needs



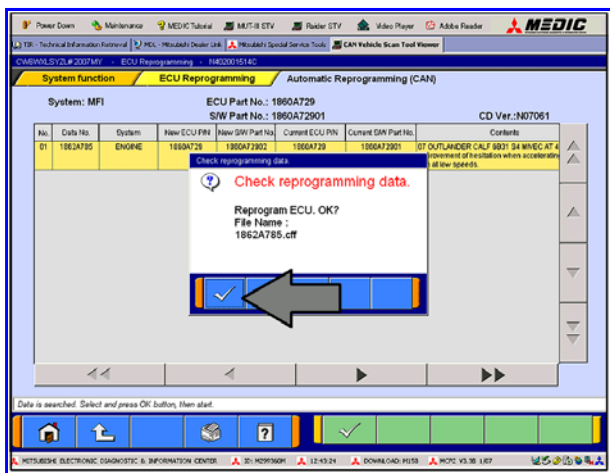
reprogramming. Ensure if the TCM has not been programmed, and continue with the steps on TSB-07-23-006 if necessary.



k. The CAN database screen will display.

(If more than one row is displayed in the table, select the appropriate ECM part number.)

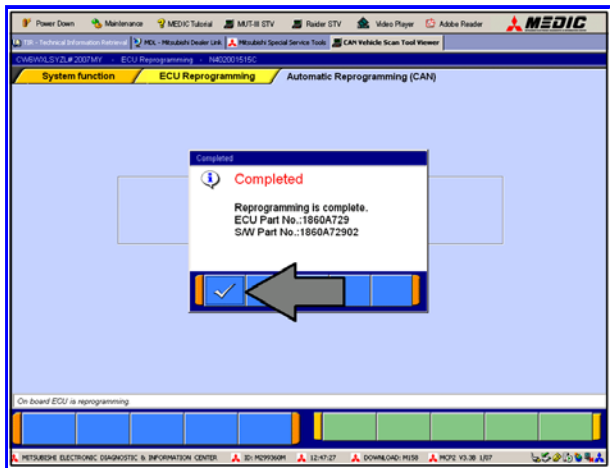
Click on the check mark to continue.



l. Click on the check mark to begin reprogramming. NOTE: It will take up to 5 minutes to complete the reprogramming.



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.



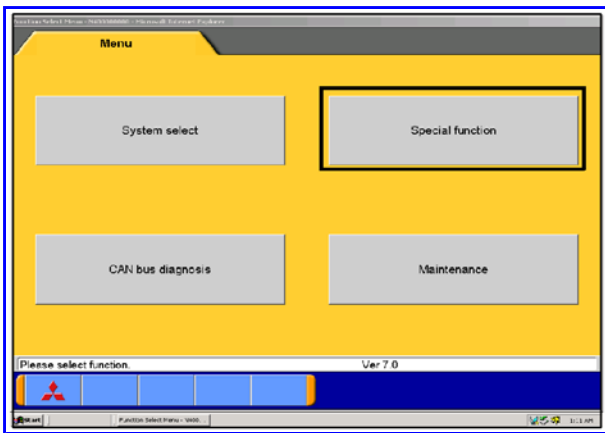
m. This message will display when the ECM reprogramming is successfully completed. Record the S/W (Software) Part No. and compare it to the "New Part No." in the table in attachment 1 at the end of this TSB.

Click the check mark and you will be returned to the "ECU Reprogramming" page.

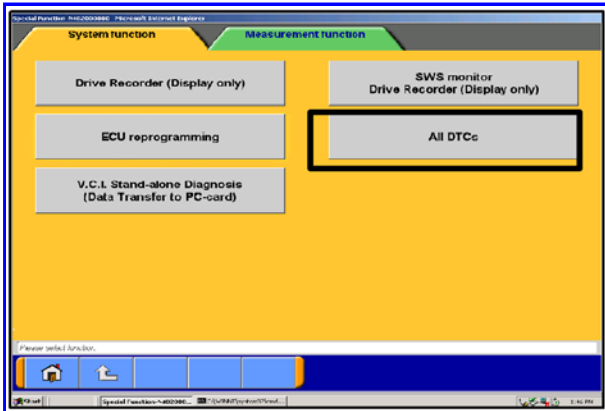
Refer to the the Affected Vehicles chart on page 1 and the charts in attachment 1 on page 14 of this TSB. If the **TCM** does not require reprogramming, continue with Step 2. If the **TCM** does require reprogramming, conduct reprogramming according to the steps on **TSB-07-23-006**.

2. Turn the ignition key/knob to the OFF position, wait approximately 10 seconds, then turn it back on.

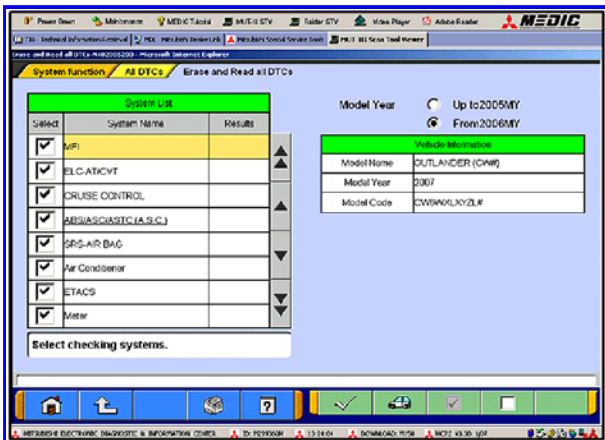
3. Using the MUT III, check and erase ALL DTCs from all systems as follows.



a. Select "Special Function."



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



c. Inspect the list on the left side of the screen and ensure that the correct options **ONLY** are checked. DTCs will be set if the the options are incorrectly entered.

Note that the selctions for ABC/ASC/ASTC and for FAST/IMMOB/KEYLESS are underlined. Certain models require you to select the correct optional equipment. Clcik on the underlined term and if given a selection, check the correct option from the list.

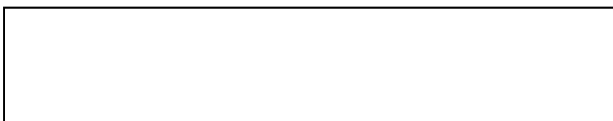
Click the check mark at the bottom of the page for DTC reading and erasing to begin.

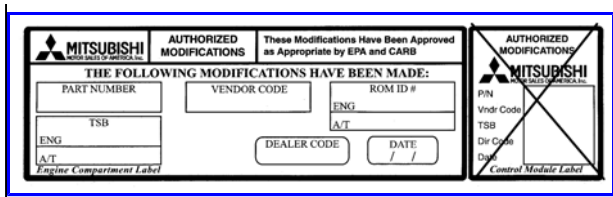
- If DTCs remain, diagnose and repair the condition as per the Service Manual. If no additional DTCs are listed, click the check mark to clear the window and then click the Home icon in the lower left of the screen to return to the main menu.

IMPORTANT!!!

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- Using a ball-point pen, enter the appropriate Engine Control Module (ECM) part number, vendor number, ROM ID#, this technical service bulletin number (**TSB-07-13-007**), your dealer code, and the current date on the Engine Compartment / Control Module Label (p/n MSSF-024G-00). The label is available from your facing PDC.





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

- 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.

PARTS INFORMATION

Use the Genuine Mitsubishi Parts listed below.

| Description | Model | Part Number |
|---------------------------|-------|--------------|
| Label, Engine Compartment | All | MSSF-024G-00 |

WARRANTY INFORMATION

ECM & TCM Reflash

Nature Code: 05H

Cause Code: 605

Labor Operation No. Select only ONE applicable operation number that aligns with the actual reprogramming performed.

(ECM & TCM): 13850192

Time Allowance: 0.4 hr.

(ECM Only): 13850191

Time Allowance: 0.3 hr.

Warranty Coverage: 8 years/80,000 miles

Special Warranty Information: Normal warranty procedures apply.

Mitsubishi Motors North America, Inc.

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).

Attachment 1

ECM Reprogramming Chart

| MODEL | Current Part No. | Data No. | DISPLAY ON MUT-III SCREEN AFTER REPROGRAMMING | | | VENDOR NUMBER |
|--|------------------|-----------|---|-------------------|------------------|---------------|
| | | | New Part No. | ROM ID | New S/W Part No. | |
| 2007 FED Outlander 6B31 S4 MIVEC AT 2WD | 1860A726 | 1862A782 | 1860A726 | ENG: SM5029-22 | 1860A726002 | E6T70475HL1 |
| 2007 FED Outlander 6B31 S4 MIVEC AT 4WD | 1860A727 | 1862A783 | 1860A727 | ENG: SM5063-22 | 1860A72702 | E6T70476HL1 |
| 2007 CALF Outlander 6B31 S4 MIVEC AT 2WD | 1860A728 | 1862A784 | 1860A728 | ENG: SM5030-22 | 1860A72802 | E6T70477HL1 |
| 2007 CALF Outlander 6B31 S4 MIVEC AT 4WD | 1860A729 | 1862A7785 | 1860A729 | ENG: SM5064-22 | 1860A72902 | E6T70478HL1 |

TCM Reprogramming Chart

| MODEL | Current Part No. | Data No. | DISPLAY ON MUT-III SCREEN AFTER REPROGRAMMING | | | VENDOR NUMBER |
|-------------------------------|------------------|----------|---|-----------|-----------------|--|
| | | | New Part No. | ROM ID | New SW Part No. | |
| 2007 Outlander 8831 2WD4WD | 8631A084 | - | 8631A084 | TJF000-37 | 8631A084_OE | 31036_1XM1AJATCOJ G1T3S071 HAMELCOJ |