



# Technical Service Bulletin

SUBJECT:		No: <b>TSB-13-22-002</b>	
<b>TC-SST TRANSMISSION CLUTCH ASSEMBLY REPLACEMENT PROCEDURES</b>		DATE: <b>March, 2013</b>	
		MODEL: <b>See below</b>	
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

Procedures are now available for W6DGA TC-SST clutch assembly replacement. This TSB provides the necessary steps to complete diagnosis, clutch assembly replacement, and complete “teach-in” for the TCM.

This TSB is used together with the service manual, TSB-13-22-001: TC-SST Transmission and Mechatronic Assembly Diagnosis and Repair, and TSB-13-22-003: TC-SST Diagnosis and Overhaul – Service Manual Revision, to provide procedures for the complete and accurate diagnosis and repair of the TC-SST transmission. These procedures will eliminate the need to replace TC-SST transmissions to address the most common symptoms.

This TSB covers the following subjects:

1. Remove and replace the clutch assembly.
2. Complete those “teach-in” procedures necessary after clutch replacement.

**NOTE:** 2008 Lancer Evolution and early production 2009 Lancer and Lancer Sportback Ralliart (software Version 0000) require additional reprogramming steps, which are covered in the repair procedure.

Also included are:

1. A Customer Interview Worksheet to be used by dealer service personnel to help identify specific transmission concerns.
2. A diagnosis and repair overview.
3. Diagnostic steps required prior to clutch assembly replacement.
4. Instructions for conducting “Teach-In” procedures after installing the new clutch assembly.
5. A Quality Control Checklist to verify proper repair.
6. Part number information.

Diagnosis and repairs for symptoms not covered by the service manual, this TSB, TSB 13-22-001 or TSB-13-22-003 may require transmission replacement.

## AFFECTED VEHICLES

2008 – 2013 Lancer Evolution with TC-SST

2009 – 2013 Lancer Ralliart Edition with TC-SST

2009 – 2011 Lancer Sportback Ralliart Edition with TC-SST

## TC-SST CLUTCH ASSEMBLY REPLACEMENT OVERVIEW

Clutch assembly replacement requires transmission removal and uses specific special tools. It also requires a “Teach-in” procedure to program the transmission control module with the parameters of the new clutch assembly. If “teach in” is not completed, shifting may be unstable (harsh shifts, slipping, etc.)

Clutch “teach-in” uses some of the “teach-in” procedures for the Mechatronic Assembly (see TSB-13-22-001). Additional required steps have been added for clutch assembly replacement.

Continued

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After completing service manual diagnostic steps, you may be instructed to replace the clutch assembly. If this does not correct the observed symptoms, transmission replacement may be required. Complete transmission assembly replacement may require prior approval. Contact your District Parts and Service Manager prior to replacing the transmission.

Repairs to the TC-SST are limited to the following:

- Mechatronic assembly replacement and programming
- Clutch Assembly Replacement
- Teach-in procedure for all model years (2008 Lancer Evolution is unique)
- External oil filter/housing replacement
- Axle seal replacement
- Oil pan and pan seal replacement

### DIAGNOSTIC OVERVIEW

The following diagnostic overview highlights diagnostic steps to be followed. Do not perform diagnosis and repair using this overview alone. Use the steps described later in this TSB, TSB-13-00-003 or the service manual.

1. Using the Customer Interview Worksheet included in this TSB will help you understand the specific transmission related symptoms experienced by the customer. The worksheet can also be downloaded from the “service tech resources” page of the MDL.
2. Perform a thorough visual inspection and check the basics.
  - Note any transmission related MID display messages.
  - Check transmission fluid level and condition. Refer to the service manual for the proper procedure.
  - Check Battery voltage (> 12.4V as measured at the battery).
  - Verify no electrical or performance accessories are installed.
  - Verify integrity of transmission electrical harness and associated connectors.
3. Connect MUT-III to the vehicle.

**NOTE:** If engine ECU or TCM tampering is suspected, contact your DPSM and Techline with the details.

- Perform CAN bus check.
  - Record DTCs and Freeze Frame Data. Then perform Erase and Read DTCs.
4. Road test the vehicle to verify the concern and duplicate any previously retrieved DTCs.
  5. Replace the clutch assembly (if diagnosis leads you in this direction).

If replacing the clutch assembly on 2008 Lancer Evolution and early 2009 Lancer or Lancer Sportback Ralliart vehicles (software version 0000 only), you must reprogram the TCM to a later model version before “teach-in” can be completed. After completing “teach-in”, you will reprogram the TCM back to version 0000.

6. Perform clutch “teach-in.”
7. Road test the vehicle to verify repair.
8. Complete the Quality Control Checklist.

## CUSTOMER INTERVIEW WORKSHEET FOR TC-SST TRANSMISSION

**Submitting a completed Customer Interview Worksheet to Techline is required for parts release.**

Fax the completed worksheet to 714.934.4279 (in Canada: 905.214.9089).

VIN \_\_\_\_\_ Dealer Code \_\_\_\_\_ Techline Case # \_\_\_\_\_

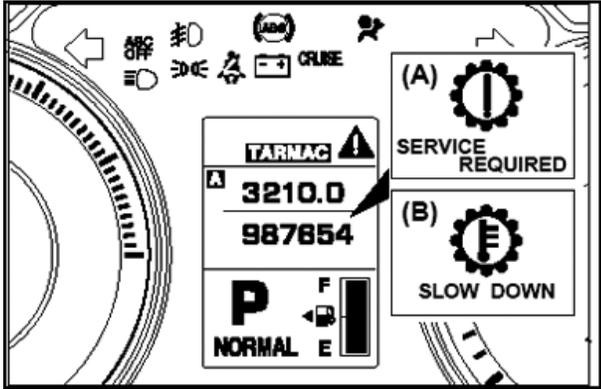
- Have any aftermarket devices been installed on this vehicle? Yes or No (circle one)  
 (e.g.: engine or transmission modifications, navigation units, gauges, tracking devices, etc.)
- Approximate Date/Time symptom occurred: \_\_\_\_\_
- Continuous or Intermittent concern (circle one) # of times per day, or week, or month \_\_\_\_\_
- Weather (circle one): Wet or Dry Ambient Temperature: Hot or Cold (circle one)
- Road conditions (circle selections): Wet or Dry Ice or Snow Off road or Gravel
- Engine RPM (approx.) \_\_\_\_\_ Engine Temperature : Hot or Cold (circle one)
- Vehicle MPH (approx.) \_\_\_\_\_ Steady Cruise/Acceleration/Deceleration (circle one)
- Drive Mode: Normal Sport Super-Sport (Lancer Evolution) (circle one)
- MID warning indicators: \_\_\_\_\_ When concern occurs or always? \_\_\_\_\_
- Is the R indicator on MID flashing? Yes or No (circle one)
- Engine starts and runs normally? Yes or No (circle one) If No, describe in "Other Comments" below.
- Vehicle accelerates normally? Yes or No (circle one)  
 If no, circle mode: Normal Sport Super-Sport (Lancer Evolution)
- Harsh shifts while driving? \_\_\_\_\_ If yes, which mode (circle one):  
 Normal Sport Super-Sport (Lancer Evolution)
- Does transmission upshift properly (1st – 2nd – 3rd – 4th – 5th – 6th)? Yes or No (circle one)  
 If no, improper upshifts occur from which gear(s) \_\_\_\_\_ to which gear(s) \_\_\_\_\_
- Does the transmission downshift properly (6th – 5th – 4th – 3rd – 2nd – 1st)? Yes or No (circle one)  
 If no, improper downshifts occur from which gear(s) \_\_\_\_\_ to which gear(s) \_\_\_\_\_
- Are shift points affected? \_\_\_\_\_ Any gear shift noise? \_\_\_\_\_ Noises in park/neutral? \_\_\_\_\_
- Any transmission fluid leakage? \_\_\_\_\_ If yes, where \_\_\_\_\_ What amount \_\_\_\_\_
- Other Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

List Diagnostic Trouble Codes (including MFI) below and circle Active or Stored for each entry. Also include the service group for the system where each DTC is found. Techline personnel require this information if a case is opened.

Svc. Grp	DTC	STATUS	Svc. Grp	DTC	STATUS	Svc. Grp	DTC	STATUS
		Active or Stored			Active or Stored			Active or Stored
		Active or Stored			Active or Stored			Active or Stored
		Active or Stored			Active or Stored			Active or Stored
		Active or Stored			Active or Stored			Active or Stored

Perform the ACTION TO TAKE after each DIAGNOSTIC STEP listed below:

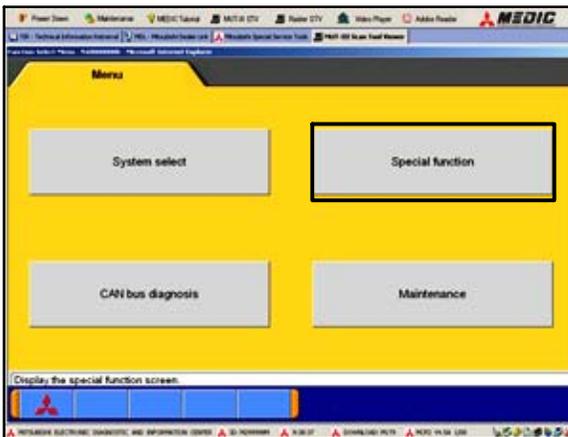
DIAGNOSTIC STEP	ACTION TO TAKE
<p>DIAG1)            Are there any transmission related MID messages displayed? (Yes or No)</p> 	<p>Note any messages and continue diagnosis at DIAG2.</p> <p>A. If the Service Required message is displayed, check for DTCs.</p> <p>B. If the Slow Down message is displayed, the transmission is overheating. Ask the customer if they have noticed this message displayed.</p> <p>The SLOW DOWN message displays if transmission temperature exceeds 250°F. If the transmission temperature exceeds 260°F, the ECU and TCM will take steps to cool down the transmission including reducing power and disengaging the clutches.</p>
<p>DIAG2)            Is there any aftermarket equipment (engine or transmission performance equipment, navigation units, gauges, tracking devices, etc.) installed on this vehicle? (Yes or No)</p> <p>Pay special attention to those devices which can be linked to the vehicle communications networks (CAN B, CAN C, or LIN).</p>	<p>If aftermarket equipment is found, disconnect it or render it inoperative for the remainder of this diagnosis. Go to DIAG3.</p>
<p>DIAG3)            Are there any transmission fluid leaks? (Yes or No)</p>	<p>Note the location(s) of any leaks and continue diagnosis at DIAG4.</p>
<p>DIAG 4)            Is the valve body electrical harness connector fully seated? (Yes or No)</p>	<p>If no, secure the connector. After preparing the scan tool as shown on page 7, continue to DIAG5.</p>
<p>DIAG5)            Perform CAN Bus Diagnosis to confirm proper network communication. If necessary, consult GROUP 54C of the Service Manual for the procedure.</p>	<p>Follow Service Manual procedures (GROUP 54C) for any ECUs failing CAN Bus diagnosis. After diagnosis and repair of CAN Bus, continue diagnosis at Step DIAG6.</p> <p>If CAN Bus diagnosis passed, continue diagnosis at Step DIAG6.</p>

DIAGNOSTIC STEP	ACTION TO TAKE
DIAG6) Read all DTCs. <b>Note any transmission related DTCs for future reference. Confirm no DTCs are stored in the TCM before beginning DIAG7.</b>	Record Freeze Frame Data for <u>ALL</u> DTCs. Repair DTCs in other systems. Conduct Erase and Read All DTCs. Repair as necessary. Continue diagnosis at step DIAG7.
DIAG7) Thoroughly road test the vehicle. Attempt to duplicate any concerns identified from the Customer Interview Worksheet.	Continue diagnosis at step DIAG8.
DIAG8) If symptom is duplicated, recheck for DTCs stored in the TCM.	<ul style="list-style-type: none"> <li>● Refer to the DTC chart in the appropriate service manual.</li> <li>● Follow the procedures for diagnosis and repair in the appropriate service manual.</li> <li>● If transmission assembly replacement is needed, contact your District Parts and Service Manager for authorization.</li> </ul>
If DTCs are not stored, but the symptom can be re-created.	<ul style="list-style-type: none"> <li>● Refer to the symptom chart in the appropriate service manual.</li> <li>● If any of the following DTCs are recorded after a second road test, replace the clutch assembly using the instructions that follow:               <ul style="list-style-type: none"> <li>● P0841</li> <li>● P0846</li> <li>● P1850</li> </ul> </li> </ul> <p><b>NOTE:</b> If there are multiple DTCs or DTCs not listed above, refer to the DTC chart in the appropriate service manual or TSB-13-22-003.</p>

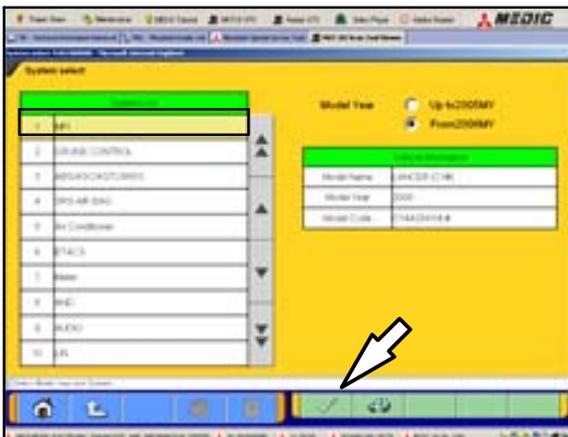
**If your diagnosis results in transmission replacement, perform the following:**

- Perform “Copy Coding” to MUT-III **before** replacing the transmission
- Replace the transmission assembly if necessary.
- Perform VIN write.
- Perform “Copy Coding” to TCM.
- Road test to confirm repair with QC Worksheet.

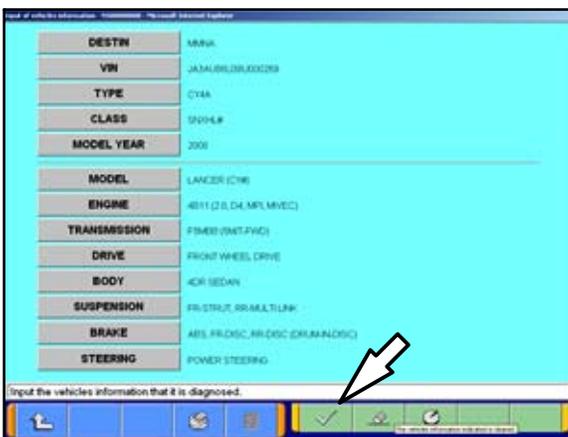
## SCAN TOOL SETUP



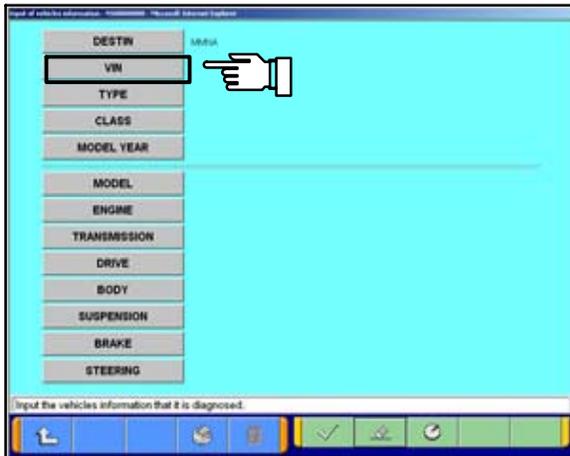
1. Connect MUT-III to the vehicle and turn the ignition switch to ON (RUN).
2. At the MUT-III main menu, choose **System Select**.



3. Select "From 2006 MY."
4. Click the car icon at the bottom of the screen.



5. Click the eraser icon at the bottom of the screen to erase all vehicle data.

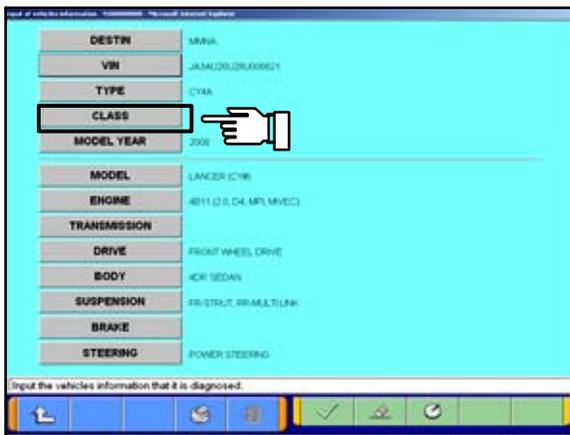


6. Click the VIN button.



7. Click on the icon in the lower RH corner of the screen to have MUT-III automatically read the VIN. If a message appears advising the VIN cannot be input automatically, enter the 17 digit VIN.

Confirm VIN is correct and click the **check mark** to continue.



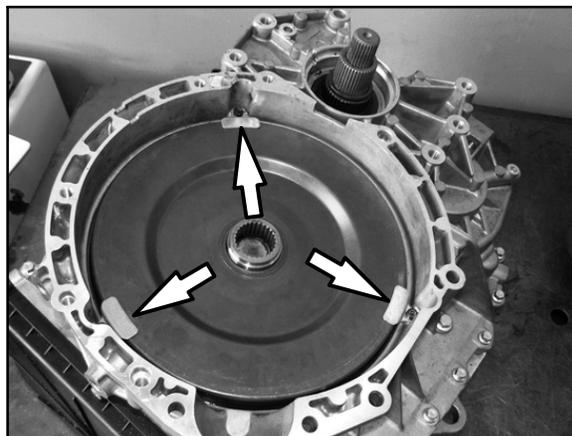
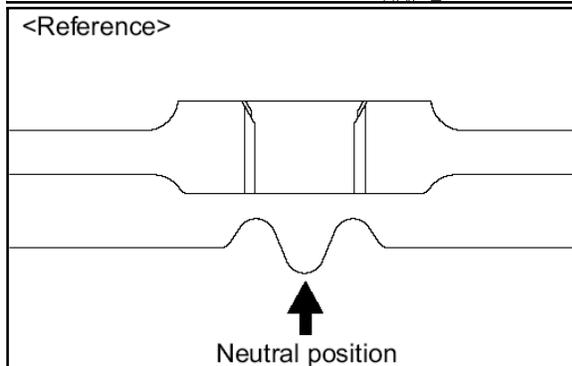
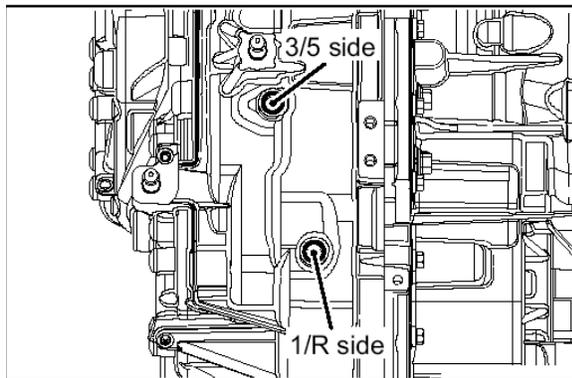
8. If the vehicle class is not complete, click the CLASS button.

**NOTE:** in some cases, selecting the proper transmission (arrow) automatically fills in the proper "CLASS."

9. Vehicle class can be found on the model plate attached to the right side B-pillar.



## CLUTCH REMOVAL AND INSTALLATION



### CLUTCH REMOVAL

1. Refer to Group 22C of the service manual and remove the transfer assembly and transmission.
2. Prior to transmission removal, be certain the shift lever is placed into the "P" position, then turn the ignition off.

**NOTE:** If the shift rails are not in the neutral position, the clutch assembly cannot be removed.

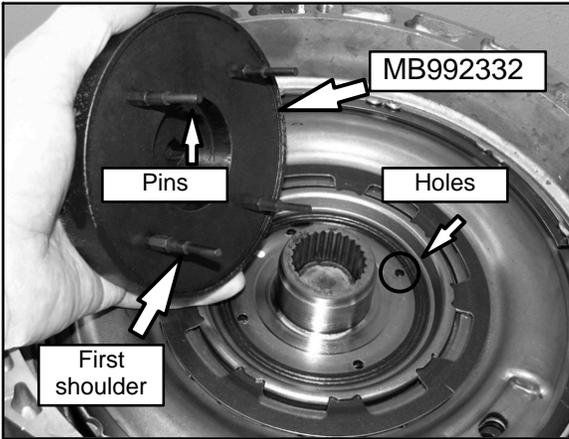
- Correct positioning of the shift rails can be confirmed by removing the two detents (top illustration) and look for the depressions in the shift rails (bottom illustration).
- If you cannot see the depressions of one or both detents, use a small punch and hammer to tap the depressions into position.

If it is necessary to remove the detents, reinstall new detents included with the new clutch assembly.

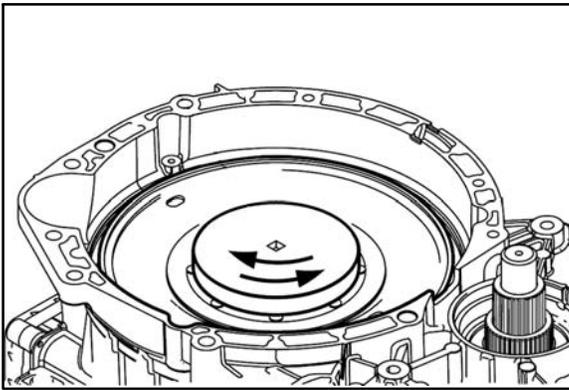
3. Remove the clutch assembly outer cover.

Remove three screws and retaining tabs around the outer edge of the cover. These parts will not be reused. A new cover, tabs and screws are included with the new clutch assembly.

4. Use a pry bar or large screw driver to remove the clutch cover.

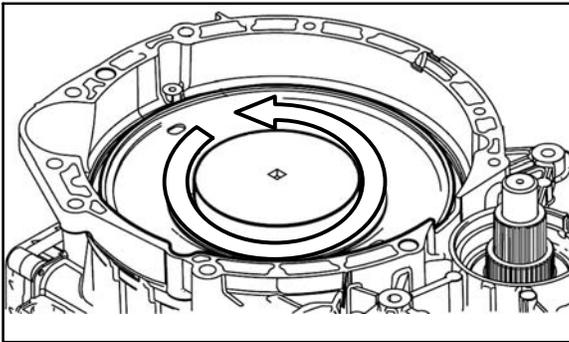


5. insert four pins of special tool MB992332-01 – Clutch remover & installer, into four holes of the clutch assembly.



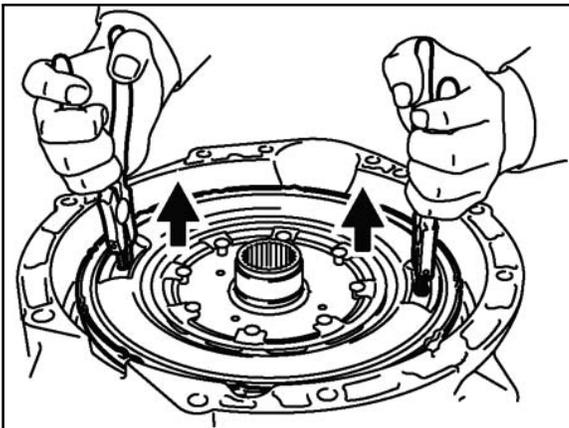
6. While pressing lightly on the tool, rotate the tool back and forth to engage all four clutch disks.

The tool pins will bottom at the first shoulder when fully inserted.



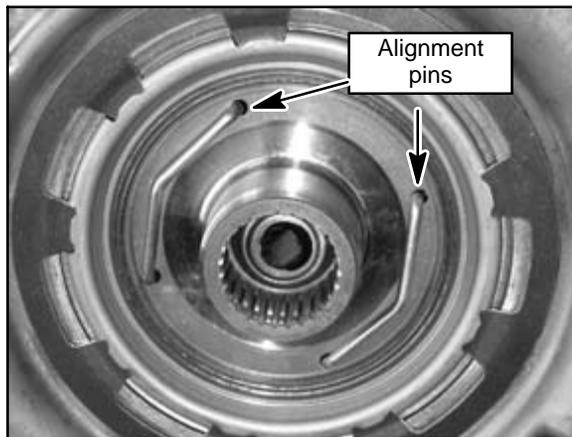
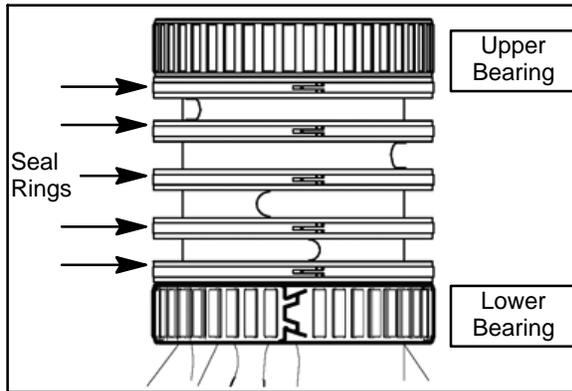
7. Rotate the clutch assembly counterclockwise, six or seven times to loosen the clutch assembly.

**NOTE:** There will be slight break away resistance when rotating the clutch assembly (tightening torque is only 66 in lbs.). Do not use excessive torque to loosen the assembly. The transmission may not have shifted to neutral when you selected “P” range prior to turning the engine off. Applying excessive torque can break the tool pins.



8. Insert expanding snap ring pliers to the openings shown. **DO NOT HOOK THE CLUTCH DISCS.** Lift the clutch assembly to remove it.

**NOTE:** The upper needle bearing of the main shaft support may remain in the clutch assembly. Remove it and reinstall it to the the main shaft support.



## CLUTCH INSTALLATION

Position the transmission so the bell housing mating surface is level before beginning clutch assembly installation.

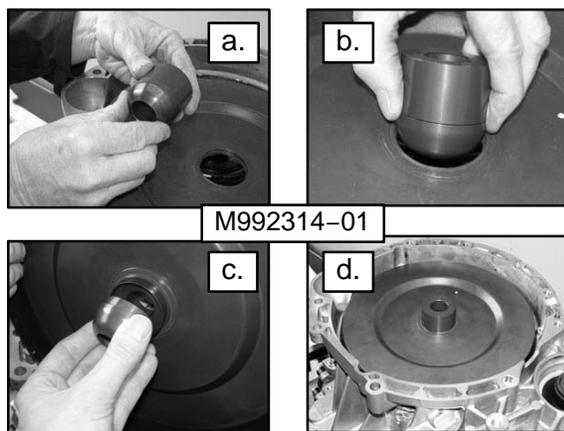
**!! CAUTION !! The needle bearings and seal rings on the main shaft support are not available separately. Take care they are not damaged when installing the clutch assembly.**

1. Ensure the upper main shaft support needle bearing is installed.
2. Set the new clutch assembly in place in the bell housing.
3. Rotate the clutch assembly back and forth to ensure it engages the oil pump gear.
4. Remove the shipping alignment pins from the clutch assembly.
5. Insert four pins of special tool MB992332 – Clutch remover & installer, into four holes of the clutch assembly.
6. While pressing lightly on the tool, rotate the tool back and forth to engage all four clutch disks.

The pins of the tool will bottom at the first shoulder when fully inserted.

7. Rotate the clutch assembly clockwise, six or seven times to secure it.
8. Torque the clutch assembly to  $66 \pm 8$  in. lbs.
9. Install a new clutch cover (provided with the clutch assembly).

Insert special tool seal protector (M992314-01) into the new clutch cover.



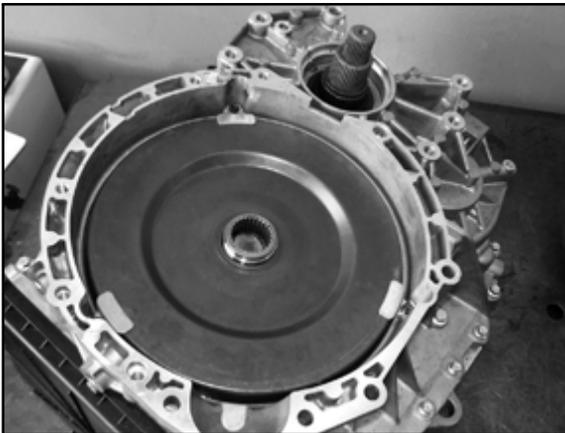
M992314-01

- a. Assemble two pieces of the seal protector.
- b. Insert the protector through the cover seal from the top surface as shown.
- c. From the underside of the cover, separate the protector.
- d. Place the assembled cover/seal protector over the clutch assembly with the protector aligned to the main shaft support.
- e. Press the cover down until the tool no longer engages the seal.
- f. Remove the tool.



g. Use special tool cover installer (MB998323-01) with a dead blow mallet to seat the cover into place.

- (1) Place the special tool as shown.
- (2) Alternately strike the center and ends of the tool's crossbar, rotate the tool 90°, and repeat. Continue this process until the cover is fully seated



h. Secure the cover with three new tabs and bolts (provided with the clutch assembly).

Torque the bolts to 89 ± 8 in. lbs.

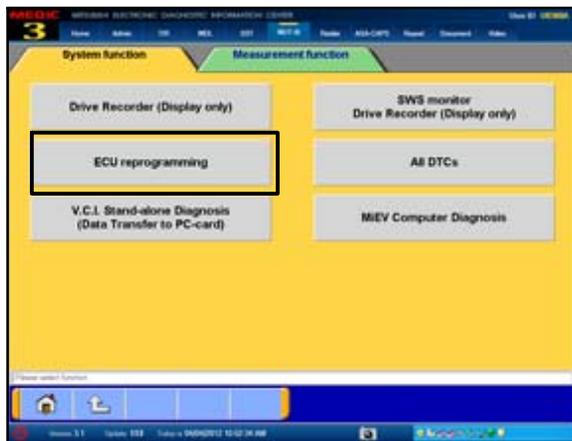
10. Drain the transmission oil cooler
11. Reinstall the transmission and transaxle. Refer to Group 22C of the service manual for installation details.
12. Replace the external oil filter with a new part (see parts information section later in this TSB).
13. Reinstall two drain plugs and fill the transmission with 6.6 qts of DIAQUEEN SSTF-1.

**!! IMPORTANT !!**

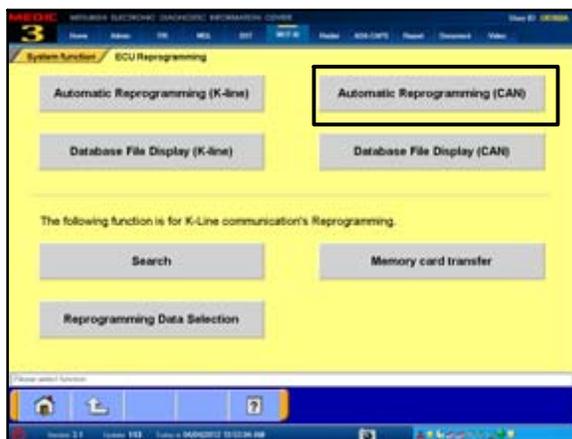
**ONLY FILL THE TRANSMISSION WITH 6.6 QTS OF DIAQUEEN SSTF-1 IF THE TRANSMISSION FILTER IS REPLACED AND THE COOLER IS DRAINED. REFER TO THE SERVICE MANUAL FOR REFILL CAPACITIES IF COMPLETING OTHER REPAIRS.**

## PROGRAM NEW TRANSMISSION CONTROL MODULE (TCM) For 2008 Lancer Evolution & early 2009 Lancer and Lancer Sportback Ralliart Only.

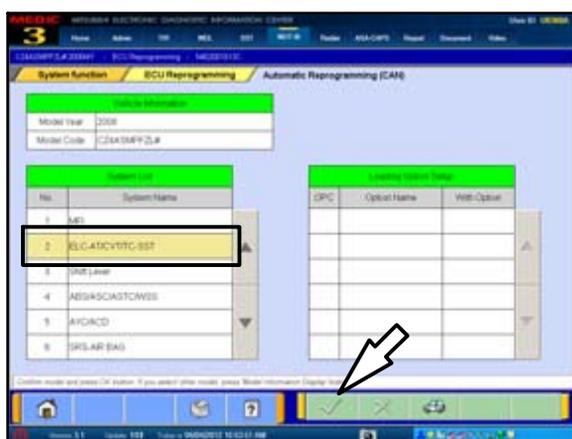
CONNECT A BATTERY CHARGER TO THE VEHICLE'S BATTERY DURING THE REMAINING INSTRUCTIONS. DO NOT ALLOW THE BATTERY CHARGER TO TIME OUT. BATTERY VOLTAGE (AS MEASURED AT THE BATTERY POSTS WITHOUT ELECTRICAL LOAD) MUST BE KEPT AT 12.4V OR HIGHER IN ORDER TO REPROGRAM THE ECM. MEASURE THE BATTERY VOLTAGE AND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



1. On the MUT-III Main Menu, click **Special Function**.
2. Click **ECU reprogramming**.



3. Click **Automatic Reprogramming (CAN)**.



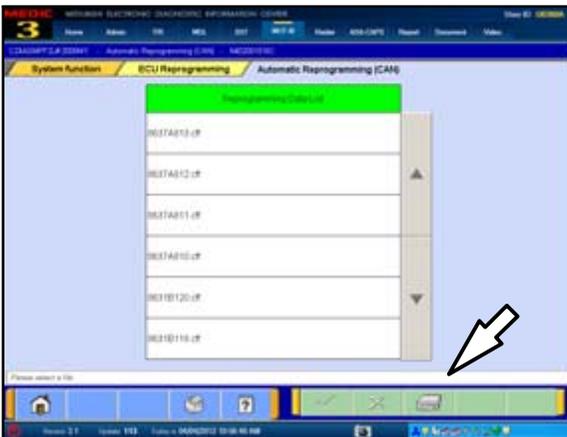
4. Select **ELC-AT/CVT/SST** and click the **check mark** to continue.



5. In the “Automatic search the data” dialog box, click the **check mark** to begin a search for reprogramming data.

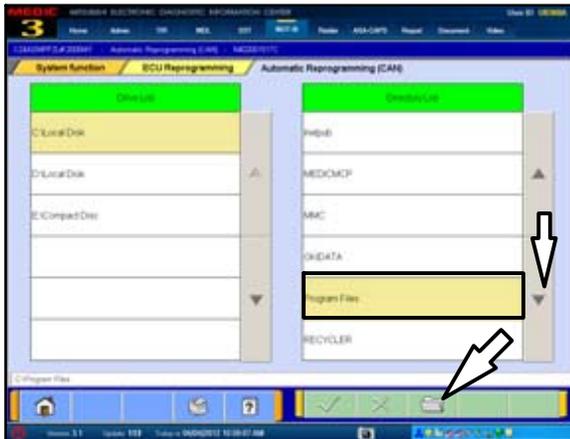


6. In the “Unnecessary Reprogramming” dialog box, click the **Data Screen icon** (not the check mark).

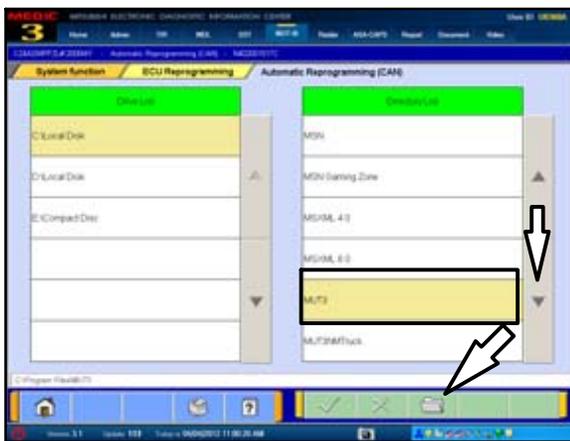


7. Once the **Automatic Reprogramming (CAN)** screen appears, all data contained in the data storage system is displayed.

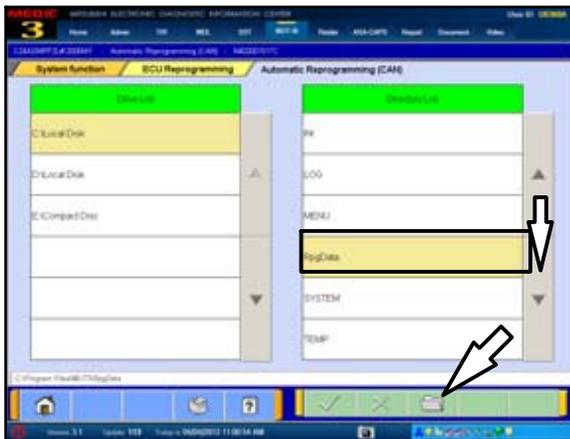
To access the needed TC-SST data, Click the **Data Drive icon** at the bottom of the screen.



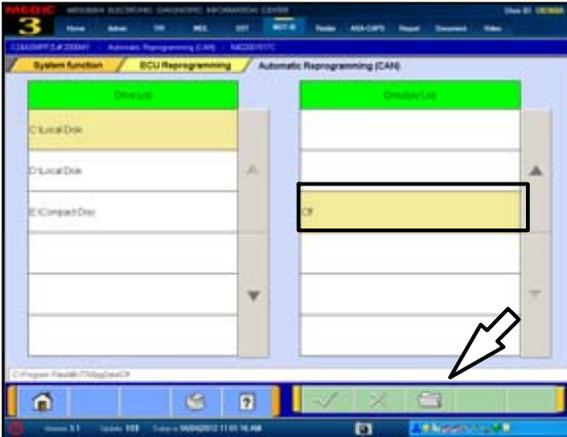
8. Scroll down the **Directory List** until **Program Files** is displayed.
9. Select **Program Files** and click the **file folder** icon at the bottom of the screen.



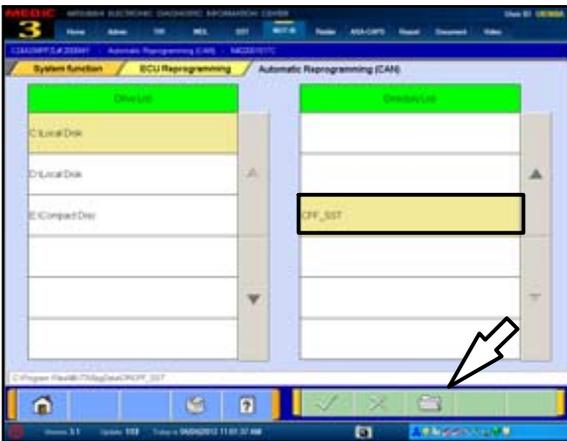
10. Scroll down the **Directory List** until **MUT3** is displayed.
11. Select **MUT3** and click the **file folder** icon at the bottom of the screen.



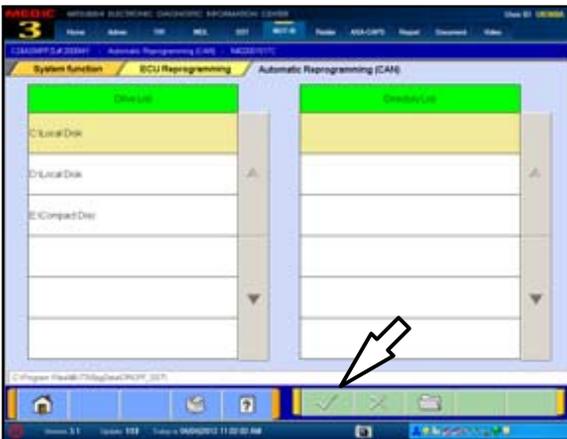
12. Scroll down the **Directory List** until **RpgData** is displayed.
13. Select **RpgData** and click the **file folder** icon.



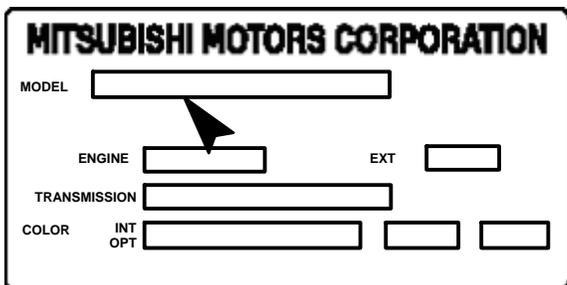
14. Select **CFF** and click the **file folder** icon.



15. Select **CFF\_SST** and click the **file folder** icon.



16. Once the **Directory List** is blank, click the **check mark** to continue.



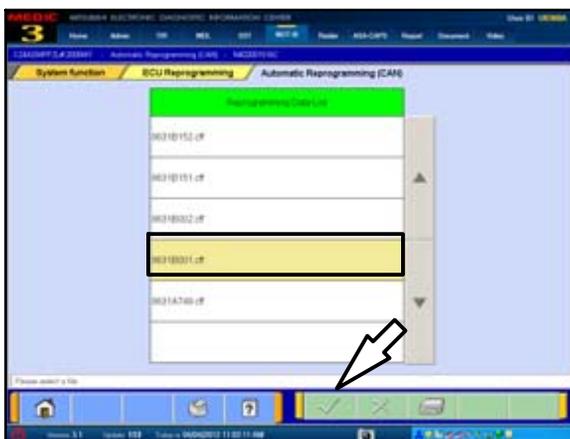
17. Determine the first 4 characters of the Vehicle Model Number (shown on the Vehicle Identification Code plate attached to the passenger's side B pillar).

Example: CY4A

Vehicle Model Number	Model Year	File Name	S/W Part Number
CZ4A Equipped with Tc-SST	2008	8631A749.cff	8631A3790C
	2009	8631B001.cff	8631A8270B
	2010	8631B001.cff	8631A8270B
	2011 and up	8631B151.cff	8631A8270A
CY4A/CX4A Equipped with Tc-SST	2009	8631B002.cff	8631A8600B
	2010	8631B002.cff	8631A8600B
	2011 and up	8631B152.cff	8631A9720A

18. Using the Vehicle Model Number and Model Year information, determine the correct File Name from the list at left.

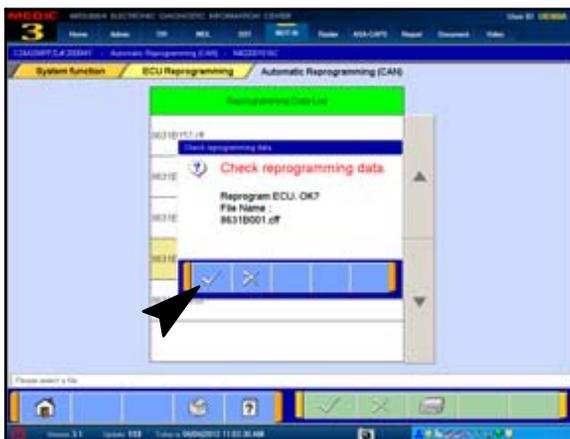
**!! IMPORTANT !! BEFORE PERFORMING ANY FUTHER STEPS, READ STEP 19 COMPLETELY!**



19. Based on information from Step 18, select the correct file from the **Reprogramming Data List** and click the **check mark** to continue.

**IMPORTANT NOTE: If the vehicle is a 2008 Lancer Evolution, install 8631B001.cff instead of 8631A749.**

YOU WILL REPLACE 8631B001 WITH THE CORRECT FILE AFTER TEACH-IN IS COMPLETED.



20. Click the **check mark** in the **Check Reprogramming Data** dialog box to continue.



21. Data will load from MUT-III to the TCM.

**NOTE:** This process takes approximately seven minutes to complete.

<b>CAUTION</b>	<b>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.</b>
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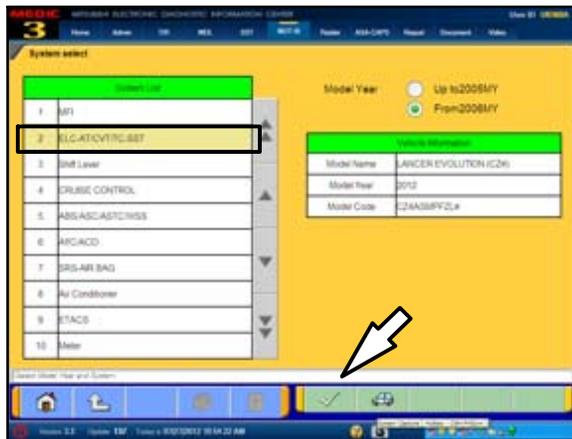


- 22. Once programming is finished, the **Completed** dialog box is displayed.
- NOTE:** Confirm the TCM part number and software part number match the choices made in steps 17 through 19.
- Click the **check mark** to continue.
- 23. Turn the ignition to LOCK (OFF) position for at least 8 seconds.
- 24. Continue to “Teach-in” procedures that follow.

## PERFORM “TEACH-IN” PROCEDURE FOR CLUTCH REPLACEMENT

### **WARNING**

During the “Teach-in” procedures that follow, **DO NOT** allow anyone to stand in front of the vehicle. Even though these procedures will not run unless the brake pedal is depressed and the parking brake is on, **ALWAYS** use common sense and observe proper safety practices.



1. Start the engine and **FIRMLY** apply the parking brake AND service brake.
2. From the MUT-III Main Menu, click **System Select**.
3. Click the **ELC-AT/CVT/TC-SST** button.
4. Allow the engine to idle until transmission temperature reaches 104° to 176°F.

**NOTE:** Warming transmission temperature can take 20 minutes or longer.

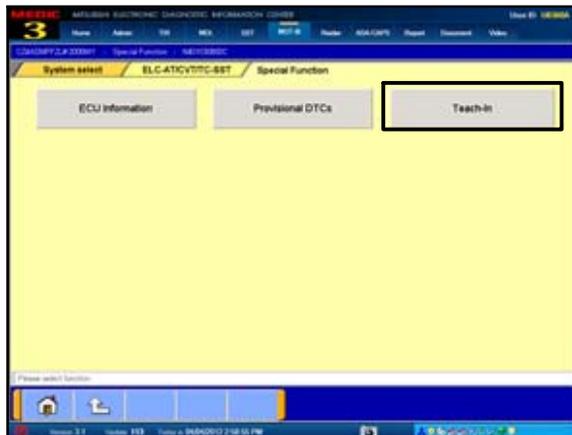
5. Select **Data List** and monitor **Data item # 55: Transmission temperature sensor** to confirm transmission temperature.
6. Click the **check mark** to continue.
7. Click the **Special Function** button.

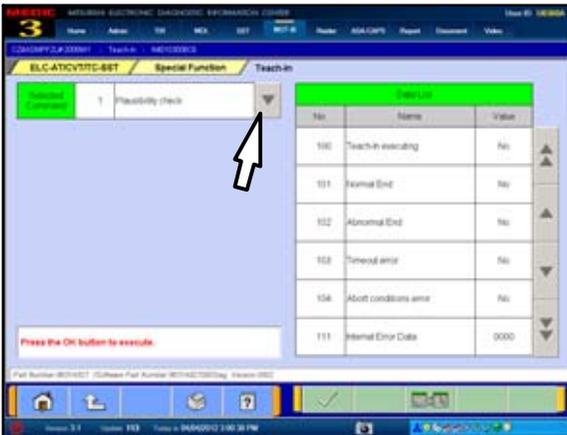


8. Click the **Teach-in** button.

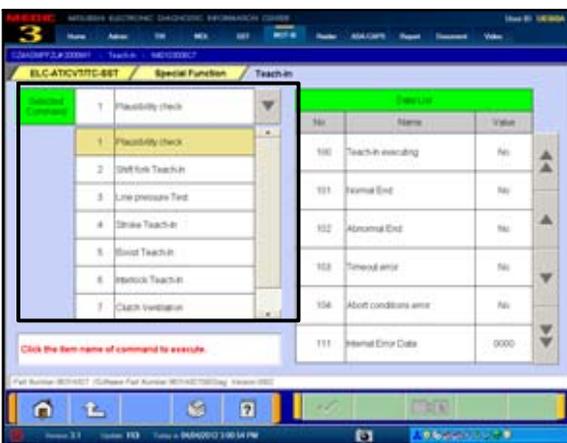
**NOTE:** After a clutch assembly is replaced, you must complete the “Clutch Teach-in procedures.”

These procedures incorporate five individual **Selected Commands**.





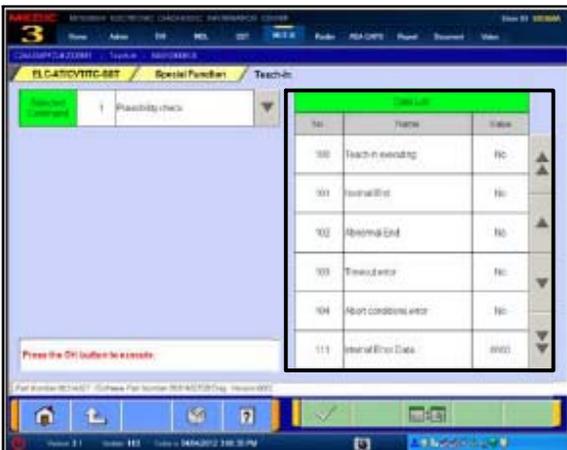
9. Click the **pull down arrow** to expand the **Selected Command** column.



Teach-In **Selected Commands**. Use only those in **bold print** if replacing only the clutch assembly.

1. **Plausibility Check**
2. **Shift Fork Teach In**
3. Line Pressure Test
4. Stroke Teach-In
5. **Boost Teach-In**
6. Interlock Teach-in
7. **Clutch Ventilation**
8. **Reset Clutch Gain**

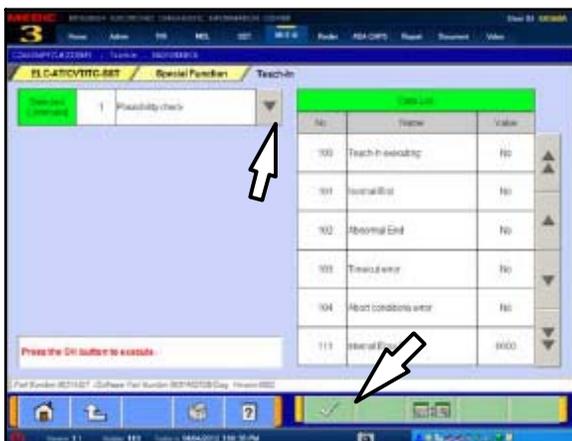
Commands must be executed in a specific order, (described later in this TSB) for Clutch Teach-in to be completed successfully.



Note the 7 **Data List** items which correspond to each **Selected Command**. These indicate the status of each Teach-In segment.

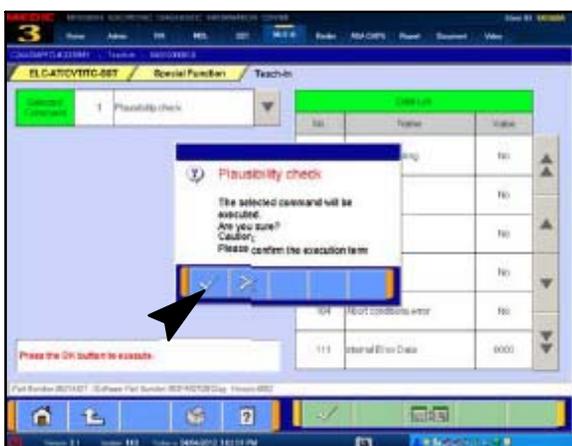
The expected results after each successful Teach-In segment are shown in parenthesis next to the Data List item.

100. Teach-In Executing (NO)
101. Normal End (YES)
102. Abnormal End (NO)
103. Timeout Error (NO)
104. Abort Conditions Error (NO)
110. Execute Last Teach-In item (last item)
111. Internal Error Data (NO)



10. Select **Plausibility Check** and click the **check mark** to continue.

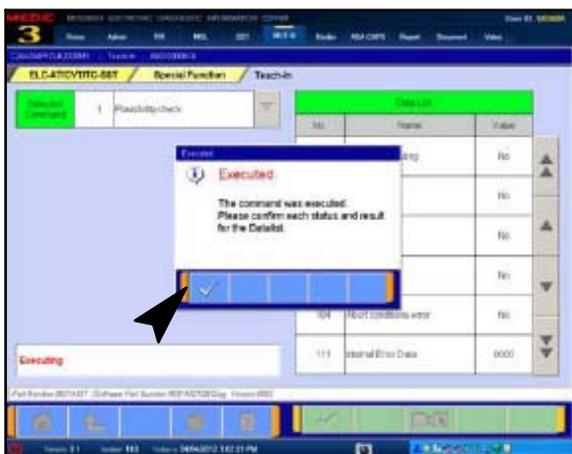
**NOTE:** The Selected Command menu will collapse once a command is selected.



11. Click the **check mark** in the **Plausibility Check** dialog box to confirm.

**NOTE:** The engine speed briefly increases to about 1500 RPM and returns to idle during the Plausibility Check.

If Normal End (NO) is displayed, repeat this step. If you continue to have Normal End (NO) returned, contact Techline.

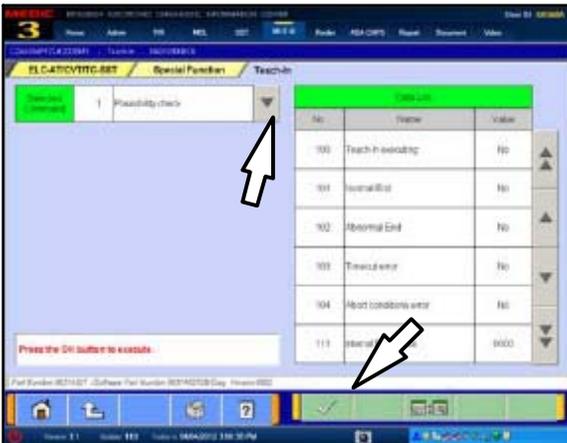


12. When the procedure is complete, the **Executed** dialog box advises Selected Command 1 Plausibility Check was completed and requests confirmation of the results in the Data List Column.

Click the **check mark**.

Before continuing to Step 13, confirm Data List No. 101 Normal End (YES) is displayed for the Plausibility Check.

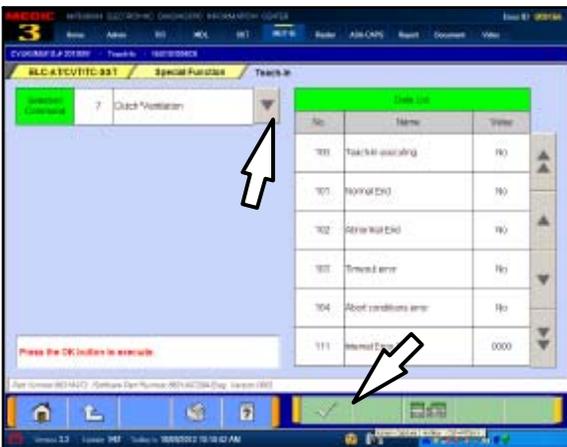
If Normal End (NO) is displayed, repeat this step. If you continue to have Normal End (NO) returned, contact Techline.



**!! IMPORTANT !!**

From this point forward, Selected Commands must be completed exactly in the following order. **Do not deviate from the order shown.**

- Repeat the **Plausibility Check** from the Selected Command column.

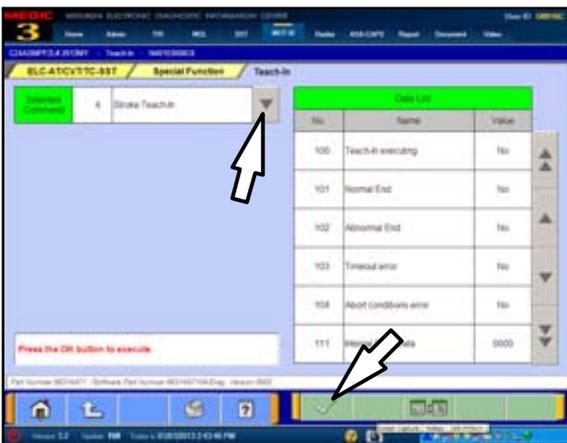


- Choose Selected Command 7 **Clutch Ventilation** from the pull down menu.

Click the **check mark** to continue.

Execute the command and confirm its proper completion by verifying Data Item No. 101 Normal End indicates YES.

If Normal End (NO) is displayed, repeat this step. If you continue to have Normal End (NO) returned, contact Techline.



- Choose Selected Command 4 **Stroke Teach-In.**

Click the **check mark** to continue.

Execute the command and confirm its proper completion by verifying Data Item No. 101 Normal End indicates YES.

If Normal End (NO) is displayed, repeat this step. If you continue to have Normal End (NO) returned, contact Techline.

<p><b>⚠ WARNING</b></p>	<p>During the “Boost Teach-in” procedure that follows, <b>DO NOT</b> allow anyone to stand in front of the vehicle. Even though the procedure will not run unless the brake pedal is depressed and the parking brake is on, <b>ALWAYS</b> use common sense and observe proper safety practices .</p>
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16. Confirm the parking brake AND service brake are **FIRMLY** applied.

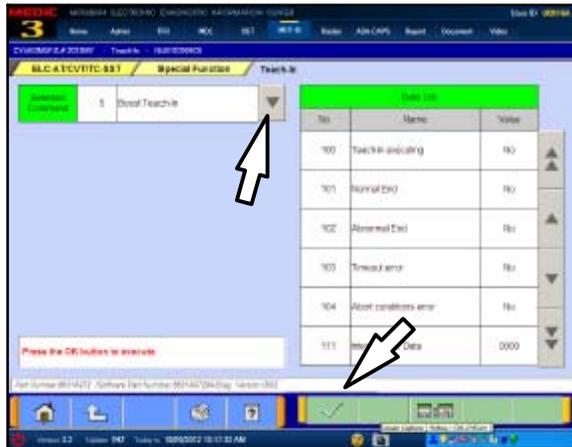
17. Choose **Selected Command 5: Boost Teach-In** from the pull down menu.

**NOTE:** Engine speed accelerates to **4000 RPM** twice during this procedure. The first increase occurs approximately 17 seconds after the check mark is pressed. This is normal.

Click the **check mark** to continue.

Execute the command and confirm Data Item No. 101 Normal End indicates YES.

If Normal End (NO) is displayed, repeat this step. If you continue to have Normal End (NO) returned, contact Techline.



18. Choose **Selected Command 8: Reset Clutch Gain** from the pull down menu.

**NOTE:** This is the only Teach-In step which does not elevate engine speed. RPM remains at idle.

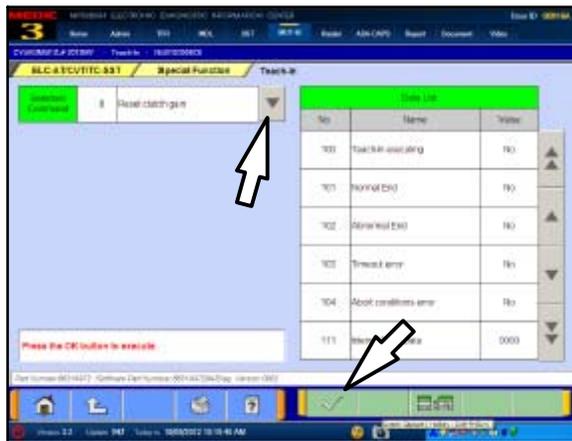
**NOTE:** If TCM software version is 0001 (unlike example at left), Reset Clutch Gain will not appear in the Selected Command column and does not need completion.

Execute the command and confirm its proper completion by verifying Data Item No. 101 Normal End indicates YES.

If Normal End (NO) is displayed, repeat this step. If you continue to have Normal End (NO) returned, contact Techline.

This completes **Clutch Teach-In**.

19. Turn the ignition switch to the LOCK (OFF) position.



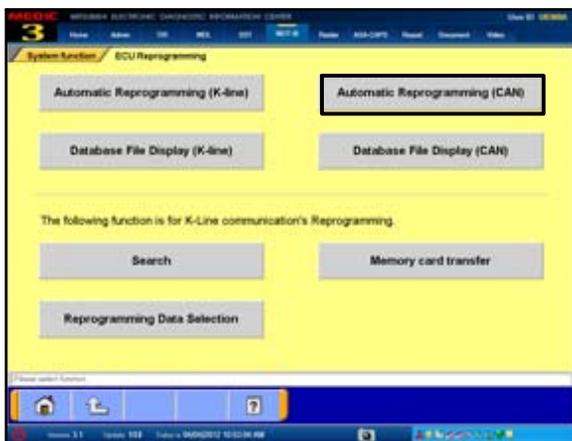
Vehicle Model Number	Model Year	File Name	S/W Part Number
CZ4A Equipped with Tc-SST	2008	8631A749.cff	8631A3790C
	2009	8631B001.cff	8631A8270B
	2010	8631B001.cff	8631A8270B
	2011 and up	8631B151.cff	8631A8270A
CY4A/CX4A Equipped with Tc-SST	2009	8631B002.cff	8631A8600B
	2010	8631B002.cff	8631A8600B
	2011 and up	8631B152.cff	8631A9720A

For **2009 and later vehicles with a software version higher than 0001**, the repair and programming procedures are complete. Turn the ignition to the LOCK position, disconnect the MUT-III and the battery charger and proceed to the Quality Control Checklist on page 41 to verify repairs.

If the vehicle is a **2008 Lancer Evolution or a Lancer or Lancer Sportback Ralliart with software version 0001**, continue with **REPROGRAM 2008 LANCER EVOLUTION TCM WITH CORRECT SOFTWARE** to reprogram the TCM to the correct version.

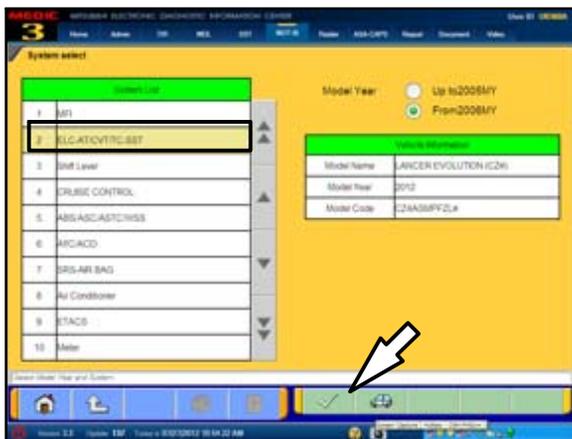
## REPROGRAM 2008 LANCER EVOLUTION & EARLY 2009 LANCER AND LANCER SPORTBACK RALLIART TCM USING SOFTWARE VERSION 0001 WITH CORRECT SOFTWARE

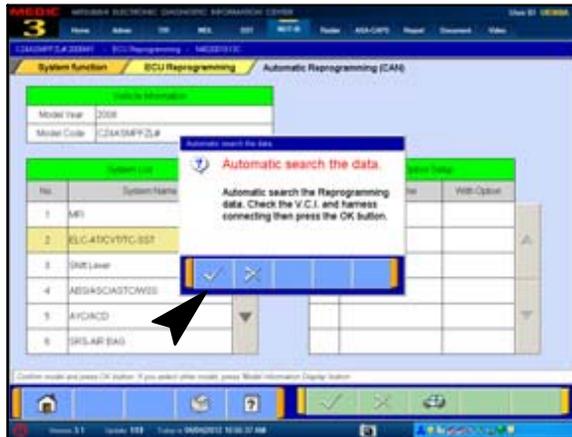
**THIS PROCEDURE MUST BE COMPLETED FOR THE DESCRIBED MODELS.**



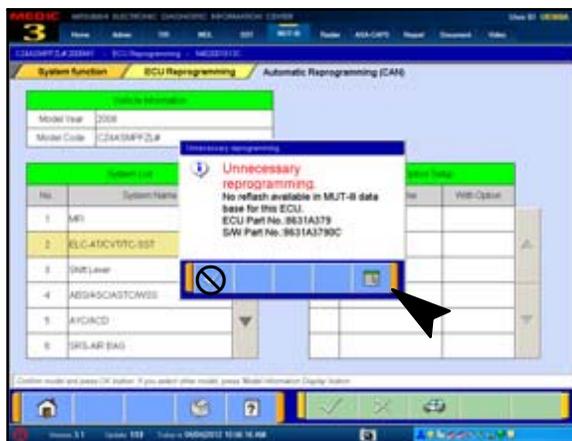
This procedure is only done **AFTER** all previous instructions have been completed.

1. On the MUT-III Main Menu, click the **Special Function** button.
2. Click the **ECU Reprogramming** button.
3. Click the **Automatic Reprogramming (CAN)** button.
4. Select **ELC-AT/CVT/SST** and click the **check mark** to continue.





5. Click the **check mark** to begin an automatic search for reprogramming data.

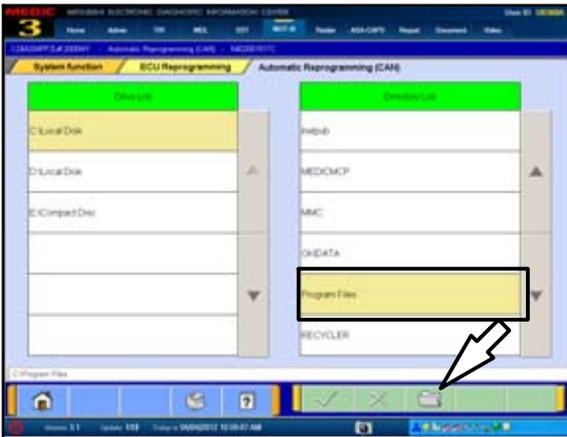


6. Click the **Data Screen icon (not the check mark)** on the the “Unnecessary Reprogramming” dialog box.

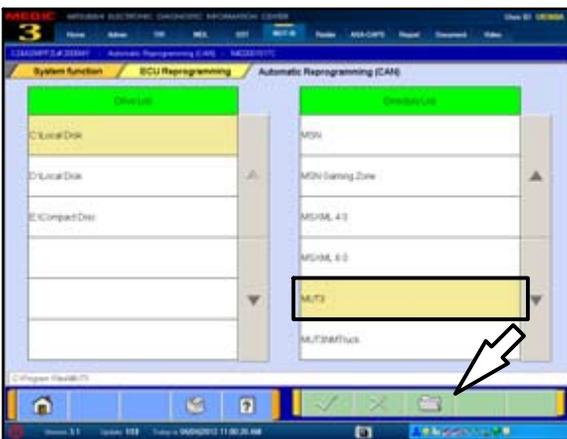


7. Once the **Automatic Reprogramming (CAN)** screen appears, all data in the data storage system is displayed.

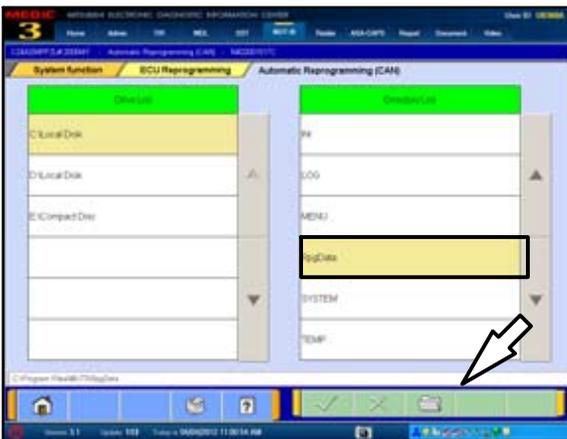
To access the proper TC-SST data, click the **Data Drive icon** at the bottom of the screen.



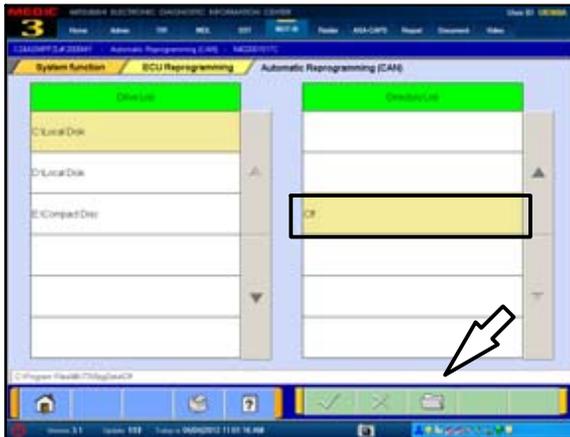
8. Scroll down the **Directory List** until **Program Files** is displayed.
9. Select **Program Files** and click the **file folder** icon at the bottom of the screen.



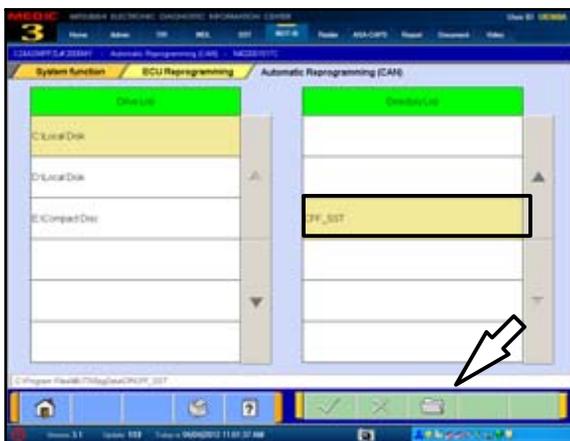
10. Scroll down the **Directory List** until **MUT3** is displayed.
11. Select **MUT3** and click the **file Folder** icon at the bottom of the screen.



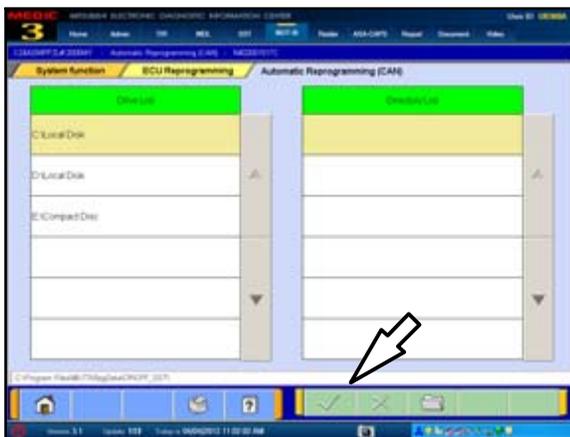
12. Scroll down the **Directory List** until **RpgData** is displayed.
13. Select **RpgData** and click the **file folder** icon.



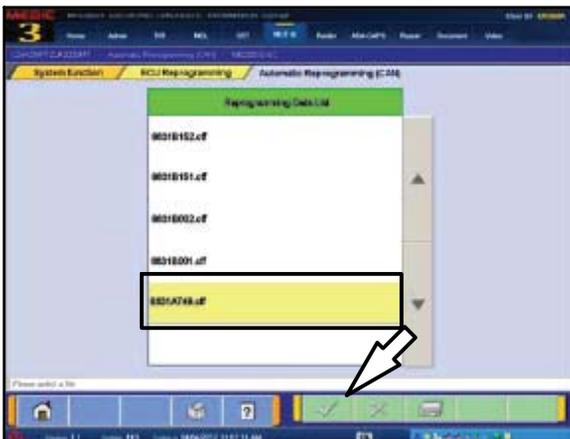
14. Select **CFF** and click the **file folder** icon.



15. Select **CFF\_SST** and click the **file folder** icon.



16. Once a blank **Directory List** is displayed, click the **check mark** to continue.



17. Select file 8631A749.cff from the **Reprogramming Data List** and click the **check mark** to continue.



18. Click the **check mark** in the **Check Reprogramming Data** dialog box to continue.

**⚠ CAUTION**

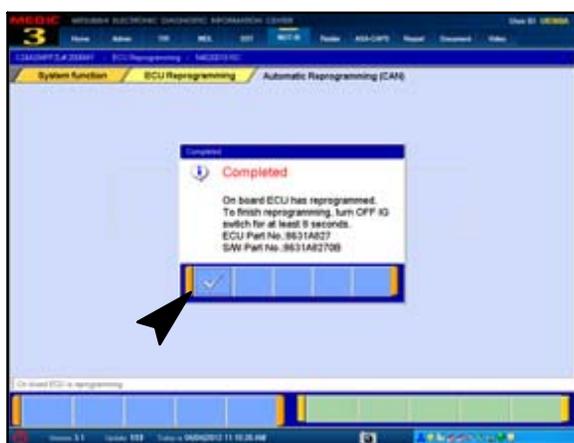
The Daytime Running Lights and both the engine and condenser fans will automatically be turned on during reprogramming. Care should be taken to insure nothing gets caught in the moving blades. The radio will be turned off and you will also hear a chime in the interior for a short period of time. These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



19. Data will load from MUT-III to the TCM.

**NOTE:** This process takes approximately seven minutes to complete. A battery charger should be attached to the vehicle battery and the MUT III should be plugged into it's charger to prevent the program from stopping prior to completion.

Stopping prior to completion could permanently damage the TCM.



20. Once the programming is completed, the **Completed** dialog box is displayed.

21. Repair and programming procedures for a **vehicles using software version 001** are complete. Turn the ignition to the LOCK position, disconnect the MUT-III and the battery charger and proceed to the Quality Control Checklist on page 41 to verify repairs.

## QUALITY CONTROL CHECKLIST

- **Mitsubishi SSTF1 fluid installed?** YES  NO
- **Start engine. Is Check Engine Light (MIL) illuminated?** YES  NO   
If YES, correct as necessary.
  - **Check for DTCs in any ECU?** YES  NO   
If YES, correct as necessary.
- **Check for transmission oil leaks.** YES  NO
- **Correct Software installed in TCM?** YES  NO
- **Teach-In is completed?** YES  NO
- **Road Test**  
Shift through all gears in both Automatic and Manual Modes. Manual mode is slightly more deliberate/harsh compared to Automatic mode.
  - Any slippage noted? YES  NO
  - Shift delays noted? YES  NO   
If YES, correct as necessary.
- **Check for unusual noises in all gears while driving.**  
(Some noises, especially during shifting, are normal.)
  - Unusual noises on acceleration or deceleration? YES  NO
  - Unusual noises while idling? YES  NO   
(Neutral gear rattle while idling is normal)  
If YES, correct as necessary.
- **Switch to Sport mode from Normal mode**
  - Are upshifts/downshifts more delayed? YES  NO
  - Are shifts harsher in this mode? YES  NO
- **After road test, perform "Erase and Read All DTCs."**  
Is MIL illuminated or any DTCs in any ECU? YES  NO   
If YES, correct as necessary.

## PARTS INFORMATION

Use Genuine Mitsubishi parts as listed in ASA CAPS.

Part #	Description	Qty. Req'd
2300A045	Clutch Assembly, M/T Includes: 1. Cover Assembly, M/T Clutch Case (2502A034) 2. Bracket, M/T Clutch Case Cover(2502A035) 3. Bolt, M/T Case (3) (2502A027) 4. Plug, M/T case (4) (2502A039)	1
2513A040	Case Assembly, M/T Case Oil Filter Includes: 1. Filter Element – Not available separately 2. Sealing Ring – Not available separately	1
C0002610	DiaQueen SSTF-1 Transmission Oil	A/R *

\* The TC-SST refill capacity changes with repair procedure. Refer to this TSB and the service manual for refill capacities for specific repairs.

## WARRANTY INFORMATION

This TSB provides technical information only.