

PassThru CAN

Programming of Emission Related Control Units
With PassThru Programming System – SAE J2534 Compliant

User's Manual

<Ver 1.6>



Foreword

This manual explains operating procedures and other related information for PassThru CAN software. The user is required to read this manual carefully and to follow the described procedure for appropriate software usage.

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Symbols for safety operation

The following symbols are used for your safety and correct operation of the software.

Symbol	Title	Description
	Warning	This symbol alerts you to a procedure or practice which, if not followed correctly, could lead to death or serious injury.
	Caution	This symbol alerts you to a procedure or practice which, if not followed correctly, could lead to injury and/or property damage (vehicle, PC etc.).
	Prohibition	This symbol alerts you to a prohibited action.
	Enforcement	This symbol alerts you to an action that must be enforced.

General precautions and pre-requisite

Items	Description	
PC and cables	Do not use damaged cables and PCs together with PassThru CAN software.	
Vehicle	Unless clearly specified and required, do not operate the software while the engine is running or when you are driving your car.	
Vehicle	While operating the PassThru CAN software the vehicle must be held still by applying parking brake or wheel wedges, etc.	
Power supply	The battery of the vehicle shall be charged enough to supply necessary electricity for the software operation.	
Software	PassThru CAN software and related files (i.e. flash data file and other support files) are appropriately installed.	
Internet connection	Internet connection is necessary for web-site authorization for software execution.	
PassThru device	Valid J2534-1 compliant PassThru device must be used.	
User ID and password	The user has the valid subscription ID and password for service information website of Mitsubishi Motors North America Inc. (http://www.mitsubishitechinfo.com/epacarb/)	

Abbreviations

ECU	: Electrical Control Unit
DTC	: Diagnostic Trouble Code
PCM	: Power train Control Module
CAN	: Control Area Network
VIN	: Vehicle Identification Number
TC-SST	: Twin Clutch-Sportronic Shift Transmission

1. Overview

1.1 Function overview

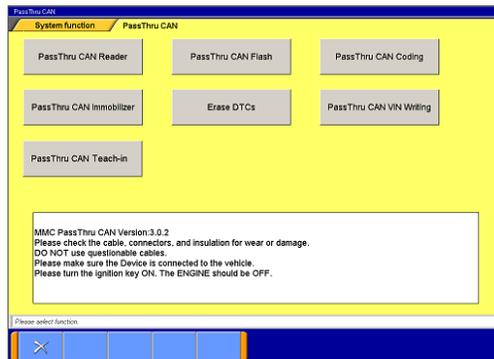
PassThru CAN software has the following functions.

Function name	Description
Reader	This function allows the user to retrieve information from an ECU of the vehicle. This information is necessary to search correct files such as flash reprogramming data file, coding data and other files for the target vehicle.
Flash	This function allows the user to reprogram ECU with updated software program.
Erase DTCs	This function allows the user to deletes the diagnostic trouble codes.
Immobilizer	This function allows the user to re-register Immobilizer Key Code into PCM in its replacement.
Variant Coding	This function allows the user to writes coding data (information on vehicle equipment) into PCM
VIN Writing	This function allows the user to write VIN into PCM.
Teach in	<p>This function allows the user to execute TC-SST [*] re-learn process that is necessary in case of the following service.</p> <ol style="list-style-type: none"> 1. Mechatronic assembly part replacement 2. Clutch assembly part replacement. <p>As for the details of the above service, refer to related TSB and instruction on website.</p> <p>Note) This function is executable for vehicles equipped with TC-SST only. * TC-SST is abbreviation of "Twin Clutch-Sportronic Shift Transmission" and is equipped for some high performance Mitsubishi vehicles.</p>

1.2 Main menu screen

The buttons for the above functions are located on the main menu screen as follows.

Please refer to the related part in the following section for instruction on how you can operate each function.



2. Installation

(1) Pass CAN Installer file

Put PassThru CAN installer file into any folder.

(2) Installation

You can find "Setup.exe" icon in installer file.
Choose and double click the icon to start installation.

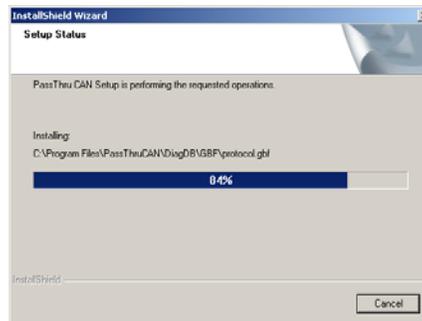


Please make sure that PassThru CAN is NOT already installed. When PassThru CAN is already installed, Setup.exe detects and moves on to uninstallation process and the software will be deleted.



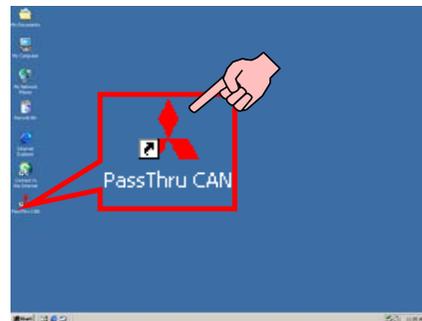
(3) Installation procedure is now in progress

Installation process automatically starts and its progress is displayed with blue area.



(5) Complete

When installation is complete, "PassThru CAN" icon is created on desktop.



2. Support file Installation

In order to execute the PassThru CAN software function, support files related with each function need to be installed.

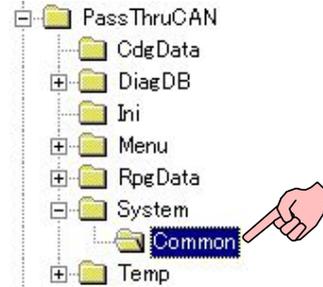
(1) Activation of PassThru CAN software

"ptc32.dll" needs to be installed in the following location.

[Local Disk\ProgramFiles\PassThruCAN\System\Common](#)



PassThru CAN software only activates "Reader" by default and you need to install ptc32.dll to activates other functionality.



(2)Flash

In order to execute Flash, the following support files need to be installed.

(i) CBF file

CBF file is a database file for Flash with ".cbf" as its file extension. Install the CBF file in the following path

[Local Disk\Program Files\PassThruCAN\DiagDB\CBF](#)

(ii) Flpart file

Flpart file is a vehicle specific information file with ".flpart" as its file extension. Install the Flpart file in the following path

[Local Disk\Program Files\PassThruCAN\DiagDB\XML](#)

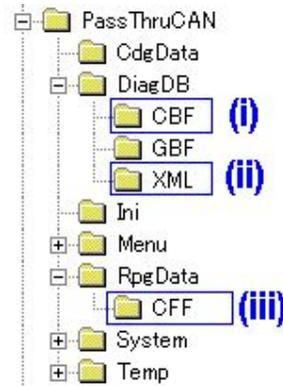


Only one Flpart must exist in the folder. When the previous Flpart file exists, please delete the file and install only 1 Flpart file for the target vehicle.

(iii) CFF file

CFF file is a flash data file with ".cff" as its file extension. Install CFF file in the following path.

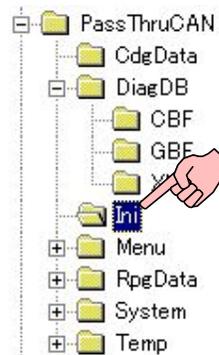
[Local Disk\Program Files\PassThruCAN\RpgData\CFF](#)



(3) Erase DTC

"ClearDiagCANID.ini" is setting file for Erase DTC and needs to be installed in the following path.

[Local Disk\Program Files\PassThruCAN\Ini](#)



(4) Coding

In order to execute Coding, the following support files need to be installed.

(i) Coding file

Coding file is Coding data file with “.kon” as its file extension. Install the Coding file in the following path

[Local Disk\Program Files\PassThruCAN\CdgData](#)

(ii) CBF file

CBF file is a database file for Coding with “.cbf” as its file extension. Install the CBF file in the following path

[Local Disk\Program Files\PassThruCAN\DiagDB\CBF](#)

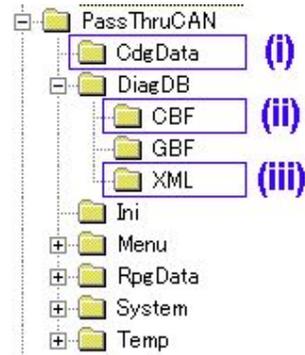
(iii) VCPart file

VCPart file is a vehicle specific information file with “.vcpart” as its file extension. Install the VCPart file in the following path

[Local Disk\Program Files\PassThruCAN\DiagDB\XML](#)



Only one VCPart file must exist in the folder. When the previous VCPart file exists, please delete the file and install only 1 VCPart file for the target vehicle.



(5) Immobilizer

In order to execute Immobilizer key code transfer function, the following support files need to be installed

(i) CBF file

CBF file is a database file for Immobilizer key code transfer function with “.cbf” as its file extension. Install the CBF file in the following path

[Local Disk\Program Files\PassThruCAN\DiagDB\CBF](#)

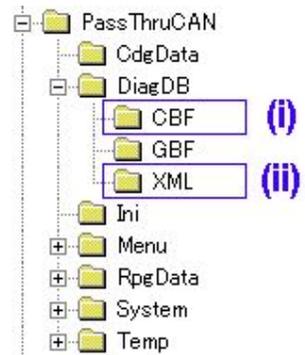
(ii) IMPart file

IMPart file is a vehicle information file with “.impart” as its file extension. Install the IMPart file in the following path

[Local Disk\Program Files\PassThruCAN\DiagDB\XML](#)



Only one IMPart file must exist in the folder. When the previous IMPart file exists, please delete the file and install only 1 IMPart file for the target vehicle.



(6) VIN Writing

In order to execute VIN Writing, the following support files need to be installed

(i) CBF file

CBF file is a database file for VIN Writing with “.cbf” as its file extension. Install the CBF file in the following path

[Local Disk\Program Files\PassThruCAN\DiagDB\CBF](#)

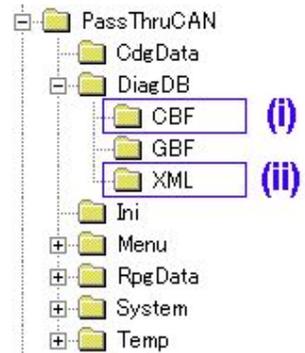
(ii) VWPart file

VWPart file is a vehicle information file with “.vwpart” as its file extension. Install the VWPart file in the following path

[Local Disk\Program Files\PassThruCAN\DiagDB\XML](#)



Only one VWPart must exist in the folder. When the previous VWPart file exists, please delete the file and install only 1 VWPart file for the target vehicle.



(7) Teach-in

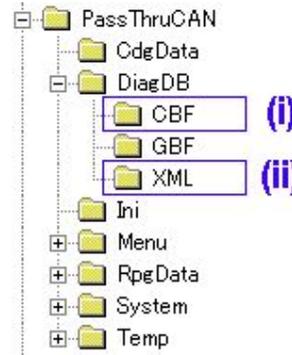
In order to execute Teach-in, the following support files need to be installed

(i) CBF file

CBF file is a database file for Teach-in with “.cbf” as its file extension. Install the CBF file in the following path
Local Disk\Program Files\PassThruCAN\DiagDB\CBF

(ii) TIPart file

TIPart file is a vehicle information file with “.tipart” as its file extension. Install the TIPart file in the following path
Local Disk\Program Files\PassThruCAN\DiagDB\XML



Only one TIPart file must exist in the folder. The file name is “TI_Info.tipart” and file with other name can not be recognized by PassThruCAN software. When the previous TIPart file exists, please delete the file and install only 1 TIPart file for the target vehicle.

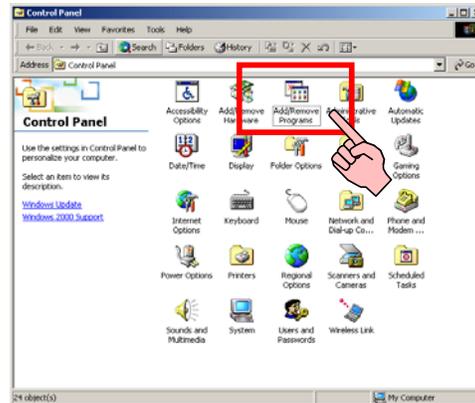
3. Uninstallation

Note) PassThru CAN is uninstalled in 2 steps. Main software program is uninstalled from the system menu of “Windows Control Panel” and Library is uninstalled from the system menu of “Windows Control Panel”.

(1) Control Panel Screen

Select [Settings]-[Control Panel] from the Start menu.

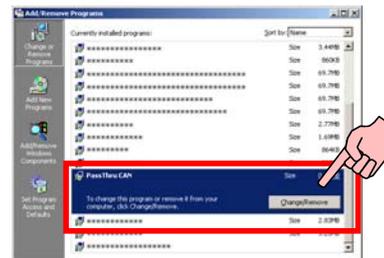
Choose and double click “Add/Remove programs”



(2) Add/Remove Programs Screen

Select “PassThru CAN” and press “Change/Remove” button.

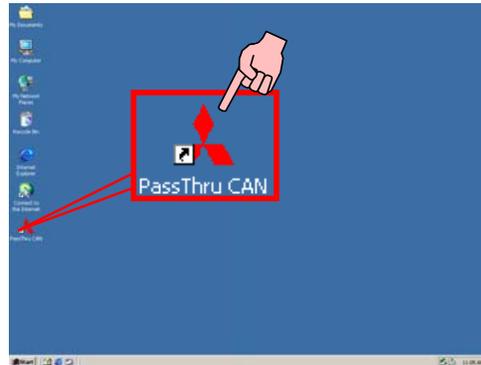
Uninstallation of “PassThru CAN” is implemented.



4. Starting of PassThru CAN

(1) PassThru CAN desk top icon

After installation of PassThru CAN, PassThru CAN icon is created on desktop screen.
To start the application, double-click the icon.

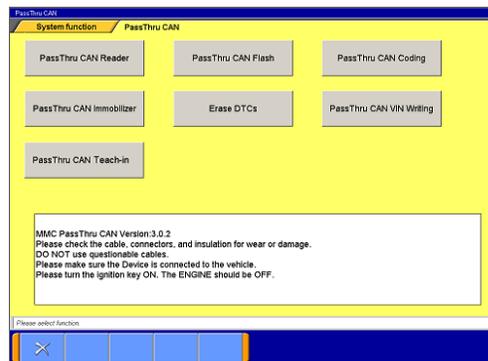


(2) Main menu screen

The main screen will appear and functions are either activated or deactivated according to type or service.

Select and press the active button you want to execute.

Note) If you want to exit PassThru CAN, press "cancel" button  on the screen.
The version of the application will be shown at the lower part in the screen.
Please make sure that you see the latest version of PassThru CAN software.



(3) Authorization procedure

In executing PassThru CAN function, this screen may be displayed requiring authorization process. You need to fill in the blank with valid subscription User ID and Password for authorization.



Use the same User ID and Password that you purchased at service information website of Mitsubishi Motors North America Inc.

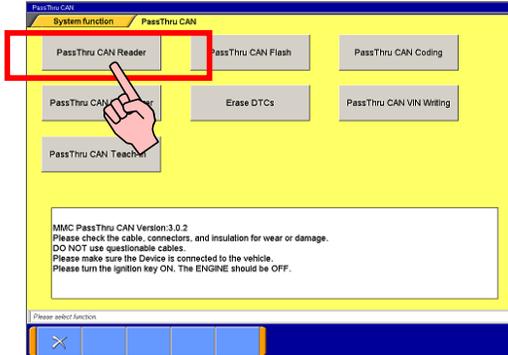
An internet connection is required for authorization process



5. PassThru CAN Reader

(1) Menu screen

Press "PassThru CAN Reader" button to start the function.

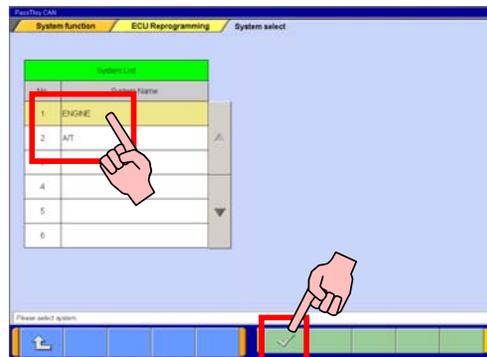


(2) System select screen.

A table is displayed for system selection.

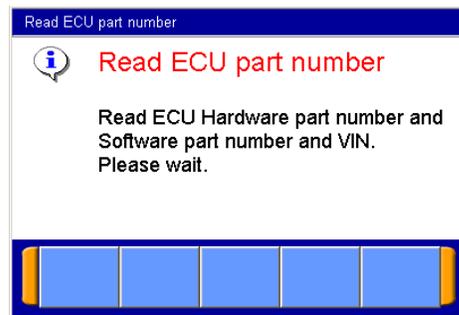
Select the system from which you want to read-out ECU information.
Press OK button  and read-out of ECU information starts.

If you press return button , you will go back to the previous screen.



(3) Confirmation screen

Read-out of ECU information is in progress.

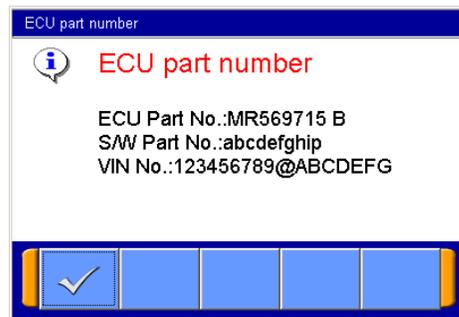


(4) ECU information screen

When read-out is successful, the following information is displayed.

- 1) ECU Part No.
- 2) ECU Software Part No.
- 3) VIN

Press OK button  and the screen goes back to the main menu screen.

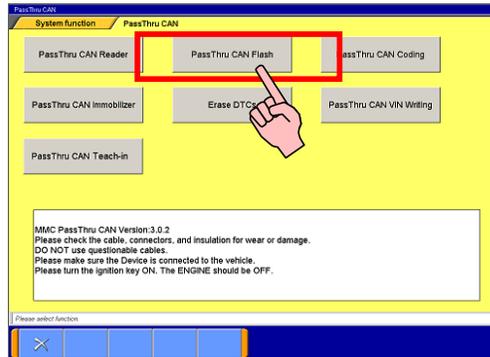


ECU information is necessary for reprogramming data file search, Coding file search and for other purpose. Record the necessary information.

6. PassThru CAN Flash

(1) Main menu screen

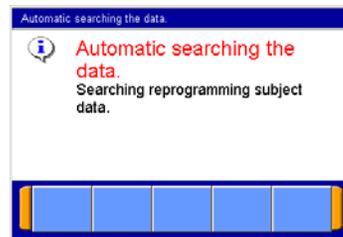
The main screen will appear.
Click "PassThru CAN Flash" button to execute ECU reprogramming.
After execution, the software starts communication with an ECU to retrieve necessary information of the vehicle.



(2) Search screen

This screen is displayed while the software is communicating with an ECU.

After retrieving the ECU information, PassThru CAN checks it with reprogramming data file information.
Wait for a while until the process is complete.



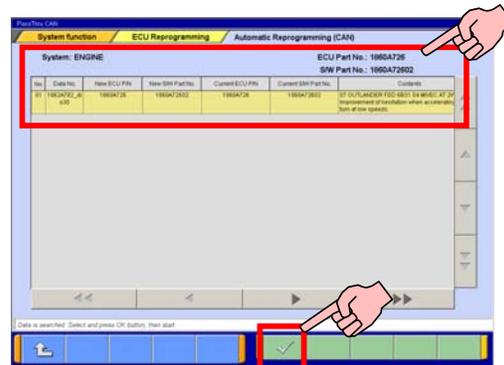
(3) Search result screen

After checking ECU information and correct reprogramming data file is found, PassThru CAN displays the result data on this screen.



Check the reprogramming information on the screen and confirm it is correct for your vehicle.

Press OK button on the screen to continue (move on to "(6) Confirmation of flash reprogramming")



Note) You can also go back to the first screen by clicking return button .

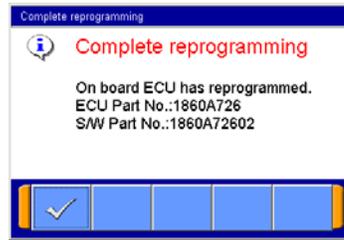
According to the reprogrammed level of the target ECU on board, the following 2 cases may occur.

(4) Search result Case 1

If the PCM has already been reprogrammed, this dialogue screen will appear.
Press OK button  and return to the main screen.



The ECU has the latest update and reprogramming is not necessary.

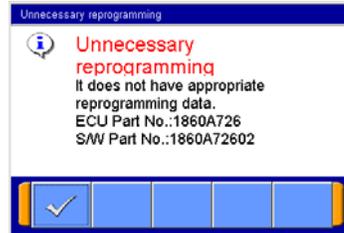


(5) Search result Case 2

When the vehicle is not applied to the reprogramming data, this dialog screen will appear.
Press OK button  and return to the main screen.



The information read-out from the target vehicle does not match reprogramming data file information and the reprogramming file can not be applied to the vehicle.



(6) Confirmation of flash reprogramming

This screen will appear to confirm reprogramming.
Press OK button  to continue.

Note) Once you press the button, reprogramming starts.

If you press cancel button , you will go back to the "Automatic Reprogramming (CAN)" screen.



Some Vehicles turns on radiator fans during reprogramming. DO NOT get closer to radiator fans.



(7) The ECU reprogramming is now in progress

The PCM reprogramming is now in progress. The reprogramming status is displayed as blue area of the progress bar.



Please be careful not to disconnect the cables between PC and the vehicle until the reprogramming is complete.



(8) Complete screen 1

When this screen appears, Reprogramming is complete.
 Confirm ECU information after reprogramming.
 Press OK button  .



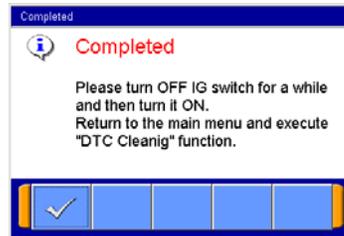
(9) Complete screen 2

Follow the screen instruction to complete the reprogramming procedure.

Press OK button  and return to the main screen.



**To complete flash reprogramming, turn OFF IG-switch and then turn it ON.
 Go back to the main menu screen and execute Erase DTCs function.**



(10) Post process

After finishing reprogramming, it is recommended that you will check whether the ECU stores DTC or not with your own scan tool. If any DTCs exist, please clear them.

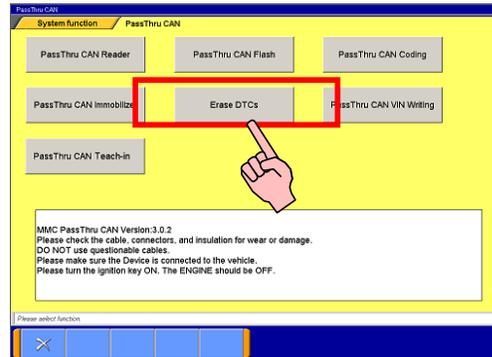


If you want to reprogram another ECU successively, please exit and restart PassThru CAN, otherwise an error message will appear.

7. Erase DTCs

(1) Main menu screen

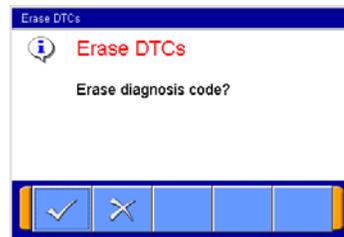
Press "Erase DTCs" button.



(2) Confirmation screen

This screen will appear to confirm erasing.
Please press OK button  to continue.

Note) Once you press the button, erasing starts.
If you press cancel button , you go back to the main screen.



(3) Erasing DTC screen

DTC erasing is now in progress.



The process may take more than a few minutes for some vehicles and wait until it is complete.



(4) Complete screen

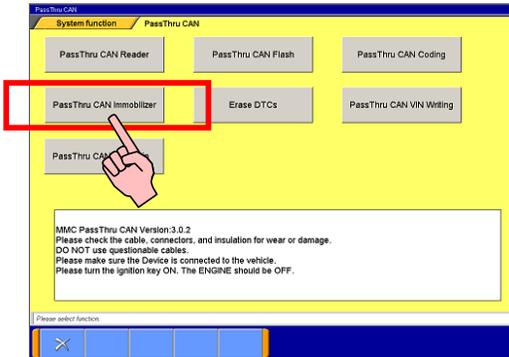
When this screen appears, DTC Erasing is complete.
Press OK button  and return to the main screen.



8. PassThru CAN Immobilizer

(1) Menu screen

The main screen appears.
Press "PassThru CAN Immobilizer" button.



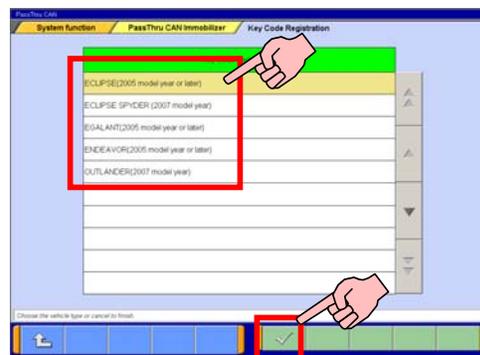
(2) Vehicle select screen

The "vehicle information table screen" will appear.
Please select the correct vehicle type.
Press OK button on the screen.

Note) You can also go back to the main screen by clicking return button .



Choose the correct vehicle from the list.



(3) Confirmation screen

This screen will appear to confirm registration.
Please press OK button to continue.

Note) Once you press the button, registration starts.
If you press cancel button , you go back to the "Key Code Registration" screen.



(4) Complete screen

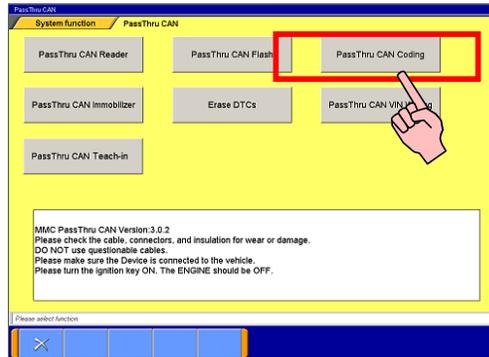
When this screen appears, Key Code Registration is complete.
Press OK button and return to the main screen.



9. PassThru CAN Coding

(1) Main menu screen

The main screen appears.
Press "PassThru CAN Coding" button.



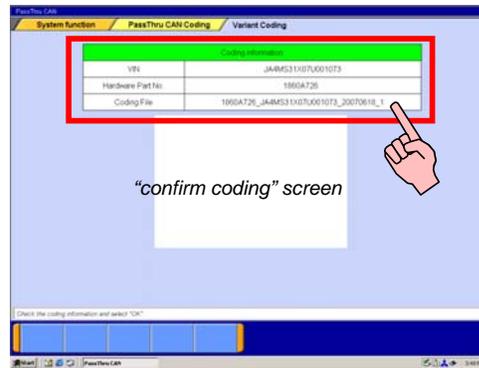
(2) Coding information screen

The "Variant Coding" screen will appear and the following information is displayed in the table.

- 1) VIN
- 2) ECU Hardware Part No.
- 3) Coding file name



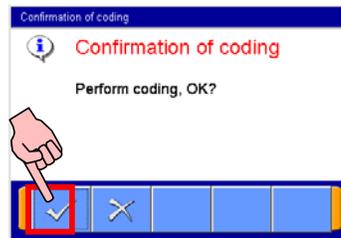
Writing of the wrong coding data may lead to inappropriate behavior of the vehicle. So, check and confirm if the coding information in the table is correct for the vehicle.



(3) Confirmation screen

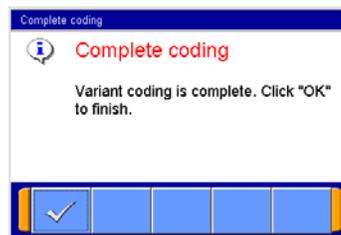
This screen will appear to confirm coding.
Please press OK button  to continue.

Note) Once you press the button, coding starts.
You can also go back to the main screen by clicking cancel button .



(4) Complete screen

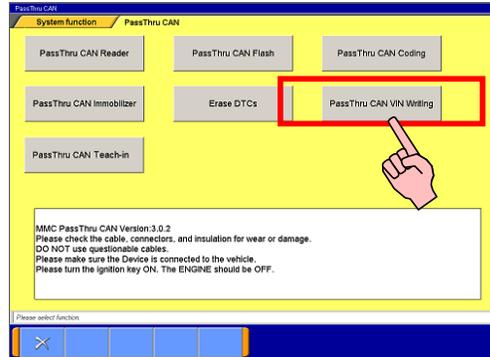
When this screen appears, coding is complete.
Press OK button  and return to the main screen.



10. PassThru CAN VIN Writing

(1) Main menu screen

The main screen appears.
Press "PassThru CAN VIN Writing" button.



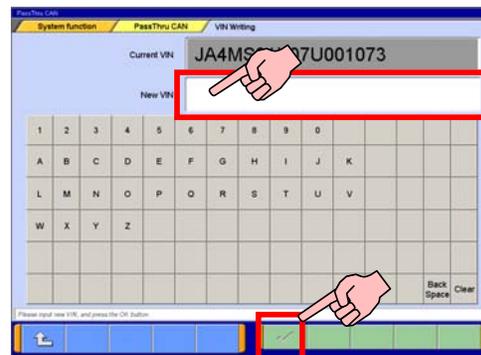
(2) VIN input screen

The "VIN Input" screen will appear.
Please input the new VIN.
Press OK button  on the screen.



In case of new ECU, the VIN information in Current VIN field is filled with asterisk.

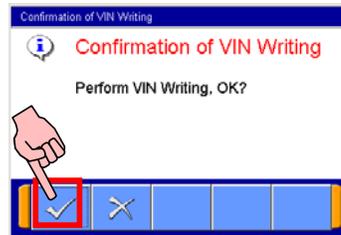
You can go back to the first screen by clicking return button .



(3) Confirmation screen

This screen will appear to confirm writing.
Please press OK button  to continue.

Note) Once you press the button, writing starts.
If you press cancel button , you will go back to the "VIN Writing" screen.



(4) Complete screen

When this screen appears, writing is complete.
Press OK button  and return to the main screen.



11. PassThru CAN Teach-in

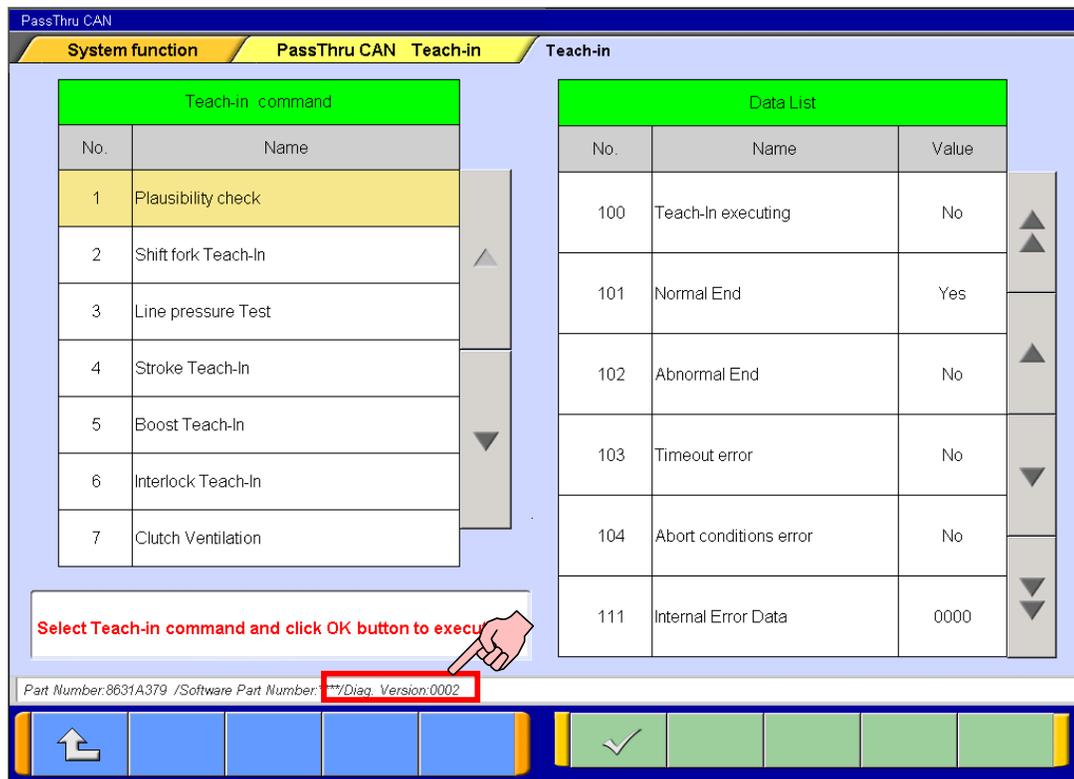


Precaution

PassThru CAN Teach-in is required when the following service is performed to TC-SST unit.

- Mechatronic assembly replacement
- Clutch assembly replacement

In order to execute Teach-in procedure correctly, TC-SST ECU must have correct diagnostic version. Diagnostic version can be confirmed on the following screen (refer to the procedure below regarding how you can get to the screen.)



Teach-in command	
No.	Name
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

Data List		
No.	Name	Value
100	Teach-In executing	No
101	Normal End	Yes
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
111	Internal Error Data	0000

Part Number: 8631A379 / Software Part Number: ***/ Diag. Version: 0002

Red-circle in the above screen indicates diagnostic version information of TC-SST ECU. According to this value, the following difference applies.

[Diag Version : 0000]

This version of TC-SST ECU does NOT support Teach-in functionality and when mechatronic assembly or clutch assembly is replaced, you need to reprogram TC-SST ECU with related calibration file first to enable the ECU to support Teach-in. Refer to the related TSB and instruction on website for detailed reprogramming procedure.

When mechatronic assembly is replaced, PassThru CAN Flash and PassThru CAN Coding must be performed. Whereas clutch assembly replacement requires PassThru CAN Flash but PassThru CAN Coding is not necessary. For the actual Teach-in procedure, refer to the following section.

As for 2008 Lancer Evolution with TC-SST unit, after Teach-in executed, TC-SST ECU must be reprogrammed back to the previous level of calibration. Refer to the related TSB and instruction on website for details.

After reprogramming of TC-SST ECU with PassThru CAN Flash, DTC may be stored in other ECUs on the vehicle. Refer to the section "7. Erase DTCs" and clear DTCs.

[Diag Version : 0001]

This version of TC-SST ECU supports Teach-in functionality. However, "Reset clutch gain" is not supported. When mechatronic assembly is replaced, PassThru CAN Flash and PassThru CAN Coding must be performed.

However, clutch assembly replacement doesn't require these additional procedures. For the actual Teach-in procedure, refer to the following section.

After reprogramming of TC-SST ECU with PassThru CAN Flash, DTC may be stored in other ECUs on the vehicle. Refer to the section "7. Erase DTCs" and clear DTCs.

[Diag Version : 0002]

This version of TC-SST ECU supports Teach-in functionality fully.

When mechatronic assembly is replaced, PassThru CAN Flash and PassThru CAN Coding must be performed. However, clutch assembly replacement doesn't require these additional procedures. For the actual Teach-in procedure, refer to the following section.

After reprogramming of TC-SST ECU with PassThru CAN Flash, DTC may be stored in other ECUs on the vehicle. Refer to the section "7. Erase DTCs" and clear DTCs.

Here is a matrix related with Teach-in commands and Diagnostic version.

Teach-in command name	Diag Ver 0000	Diag Ver 0001	Diag Ver 0002	Teach-in sequence for Mechatronic assembly replacement	Teach-in sequence for Clutch assembly replacement
Plausibility check	n/a	available	available	1	-
Shift fork Teach-In	n/a	available	available	2	-
Line pressure Test	n/a	available but not used	available but not used	-	-
Stroke Teach-In	n/a	available	available	4	2
Boost Teach-In	n/a	available	available	5	3
Interlock Teach-In	n/a	available but not used	available but not used	-	-
Clutch Ventilation	n/a	available	available	3	1
Reset clutch gain	n/a	n/a	available	6	4

Note) Line pressure Test and Interlock Teach-In are not used during the procedure.

Here is another matrix for additional procedures (flash and coding).

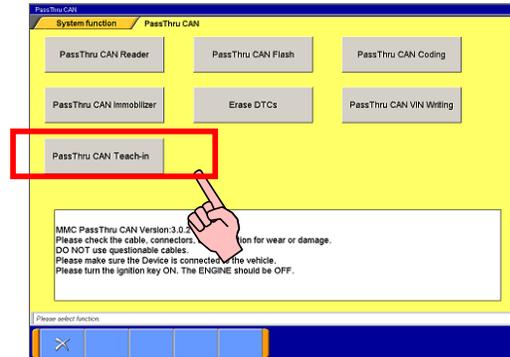
Diagnostic Version	Service	Flash	Coding
0000	Mechatronic assembly	Required[*]	Required
	Clutch assembly	Required	Unnecessary
0001	Mechatronic assembly	Required	Required
	Clutch assembly	Unnecessary	Unnecessary
0002	Mechatronic assembly	Required	Required
	Clutch assembly	Unnecessary	Unnecessary

[*]As for 2008 Lancer Evolution with TC-SST unit, After Teach-in executed, TC-SST ECU must be reprogrammed back to the previous level of calibration. Refer to the related TSB and instruction on website for details.

Teach-in procedure in details

(1) Main menu screen

The main screen appears.
Press "PassThru CAN Teach-in" button.



(2) Confirmation screen

Press OK button when vehicle is ready for service.
If you press cancel button , you will go back to Main menu screen.



In case MIL is on and DTC is output, Teach-in may not operate correctly. Refer to the related part of service manual and fix the problem first.



(3) Search screen

This screen is displayed while the software is communicating with an ECU.

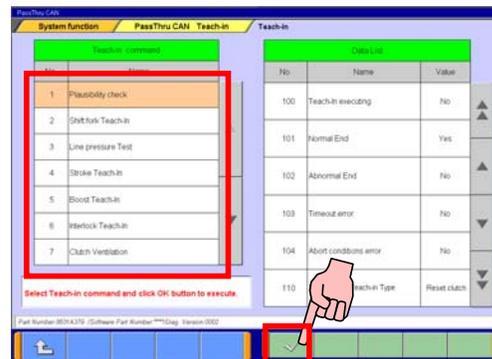
After retrieving the ECU information, PassThru CAN checks it with Teach-in data file information.
Wait for a while until the process is complete.



(4) Teach-in command selection screen

When this screen appears, you can select and execute Teach-in command. Result of Teach-in command can be checked from the data in the right table. Select the corresponding Teach-in command and press OK button .

You can go back to menu screen by clicking return button



(5) Confirmation screen

Press OK button  and return to the main screen.

If you press cancel button , you will go back to “(4) Teach-in command selection screen”.



(6) Executed screen

Press OK button  and return to “(4) Teach-in command selection screen”.

Repeat the above (4) to (6) to execute necessary Teach-in commands that are required for related service. Refer to the following part for detailed Teach-in procedure.



Procedure for mechatronic assembly replacement

(1) Preparation

With the PC and PassThru device connected to the vehicle, put the vehicle into the condition below

- Engine : Idling
- Shift lever position : P range
- Brake pedal : Depressed
- Parking brake : Pulled
- Transmission fluid temperature : 40°C to 80°C (104°F to 176°F)



Please make sure the vehicle is in the above condition. Otherwise Teach-in procedure will not start correctly.

(2) Plausibility check

Start the PassThruCAN Teach-in.

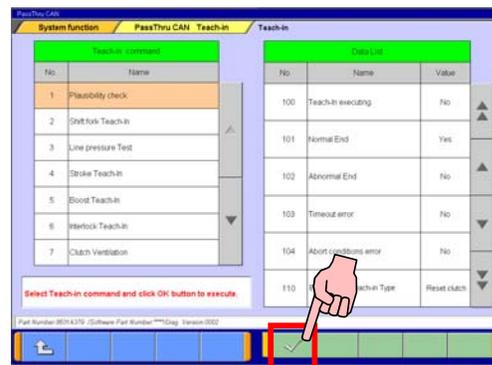
Confirm datalist value of “No 100 Teach-in executing” is “No”.

Data List		
No.	Name	Value
100	Teach-In executing	No

Select "Plausibility check".

Teach-in command	
No.	Name
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

Click OK button and execute.



Check Data list status.
While "No 100 Teach-in executing" is "Yes",
"Plausibility check" is ongoing. Wait until the value
turns "No".



If vehicle conditions are not met, "Pending" is displayed.

Data List		
No.	Name	Value
100	Teach-in executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch

When "No 100 Teach-in executing" turns "No",
Check the other data.
Check if value of data list items are as follows,
101 Normal End : Yes
102 Abnormal End : No
103 Timeout error : No
104 Abort conditions error :No



If the above does not apply, "Plausibility check" has not been performed correctly and start over from "(1) Preparation".

Data List		
No.	Name	Value
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 Type	Reset clutch

(3) Shift fork Teach-In

Confirm datalist value of "No 100 Teach-in executing" is "No".

Data List		
No.	Name	Value
100	Teach-In executing	No

Select "Shift fork Teach-In".

Click OK  button and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.

While "No 100 Teach-in executing" is "Yes", "Shift fork Teach-In" is ongoing. Wait until the value turns "No".

Data List		
No.	Name	Value
100	Teach-In executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch



The function may take several minutes to complete. Wait until the value changes to "No".



If vehicle conditions are not met, "Pending" is displayed.

When "No 100 Teach-in executing" turns "No", Check the other data.

Check if value of data list items are as follows,

- 101 Normal End : Yes
- 102 Abnormal End : No
- 103 Timeout error : No
- 104 Abort conditions error :No



If the above does not apply, "Shift fork Teach-In" has not been performed correctly and start over from "(1) Preparation" again.

Data List		
No.	Name	Value
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 Type	Reset clutch

(4) Turn IG switch to LOCK (OFF) position.

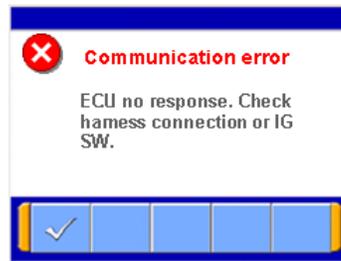
Turn IG switch to LOCK or OFF position and reset TC-SST ECU.

An error dialog is displayed.

Click OK button  and screen moves back to the main screen



Displaying the error dialog is normal processing of the PassThru CAN software.



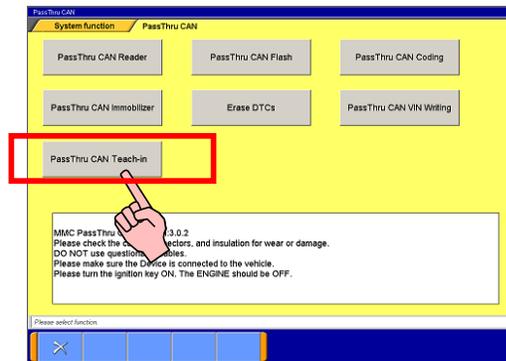
Put the vehicle into the condition below again

- Engine: Idling
- Shift lever position: P range
- Brake pedal: Depressed
- Parking brake: Pulled
- Transmission fluid temperature: 40°C to 80°C (104°F to 176°F)



Please make sure the vehicle is in the above condition. Otherwise Teach-in procedure will not be continued correctly.

Press "PassThru CAN Teach-in" button.



(5) Clutch Ventilation

Confirm datalist value of "No 100 Teach-in executing" is "No".

Data List		
No.	Name	Value
100	Teach-in executing	No

Select "Clutch Ventilation".
Click OK button and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.
While "No 100 Teach-in executing" is "Yes", "Clutch Ventilation" is ongoing. Wait until the value turns "No".

Data List		
No.	Name	Value
100	Teach-In executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch



The function may take several minutes to complete. Wait until the value changes to "No".



If vehicle conditions are not met, "Pending" is displayed.

When "No 100 Teach-in executing" turns "No",
Check the other data.
Check if value of data list items are as follows,
101 Normal End : Yes
102 Abnormal End : No
103 Timeout error : No
104 Abort conditions error :No

Data List		
No.	Name	Value
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 Type	Reset clutch



If the above does not apply, "Clutch Ventilation" has not been performed correctly and start over from "(1) Preparation" again.

(6) Stroke Teach-In

Confirm datalist value of "No 100 Teach-in executing" is "No".

Data List		
No.	Name	Value
100	Teach-In executing	No

Select "Stroke Teach-In".
Click OK button  and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.
While "No 100 Teach-in executing" is "Yes", "Stroke Teach-In" is ongoing. Wait until the value turns "No".

Data List		
No.	Name	Value
100	Teach-In executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch



The function may take several minutes to complete. Wait until the value changes to "No".



If vehicle conditions are not met, "Pending" is displayed.

When "No 100 Teach-in executing" is "No", Check the other data.
Check if value of data list items are as follows,
101 Normal End : Yes
102 Abnormal End : No
103 Timeout error : No
104 Abort conditions error :No

Data List		
No.	Name	Value
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 Type	Reset clutch



If the above does not apply, "Stroke Teach-In" has not been performed correctly and start from "(1) Preparation" again.

(7) Boost Teach-In

Confirm datalist value of "No 100 Teach-in executing" is "No".

Data List		
No.	Name	Value
100	Teach-In executing	No

Select "Boost Teach-In".
Click OK button  and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.
While "No 100 Teach-in executing" is "Yes", "Boost Teach-In" is ongoing. Wait until the value turns "No".

Data List		
No.	Name	Value
100	Teach-In executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch



If vehicle conditions are not met, "Pending" is displayed.



While the function is operational, be careful with the followings.

- The engine speed could be high (4,000 r/min) several times when the Boost Teach-In is in progress. (Depending on the transaxle state, the engine speed may not be high.)
- The function may take several minutes to complete. Wait until the value changes to "No".

When "No 100 Teach-in executing" is "No", Check the other data.

- Check if value of data list items are as follows,
 101 Normal End : Yes
 102 Abnormal End : No
 103 Timeout error : No
 104 Abort conditions error :No

Data List		
No.	Name	Value
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 Type	Reset clutch



If the above does not apply, "Boost Teach-In" has not been performed correctly and start over from "(1) Preparation" again.

(8) Reset clutch gain

Confirm datalist value of "No 100 Teach-in executing" is "No".

Data List		
No.	Name	Value
100	Teach-In executing	No



This procedure is unnecessary for vehicle with

diagnostic version of "0001".

Select "Reset clutch gain".
Click OK button  and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.
While "No 100 Teach-in executing" is "Yes", "Reset clutch gain" is ongoing. Wait until the value turns "No".

Data List		
No.	Name	Value
100	Teach-In executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch



The function may take several minutes to complete. Wait until the value changes to "No".



If vehicle conditions are not met, "Pending" is displayed.

When "No 100 Teach-in executing" is "No", Check the other data.
Check if value of data list items are as follows,
101 Normal End : Yes
102 Abnormal End : No
103 Timeout error : No
104 Abort conditions error :No

Data List		
No.	Name	Value
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 Type	Reset clutch



If the above does not apply, "Reset clutch gain" has not been performed correctly and start from "(1) Preparation" again.

(9) Complete

When all the Teach-in commands required for Mechatronic assembly replacement are executed, turn IG switch to LOCK or OFF position and finish the procedure.

Procedure for clutch assembly replacement

(1) Preparation

With the PC and PassThru device connected to the vehicle, put the vehicle into the condition below

- Engine: Idling
- Shift lever position: P range
- Brake pedal: Depressed
- Parking brake: Pulled
- Transmission fluid temperature: 40°C to 80°C (104°F to 176°F)



Please make sure the vehicle is in the above condition. Otherwise Teach-in procedure will not start correctly.

(2) Clutch Ventilation

Confirm datalist value of “No 100 Teach-in executing” is “No”.

Data List		
No.	Name	Value
100	Teach-In executing	No

Select “Clutch Ventilation”.

Click OK button  and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.

While “No 100 Teach-in executing” is “Yes”, “Clutch Ventilation” is ongoing. Wait until the value turns “No”.

Data List		
No.	Name	Value
100	Teach-In executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch



The function may take several minutes to complete. Wait until the value changes to “No”.



If vehicle conditions are not met, "Pending" is displayed.

When "No 100 Teach-in executing" is "No", Check the other data.

- Check if value of data list items are as follows,
- 101 Normal End : Yes
- 102 Abnormal End : No
- 103 Timeout error : No
- 104 Abort conditions error :No



If the above does not apply, "Clutch Ventilation" has not been performed correctly and start over from "(1) Preparation" again.

Data List		
No.	Name	Value
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 Type	Reset clutch

(3) Stroke Teach-In

Confirm datalist value of "No 100 Teach-in executing" is "No".

Data List		
No.	Name	Value
100	Teach-in executing	No

Select "Stroke Teach-In".

Click OK button and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.

While "No 100 Teach-in executing" is "Yes", "Stroke Teach-In" is ongoing. Wait until the value turns "No".



The function may take several minutes to complete. Wait until the value changes to "No".



If vehicle conditions are not met, "Pending" is displayed.

Data List		
No.	Name	Value
100	Teach-in executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch

When "No 100 Teach-in executing" is "No", Check the other data.

- Check if value of data list items are as follows,
- 101 Normal End : Yes
- 102 Abnormal End : No
- 103 Timeout error : No
- 104 Abort conditions error :No



If the above does not apply, "Stroke Teach-In" has not been performed correctly and start over from "(1) Preparation" again.

Data List		
No.	Name	Value
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 Type	Reset clutch

(4) Boost Teach-In

Confirm datalist value of "No 100 Teach-in executing" is "No".

Data List		
No.	Name	Value
100	Teach-In executing	No

Select "Boost Teach-In".

Click OK button and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.

While "No 100 Teach-in executing" is "Yes", "Boost Teach-In" is ongoing. Wait until the value turns "No".



If vehicle conditions are not met, "Pending" is displayed.



While the function is operational, be careful with the followings.

- The engine speed could be high (4,000 r/min) when the Boost Teach-In is in progress. (Depending on the transaxle state, the engine speed may not be high.)

The function may take several minutes to complete. Wait until the value changes to "No".

Data List		
No.	Name	Value
100	Teach-In executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch

When "No 100 Teach-in executing" is "No", Check the other data.
 Check if value of data list items are as follows,
 101 Normal End : Yes
 102 Abnormal End : No
 103 Timeout error : No
 104 Abort conditions error :No



If the above does not apply, "Boost Teach-In" has not been performed correctly and start over from "(1) Preparation" again.

Data List		
No.	Name	Value
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 Type	Reset clutch

(5) Reset clutch gain

Confirm datalist value of "No 100 Teach-in executing" is "No".



This procedure is unnecessary for vehicle with diagnostic version of "0001".

Data List		
No.	Name	Value
100	Teach-In executing	No

Select "Reset clutch gain".
 Click OK button and execute the function.

Teach-in command	
No.	Name
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

Check Data list status.
 While "No 100 Teach-in executing" is "Yes", "Reset clutch gain" is ongoing. Wait until the value turns "No".



The function may take several minutes to complete. Wait until the value changes to "No".



If vehicle conditions are not met, "Pending" is displayed.

Data List		
No.	Name	Value
100	Teach-In executing	Yes
101	Normal End	No
102	Abnormal End	No
103	Timeout error	No
104	Abort conditions error	No
110	Execute last Teach-in Type	Reset clutch

When “No 100 Teach-in executing” is “No”, Check the other data.

Check if value of data list items are as follows,

101 Normal End : Yes

102 Abnormal End : No

103 Timeout error : No

104 Abort conditions error :No



If the above does not apply, “Clutch Ventilation” has not been performed correctly and start over from “(1) Preparation” again.

Data List		
No.	Name	Value
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 Type	Reset clutch

(6) Complete

When all the Teach-in commands required for Clutch assembly replacement are executed, turn IG switch to LOCK or OFF position and finish the procedure.

11. Error List

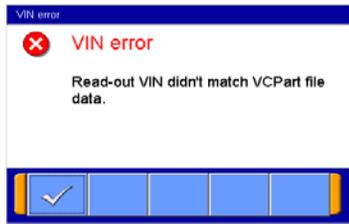
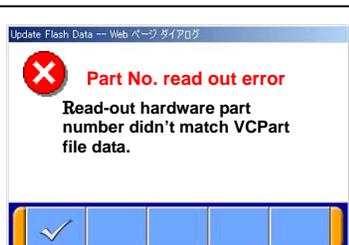
When an error message is displayed, check the following table for information.

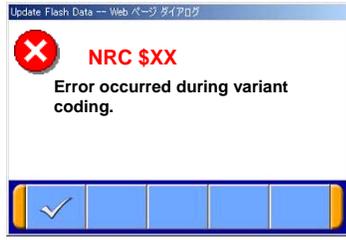
(Note) If error reoccurs even after trying the described procedure for remedy, please contact with "MITSUBISHI MOTORS NORTH AMERICA, Inc".

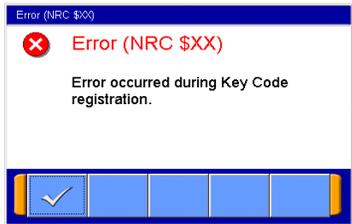
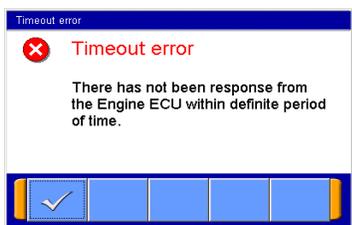
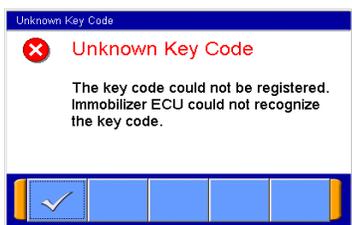
No.	Error dialog	Function	Cause/Remedy
	<p>Communication error</p> 	Flash Coding Immobilizer VIN writing Teach-in	<p><Possible Cause></p> <ul style="list-style-type: none"> · IG SW is not ON or battery is too low. · Harness and ECU are damaged. · Harness is not connected correctly. <p><Remedy> Check IG SW and battery voltage. Check harness and ECU damage and fix. Connect harness correctly.</p>
1'	<p>Communication error</p> 	Reader	<p><Possible Cause></p> <ul style="list-style-type: none"> · IG SW is not ON or battery is too low. · Harness and ECU are damaged. · Harness is not connected correctly. · CBF file can not be found in the specified folder. <p><Remedy> Check IG SW and battery voltage. Check harness and ECU damage and fix. Connect harness correctly. Install CBF file</p>  <p>When CBF file is not installed correctly, this error dialog is also displayed(Reader function only)</p>
2	<p>File search error (FIPart file error)</p> 	Flash	<p><Possible Cause></p> <ul style="list-style-type: none"> · FIPart file is not installed correctly. <p><Remedy> Install FIPart file correctly.</p>  <p>FIPart file is an information file that has ".flpart" as an extension and is necessary to execute PassThru CAN Flash.</p>
3	<p>File search error (FIPart file error)</p> 	Flash	<p><Possible Cause></p> <ul style="list-style-type: none"> · Multiple FIPart files are installed. <p><Remedy> Delete unnecessary FIPart file and only one correct FIPart file must exist.</p>  <p>Be careful not to delete correct FIPart file.</p>
4	<p>File search error(CBF file error)</p> 	Flash Coding VIN writing	<p><Possible Cause></p> <ul style="list-style-type: none"> · CBF file is not installed correctly. · Wrong CBF file is installed. <p><Remedy> Install correct CBF file</p>  <p>CBF file is a database file that has ".cbf" as an</p>

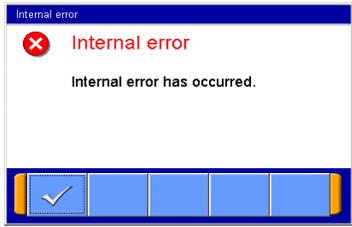
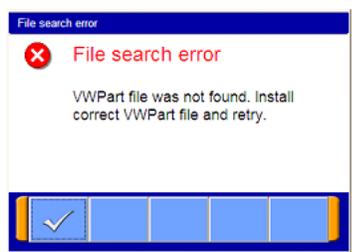
			extention and is necessary to execute PassThru CAN Flash.
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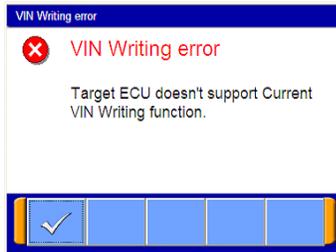
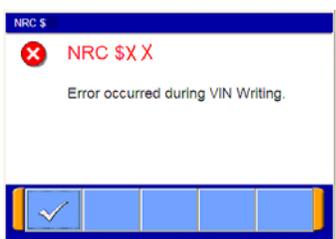
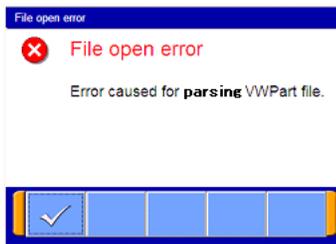
No.	Error dialog	Function	Cause/Remedy
5	<p>File search error (CFF file error)</p> 	Flash	<p><Possible Cause></p> <ul style="list-style-type: none"> · CFF file is not installed correctly <p><Remedy> Install CFF file correctly.</p>  <p>CFF file is a reprogramming data file that has “.cff” as an extension.</p>
6	<p>Reprogramming Error</p> 	Flash	<p><Possible cause></p> <ul style="list-style-type: none"> · Harness is disconnected while reprogramming · Battery is too low. · PassThru device is not working correctly <p><Remedy> Check harness and battery. Check and fix PassThru device. Restart reprogramming process from the beginning.</p>
7	<p>File open error (FIPart file)</p> 	Flash	<p><Possible cause></p> <ul style="list-style-type: none"> · Damaged FIPart file <p><Remedy> Reinstall FIPart file and retry.</p>
8	<p>File search error (VCPart file)</p> 	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · VCPart file is not installed correctly. <p><Remedy> Reinstall VCPart file correctly.</p>  <p>VCPart file is an information file that has “.vcpart” as an extension and is necessary to execute PassThru CAN Coding</p>
9	<p>File search error (VCPart file)</p> 	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · Multiple VCPart files are installed. <p><Remedy> Delete unnecessary VCPart file</p>  <p>Only one VCPart file is to be installed in the specified location.</p>

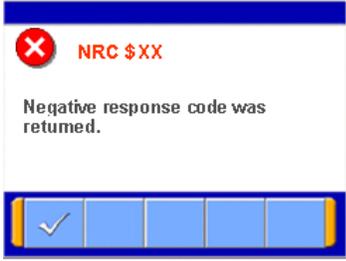
No.	Error dialog	Function	Cause/Remedy
10	<p>File search error (Coding data file)</p> 	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · Coding data file is not installed correctly. <p><Remedy> Install coding data file correctly</p>  <p>Coding data file has “.kon” as its file extension.</p>
11	<p>VIN error</p> 	Coding VIN writing	<p><Possible cause></p> <ul style="list-style-type: none"> · PCM or PassThru device are damaged. · Harness is disconnected while read-out. <p><Remedy> Check harness connection and battery voltage supply from the vehicle and retry. Repair(or replace) PCM or PassThru device.</p>
12	<p>VIN error</p> 	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · Wrong vehicle is selected for Coding. · Wrong VCPart file is installed and is not for the target vehicle. · PCM is newly replaced and VIN is not yet written. <p><Remedy> Apply the correct vehicle. Reinstall correct VCPart file. Write VIN (refer to VIN writing section)</p>
13	<p>Part No.read out error</p> 	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · Damaged harness or disconnection · Damaged PCM or PassThru device <p><Remedy> Check harness is connected correctly. Check if harness is damaged.and change it if necessary. Repair (or replace) PCM or PassThru device</p>
14	<p>Part No. read out error</p> 	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · Wrong vehicle is selected for Coding. · Wrong VCPart file is installed and it is not for the target vehicle. <p><Remedy> Apply the correct vehicle. Reinstall correct VCPart file.</p>

No.	Error dialog	Function	Cause/Remedy
15	<p>CRC error</p>  <p>The screenshot shows a dialog box titled "Update Flash Data -- Web ページ タイアログ". It contains a red 'X' icon, the text "CRC error", and the message "CRC error occurred. Please reinstall coding data file and retry." At the bottom, there is a progress bar with a checkmark in the first segment.</p>	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · Coding file may be damaged and its data is changed. <p><Remedy> Reinstall the correct coding data file and retry.</p>
16	<p>Coding data mismatch</p>  <p>The screenshot shows a dialog box titled "Update Flash Data -- Web ページ タイアログ". It contains a red 'X' icon, the text "Coding data mismatch", and the message "Written coding data didn't match coding data file. Please retry." At the bottom, there is a progress bar with a checkmark in the first segment.</p>	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · The coding data may have been written wrongfully due to bad communication between vehicle and PC. <p><Remedy> Check harness PassThru device, and battery voltage of the vehicle.</p>
17	<p>Coding error</p>  <p>The screenshot shows a dialog box titled "Update Flash Data -- Web ページ タイアログ". It contains a red 'X' icon, the text "Coding error", and the message "Target ECU doesn't support variant coding function." At the bottom, there is a progress bar with a checkmark in the first segment.</p>	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · Target ECU doesn't support variant coding function. <p><Remedy> Check if the vehicle is compatible with variant coding functionality.</p>
18	<p>NRC \$XX (Other error in coding)</p>  <p>The screenshot shows a dialog box titled "Update Flash Data -- Web ページ タイアログ". It contains a red 'X' icon, the text "NRC \$XX", and the message "Error occurred during variant coding." At the bottom, there is a progress bar with a checkmark in the first segment.</p>	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · This error is resulted from other causes that are not described in this error list.. <p><Remedy> Retry coding from the beginning. If the same error occurs, write down the NRC code in "XX" field of the error dialog and contact Mitsubishi Motors North America Inc.</p>
19	<p>File open error (VCPart file error)</p>  <p>The screenshot shows a dialog box titled "Update Flash Data -- Web ページ タイアログ". It contains a red 'X' icon, the text "File open error", and the message "Error caused for parsing VCPart file." At the bottom, there is a progress bar with a checkmark in the first segment.</p>	Coding	<p><Possible cause></p> <ul style="list-style-type: none"> · VCPart file may have been damaged while installation and information in the file can not be read out correctly. <p><Remedy> Reinstall VCPart file and retry.</p>

No.	Error dialog	Function	Cause/Remedy
20	<p>File search error (IMPart file error)</p> 	Immobilizer	<p><Possible cause></p> <ul style="list-style-type: none"> · IMPart file is not correctly installed. <p><Remedy> Reinstall IMPart file and retry. Check if correct IMPart file is installed in specified location and retry.</p>  <p>IMPart file is an information file that is necessary to execute PassThru CAN Immobilizer.</p>
21	<p>File search error (CBF error)</p> 	Immobilizer	<p><Possible cause></p> <ul style="list-style-type: none"> · CBF file is not correctly installed. <p><Remedy> Reinstall correct CBF file and retry.</p>
22	<p>Error(NRC\$XX)(Registration error)</p> 	Immobilizer	<p><Possible cause></p> <ul style="list-style-type: none"> · This error is resulted from other causes that are not described in this error list. <p><Remedy> Restart Immobilizer from the beginning. If the same error occurs, write down the NRC code in "XX" field of the error dialog and contact Mitsubishi Motors North America Inc.</p>
23	<p>Timeout error</p> 	Immobilizer	<p><Possible cause></p> <ul style="list-style-type: none"> · There has not been response from the ECU within certain period of time. · Poor data communication (damaged harness or PassThru device) · ECU may be busy doing other processing. <p><Remedy> Retry if error occurs. Check ECU, harness and PassThru device and repair (replace) them if necessary.</p>
24	<p>Unknown Key Code</p> 	Immobilizer	<p><Possible cause></p> <ul style="list-style-type: none"> · Immobilizer ECU could not recognize the key code. · Key code may not be correctly registered in Immobilizer ECU. <p><Remedy> Check if key code is correctly registered in Immobilizer ECU.</p>

No.	Error dialog	Function	Cause/Remedy
25	<p>Internal error</p> 	Immobilizer	<p><Possible cause></p> <ul style="list-style-type: none"> This error is caused by internal error of Immobilizer ECU. Immobilizer ECU may be damaged. <p><Remedy> Check if Immobilizer ECU is working correctly. Restart registration from beginning and retry.</p>
26	<p>Error Code \$XX (Other error)</p> 	Immobilizer	<p><Possible cause></p> <ul style="list-style-type: none"> This error is resulted from other causes that are not described in this error list. <p><Remedy> Restart Immobilizer from the beginning and retry. If the same error occurs, write down the NRC code in "XX" field of the error dialog and contact Mitsubishi Motors North America Inc.</p>
27	<p>File open error (IMPart file)</p> 	Immobilizer	<p><Possible cause></p> <ul style="list-style-type: none"> Data in IMPart file can not be read out correctly. IMPart file may be damaged and its content changed. <p><Remedy> Reinstall correct IMPart file, and retry.</p>
28	<p>File search error (VWPart file)</p> 	VIN Writing	<p><Possible cause></p> <ul style="list-style-type: none"> VWPart file is not correctly installed. <p><Remedy> Reinstall correct VWPart file, and retry.</p>  <p>VWPart file is an information file that is necessary to execute PassThru CAN VIN Writing.</p>
29	<p>CHECKDIGIT error</p> 	VIN Writing	<p><Possible cause></p> <ul style="list-style-type: none"> Input VIN is not valid and checkdigit verification failed. <p><Remedy> Input correct VIN and retry..</p>

No.	Error dialog	Function	Cause/Remedy
30		VIN Writing	<p><Possible cause></p> <ul style="list-style-type: none"> · Input VIN was written wrongfully and does not match written VIN. · Disconnection of harness while VIN writing. · ECU malfunction <p><Remedy> Check harness, PassThru device and ECU and try VIN writing from the beginning.</p>
31		VIN Writing	<p><Possible cause></p> <ul style="list-style-type: none"> · ECU of the target vehicle does not support VIN writing function. <p><Remedy> Check if correct vehicle is applied for VIN Writing.</p>
32		VIN Writing	<p><Possible cause></p> <ul style="list-style-type: none"> · This error resulted from other causes that are not described in this error list.. <p><Remedy> Restart VIN Writing from the beginning and retry. If the same error occurs, write down the NRC code in "XX" field of the error dialog and contact Mitsubishi Motors North America Inc.</p>
33		VIN Writing	<p><Possible cause></p> <ul style="list-style-type: none"> · VWPpart file is damaged and information in the file could not be read-out. <p><Remedy> Reinstall correct VWPpart file, and retry.</p>
34		Teach-in	<p><Possible cause></p> <ul style="list-style-type: none"> · "TI_Info.tipart" file is not found in the specified folder. · C:\Program Files\PassThruCAN\DiagDB\XML <p><Remedy> Copy the downloaded "TI_Info.tipart" file in the correct folder.</p>

No.	Error dialog	Function	Cause/Remedy
35	<p>File search error</p> 	Teach-in	<p><Possible cause></p> <ul style="list-style-type: none"> · CBF file is not found in the specified folder. · C:\Program Files\Mitsubishi\PassThruCAN\DiagDB\CBF <p><Remedy></p> <p>Copy the downloaded CBF file in the correct folder.</p>
36	<p>Data file error</p> 	Teach-in	<p><Possible cause></p> <ul style="list-style-type: none"> · Diagnostic version read-out from the vehicle is not included in the "TI_Info.tipart" file. <p><Remedy></p> <ul style="list-style-type: none"> · Check the vehicle if the vehicle is equipped with TC-SST.
37	<p>Data file error</p> 	Teach-in	<p><Possible cause></p> <ul style="list-style-type: none"> · "TI_Info.tipart" file is corrupted or invalid. <p><Remedy></p> <ul style="list-style-type: none"> · Download and reinstall "TI_Info.tipart" file.
38	<p>NRC \$XX (Other error)</p> 	Teach-in	<p><Possible cause></p> <ul style="list-style-type: none"> · This error resulted from other causes that are not described in this error list. <p><Remedy></p> <ul style="list-style-type: none"> · Restart Teach-in from the beginning and retry. If the same error occurs, write down the NRC code in "XX" field of the error dialog and contact Mitsubishi Motors North America Inc.