

**** TECHNICAL INFORMATION NOTICE ****

DATE: December 9, 2021
TO: Mitsubishi Motors US & Puerto Rico Dealer Service and Parts Managers
RE: Programming Procedures for ECU
TIN NO. TIN-21-00-008

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AFFECTED VEHICLES: 2022 Outlander

PURPOSE:

MMNA would like to share additional information related to the programming procedure when replacing any ECU on the new 2022 Outlander. Please follow the instructions included in this document along with additional support from the service manual to successfully program these modules. If there are additional questions, please contact Tech Line @ 800-446-6064.

In preparation for programming any ECU first go to the MDL → Service → Service Tech Resources → **22 Outlander Programming Reference Table** and choose the correct file for the ECU and model application you need.

PROGRAMMING FILE REFERENCE TABLE				
OUTLANDER(GM#)				
ENGINE				
Model Year	Vehicle Spec	Programming File Name to Write	Part Number After Programming	Part Number Before Programming
22 or later	PR25 2WD ACC(Adaptive Cruise Control System)	237614PN.0DN	237614PN0D	0000000000
22 or later	PR25 2WD AD1(MI-PILOT Assist)	237614PN.1DN	237614PN1D	0000000000
22 or later	PR25 4WD ACC(Adaptive Cruise Control System)	237614PN.2DN	237614PN2D	0000000000
22 or later	PR25 4WD AD1(MI-PILOT Assist)	237614PN.3DN	237614PN3D	0000000000

Next, refer to the following pages **prior** to programming.

Technical Highlight 2022MY All New Outlander

Purpose

The following pages contain programming steps for the **Blank ECU** in the 2022 Outlander after a replacement. Read and understand the following steps prior to programming.

Contents

- **Auto ECU Programming** steps
 - ECU programming
 - Automatic configuration
 - VIN registration
 - MAC key writing

When programming an ECM (Engine Control Module) if the necessary programming files do not automatically populate, please contact Tech-Line @ 800-446-6046.

TECHNICAL HIGHLIGHT 22MY ALL NEW OUTLANDER



CONTENTS

1. REPLACE ECU
 - A) ADDITIONAL SERVICE WHEN REPLACING AN ECU
 - B) ECU PROGRAMMING
 - C) AUTOMATIC CONFIGURATION
 - D) VIN REGISTRATION
 - E) MAC KEY WRITING

Note: when programming an ECM (Engine Control Module) if the necessary programming files do not automatically populate, please contact Tech-Line @ 800-446-6046

TECHNICAL HIGHLIGHT 22MY ALL NEW OUTLANDER



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1. REPLACE ECU



A) ADDITIONAL SERVICE WHEN REPLACE ECU

- 1 : ECU PROGRAMMING
- 2 : AUTOMATIC CONFIGURATION
- 3 : VIN REGISTRATION
- 4 : MAC KEY WRITING

Always perform the additional service after replacing the unit below.

Category	Replacing unit	MUT III program				
		1	2	3	4	Additional
ENGINE	ECM	X		X	X	<ul style="list-style-type: none"> > ACCELERATOR PEDAL RELEASED POSITION LEARNING > THROTTLE VALVE CLOSED POSITION LEARNING > IDLE AIR VOLUME LEARNING > EGR VOLUME CONTROL VALVE CLOSED POSITION LEARNING
TRANSMISSION	TCM	X			X	<ul style="list-style-type: none"> > G-SENSOR CALIBRATION > CLUTCH POINT LEARNING > DRIVE/REVERSE LEARNING
TRANSFER	AWD CONTROL UNIT	X				<ul style="list-style-type: none"> > AIR BLEEDING > INITIALIZE OIL DETERIORATION LEVEL
ELECTRICAL & POWER CONTROL	WIRELESS CHARGER UNIT			X		
	IPDM E/R		X			
	BCM		X	X	X	TIRE PRESSURE SENSOR ID REGISTRATION
	BCH CAN GATEWAY	X				



1. REPLACE ECU

A) ADDITIONAL SERVICE WHEN REPLACE ECU

- 1 : ECU PROGRAMMING
- 2 : AUTOMATIC CONFIGURATION
- 3 : VIN REGISTRATION
- 4 : MAC KEY WRITING

Always perform the additional service after replacing the unit below.

Category	Replacing unit	MUT III program				
		1	2	3	4	additional
BRAKES	ABS CONTROL UNIT	X	X			
STEERING	STEERING CONTROL UNIT	X	X			ADJUST THE NEUTRAL POSITION OF STEERING ANGLE SENSOR
HEATER & A/C	A/C AMP		X			
DOOR & LOCK	INTELLIGENT KEY UNIT		X			
	AUTOMATIC BACK DOOR CONTROL UNIT					INITIAL SETTING
	POWER WINDOW MOTOR					SYSTEM INITIALIZATION
RESTRAINTS	AIR BAG DIAGNOSIS SENSOR UNIT		X			
	OCCUPANT DETECTION SYSTEM CONTROL UNIT					ZERO POINT RESET
	PASSENGER SEAT					ZERO POINT RESET



1. REPLACE ECU

A) ADDITIONAL SERVICE WHEN REPLACE ECU

- 1 : ECU PROGRAMMING
- 2 : AUTOMATIC CONFIGURATION
- 3 : VIN REGISTRATION
- 4 : MAC KEY WRITING

Always perform the additional service after replacing the unit below.

Category	Replacing unit	MUT III program				
		1	2	3	4	additional
DRIVER INFORMATION & MULTIMEDIA	COMBINATION METER		X			ACTUAL DRIVING 1 KM OR MORE
	HEAD UP DISPLAY UNIT					> CALIBRATION > ADJUST DISPLAY SCREEN
	AV CONTROL UNIT	X	X	X		
	AROUND VIEW MONITOR CONTROL UNIT		X		X	WRITE CALIBRATION DATA
	TCU		X	X		> TCU ACTIVATION > CHECK NETWORK INITIAL SETTINGS
CRUISE CONTROL & DRIVER ASSISTANCE	ADAS CONTROL UNIT 2		X		X	STEERING TORQUE CALIBRATION
	SONAR CONTROL UNIT		X		X	
	DISTANCE SENSOR		X			RADAR ALIGNMENT
	SIDE RADER		X			SIDE RADAR ALIGNMENT
	FRONT CAMERA UNIT		X			CAMERA AIMING ADJUSTMENT
	CHASSIS CONTROL MODULE	X	X		X	

TECHNICAL HIGHLIGHT 22MY ALL NEW OUTLANDER



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2. CALIBRATION

- A) DISTANCE SENSOR ALIGNMENT
- B) CAMERA AIMING ADJUSTMENT
- C) MULTI AROUND MONITOR CALIBRATION

1. REPLACE ECU



B) ECU PROGRAMMING

When replacing the following ECUs, you need to conduct ECU PROGRAMMING first

- ECM
- TCM
- AWD CONTROL UNIT
- 8CH CAN GATEWAY
- ABS CONTROL UNIT
- STEERING CONTROL UNIT
- AV CONTROL UNIT
- CHASSIS CONTROL MODULE

Whenever programming an ECU make sure to have a battery charger on the vehicle battery

1. REPLACE ECU

B) ECU PROGRAMMING

The screenshot shows the 'System select' screen with a 'System List' on the left and 'Vehicle Information' on the right. The 'Vehicle Information' includes: DESTIN: MNNA, MAKER: MITSUBISHI, TYPE: GM4W, CLASS: GTXCZL3M, MODEL YEAR: 2021, MODEL: NEW SUV, ENGINE/MOTOR: UNKNOWN, TRANSMISSION: UNKNOWN, Chassis No./VIN: [blank]. A red box highlights the 'ECU Reprogramming(SDB)' option in the 'ECU Reprogramming' menu. Other options include 'SDB Data List', 'ECM Reprogramming: K-line', 'Data Selection: K-line', and 'Data List: K-line'.

- After entering MUT3SE System Select screen go to Automatic Reprogramming
- From the ECU Reprogramming folder choose ECU Reprogramming (SDB)

1. REPLACE ECU

B) ECU PROGRAMMING

The screenshot shows the 'ECU Reprogramming(SDB)' screen. It features a 'System List' on the left and 'Vehicle Information' on the right. The 'Vehicle Information' includes: TYPE: GM4W, CLASS: GTXCZL3M, MODEL YEAR: 2021, MODEL: NEW SUV, Chassis No./VIN: [blank]. A table of reprogramming data is displayed, with the 'ENGINE' system selected. A red box highlights the 'OK' button at the bottom of the screen.

System	Search result	select	Data No.	New HW Part No.	New SW Part No./Ver	Current HW Part No.	Current SW Part No./Ver	Contents	Classification
ENGINE	Necessary	<input checked="" type="checkbox"/>	9999A001 pdr	9999A001	-	9999A000	-	for Blank ECU	-
		<input type="checkbox"/>	9999A002 pdr	9999A002	-	9999A000	-	for Blank ECU	-
		<input type="checkbox"/>	9999A003 pdr	9999A003	-	9999A000	-	for Blank ECU	-
		<input type="checkbox"/>	9999A004 pdr	9999A004	-	9999A000	-	for Blank ECU	-
		<input type="checkbox"/>	9999A005 pdr	9999A005	-	9999A000	-	for Blank ECU	-

Select the reprogramming data system by system and press the OK button.

1. REPLACE ECU

B) ECU PROGRAMMING

System	Data No.	New HW Part No.	New SW Part No.	Current HW Part No.	Current SW Part No.	Comments	Classification	Date	Reference information
ENGINE	9999A001.pck	9999A001	-	9999A000	-	for Blank ECU.	-	2021XXXX	

1. REPLACE ECU

B) ECU PROGRAMMING

System	Data No.	New HW Part No.	New SW Part No.	Previous HW Part No.	Previous SW Part No.	Comments	Classification	Date	Reference information
ENGINE	9999A001.pck	9999A000	-	9999A000	-	for Blank ECU.	-	2021XXXX	

Confirm the results of reprogramming and press OK button.
Press the ALL DTCs button on the System Select screen to check DTCs.

TECHNICAL HIGHLIGHT 22MY ALL NEW OUTLANDER



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2. CALIBRATION

- A) DISTANCE SENSOR ALIGNMENT
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- C) MULTI AROUND MONITOR CALIBRATION

1. REPLACE ECU



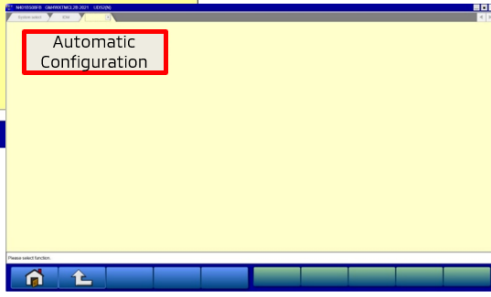
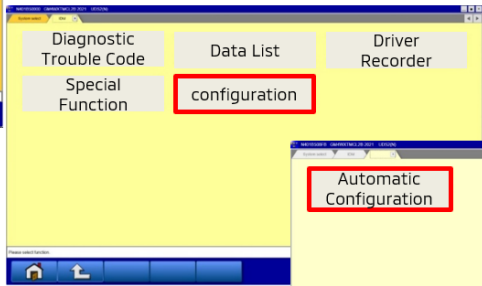
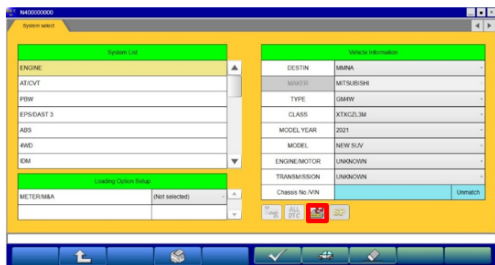
C) AUTOMATIC CONFIGURATION

When replacing following ECUs, you will need to conduct "AUTOMATIC CONFIGURATION".

- IPDM E/R
- BCM
- ABS CONTROL UNIT
- STEERING CONTROL UNIT
- A/C AMP
- INTELLIGENT KEY UNIT
- AIR BAG DIAGNOSIS SENSOR UNIT
- COMBINATION METER
- AV CONTROL UNIT
- AROUND VIEW MONITOR CONTROL UNIT
- TCU
- ADAS CONTROL UNIT 2
- SONAR CONTROL UNIT
- DISTANCE SENSOR
- SIDE RADER
- FRONT CAMERA UNIT
- CHASSIS CONTROL MODULE
- Adaptive LED Headlight (ALH)

1. REPLACE ECU

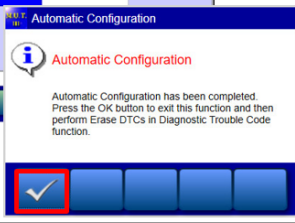
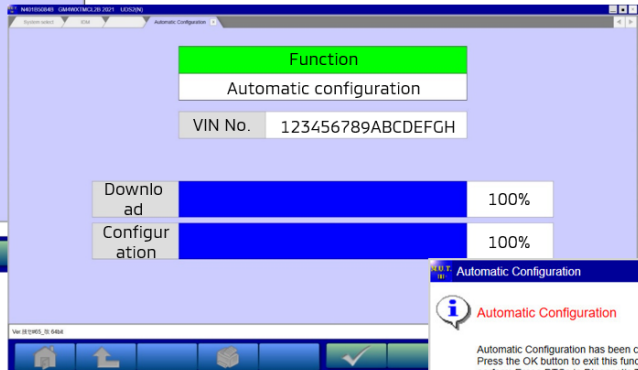
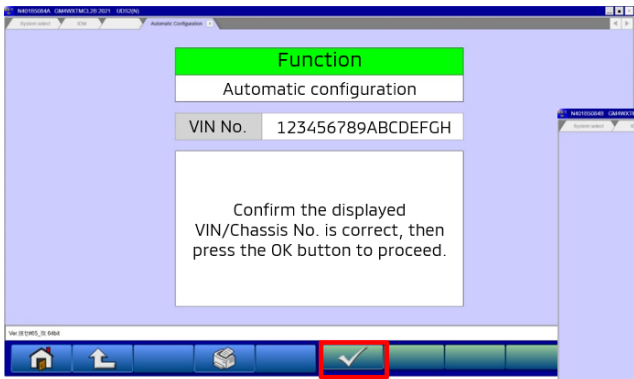
C) AUTOMATIC CONFIGURATION



- Chose the correct system you wish to configure from the System Select screen
- Choose the Configuration tab
- Choose Automatic Configuration

1. REPLACE ECU

C) AUTOMATIC CONFIGURATION



Confirm VIN# is correct

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2. CALIBRATION

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- B) CAMERA AIMING ADJUSTMENT
- C) MULTI AROUND MONITOR CALIBRATION

1. REPLACE ECU

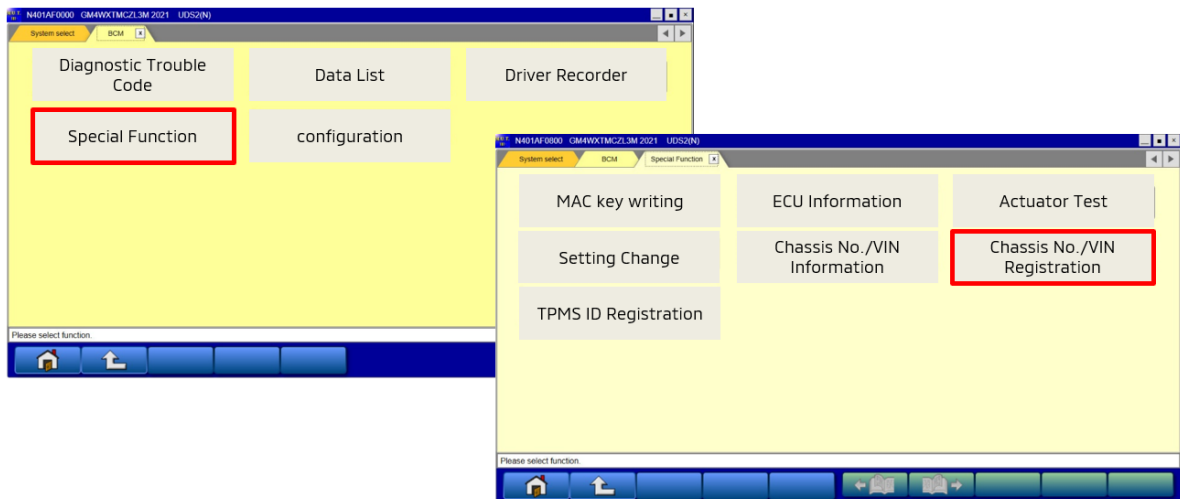
D) VIN REGISTRATION

When replacing following ECU, you will need to conduct "VIN REGISTRATION".

- ECM
- WIRELESS CHARGER UNIT
- BCM
- AV CONTROL UNIT
- TCU

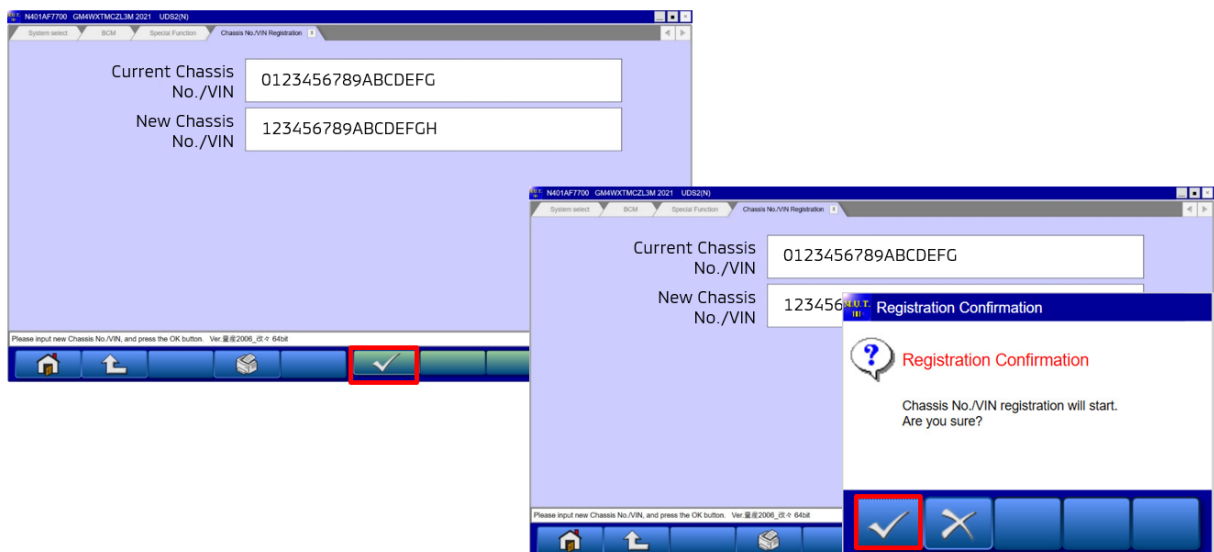
1. REPLACE ECU

D) VIN REGISTRATION



1. REPLACE ECU

D) VIN REGISTRATION



1. REPLACE ECU

D) VIN REGISTRATION

Current Chassis No./VIN: 0123456789ABCDEF

New Chassis No./VIN: 123456789ABCDEF

Registration Result		
Item	Current	Before registration
Chassis No./VIN	123456789ABCDEF	0123456789ABCDEF

Confirm that no DTCs are detected in Diagnosis Trouble Code function.

Registration Complete

Completed.
Turn the ignition switch OFF for more than 10 sec and back it ON, then press the OK button.

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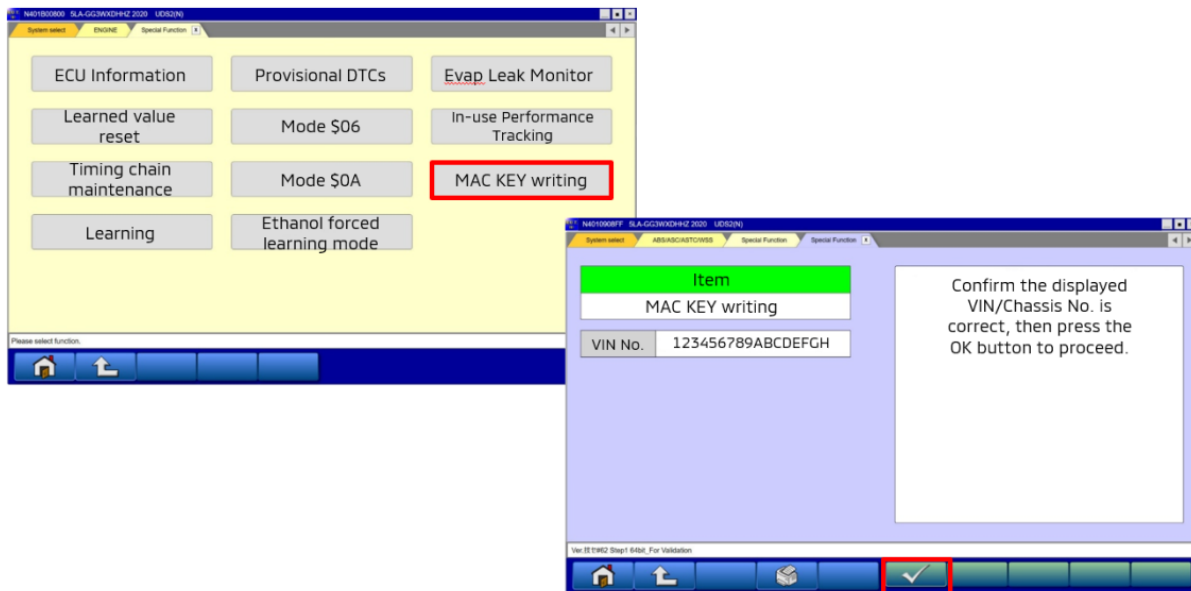
E) MAC KEY WRITING

When replacing following ECU, you will need to conduct "MAC KEY WRITING".

- ECM
- TCM
- BCM
- AROUND VIEW MONITOR CONTROL UNIT
- ADAS CONTROL UNIT 2
- SONAR CONTROL UNIT
- CHASSIS CONTROL MODULE

1. REPLACE ECU

E) MAC KEY WRITING



1. REPLACE ECU



E) MAC KEY WRITING

