



TECHNICAL SERVICE BULLETIN

Classification: EC25-003	Reference: NTB25-013	Date: February 26, 2025
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ECM REPLACEMENT PROCEDURE REQUIRED FOR RES EQUIPPED VEHICLES

APPLIED VEHICLES:	2025 Armada (Y63) 2025 Kicks (P16) 2025 Murano (Z53)
APPLIED SYSTEMS:	Equipped with Remote Engine Start

SERVICE INFORMATION

If any of the **APPLIED VEHICLES** equipped with Remote Engine Start (RES) requires Engine Control Module (ECM) replacement, the Body Control Module (BCM) must be replaced also at the same time.

⚠ WARNING ⚠ CAUTION ⚠ NOTICE

If you are not familiar with the **Re/programming, Configuration** procedure, refer to the Electronic Service Manual (ESM) and the CONSULT Operation Manual to reprogram the Electronic Control Unit (ECU). Follow all precautions in both manuals to prevent possible personal injury or death and/or damage to the ECU.

- This procedure will go back and forth between the ECM and BCM steps as found in the ESM.
- Damage will occur requiring the ECM and the BCM to be replaced a second time if the following **SERVICE PROCEDURE** is not followed.

Perform the following steps from the Electronic Service Manual (ESM) in this order:

- A. Perform “Work Procedure (Before Replacing ECM)” to save the ECM data.
- B. Remove the ECM.
- C. Remove the BCM.
- D. Install the new BCM and then perform “Additional Service When Replacing BCM - Work Procedure” up to and including “Register of Vehicle Identification Number”.
- E. Install the new ECM and then perform “Additional Service When Replacing ECM - Work Procedure (After Replacing ECM)” up to and including “Writing MAC Key for ECM”.
- F. Complete the “Additional Service When Replacing BCM - Work Procedure”.
- G. Complete the “Additional Service When Replacing ECM - Work Procedure (After Replacing ECM)”.

Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

- A. Follow the ESM to perform “Work Procedure (Before Replacing ECM)” to save the ECM data but **DO NOT** replace the ECM at this time.
- Refer to the ESM: **ENGINE > ENGINE CONTROL SYSTEM > VR35DDTT (Armada) / MR20DD (Kicks) / KR20DDET (Murano) > BASIC INSPECTION > ADDITIONAL SERVICE WHEN REPLACING ECM > Work Procedure**

Work Procedure

GUID-AC028DE0-157E-4390-ABD6-26BECE7FC43A

Description

When replacing ECM, the following procedure must be performed.

CAUTION:

When replacing the ECM, always replace it with a new one.

The functions controlled by the ECM does not operate properly in case of reuse of the ECM from another vehicle.

PROGRAMMING OPERATION

Note:

After replacing with a blank ECM, programming is required to write ECM information. Be sure to follow the procedure to perform the programming.

Work Procedure

Before Replacing ECM

1. SAVE ECM DATA

With CONSULT

1. Ignition switch OFF.
2. Reconnect all harness connectors disconnected.
3. Ignition switch ON.
4. Select “Replace ECU” of “ECM” using CONSULT.
5. Follow the instruction of CONSULT display.

Note:

ECM data is saved to CONSULT

B. Remove the ECM.

- Refer to the ESM: **ENGINE > ENGINE CONTROL SYSTEM > VR35DDTT (Armada) / MR20DD (Kicks) / KR20DDET (Murano) > REMOVAL AND INSTALLATION > ECM > Removal & Installation**

C. Remove the BCM.

- Refer to the ESM: **ELECTRICAL & POWER CONTROL > BODY CONTROL SYSTEM > REMOVAL AND INSTALLATION > BCM > Removal & Installation**

D. Install the new BCM and then follow the ESM to perform “Additional Service When Replacing BCM - Work Procedure” up to and including “Register of Vehicle Identification Number”.

- Refer to the ESM: **ELECTRICAL & POWER CONTROL > BODY CONTROL SYSTEM > BCM (Murano only) > BASIC INSPECTION > ADDITIONAL SERVICE WHEN REPLACING BCM > Work Procedure**

Work Procedure

GUID-0EEABFAA-FB8D-47E2-8737-3F907479FB3B

1. REPLACE BCM

Replace BCM. Refer to [Removal and Installation](#).

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[GO TO 2.](#)

2. WRITING VEHICLE SPECIFICATION

Perform configuration (BCM). Refer to [Description](#).

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[GO TO 3.](#)

3. PAIRING OF BCM AND INTELLIGENT KEY UNIT

CAUTION:

Before pairing the BCM and Intelligent Key unit always write BCM configuration, or not doing so, BCM control functions may not operate normally.

Perform pairing the BCM and Intelligent Key unit. Press UNLOCK button of Intelligent Key.

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[GO TO 4.](#)

4. REGISTER OF VEHICLE IDENTIFICATION NUMBER

With CONSULT

1. Select "VIN REGISTRATION" in "Work Support" mode of "BCM(BCM)".
2. Refer to CONSULT and follow the on-screen instructions.

E. Install the new ECM and then follow the ESM to perform "Additional Service When Replacing ECM - Work Procedure (After Replacing ECM)" up to and including "Writing MAC Key for ECM".

- Refer to the ESM: **ENGINE > ENGINE CONTROL SYSTEM > VR35DDTT (Armada) / MR20DD (Kicks) / KR20DDET (Murano) > REMOVAL AND INSTALLATION > ECM > Removal & Installation**
- Refer to the ESM: **ENGINE > ENGINE CONTROL SYSTEM > VR35DDTT (Armada) / MR20DD (Kicks) / KR20DDET (Murano) > BASIC INSPECTION > ADDITIONAL SERVICE WHEN REPLACING ECM > Work Procedure**

After Replacing ECM

1. WRITING VEHICLE SPECIFICATION

With CONSULT

Write vehicle specification to ECM according to "Replace ECU" in CONSULT Operation Manual.

CAUTION:

During programming, maintain the following conditions:

- **Ignition switch: ON**
- **Electrical load: OFF**
- **Brake pedal: Not depressed**
- **Battery voltage: 12 – 13.5 V (Check the value displayed on the CONSULT screen.)**

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[GO TO 2.](#)

2. PERFORM VIN REGISTRATION

Refer to [Work Procedure](#).

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[GO TO 3.](#)

3. WRITING MAC KEY FOR ECM

Refer to [Description](#).

F. Follow the ESM to complete the “Additional Service When Replacing BCM - Work Procedure”.

- Refer to the ESM: **ELECTRICAL & POWER CONTROL > BODY CONTROL SYSTEM > BCM (Murano only) > BASIC INSPECTION > ADDITIONAL SERVICE WHEN REPLACING BCM > Work Procedure**

Work Procedure

GUID-0EEABFAA-FB8D-47E2-8737-3F907479FB3B

5. WRITING MAC KEY

CAUTION:

When replacing BCM in relation with ECM replacement, replace ECM before writing MAC key. Refer to [Description](#).

Perform MAC key writing. Refer to [Description](#).

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[GO TO 6.](#)

6. TIRE PRESSURE SENSOR ID REGISTRATION

Perform the initialization and registration of tire pressure sensor ID. Refer to [Description](#).

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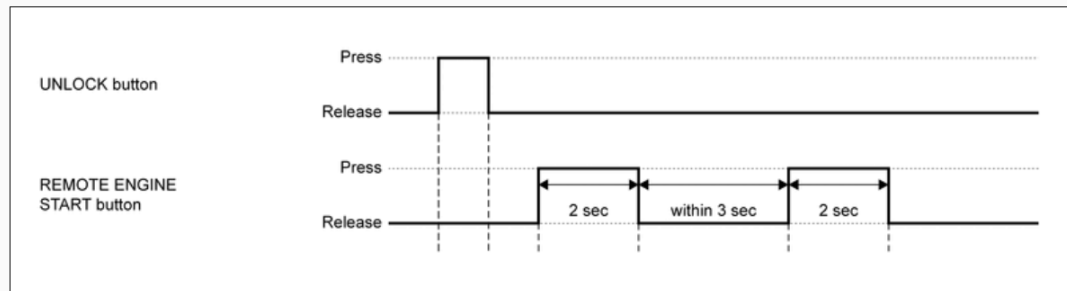
Work End.

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[GO TO 7.](#)

7. REMOTE ENGINE START FUNCTION ACTIVATION (Armada only)

1. Press the UNLOCK button of Intelligent Key.
2. Press REMOTE ENGINE START button of Intelligent Key for 2 seconds.
3. Release REMOTE ENGINE START button, and press REMOTE ENGINE START button of Intelligent key again within 3 seconds for 2 seconds.



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G. Follow the ESM to complete “Additional Service When Replacing ECM - Work Procedure (After Replacing ECM)”.

- Refer to the ESM: **ENGINE > ENGINE CONTROL SYSTEM > VR35DDTT (Armada) / MR20DD (Kicks) / KR20DDET (Murano) > BASIC INSPECTION > ADDITIONAL SERVICE WHEN REPLACING ECM > Work Procedure**

After Replacing ECM

4. PERFORM ACCELERATOR PEDAL RELEASED POSITION LEARNING

Perform accelerator pedal released position learning. Refer to [Work Procedure](#).

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[GO TO 5.](#)

5. PERFORM THROTTLE VALVE CLOSED POSITION LEARNING

Perform throttle valve closed position learning. Refer to [Work Procedure](#).

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[GO TO 6.](#)

6. PERFORM IDLE AIR VOLUME LEARNING

Perform idle air volume learning. Refer to [Work Procedure](#).

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[GO TO 7.](#)

7. PERFORM AIR FUEL RATIO INITIAL LEARNING (Kicks only)

Refer to [Description](#).

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[GO TO 8.](#)

8. WASTEGATE VALVE CLOSED POSITION LEARNING (Armada and Murano only)

Refer to [Work Procedure](#).

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[GO TO 9.](#)

9. ELECTRIC INTAKE VALVE TIMING CONTROL ACTUATOR REFERENCE POSITION LEARNING (Armada and Murano only)

Refer to [Work Procedure](#).

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[GO TO 10.](#)

10. PERFORM VALVE TIMING OFFSET DATA CLEAR (Murano only)

Refer to [Work Procedure](#).

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[GO TO 11.](#)

11. PERFORM VALVE TIMING OFFSET DATA WRITING (Murano only)

Refer to [Work Procedure](#).

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[GO TO 12.](#)

12. PERFORM VCR BASE POSITION LEARNING (Murano only)

Refer to [Work Procedure](#).

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[GO TO 13.](#)

13. CHANGE ENGINE OIL (Armada and Murano only)

Change engine oil, then perform ENGINE OIL DATE RESET. Refer to [Work Procedure](#).

NOTE:

When replacing ECM, OCS data cannot be transferred. In addition, ENGINE OIL DATE RESET is performed, and therefore oil change is required.

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[GO TO 14.](#)

14. ERASE DTC

With CONSULT

1. Ignition switch OFF and wait at least 10 seconds.
2. Ignition switch ON.
3. Ignition switch OFF and wait at least 10 seconds.
4. Ignition switch ON.
5. Check "Self diagnosis result" of "ECM".

Is any DTC detected?

YES>>

Erase DTC.

NO>>

END

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
February 26, 2025	NTB25-013	Original bulletin published