

 

# Work Procedure

## Before Replacing ECM

### 1.SAVE ECM DATA

#### With M.U.T.-III SE

1. Turn ignition switch OFF.
2. Reconnect all harness connectors disconnected.
3. Turn ignition switch ON.
4. Select “SAVING DATA FOR REPLC CPU” in “WORK SUPPORT” mode of “ENGINE” using M.U.T.-III SE.
5. Follow the instruction of M.U.T.-III SE display.

**note**

- Necessary data in ECM is copied and saved to M.U.T.-III SE.
- Go to Step 2 regardless of with or without success in saving data.



- Replace ECM.
- After replacing ECM, perform necessary work.

### 2.REMOVE ECM

Remove ECM. Refer to [ECM : Removal & Installation](#) 

**caution**

After removing ECM, do not install new ECM, but change BCM at first.



### 3. REPLACE BCM

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



#### 4. INSTALL ECM

After Replacing ECM

##### 1.PERFORM ECM PROGRAMMING

Install ECM. Refer to [ECM : Removal & Installation](#) 

: After replacing ECM, perform necessary work.

With M.U.T.-III SE

Perform ECM programming according to the procedure of “Programming” in M.U.T.-III SE Operation Manual. Refer to M.U.T.-III SE Operation Manual.

	During programming, maintain the following conditions: <ul style="list-style-type: none"><li>• Ignition switch: ON</li><li>• Electric load: OFF</li><li>• Brake pedal: Not depressed</li><li>• Battery voltage: 12 – 13.5 V (Check the value displayed on the M.U.T.-III SE screen.)</li></ul>
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##### 2.PERFORM IGNITION SWITCH OPERATION

1. Turn ignition switch OFF.
2. Turn ignition switch ON.



##### 3.PERFORM INITIALIZATION OF NATS SYSTEM AND REGISTRATION OF ALL NATS IGNITION KEY IDS

Refer to [Description](#) 



##### 4.CHECK ECM DATA STATUS

Check if the data is successfully copied from the ECM at Step 1 (before replacement) and saved in M.U.T.-III SE.

**Q. Is the data saved successfully?**

**Yes** 

**No****5.WRITE ECM DATA**With M.U.T.-III SE

1. Select “WRITING DATA FOR REPLC CPU” in “WORK SUPPORT” mode of “ENGINE” using M.U.T.-III SE.
2. Follow the instruction of M.U.T.-III SE display.

**note**

The data saved by “SAVING DATA FOR REPLC CPU” is written to ECM.

**6.PERFORM VIN REGISTRATION**Refer to Description [Description](#) **7.WRITING MAC KEY FOR ECM**Refer to [Description](#) **8.PERFORM ACCELERATOR PEDAL RELEASED POSITION LEARNING**Refer to Description [Description](#) **9.PERFORM THROTTLE VALVE CLOSED POSITION LEARNING**Refer to Description [Description](#) **10.PERFORM IDLE AIR VOLUME LEARNING**Refer to [Description](#) **11.PERFORM EGR VOLUME CONTROL VALVE CLOSED POSITION LEARNING**Refer to [Description](#) 

## 12.CHECK DTC

1. Turn ignition switch OFF and wait for 10 seconds or more.
2. Turn ignition switch ON.
3. If DTC is displayed, perform diagnosis of detected DTC. Refer to [DTC Index](#) 



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## 13.WRITING MAC KEY FOR BCM

Refer to [Description](#)   
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