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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [03/2023 - ]
<b>Title:</b> M20A-FXS (ENGINE CONTROL): ECM: REMOVAL; 2023 - 2024 MY Prius Prius Prime [03/2023 - ]		

## REMOVAL

### CAUTION / NOTICE / HINT

The necessary procedures (adjustment, calibration, initialization or registration) that must be performed after parts are removed and installed, or replaced during ECM removal/installation are shown below.

#### Necessary Procedures After Parts Removed/Installed/Replaced

REPLACED PART OR PERFORMED PROCEDURE	NECESSARY PROCEDURE	EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	LINK
Replacement of ECM	Perform Vehicle Identification Number (VIN) registration	DTC is output	<a href="#">INFO</a>
	ECU configuration	-	<a href="#">INFO</a>
	Update ECU security key	Vehicle Control History (RoB) are stored	<a href="#">INFO</a>

#### HINT:

When the cable is disconnected / reconnected to the auxiliary battery terminal, systems temporarily stop operating. However, each system has a function that completes learning the first time the system is used.

- Learning completes when vehicle is driven

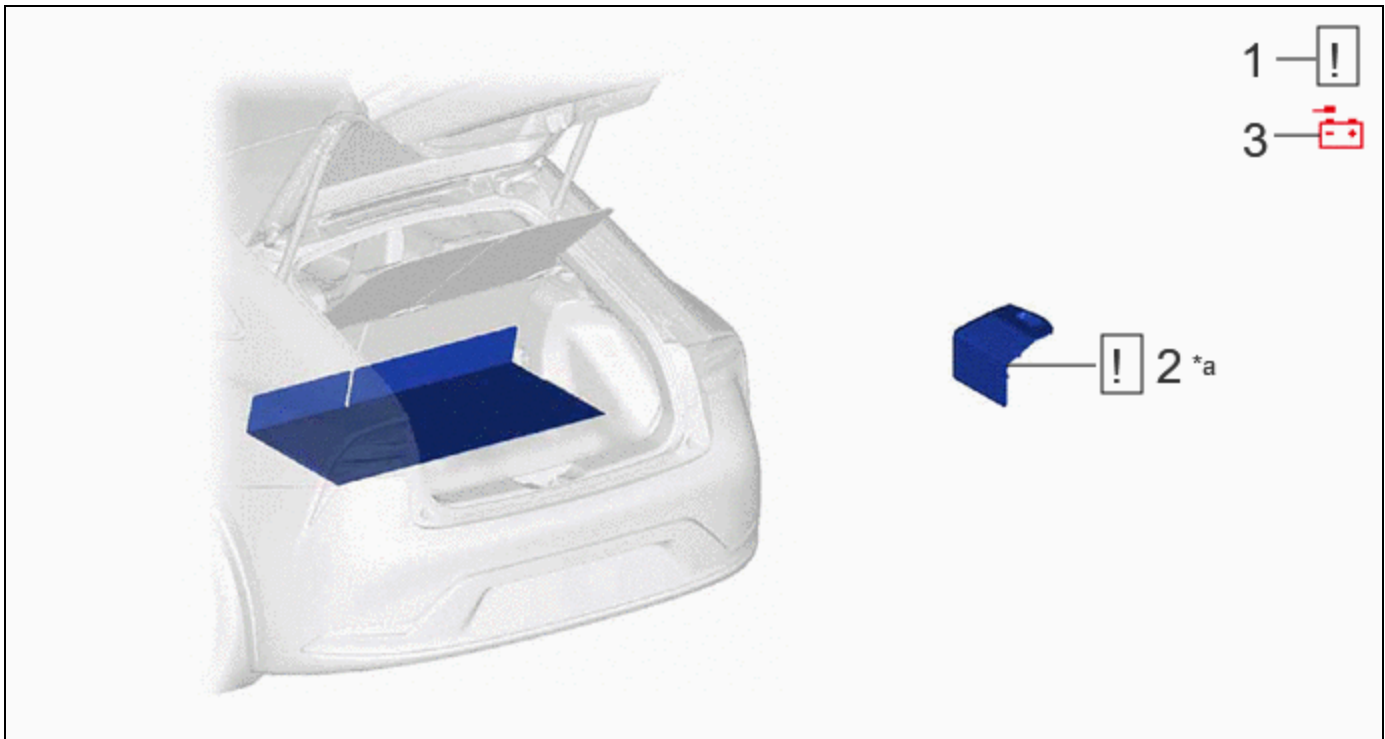
EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURES ARE NOT PERFORMED	NECESSARY PROCEDURES	LINK
Front Camera System	Drive the vehicle straight ahead at 35 km/h (22 mph) or more for 5 seconds or more.	<a href="#">INFO</a>

- Learning completes when vehicle is operated normally

EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURES ARE NOT PERFORMED	NECESSARY PROCEDURES	LINK
Power Door Lock Control System*1 ◦ Back door opener	Perform door unlock operation with door control switch or electrical key transmitter sub-assembly switch.	<a href="#">INFO</a>
Power Back Door System*2	Reset back door close position	<a href="#">INFO</a>
Air Conditioning System	<b>for HEV Model:</b> After the ignition switch is turned to ON, the servo motor standard position is recognized. <b>for PHEV Model:</b> After the ignition switch is turned to ON, the servo motor and expansion valve standard position is recognized.	-
*1: w/o Power Back Door System *2: w/ Power Back Door System		

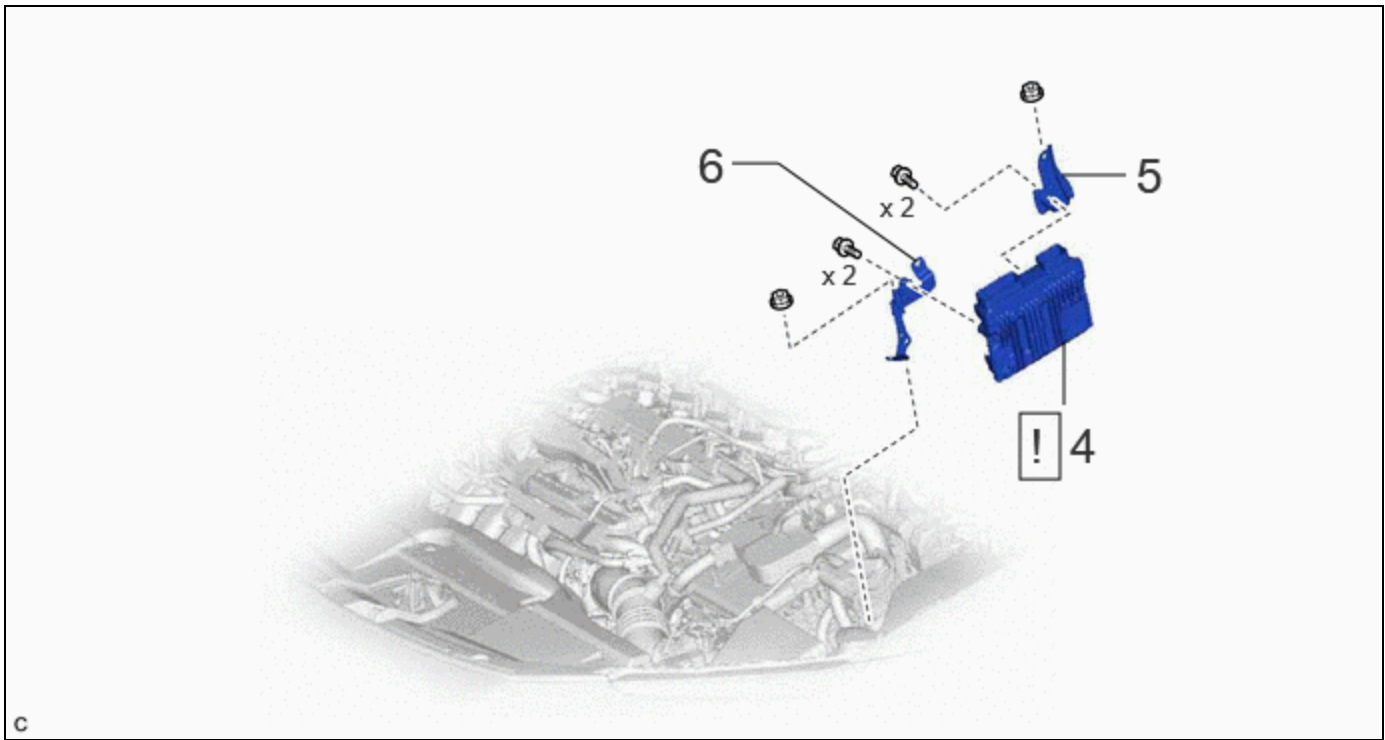
### CAUTION / NOTICE / HINT

### COMPONENTS (REMOVAL)



	PROCEDURE	PART NAME CODE			
1	PRECAUTION	-	<a href="#">INFO</a>	-	-
2	BATTERY SERVICE HOLE COVER ASSEMBLY	58440	<a href="#">INFO</a>	-	-
3	NEGATIVE AUXILIARY BATTERY TERMINAL	-	-	-	-

*a	<p><b>HINT:</b> As the illustration shown is an example, the actual details may differ.</p>	-	-
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PROCEDURE		PART NAME CODE			
4	ECM	89661	<a href="#">INFO</a>	-	-
5	NO. 2 ECM BRACKET	89668	-	-	-
6	NO. 1 ECM BRACKET	89667E	-	-	-

## PROCEDURE

### 1. PRECAUTION

	<p><b>NOTICE:</b></p> <ul style="list-style-type: none"> <li>After turning the ignition switch off, waiting time may be required before disconnecting the cable from the negative (-) auxiliary battery terminal. Click here <a href="#">INFO</a></li> <li>Do not replace the battery ECU assembly and ECM at the same time as the HV battery learning values will be lost. However, if it is necessary to replace both ECUs at the same time, replace them by following the procedure below.</li> <li>Do not replace the battery ECU assembly or ECM with a used one from another vehicle.</li> </ul>
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HV battery learning values are stored in the battery ECU assembly and ECM and are used to detect malfunctions and illuminate the hybrid battery indicator light in the combination meter assembly. When either of these ECUs is replaced, the new ECU receives the HV battery learning values from the other ECU and stores them.

(a) Procedure when replacing both battery ECU assembly and ECM (for HEV Model):

- (1) Disconnect the cable from the negative (-) auxiliary battery terminal.
- (2) Replace either ECU.
- (3) Connect the cable to the negative (-) auxiliary battery terminal.

- (4) Turn the ignition switch to ON (READY) and wait for 5 minutes or more.
- (5) Turn the ignition switch off and disconnect the cable from the negative (-) auxiliary battery terminal.
- (6) Replace the other ECU.
- (7) Connect the cable to the negative (-) auxiliary battery terminal.
- (8) Check that the ignition switch can be turned to ON (READY).

**HINT:**

If the battery ECU assembly and ECM are replaced at the same time without following the above procedure, replace either the battery ECU assembly and ECM with its original one and then replace it again by following the above procedure. If the correct procedure is not followed, perform the procedure again from the beginning.

(b) Procedure when replacing both battery ECU assembly and ECM (for PHEV Model):

- (1) Disconnect the cable from the negative (-) auxiliary battery terminal.
- (2) Replace either ECU.
- (3) Connect the cable to the negative (-) auxiliary battery terminal.
- (4) Turn the ignition switch to ON (READY) and wait for 5 minutes or more.
- (5) Turn the ignition switch off and wait for 1 minute or more.
- (6) Disconnect the cable from the negative (-) auxiliary battery terminal.
- (7) Replace the other ECU.
- (8) Connect the cable to the negative (-) auxiliary battery terminal.
- (9) Check that the ignition switch can be turned on (READY).

**HINT:**

If the battery ECU assembly and ECM are replaced at the same time without following the above procedure, replace either of the ECUs with its original one and then replace it again by following the above procedure. If the correct procedure is not followed, perform the procedure again from the beginning.

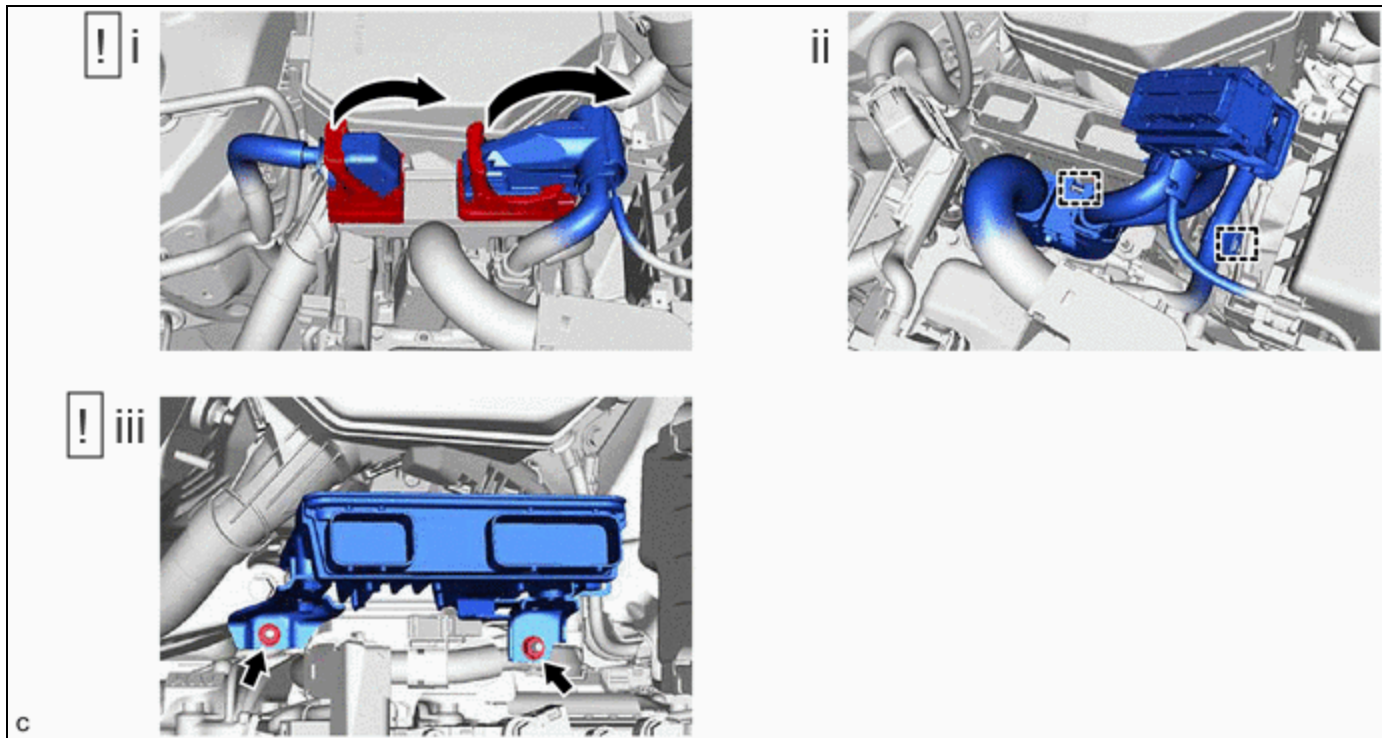
**2. REMOVE BATTERY SERVICE HOLE COVER ASSEMBLY**

	Click here <a href="#">INFO</a>
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**3. DISCONNECT CABLE FROM NEGATIVE AUXILIARY BATTERY TERMINAL**

Click here [INFO](#)

**4. REMOVE ECM**



(1) Raise the 2 lock levers while pushing the locks on the levers, and disconnect the 2 ECM connectors.

**NOTICE:**

After disconnecting the ECM connectors, make sure that dirt, water or other foreign matter does not contact the connecting parts of the ECM connectors.

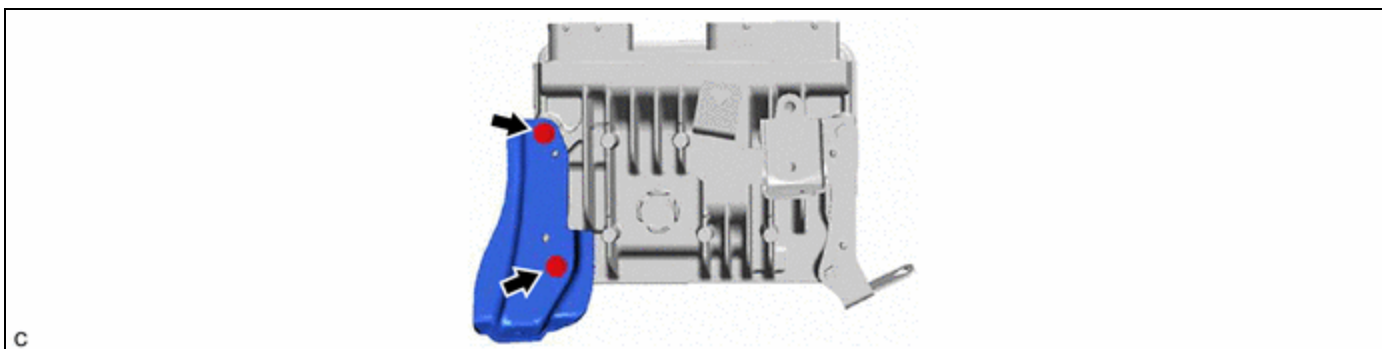
(2) Disengage the 2 clamps.

(3) Remove the 2 nuts and ECM.

**NOTICE:**

If the ECM has been struck or dropped, replace it.

**5. REMOVE NO. 2 ECM BRACKET**



**6. REMOVE NO. 1 ECM BRACKET**

