

TO: ALL TOYOTA DEALER PRINCIPALS,
SERVICE MANAGERS, PARTS MANAGERS

SUBJECT: SPECIAL SERVICE CAMPAIGN (SSC) – 50P
(2004 THROUGH EARLY 2005 MODEL YEAR PRIUS ELECTRONIC CONTROL MODULE
REPROGRAMMING)

Toyota will initiate a Special Service Campaign to reprogram the ECM System in certain 2004 through early 2005 model year Prius vehicles. In addition, in certain 2004 and some of the early 2005 model year vehicles, a special dielectric grease will be applied to a connector for the transaxle.

On the involved vehicles, an issue with the program logic in the Electronic Control Module (ECM) system may cause some or all of the following warning lights to illuminate: Master, Hybrid System, Engine, Vehicle Stability Control, and Brake. If this occurs, the vehicle will enter a “fail-safe” mode which allows limited operation via the electric motor. However, the electrically-powered brake and steering operation will continue to function normally if this condition occurs. The electric motor will also provide enough power to allow the driver to pull the vehicle over and away from traffic. Once the vehicle is stopped, the driver may be able to restart the gasoline engine in the vehicle by pushing the start button.

The following vital information is provided to inform you and your staff of the owner notification phase of the campaign and your degree of involvement.

1. **Owner Notification Letter Mailing Date**

The owner notification will commence in mid-October, 2005.

Please note that not all vehicles in the VIN range are affected by this SSC. If a dealer is contacted by an owner of an involved vehicle, who has not yet received a notification, please instruct them to ***verify eligibility by confirming through Dealer Daily/TIS prior to performing repairs***. Dealers should perform the repairs as outlined in the attached Technical Instructions.

2. **Vehicles in Dealer Stock**

Dealers are requested to perform campaign procedures on any vehicles in their stock prior to sale or lease. Vehicle SSC or LSC completion can be verified by inspecting for a campaign completion label in the location specified by the SSC or LSC. In addition, dealers should always verify eligibility by consulting Dealer Daily/TIS prior to performing repairs.

3. **Dealer/Owner Lists**

Affected vehicle VIN lists (VIN only due to changes in Privacy Laws) for the SSC 50P campaign have been distributed to each dealership's Service and Parts Managers. These lists are based upon the dealership's Primary Marketing Area (PMA) or selling dealership where applicable. Based upon our records, a dealership which does not have an affected vehicle in their PMA will receive a report indicating so.

4. Number and Identification of Involved Vehicles

There are approximately 74,000 Prius vehicles involved. There are two levels of repair dependent upon the production date of the vehicle; Engine ECM and HV ECM reflash, and/or connector grease application.

Model Year	Engine ECM, HV ECM and Grease*	Engine ECM and HV ECM <u>ONLY</u>
2004	47,200	-
2005	6,600	19,900

Due to the different repairs applicable to this SSC based upon VIN and production date, to assist dealers in determining which repairs are necessary on each vehicle a website has been set up to look up the necessary repairs by VIN. Please go to <http://50preflash.imagespm.info> (also linked through TIS), enter the VIN, and the applicable repairs will be displayed. ***The website is for general repair application reference only and will not order the dielectric grease nor will it confirm campaign completion status. In addition, repairs to vehicles conducted previously due to Warranty and/or TSB repairs are not reflected.***

MODEL	YEAR	VIN Range	
		VDS	Range
Prius	2004	KB20U	0001009 – 0116870
		KB22U	0001142 – 0116845
	2005	KB20U	0116874 – 0133248
			3000000 – 3029798
			7003414 – 7006860
		KB22U	0116872 – 0133240
			3000008 - 3029797
			7004342 - 7006863

Please note that not all vehicles in the VIN range are affected by this SSC. If a dealer is contacted by an owner of an involved vehicle, who has not yet received a notification, please instruct them to ***verify eligibility by confirming through Dealer Daily/TIS prior to performing repairs.*** Dealers should perform the inspection and repair as outlined in the attached Technical Instructions.

5. Parts Ordering

The ECM System reprogramming will not require any parts. However, certain 2004 and some of the early 2005 model year Prius vehicles will require **a special dielectric grease to be applied to a connector for the transaxle.**

The dielectric grease can be ordered through the dealer’s facing PDC. Please refer to the table below and the Technical Instructions for part number information.

Part Number	Part Description	Qty.
08887-82106*	Dielectric Grease	1*

**** Please note that one tube of connector grease is sufficient to service approximately 10 to 15 vehicles. Therefore, the dielectric grease and recalibration label should be claimed as a sublet type “OF” at a rate of \$1.50 per vehicle.***

[Parts continued...]

The necessary tube of Dielectric Grease can be ordered through the parts system on Dealer Daily. Please refer to the Technical Instructions for part number information, and the Dealer Letter for ordering guidelines.

Please note that initially the Dielectric Grease will be placed on Manual Allocation Control (MAC). This will assure an adequate and balanced parts inventory.

A UIO (for all repairs) by state matrix is listed below to inform dealers of the number of vehicles in their area.

STATE	UIO	STATE	UIO	STATE	UIO	STATE	UIO	STATE	UIO
AK	129	GA	852	ME	522	NJ	1,673	SD	74
AL	334	IA	358	MI	1,184	NM	645	TN	602
AR	220	ID	327	MN	1,108	NV	708	TX	2,444
AZ	1,584	IL	2,440	MO	686	NY	2,827	UT	540
CA	22,855	IN	900	MS	141	OH	1,567	VA	4,024
CO	1,837	KS	347	MT	239	OK	288	VT	320
CT	854	KY	397	NC	1,325	OR	2,100	WA	3,192
DC	324	LA	319	ND	52	PA	2,327	WI	1,282
DE	189	MA	2,412	NE	161	RI	345	WV	250
FL	2,883	MD	2,548	NH	550	SC	310	WY	144

6. Repair Procedures

Refer to the attached Technical Instructions.

7. Reimbursement Procedures

Submit Special Service Campaign claims following the procedures described in the Toyota Warranty Policy and Procedures Manual.

The operation codes to be used for this campaign are:

SSC #	Op. Code	Description	Flat Rate Hour
50P	5611J1	Reflash HV ECU only*	1.1 Hr/Veh
	5611J2	Reflash Engine & HV ECU only	2.1 Hr/Veh
	5611J3	Reflash Engine & HV ECU, Install connector grease	2.5 Hr/Veh

NOTE: The above flat rate times include 0.1 hour in each campaign for administrative cost per unit for the dealership.

*** This operation code has been provided in case the engine ECU has been previously updated via a TSB.**

Please review this entire package with your Service and Parts staff to familiarize them with the proper step-by-step procedures required to implement this Special Service Campaign.

Thank you for your cooperation.
TOYOTA MOTOR SALES, U.S.A., INC.



SSC 50P – ELECTRONIC CONTROL MODULE REPROGRAMMING Q&A Certain 2004 Through Early 2005 Model Year Prius

Q1: What is the condition?

A1: On the involved vehicles, an issue with the program logic in the Electronic Control Module (ECM) system may cause some or all of the following warning lights to illuminate: Master, Hybrid System, Engine, Vehicle Stability Control, and Brake. If this occurs, the vehicle will enter a “fail-safe” mode which allows limited operation via the electric motor. However, the electrically-powered brake and steering operation will continue to function normally if this condition occurs. The electric motor will also provide enough power to allow the driver to pull the vehicle over and away from traffic. Once the vehicle is stopped, the driver may be able to restart the gasoline engine in the vehicle by pushing the start button.

Q2: What is the cause of this condition?

A2: This condition is caused by a problem with the program logic in the Electronic Control Module (ECM) System.

Q3: Are there any warnings that this condition exists?

A3: Yes, a chime will sound and the Master Warning, Hybrid System Warning, Engine Warning, VSC Warning and/or Brake Warning will illuminate.

Q4: Which and how many vehicles are involved?

A4: There are approximately 75,000 vehicles involved in the U.S.

Q5: What is the production period of the affected vehicles?

A5: The affected Toyota vehicles were produced from August 4, 2003 through February 10, 2005.

Q6: Are there any other Toyota or Lexus vehicles involved?

A6: No, this specific condition only affects certain 2004 through early 2005 model year Prius vehicles.

Q7: How many incidents of this condition have been reported?

A7: There have been 68 cases of this condition reported to Toyota by the NHTSA.

Q8: Have there been any accidents reported?

A8: There have been no reported cases of accidents in the affected vehicles which may relate to this condition.

Q9: Have there been any injuries related to the alleged accidents?

A9: There have been no reported cases of injuries related to this condition reported in the affected vehicles.

Q10: What is Toyota going to do?

A10: Toyota will reprogram the ECM System and in the 2004 and some of the early 2005 model year vehicles, a special dielectric grease will be applied to a connector for the transaxle to prevent water intrusion. Any Toyota dealer will conduct this service at **NO CHARGE**.

Q11: How long will the repair take?

A11: The repairs will take approximately 2 hours. However, depending upon the dealer’s work schedule, it may be necessary to make the vehicle available for a longer period of time.

Q12: What should an owner do if they experience the condition or have immediate concerns about the current safety of their vehicle?

A12: Owners are requested to contact their local Toyota dealer for diagnosis and repair.

**Special Service Campaign 50P
2004 Through Early 2005 Model Year Prius
Electronic Control Module Reprogramming**

PRIUS

Dear Prius Customer:

We at Toyota are dedicated to you the driver, as well as the environment that we all share. The Toyota Prius is a balance of those commitments, offering a vehicle which drives much like any other sedan while being highly fuel efficient and emitting fewer air pollutants. To accomplish this task, the vehicle itself is balanced with a special gasoline engine and electric motor working together, controlled by a sophisticated network (Electronic Control Module System) consisting of several computers.

As part of our continuing efforts to provide superior customer satisfaction, Toyota is announcing a Special Service Campaign, which includes your Prius vehicle.

What is the problem?

In recent months, Toyota has received reports that some customers may experience a “stalling” condition with the gasoline engine. We sincerely regret and apologize if you are one of these customers.

Toyota has investigated these concerns and discovered an issue with the program logic in the Electronic Control Module (ECM) System. In this case, the warning lights (Master Warning, Hybrid System Warning, Engine Warning, VSC Warning and/or Brake Warning) will illuminate and the vehicle will enter a “fail-safe” mode which allows limited operation via the electric motor. However, the electrically-powered brake and steering operation will continue to function normally if this condition occurs.

If these Warning Lights illuminate, please stop your vehicle in a safe place immediately and contact your Toyota dealer. Even if the hybrid system warning light comes on, in most cases, you can temporarily increase the vehicle speed by depressing the accelerator pedal. If the vehicle completely stops, you may be able to restart your vehicle by depressing the “Start” button. In some instances, it may be necessary to wait approximately 25 seconds before restarting.

What will Toyota do?

Before you are inconvenienced by this condition, Toyota would like to reprogram the ECM System in your vehicle. Any Toyota dealer will conduct this service at **NO CHARGE** to you. Also, in the 2004 and some of the early 2005 model year vehicles, a special dielectric grease will be applied to a connector for the transaxle to prevent water intrusion, which may cause a similar condition.

What should you do?

Please contact your authorized Toyota dealer to make an appointment as soon as possible. The labor time necessary to conduct the repair is approximately two hours. However, depending upon the dealer's work schedule, it may be necessary to make your vehicle available for a longer period of time. The Toyota dealer will make every effort to assure your utmost convenience during this service.

Please present this notice to the Toyota Dealer when you bring the vehicle in for your service appointment.

If you no longer own the vehicle, please indicate so on the enclosed postage paid form, providing us with the name and address of the new owner.

What if you have other questions?

Your local Toyota dealer will be more than happy to answer any of your questions and set up an appointment to perform the update. If you require further assistance, you may contact the Toyota Customer Experience Center at 1-888-270-9371 Monday through Friday, 5:00 am to 9:30 pm, Saturday and Sunday 7:00 am through 3:00 pm Pacific Standard Time.

We have sent this notice in the interest of your continued satisfaction with our products, and we sincerely regret any inconvenience this condition may have caused you.

Thank you for driving the Toyota Prius.

Sincerely,

TOYOTA MOTOR SALES, U.S.A., INC.

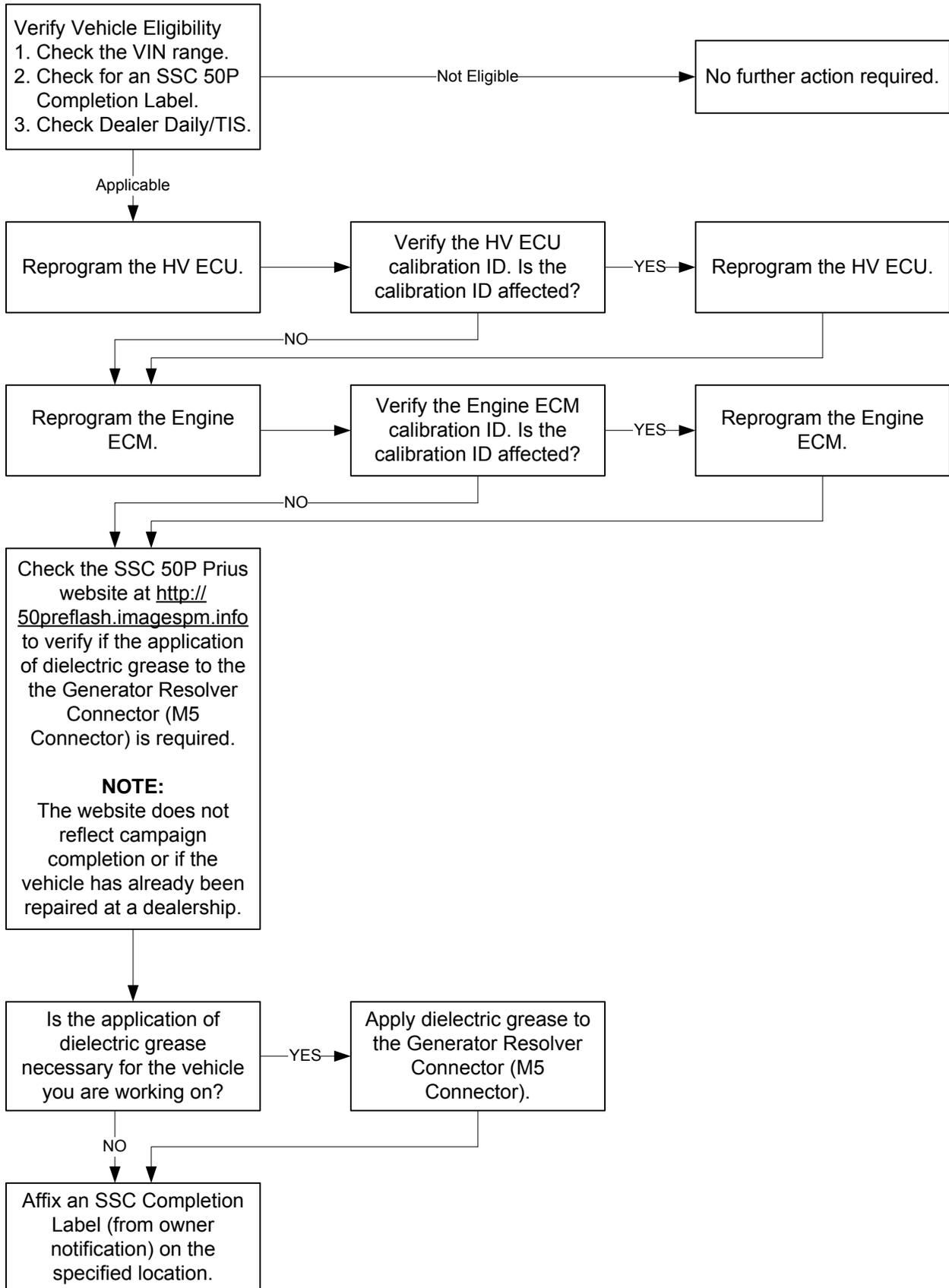
TECHNICAL INSTRUCTIONS

FOR

SPECIAL SERVICE CAMPAIGN 50P

2004 THROUGH EARLY 2005 MODEL YEAR PRIUS
ELECTRONIC CONTROL MODULE REPROGRAMMING

I. OPERATION FLOW CHART



II. IDENTIFICATION OF AFFECTED VEHICLES

A. AFFECTED VIN RANGE

Model	Year	VIN Range	
		VDS	Range
Prius	2004	KB20U	0001009 – 0116870
		KB22U	0001142 – 0116845
	2005	KB20U	0116874 – 0133248
			3000000 – 3029798
		KB22U	7003414 – 7006860
			0116872 – 0133240
		3000008 – 3029797	
		7004342 – 7006863	

NOTE:

Not all vehicles in the VIN range are affected. As always, consult Dealer Daily/TIS to confirm VIN eligibility and to assure the SSC is applicable. This will verify the vehicle is affected and has not already been completed prior to dealer shipment or by another dealer. TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or were completed by another dealer.

There are approximately 74,000 Prius vehicles involved. There are two levels of repair dependent upon the production date of the vehicle; Engine ECM and HV ECM reflash, and/or connector grease application.

Model Year	Engine ECM, HV ECM and Grease*	Engine ECM and HV ECM <u>ONLY</u>
2004	47,200	-
2005	6,600	19,900

* All vehicles will require Engine ECM and HV ECM reflash (provided that they have not been already done); however the vehicles in the following VIN ranges may require the application of connector grease. Check the SSC 50P website at <http://50preflash.imagespm.info> to determine if the application of dielectric grease to the generator resolver connector (M5 connector) is necessary for the vehicle you are working on.

CONNECTOR GREASE APPLICATION VIN RANGE

Model	Year	VIN Range	
		VDS	Range
Prius	2004	KB20U	0001009 – 0116870
		KB22U	0001142 – 0116845
	2005	KB20U	0116874 – 0130297
		KB22U	0116872 – 0130299

III. PREPARATION

A. PARTS

Part Number	Part Description	Qty.
08887-82106*	Dielectric Grease	1

* The dielectric grease comes in a tube that provides enough to repair approximately 10 to 15 vehicles.

B. TOOLS

- Standard Hand Tools
- Torque Wrench
- Nylon Pry Tools
- Special Service Tools (SST)
 - (a) Midtronics Battery Tester: 00002-MP815-T
 - (b) Prius Automatic Charger: 00002-YA122-01 (P/N 00002-YA121-01 may still be used with switch in 10 AMP position).
 - (c) Toyota Diagnostic Tester (Scan Tool)
 - (d) CAN Interface Module
 - (e) 12 Megabyte Diagnostic Tester Program Card with the software version 13.0a or higher

HV ECU

Model Year	Previous Calibration ID	New Calibration ID
2004	899834708201 899834708301 899834708401 899834708501 899834708601 899834708701 899834715001	899834717001
2005	899834712001 899834712101 899834712201	899834712301

ENGINE ECM

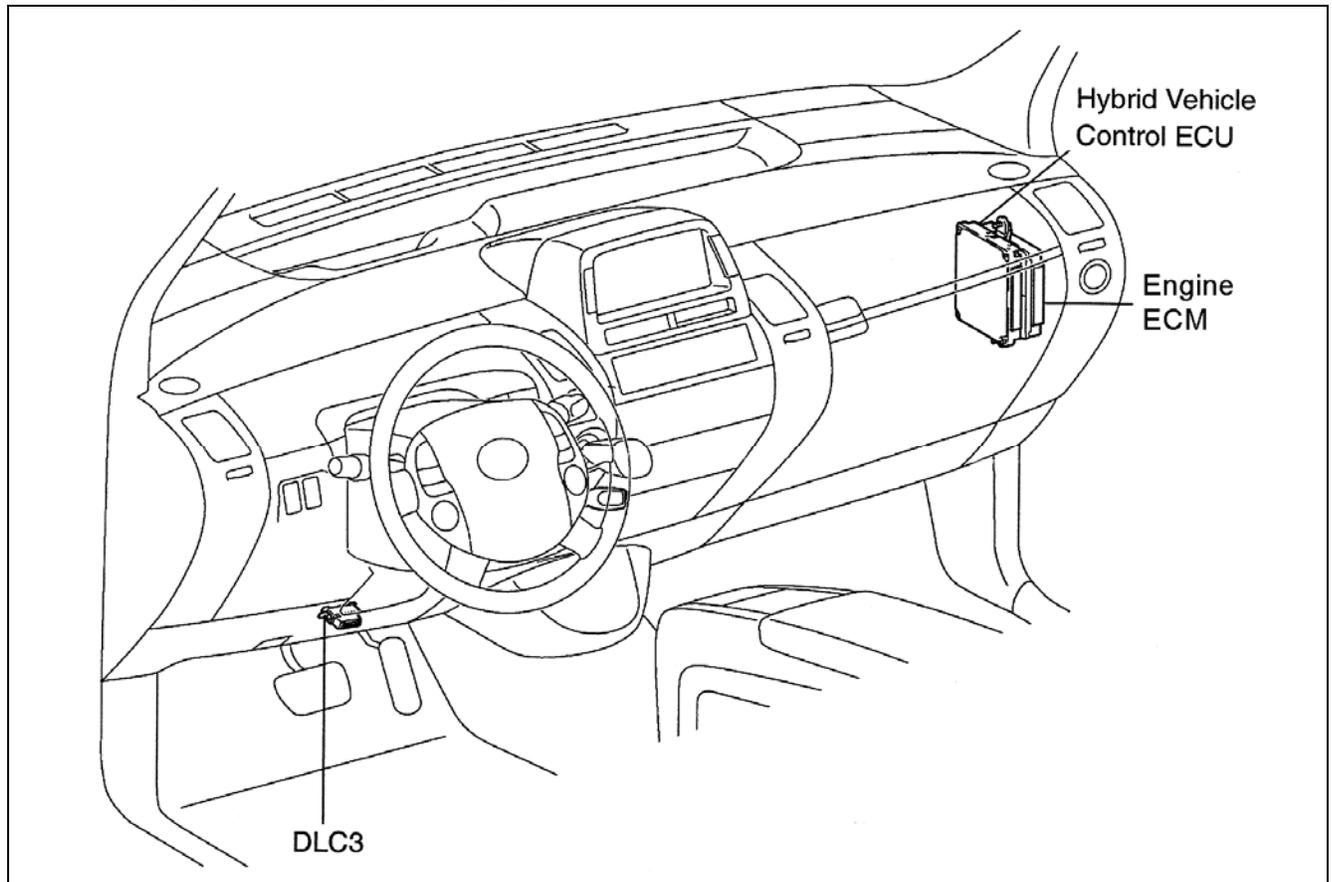
Model Year	Previous Calibration ID	New Calibration ID
2004 – 2005	34702000 34702100 34702200 34705000 34705100**	34705200

****Although the 34705100 calibration contains the correction to the current issue, since the customer is in the dealership please reflash the Engine ECM to the 34705200 calibration. THIS APPLIES ONLY TO VEHICLES THAT ARE INVOLVED IN SSC 50P, OTHER PRIUS VEHICLES NOT INVOLVED IN THE CAMPAIGN WITH THE 34705100 CALIBRATION DO NOT NEED TO BE REFLASHED!**

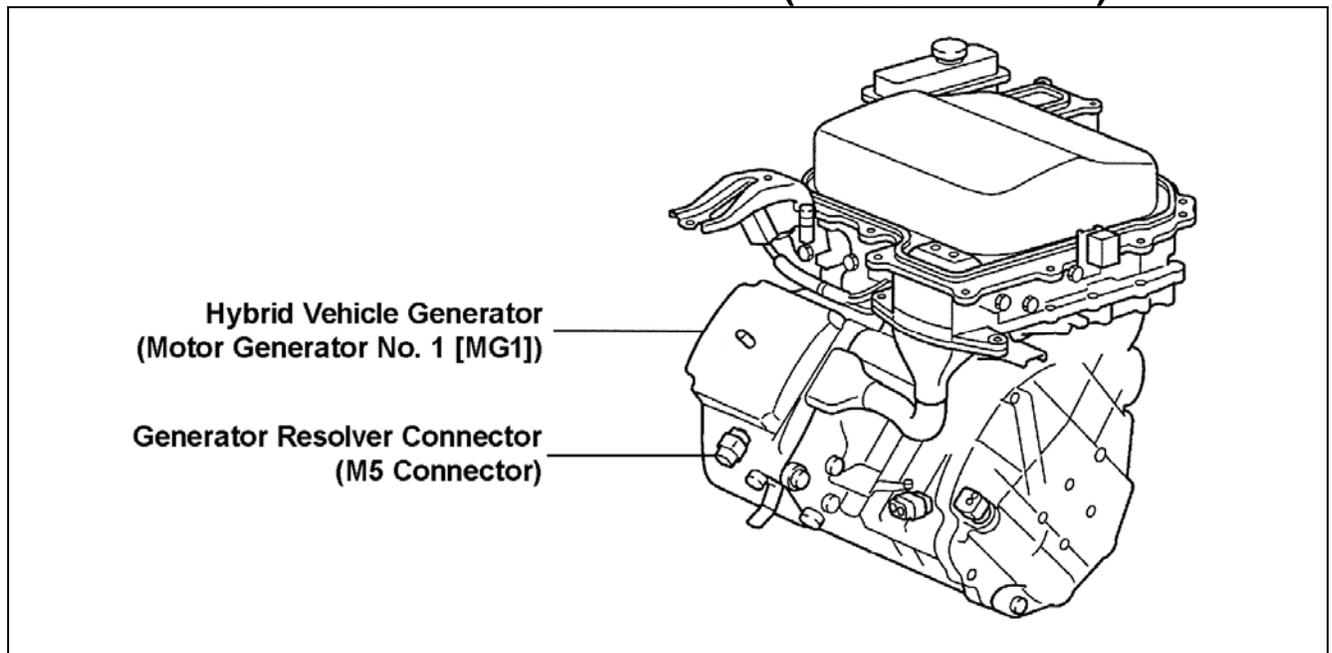
NOTE: The new Calibration file(s) can be downloaded from the ECU Flash Reprogramming section of TIS.

IV. COMPONENTS

A. HV ECU AND ENGINE ECM



B. GENERATOR RESOLVER CONNECTOR (M5 CONNECTOR)



V. BACKGROUND

In recent months, Toyota has received reports that some customers may experience a “stalling” condition with the gasoline engine. Toyota has investigated these concerns and discovered an issue with the program logic in the Electronic Control Module (ECM) System. In this case, the warning lights (Master Warning, Hybrid System Warning, Engine Warning, VSC Warning and/or Brake Warning) will illuminate and the vehicle will enter a “fail-safe” mode which allows limited operation via the electric motor. However, the electrically-powered brake and steering operation will continue to function normally if this condition occurs.

VI. WORK PROCEDURE

A. HV ECU REPROGRAMMING PROCEDURE

1. DOWNLOAD THE HV ECU CALIBRATION DATA FROM THE PC TO THE DIAGNOSTIC TESTER

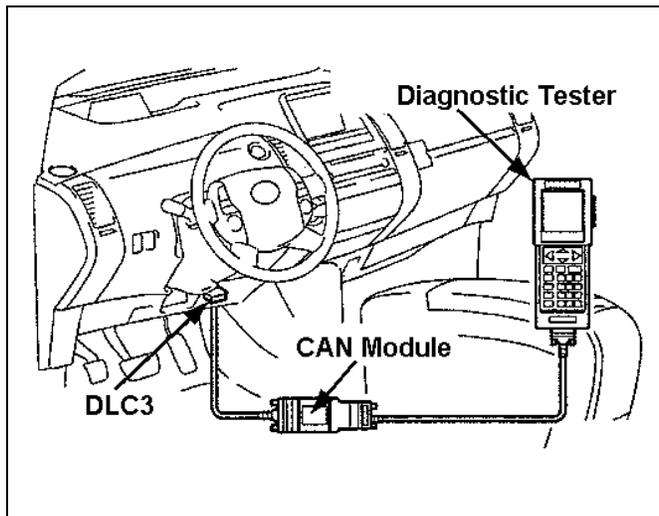
2. CHECK BATTERY VOLTAGE

- (a) Turn OFF all electrical accessories (i.e. audio systems, dome lamp, navigation system, air conditioner, etc.) to avoid battery fluctuations while reprogramming the HV ECU.
- (b) Using the Midtronics Battery Tester, confirm that the battery voltage is greater than 11.5 volts.
 - If the voltage is less than 11.5 volts, charge and retest the battery as necessary.
 - The battery must be fully charged before proceeding to the next step.
- (c) Connect the Prius Automatic Charger. **This MUST be done on all vehicles even if the battery is fully charged.**
- (d) Set the Prius Automatic Charger to the “HIGH” current setting to assure that the battery voltage stays consistently above 11.5 volts.



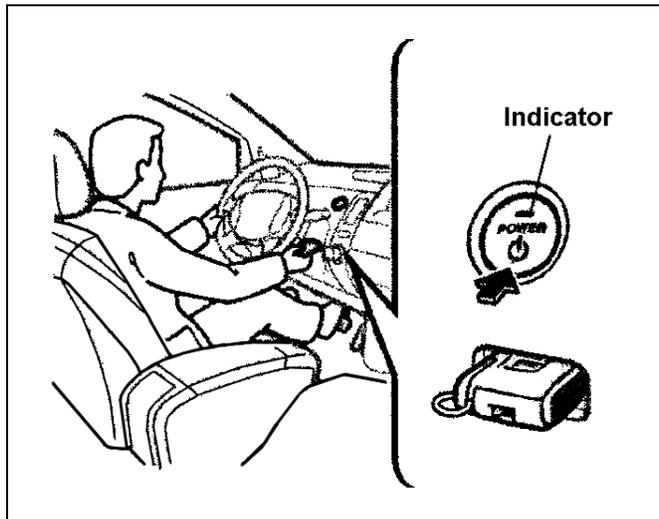
WARNING:

DO NOT use a jumper battery in place of the Prius Automatic Charger or IRREPARABLE DAMAGE TO THE ECU/ECM MAY RESULT.



3. CONFIRM THE CURRENT HV ECU CALIBRATION ID

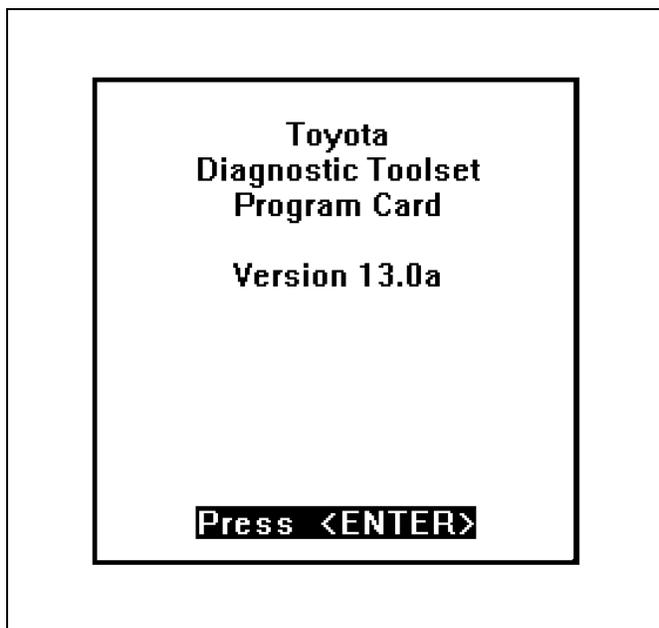
- (a) Confirm that the vehicle has undergone PDS.
- (b) Connect the diagnostic tester with the CAN Module to the DLC3 connector.
- (c) Turn ON the diagnostic tester.



- (d) Insert key into key slot.
- (e) Push the "POWER" switch twice without depressing the brake pedal and confirm that the hybrid system is "IG-ON."

NOTE:

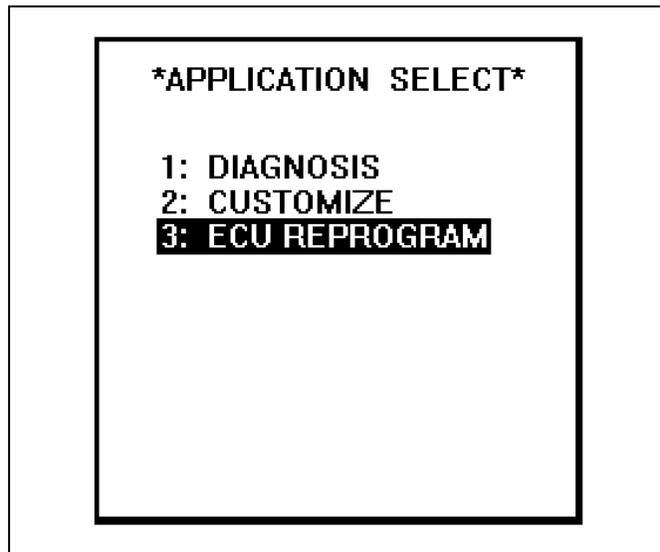
- Do not start the hybrid system, if the "READY" light is ON.
- Confirm that the "POWER" switch indicator is amber in color.



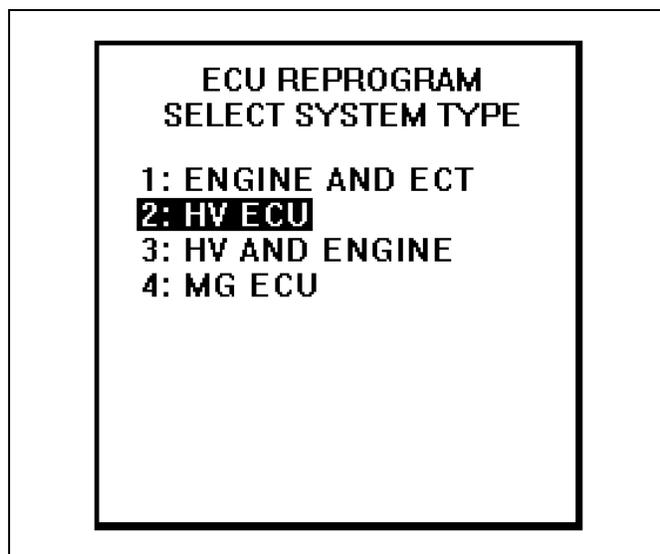
- (f) Confirm that the diagnostic tester software is version "13.0a" or higher and press "ENTER."
- If the software version is **NOT** "13.0a" or higher, load the correct version from TIS.



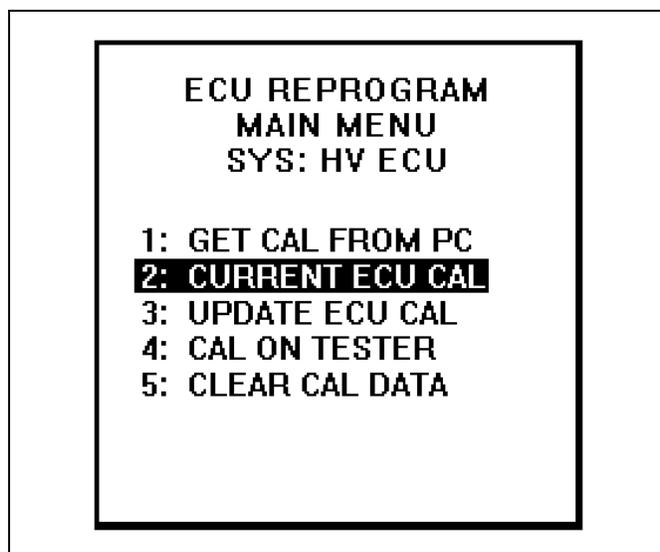
WARNING: Confirm that the correct software version 13.0a or higher and the calibration updates are loaded into the diagnostic tester, otherwise **IRREPARABLE DAMAGE WILL OCCUR TO THE ECU.**



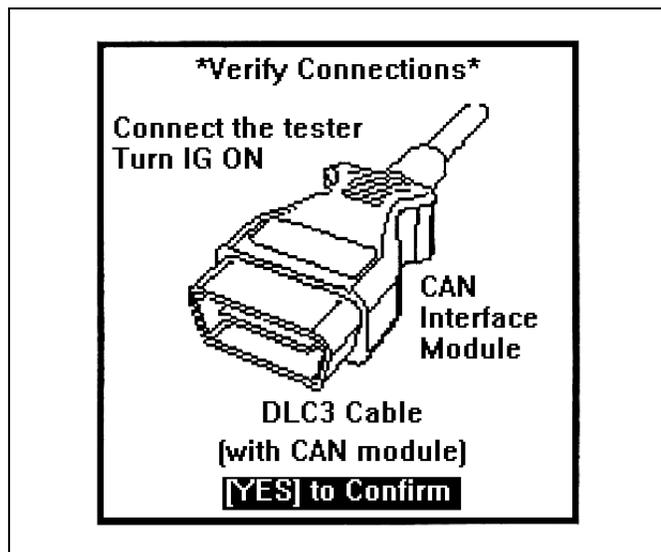
- (g) Select “3: ECU REPROGRAM” from the “APPLICATION SELECT” menu.



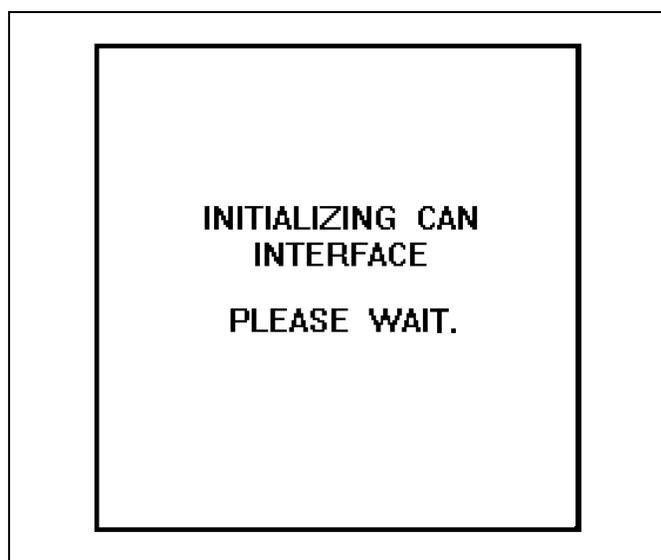
- (h) Select “2: HV ECU” from the “ECU REPROGRAM SELECT SYSTEM TYPE” menu.



- (i) Select “2: CURRENT ECU CAL” from the “ECU REPROGRAM MAIN MENU.”

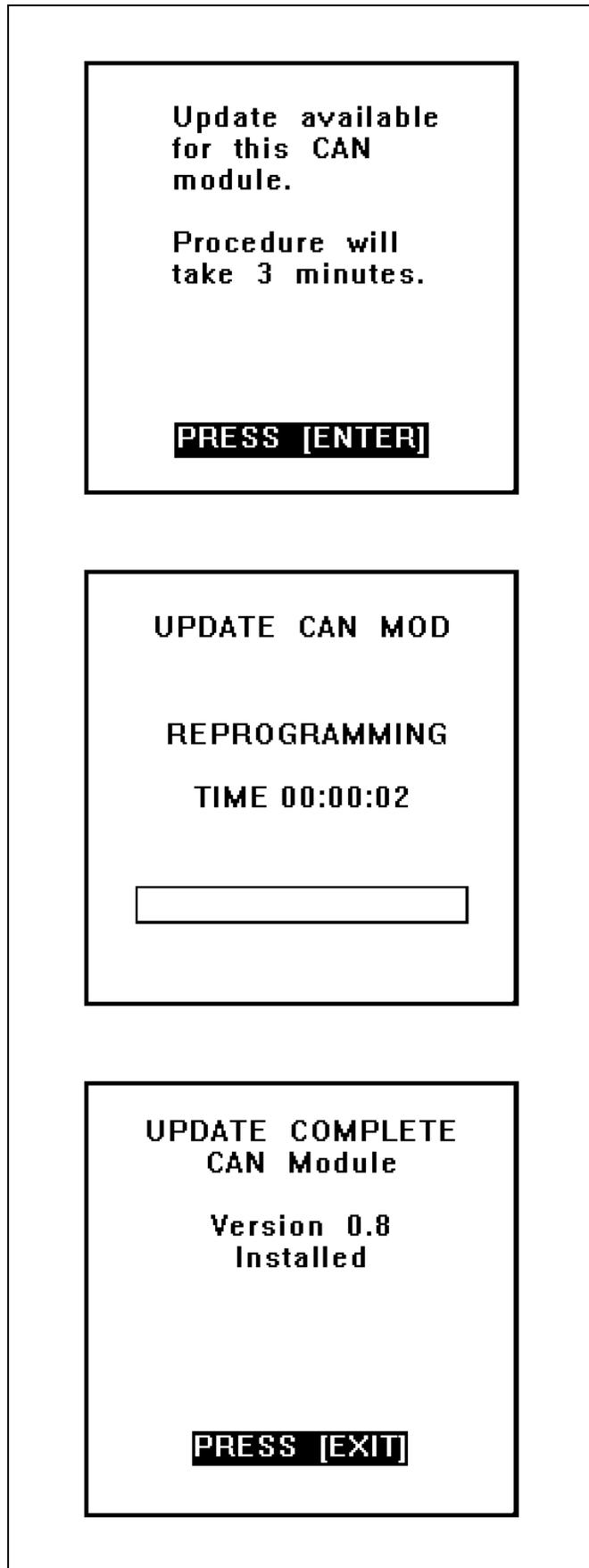


(j) Press the “YES” key when the “VERIFY CONNECTIONS” screen appears.



- (k) The diagnostic tester will confirm if the CAN module has been updated.
- If it has **NOT** been updated, the diagnostic tester will prompt you to perform a CAN module update, proceed to step “(l).”
 - If the CAN module has been updated, proceed to step “(o).”

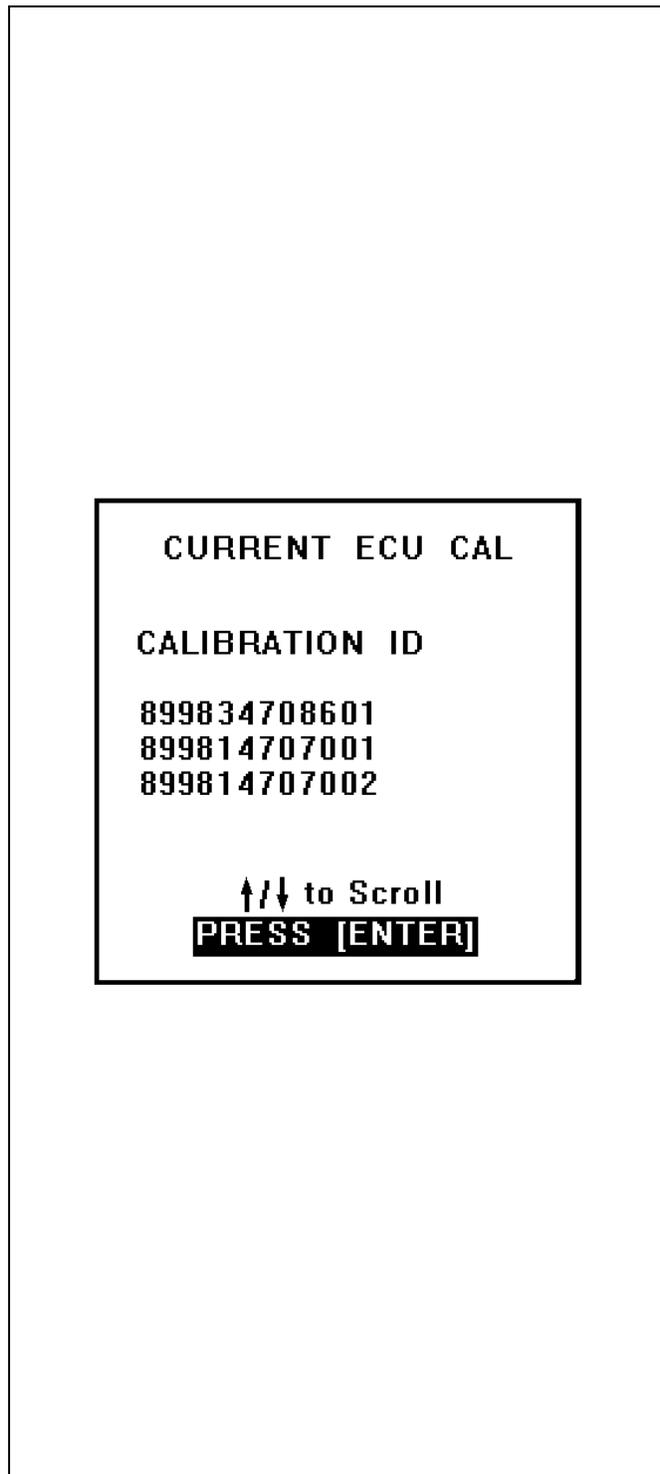
USE STEPS “(l)”, “(m)”, & “(n)” WHEN PERFORMING THE CAN MODULE UPDATE



(l) Press the “ENTER” key to proceed with the CAN module update.

(m) The CAN module update will take approximately 3 minutes.

(n) When the “UPDATE COMPLETE” screen is displayed press the “EXIT” key, and proceed to step “(o).”



(o) Confirm the calibration ID.

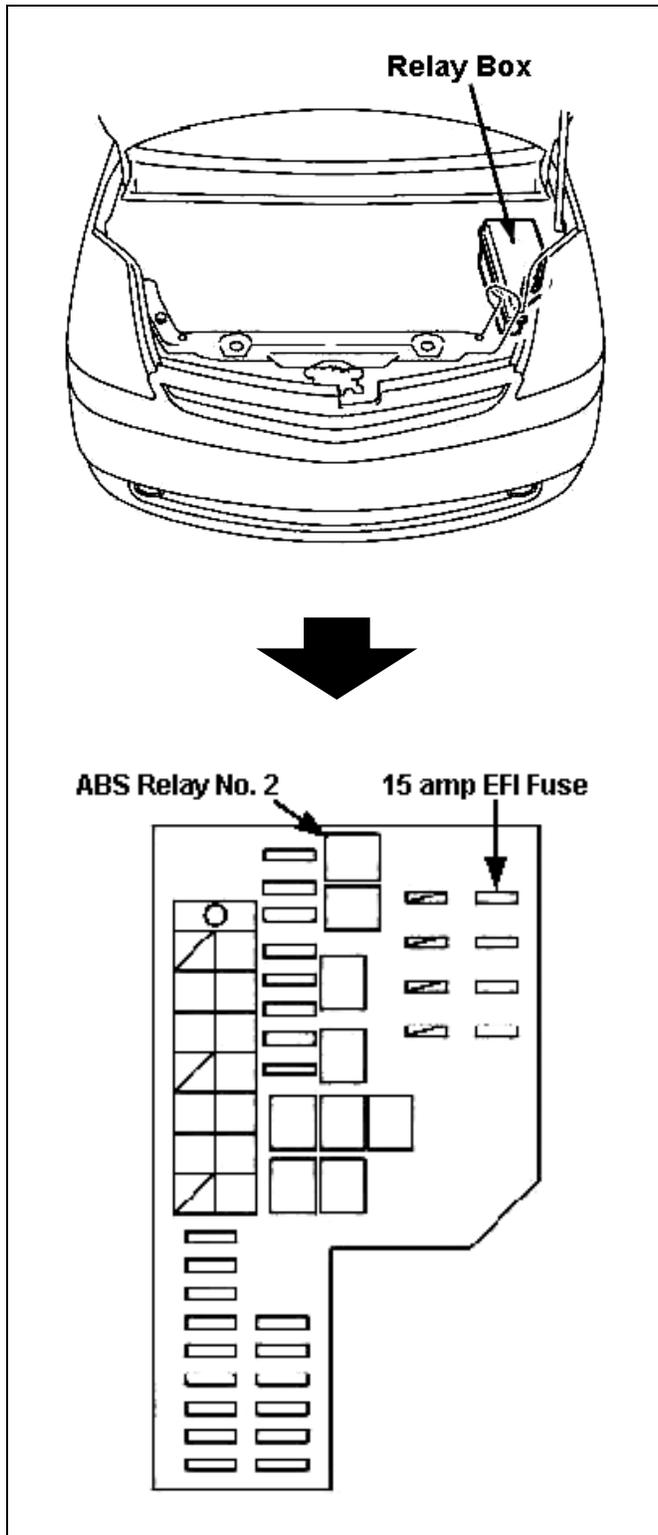
2004 Prius:

- If the display shows **899834717001**, the HV ECU does not need to be reprogrammed. Press the “EXIT” key, turn off the diagnostic tester, and proceed to **“B. ENGINE ECM REPROGRAMMING PROCEDURE” on page 25.**
- If the display shows a calibration ID of **899834708201**, **899834708301**, **899834708401**, **899834708501**, **899834708601**, **899834708701**, or **899834715001**, proceed to **“4. REPROGRAM THE HV ECU” on the next page.**

2005 Prius:

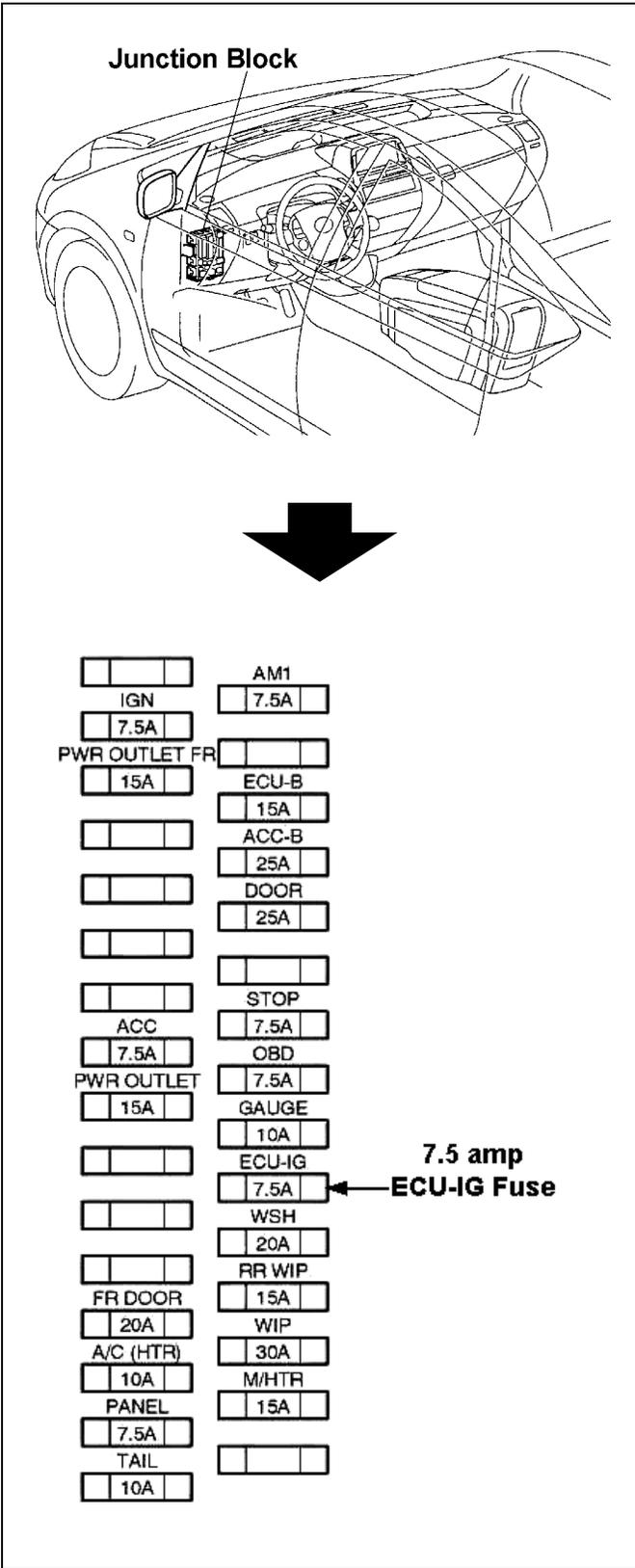
- If the display shows **899834712301**, the HV ECU does not need to be reprogrammed. Press the “EXIT” key, turn off the diagnostic tester, and proceed to **“B. ENGINE ECM REPROGRAMMING PROCEDURE” on page 25.**
- If the display shows a calibration ID of **899834712001**, **899834712101**, or **899834712201**, proceed to **“4. REPROGRAM THE HV ECU” on the next page.**

(p) Press the “ENTER” key to return to the “ECU REPROGRAM MAIN MENU.”

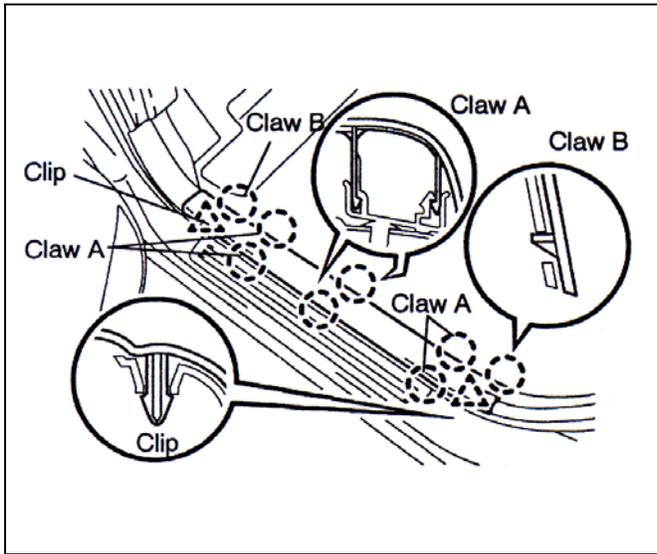


4. REPROGRAM THE HV ECU

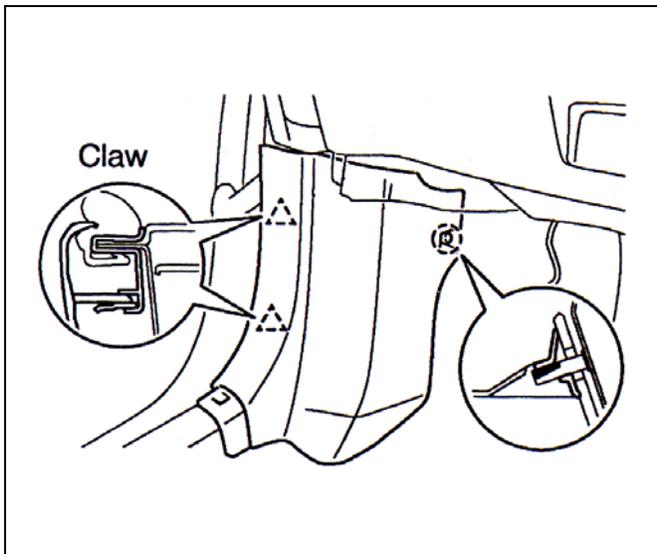
- (a) Remove the 15 amp EFI fuse located in the Engine Room Relay Box.
- (b) Remove the ABS No. 2 Relay located in the Engine Room Relay Box.



(c) Remove the 7.5 amp ECU-IG fuse located in the driver's side Junction Block underneath the driver's side lower finish panel.



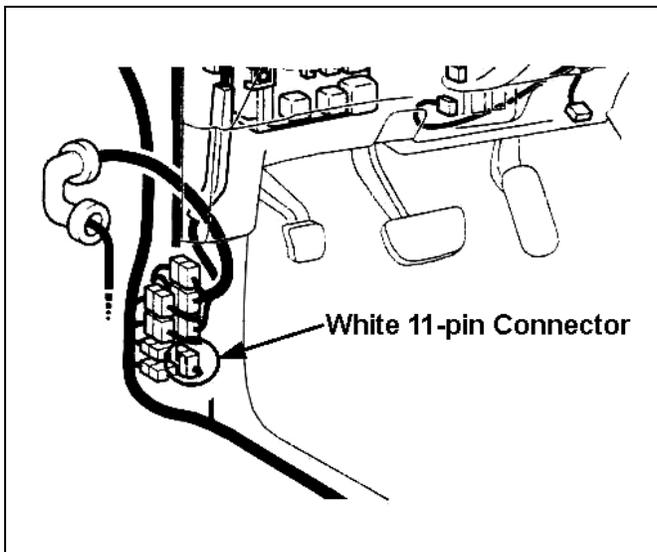
- (d) Using the nylon pry tools, disengage the 6 claws (labeled A) and the 2 claws (labeled B).
- (e) Using the nylon pry tools, disengage the two clips.
- (f) Remove the driver's side scuff plate.



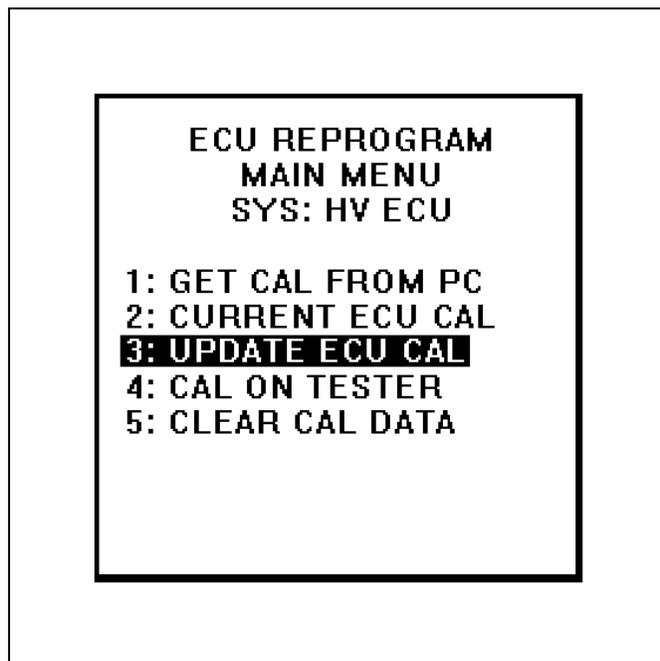
- (g) Using the nylon pry tools, disengage the 2 claws, and remove the driver's side kick panel.

NOTE:

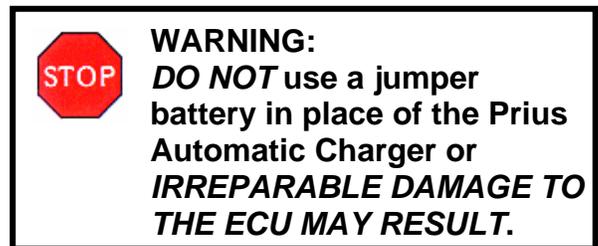
Certain production periods will have a plastic cap nut securing the kick panel. Remove it, if necessary.



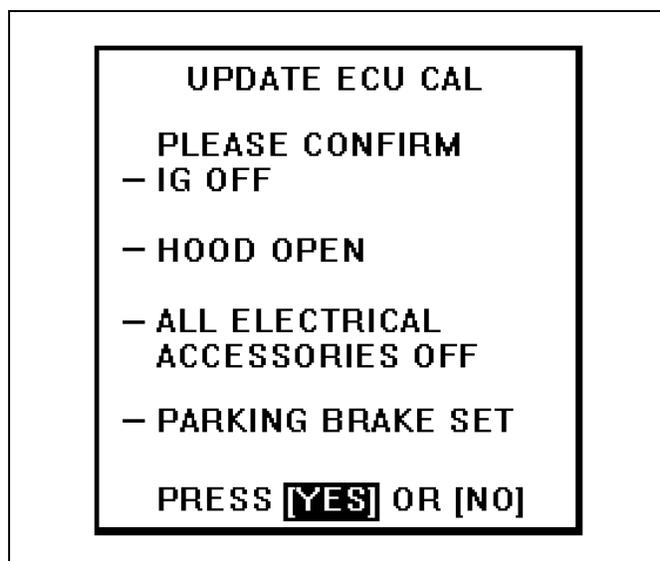
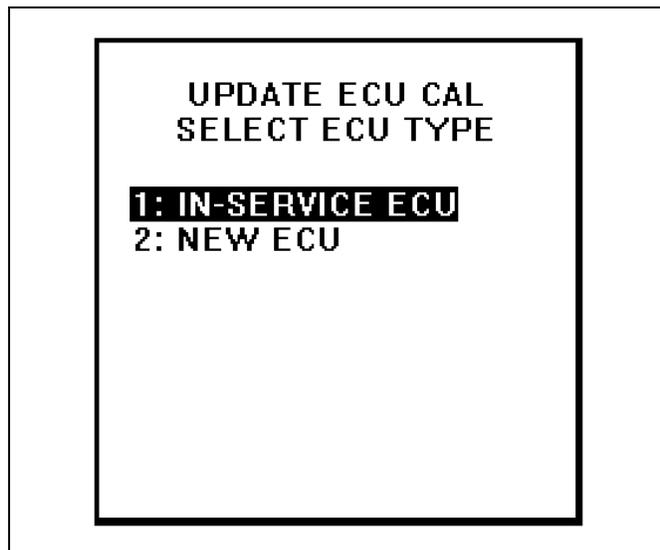
- (h) Disconnect the white 11-pin connector located in the driver's side kick panel.



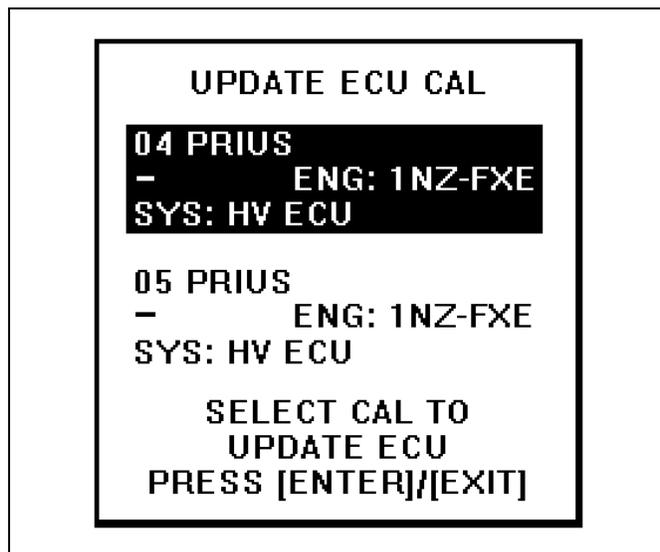
- (i) Confirm the Prius Automatic Charger is still connected and set on the “HIGH” current setting to assure that the battery voltage stays consistently above 11.5 volts during reprogramming.



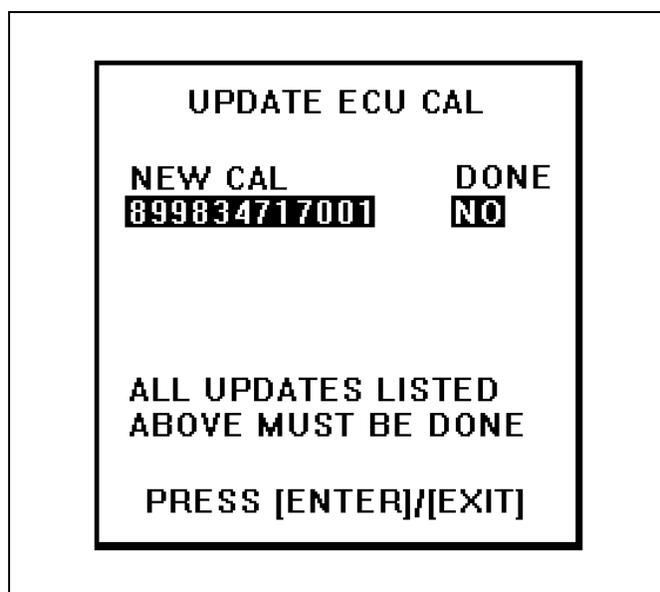
- (j) Select “3: UPDATE ECU CAL” from the “ECU REPROGRAM MAIN MENU.”
- (k) Select “1: IN-SERVICE ECU” from “UPDATE ECU CAL SELECT ECU TYPE” menu.



- (l) Confirm the following before proceeding:
- IG is “OFF.” Push the “POWER” switch without depressing brake pedal until the indicator lamp is not lit.
 - Engine hood is opened.
 - All electrical accessories are OFF (i.e. audio systems, dome lamp, navigation system, air conditioner, etc.)
 - The parking brake is applied.
- (m) Press the “YES” key.



- (n) Confirm that the diagnostic tester displays the appropriate vehicle type for the car that you are working on.
- (o) Select the correct vehicle type for the car that you are working on and press the “ENTER” key.

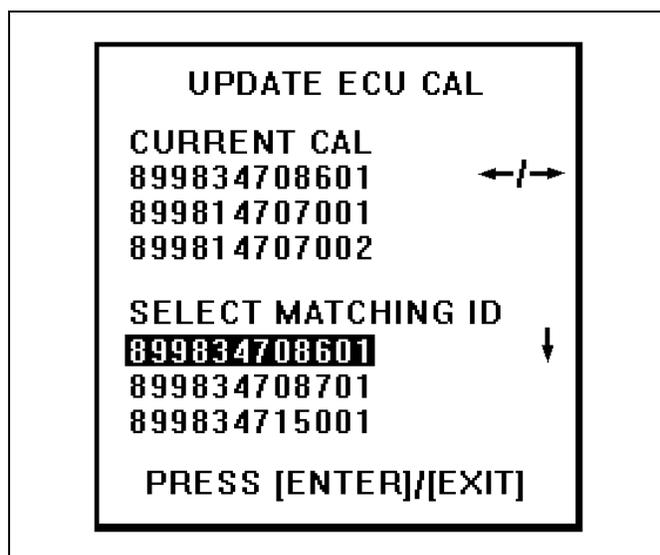


- (p) Confirm that the diagnostic tester displays the appropriate calibration ID.

2004 Prius: 899834717001 & “NO”
2005 Prius: 899834712301 & “NO”

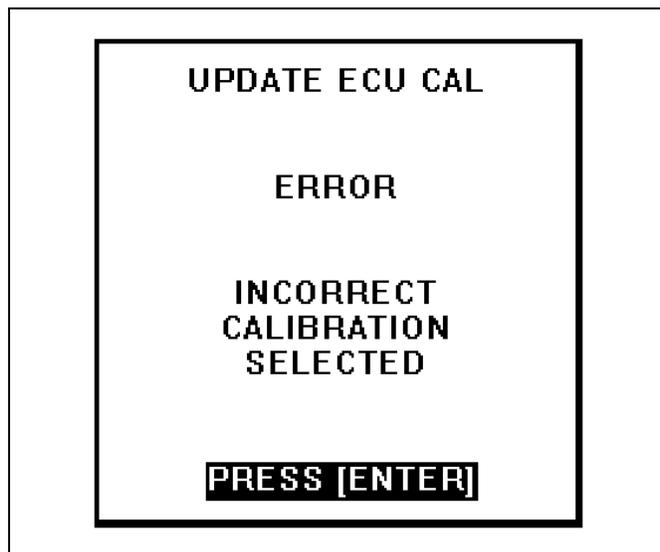
NOTE:
 If the diagnostic tester displays “YES”, the HV ECU has been reprogrammed already. Press the “EXIT” key and turn off the diagnostic tester.

- (q) Press the “ENTER” key.



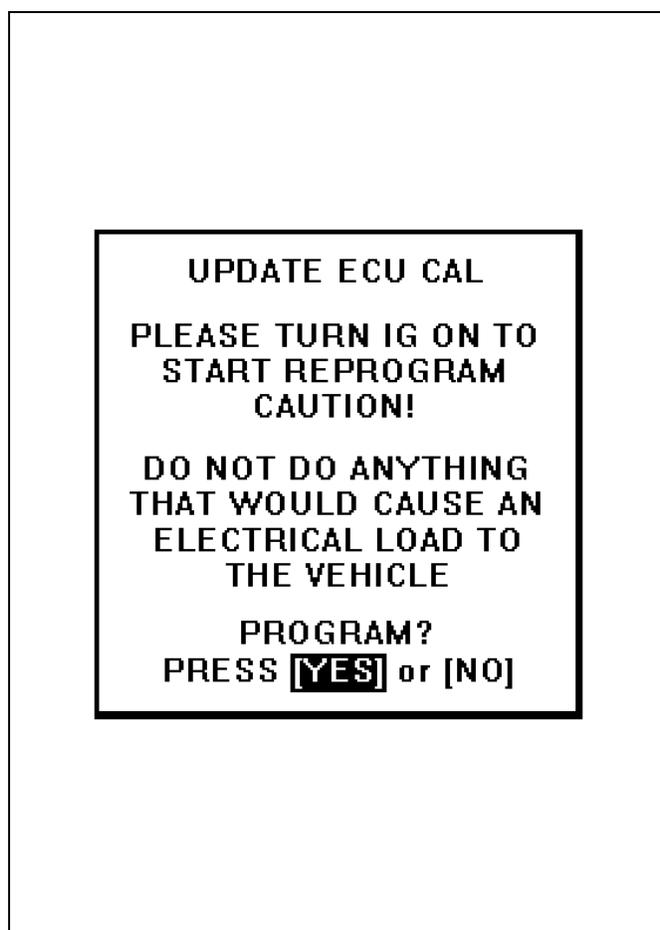
- (r) Select the matching calibration ID that is currently on the vehicle.
- (s) Press the “ENTER” key.

NOTE:
 After the matching calibration ID is selected, the diagnostic tester will momentarily display a “VERIFYING PROGRAM CARD INFO” screen.



NOTE:

If you select the wrong calibration ID, the diagnostic tester will display the screen shown to the left. Please select the correct calibration ID again after pressing the “ENTER” key.



- (t) After the following screen is displayed, push the “POWER” switch twice without depressing the brake pedal and confirm that the hybrid system is “IG-ON.”

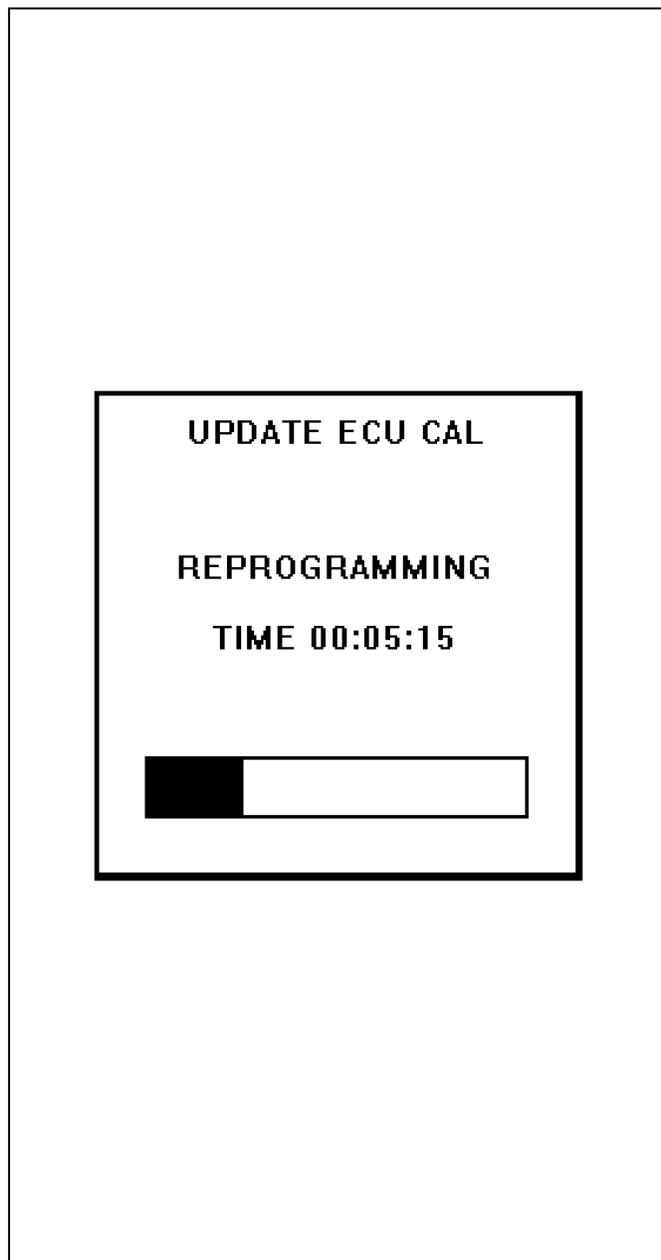
NOTE:

- Do not start the hybrid system, if the “READY” light is ON.
- Confirm that the power switch indicator is amber in color.

- (u) Press the “YES” key.

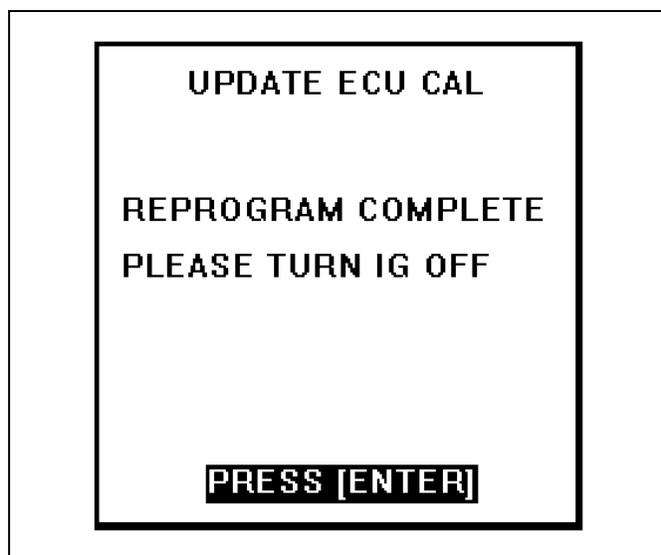
NOTE:

- Do not do anything that would cause an electrical load to the vehicle after pressing the “YES” key.
- After pressing the “YES” key, the diagnostic tester will momentarily display an “INITIALIZING CAN INTERFACE” screen.

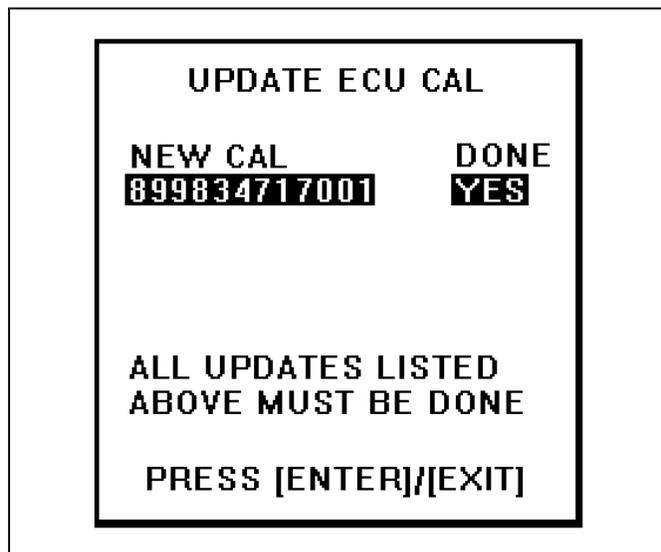


WARNING:

- It may take up to 2 minutes before the progress bar will begin to move.
- It will take approximately 17 minutes to complete the reprogramming.
- During the reprogramming, do not touch the diagnostic tester and the cable in order to avoid reprogramming failures.
- If the error screen is displayed during this step, confirm the following:
 - Confirm that a charger has been connected to the battery. Use the fast charge setting.
 - Confirm that the power switch indicator is amber in color.
 - Confirm that the diagnostic tester is firmly connected to the DLC connector.
- After reprogramming, warning lights may be displayed on the dash and multi-display. DTCs may be set in the memory of various ECUs. This is normal and the codes must be cleared prior to release of the vehicle.



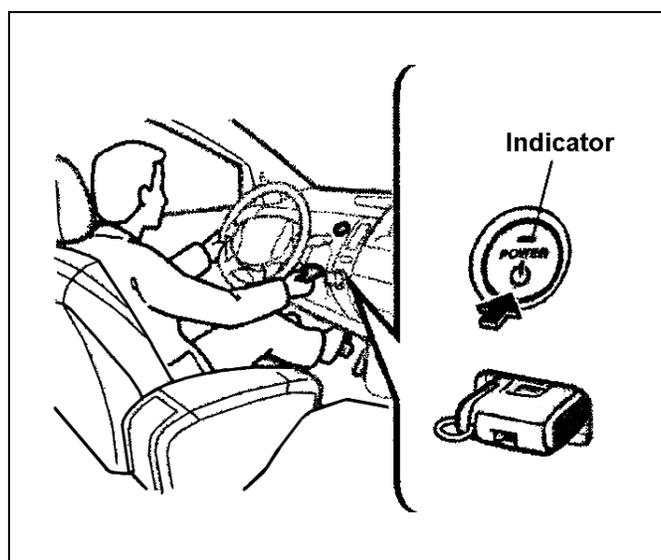
- (v) When the reprogramming has been completed, the diagnostic tester will display the illustrated screen.
- (w) Push the “POWER” switch without depressing the brake pedal until the indicator lamp is not lit, to turn the “IG-OFF.”
- (x) Press the “ENTER” key.



(y) Confirm that the diagnostic tester displays the appropriate calibration ID and “YES.”

2004 Prius: 899834717001 & “YES”
 2005 Prius: 899834712301 & “YES”

(z) Press the “EXIT” key.

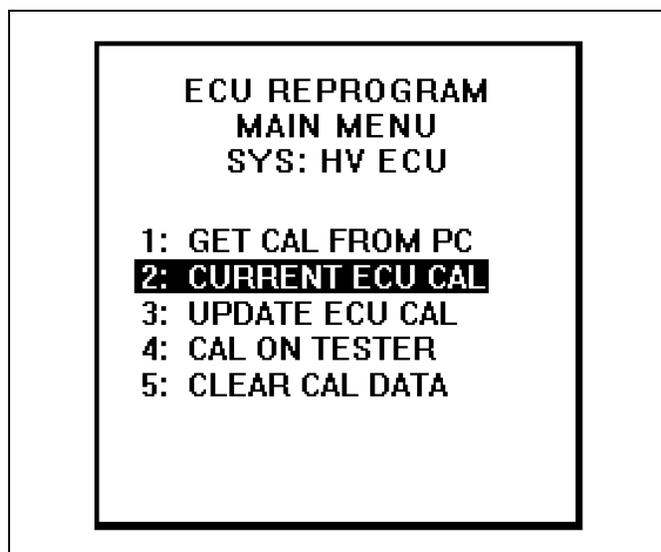


5. CONFIRM THE UPDATED CALIBRATION ID WAS LOADED INTO THE HV ECU

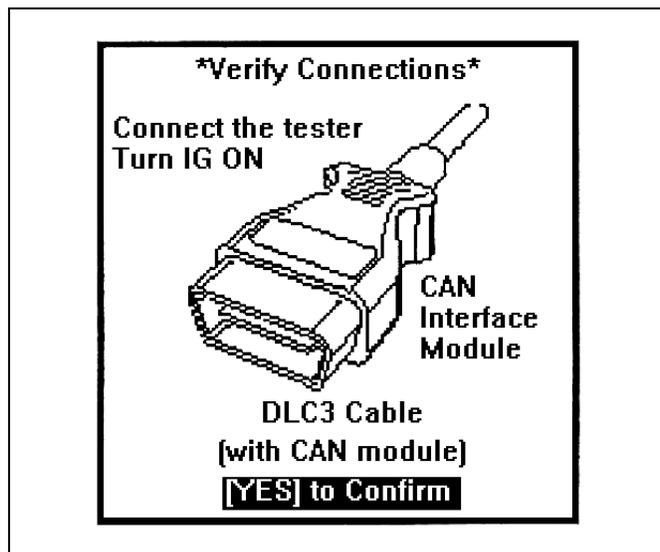
(a) Push the “POWER” switch twice without depressing the brake pedal and confirm that the hybrid system is “IG-ON.”

NOTE:

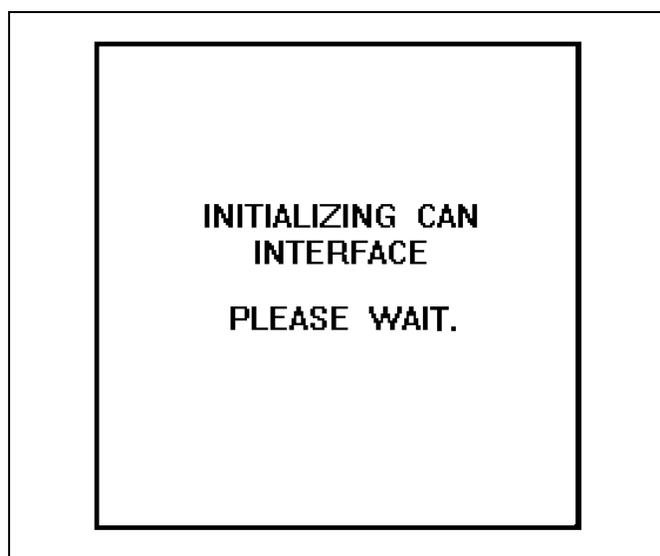
- Do not start the hybrid system, if the “READY” light is ON.
- Confirm that the power switch indicator is amber in color.



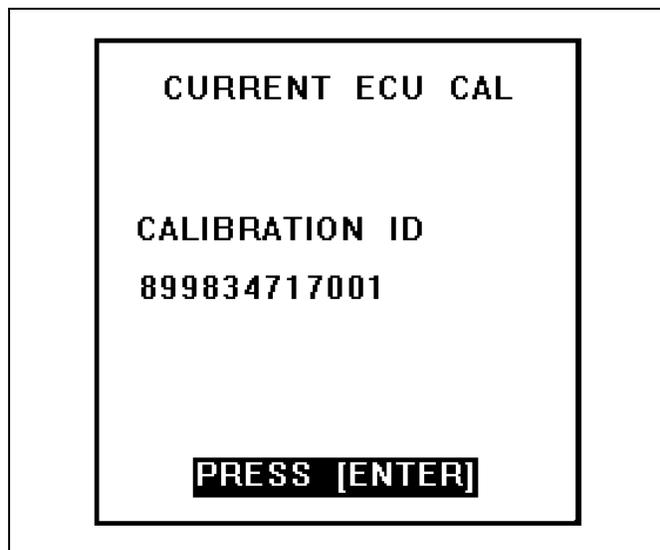
(b) Select “2: CURRENT ECU CAL” from the “ECU REPROGRAM MAIN MENU.”



- (c) Press the “YES” key when the “VERIFY CONNECTIONS” screen appears.



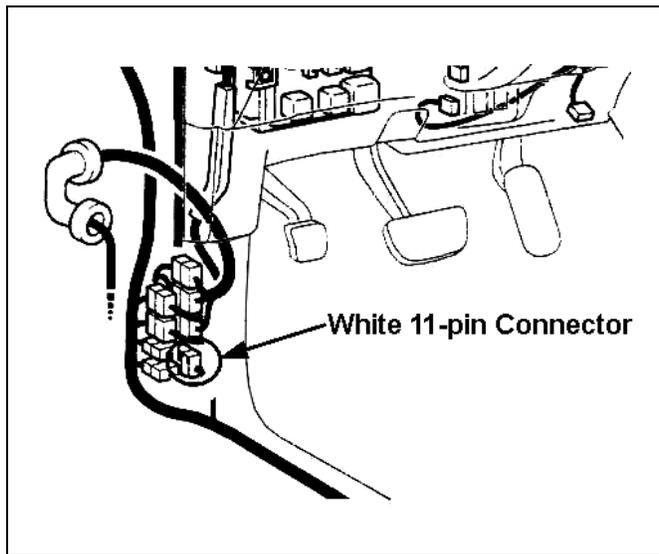
- (d) The diagnostic tester is currently confirming that the CAN interface module has been updated.



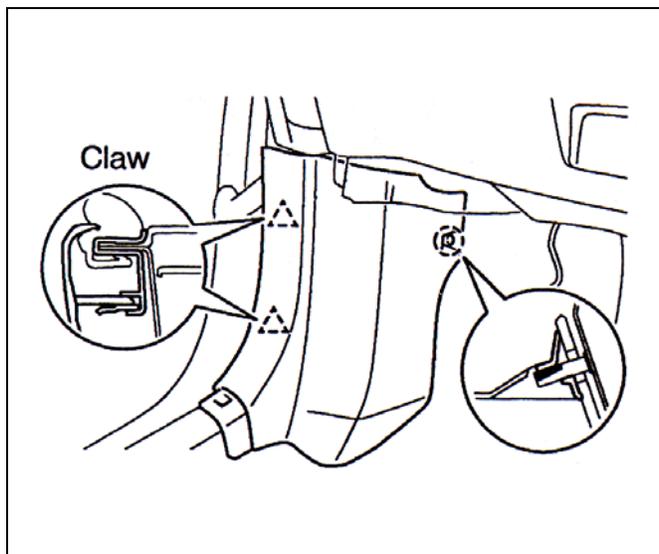
- (e) Confirm that the diagnostic tester displays the correct calibration ID.

2004 Prius: 899834717001
2005 Prius: 899834712301

- (f) Press the “ENTER” key.

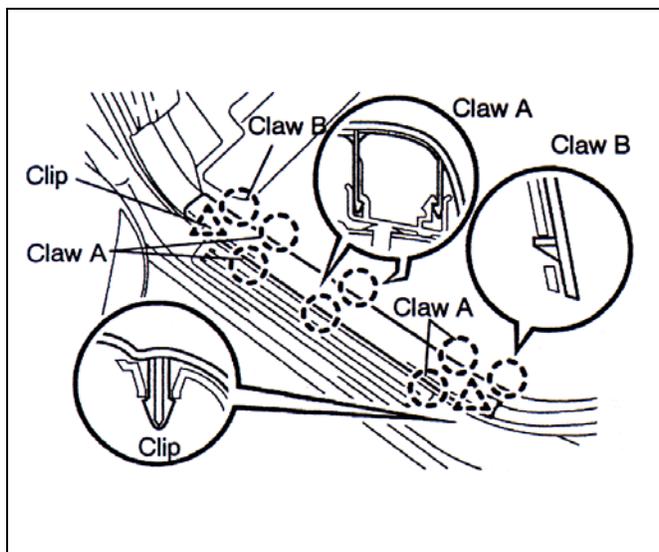


- (g) Reconnect the white 11-pin connector located in the driver's side kick panel.

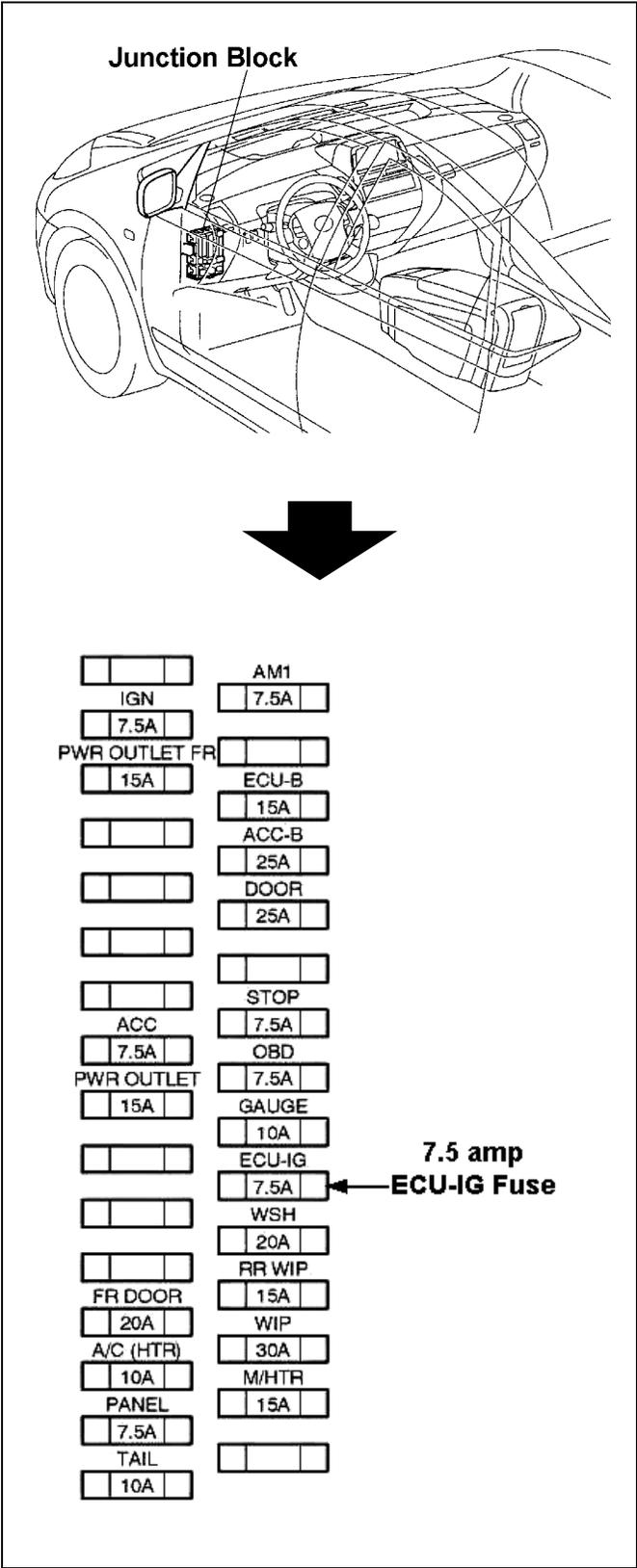


- (h) Reinstall the driver's side kick panel, and reattach the 2 claws.

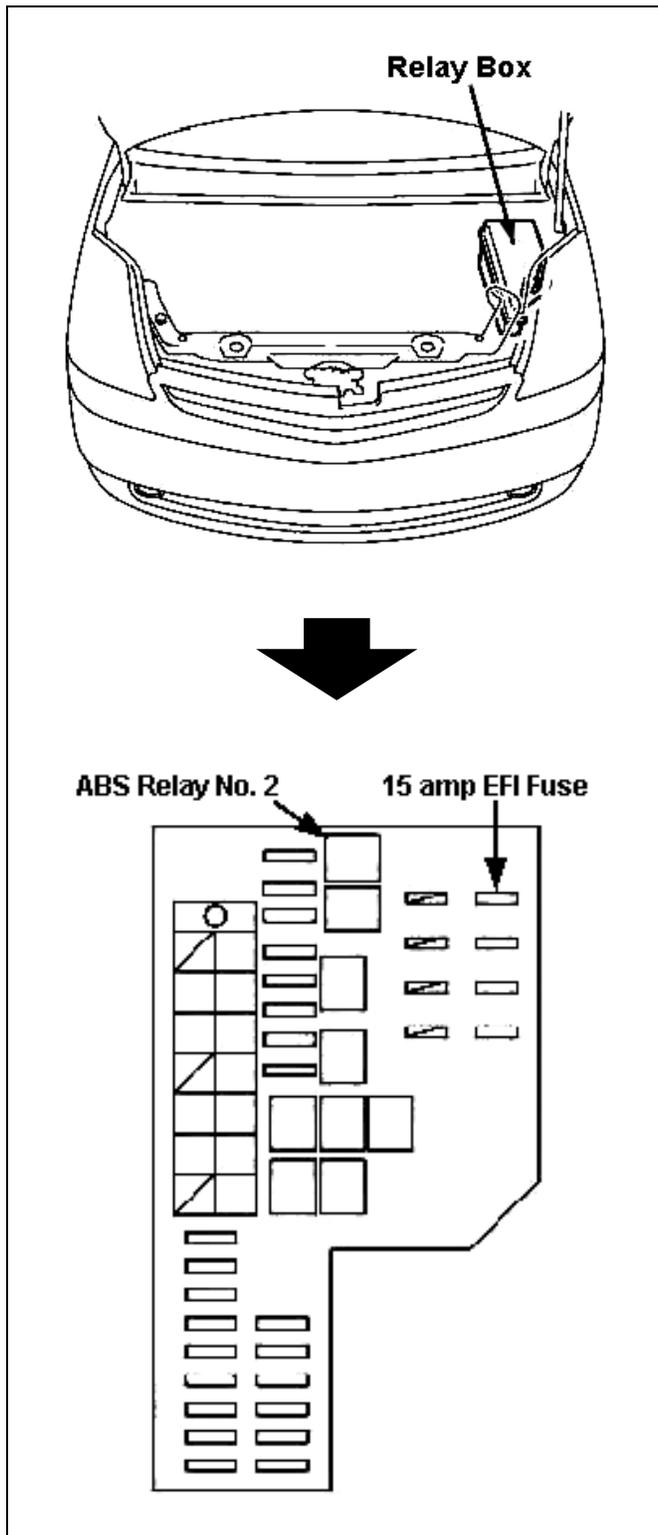
NOTE:
 Certain production periods will have a plastic cap nut securing the kick panel. Reinstall it if necessary.



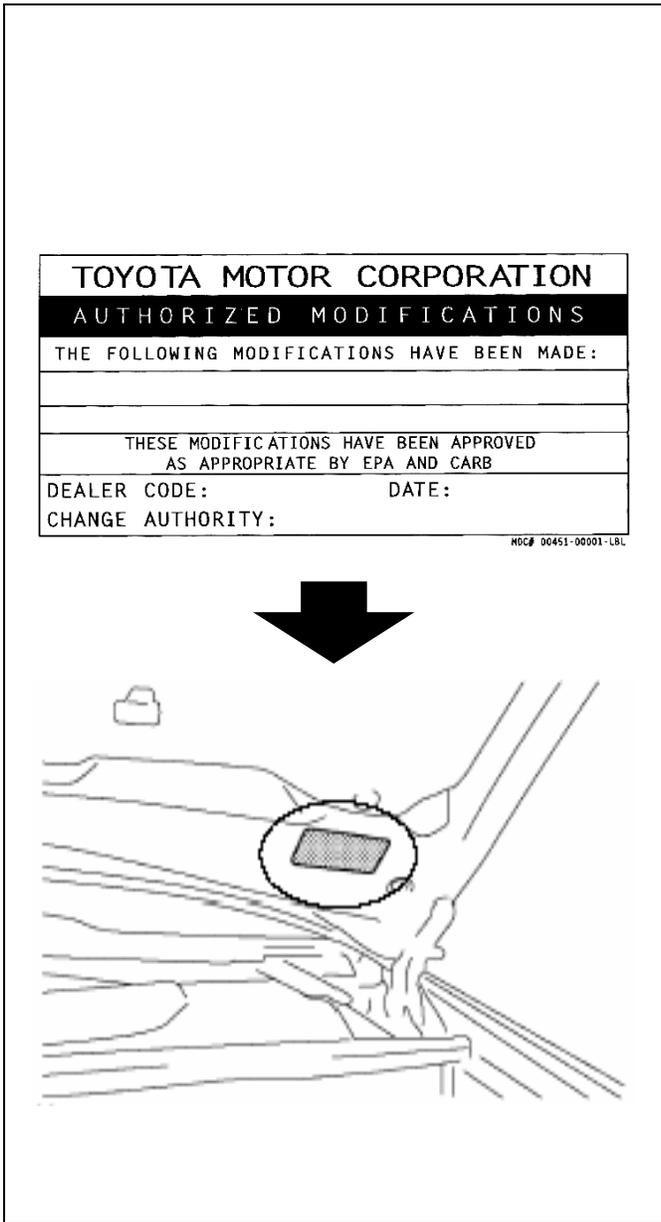
- (i) Reinstall the driver's side scuff plate.
- (j) Reattach the 2 clips.
- (k) Reattached the 6 claws (labeled A) and the 2 claws (labeled B).



(l) Reinstall the 7.5 amp ECU-IG fuse to the driver's side Junction Block underneath the driver's side lower finish panel.



- (m) Reinstall the ABS No. 2 Relay to the Engine Room Relay Box.
- (n) Reinstall the 15 amp EFI fuse to the Engine Room Relay Box.
- (o) Clear any DTC codes that have been set.
- (p) Turn off the diagnostic tester.
- (q) Push the "POWER" switch once without depressing the brake pedal until the indicator lamp is not lit to turn the ignition OFF.



6. RECALIBRATION LABEL INSTALLATION

(a) Using a permanent marker, write the following information on the recalibration label:

- **ECU Part Number**
 - 2004 Prius: 89981-47170
 - 2005 Prius: 89981-47123

- **Calibration number**
 - 2004 Prius: 899834717001
 - 2005 Prius: 899834712301

- **Dealer Code**

- **Repair Date**

- **Change Authority**
 - Service Campaign No.

(b) Install the Recalibration Label on the underside of the hood in front of the driver (see illustration).

NOTE:
Additional recalibration labels (in packages of 25) can be ordered through the Material Distribution Center (MDC). The Material Number is 00451-00001-LBL.

B. ENGINE ECM REPROGRAMMING PROCEDURE

1. DOWNLOAD THE ENGINE ECM CALIBRATION DATA FROM THE PC TO THE DIAGNOSTIC TESTER

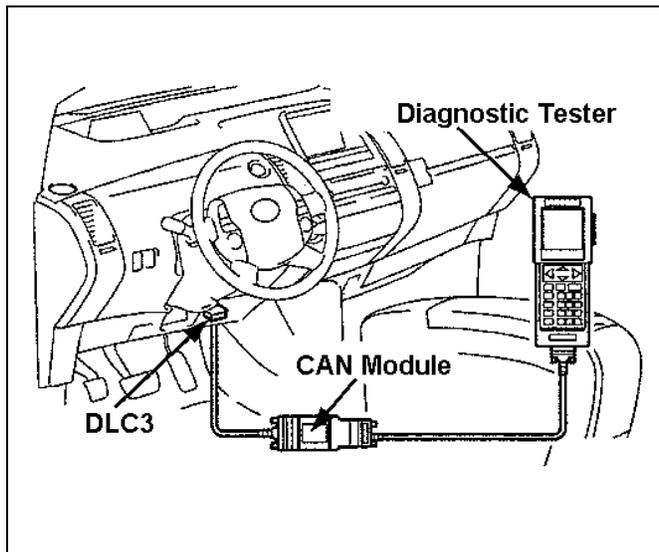
2. CHECK BATTERY VOLTAGE

- (a) Turn OFF all electrical accessories (i.e. audio systems, dome lamp, navigation system, air conditioner, etc.) to avoid battery fluctuations while reprogramming the Engine ECM.
- (b) Using the Midtronics Battery Tester, confirm that the battery voltage is greater than 11.5 volts.
 - If the voltage is less than 11.5 volts, charge and retest the battery as necessary.
 - The battery must be fully charged before proceeding to the next step.
- (c) Connect the Prius Automatic Charger. **This MUST be done on all vehicles even if the battery is fully charged.**
- (d) Set the Prius Automatic Charger to the “HIGH” current setting to assure that the battery voltage stays consistently above 11.5 volts.



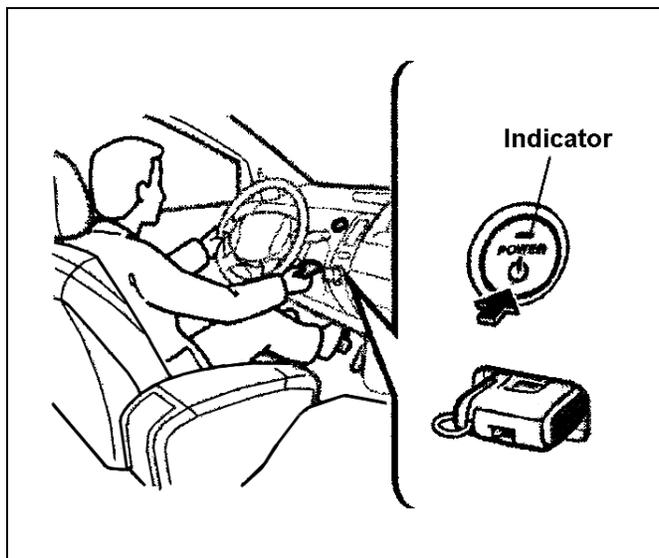
WARNING:

DO NOT use a jumper battery in place of the Prius Automatic Charger or IRREPARABLE DAMAGE TO THE ECU/ECM MAY RESULT.



3. CONFIRM THE CURRENT ECM CALIBRATION ID

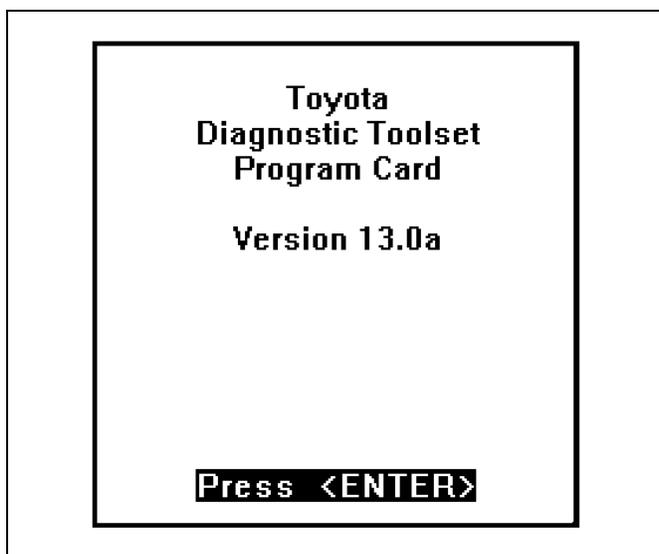
- (a) Confirm that the vehicle has undergone PDS.
- (b) Connect the diagnostic tester with the CAN Module to the DLC3 connector.
- (c) Turn ON the diagnostic tester.



- (d) Insert key into key slot.
- (e) Push the "POWER" switch twice without depressing the brake pedal and confirm that the hybrid system is "IG-ON."

NOTE:

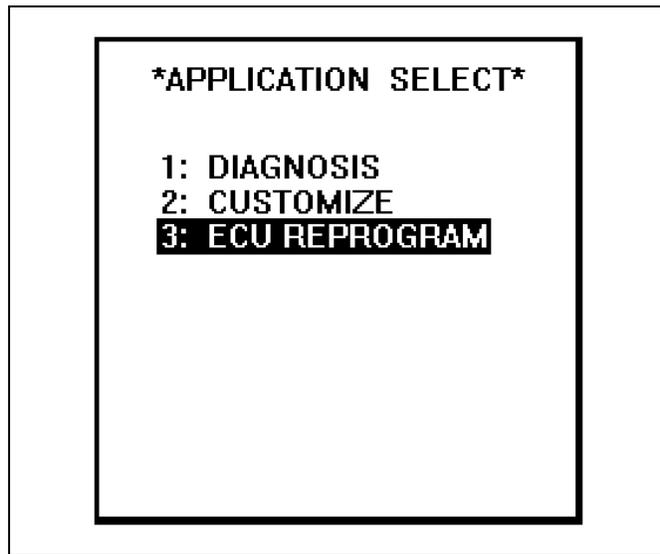
- Do not the start the hybrid system, if the "READY" light is ON.
- Confirm that the "POWER" switch indicator is amber in color.



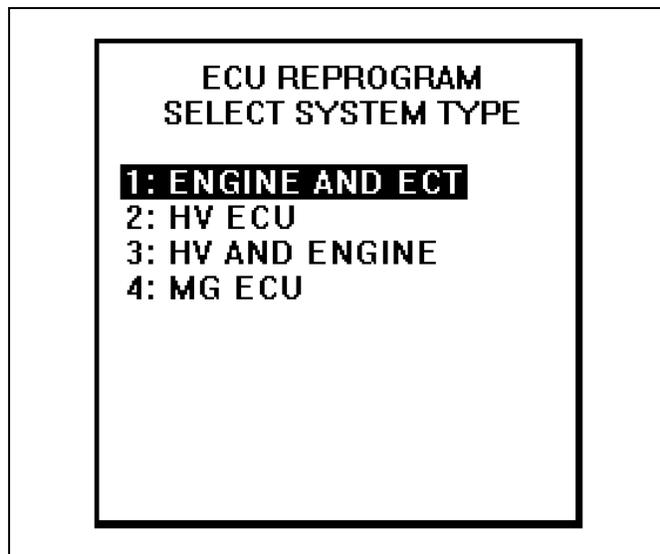
- (f) Confirm that the diagnostic tester software is version "13.0a" or higher and press "ENTER."



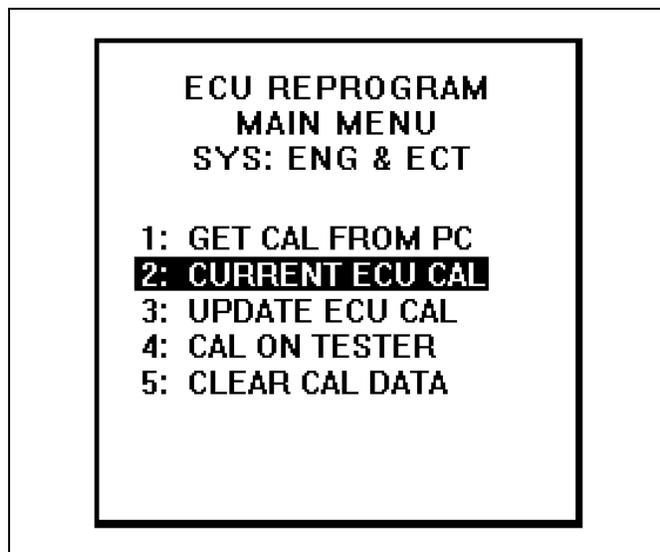
WARNING: Confirm that the correct software version 13.0a or higher and the calibration updates are loaded into the diagnostic tester, otherwise **IRREPARABLE DAMAGE WILL OCCUR TO THE ECU.**



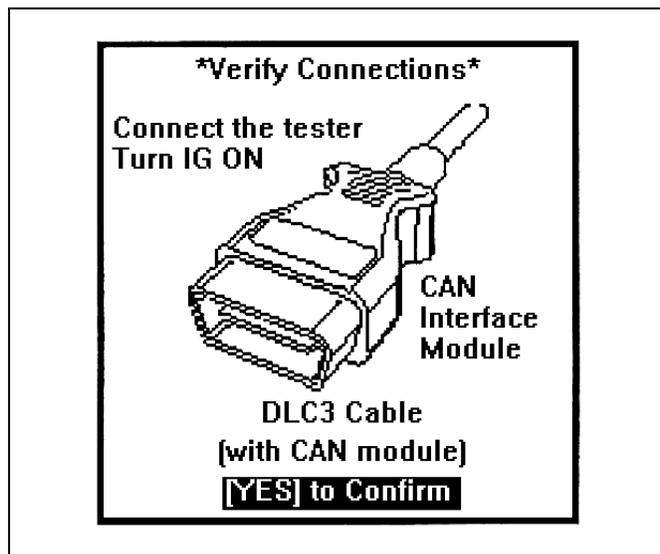
(g) Select "3. ECU REPROGRAM" from the "APPLICATION SELECT" menu.



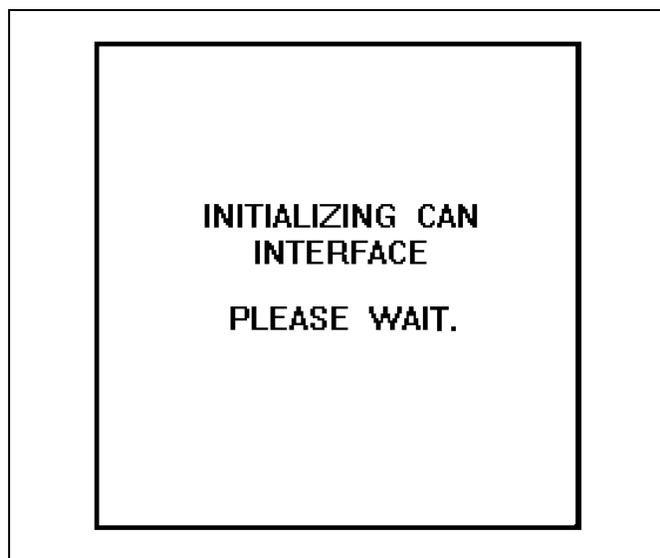
(h) Select "1. ENGINE AND ECT" from the "ECU REPROGRAM SELECT SYSTEM TYPE" menu.



(i) Select "2. CURRENT ECU CAL" from the "ECU REPROGRAM MAIN MENU."



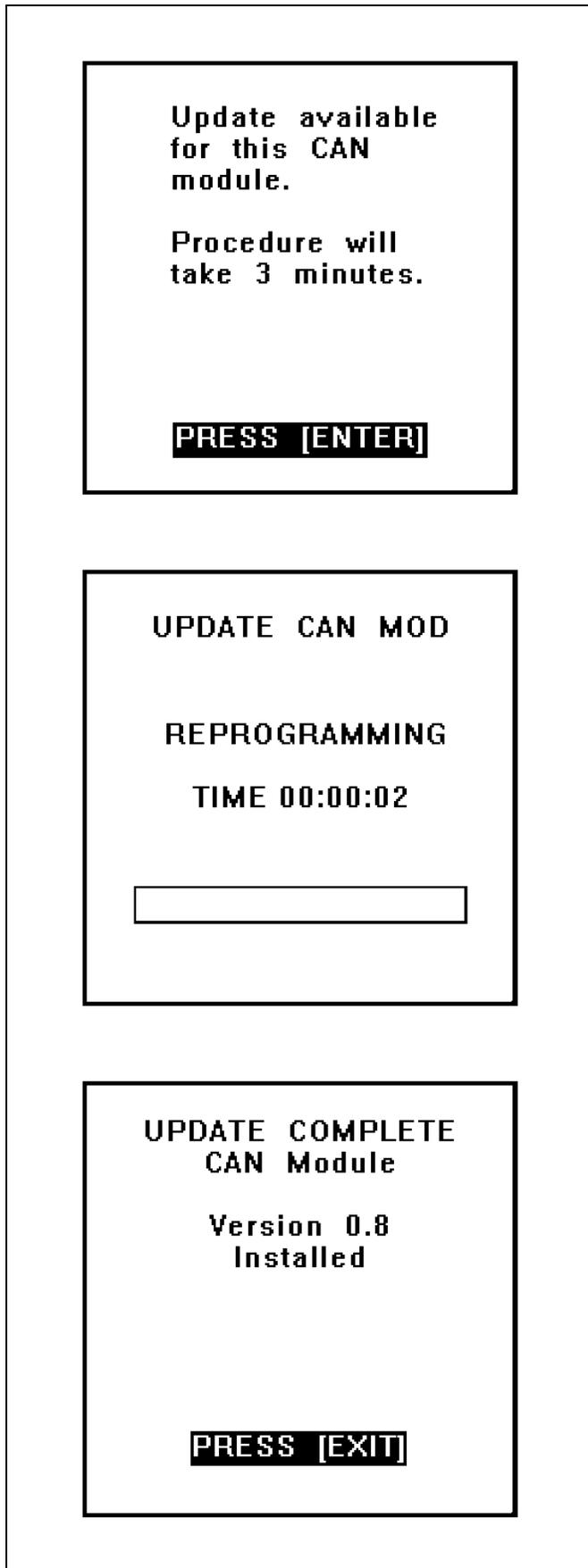
(j) Press the “YES” key when the “VERIFY CONNECTIONS” screen appears.



(k) The diagnostic tester will confirm if the CAN module has been updated.

- If it has **NOT**, the diagnostic tester will prompt you to perform a CAN module update, proceed to step “(l)”.
- If the CAN module has been updated, proceed to step “(o)”.

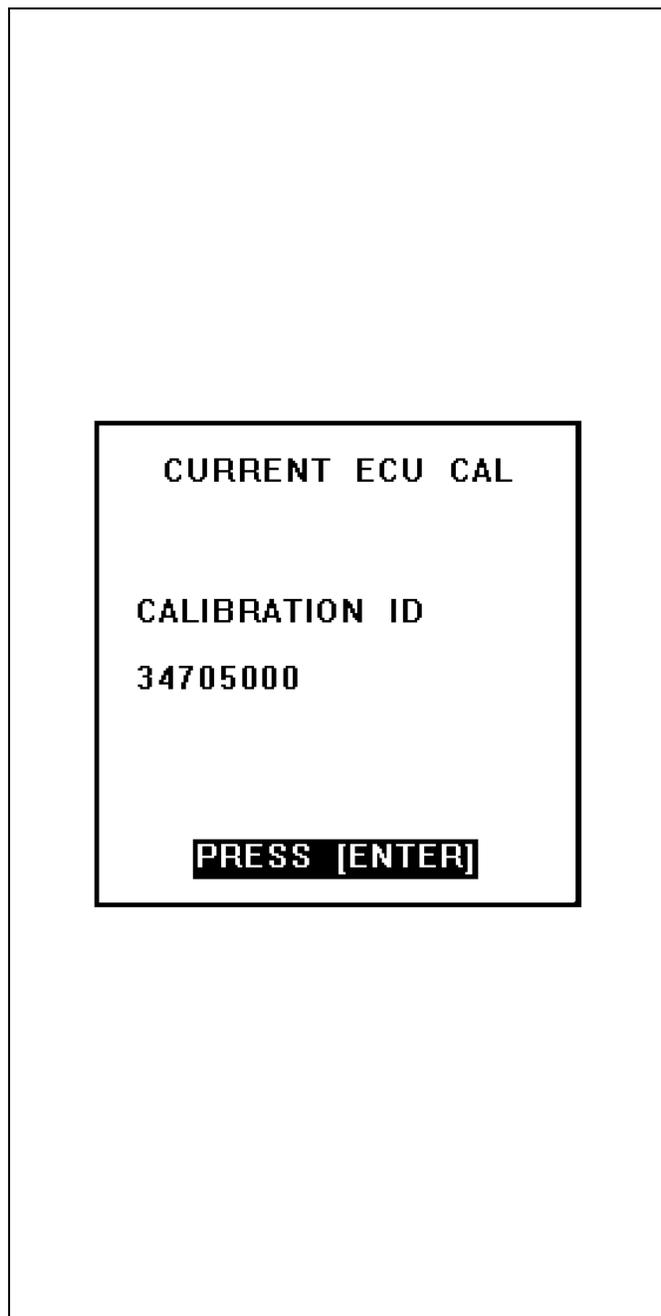
USE STEPS “(l)”, “(m)”, & “(n)” WHEN PERFORMING THE CAN MODULE UPDATE



(l) Press the “ENTER” key to proceed with the CAN module update.

(m) The CAN module update will take approximately 3 minutes.

(n) When the “UPDATE COMPLETE” screen is displayed press the “EXIT” key, and proceed to step “(o)”.

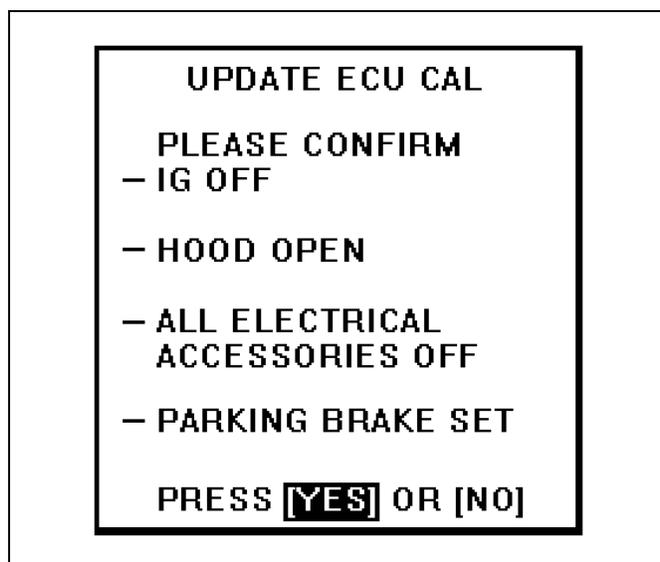
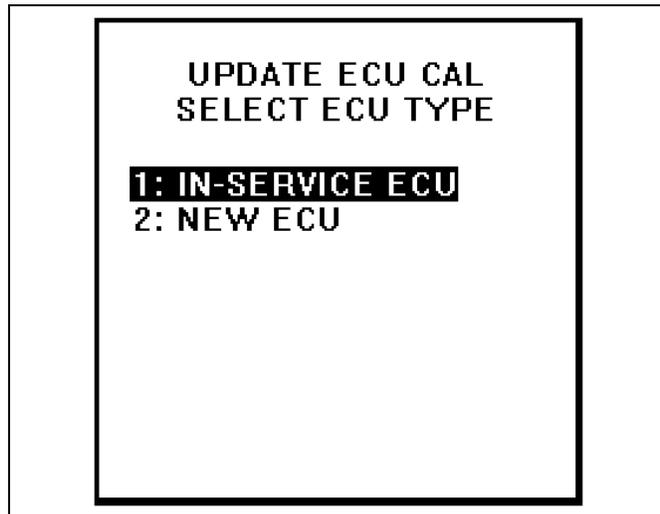
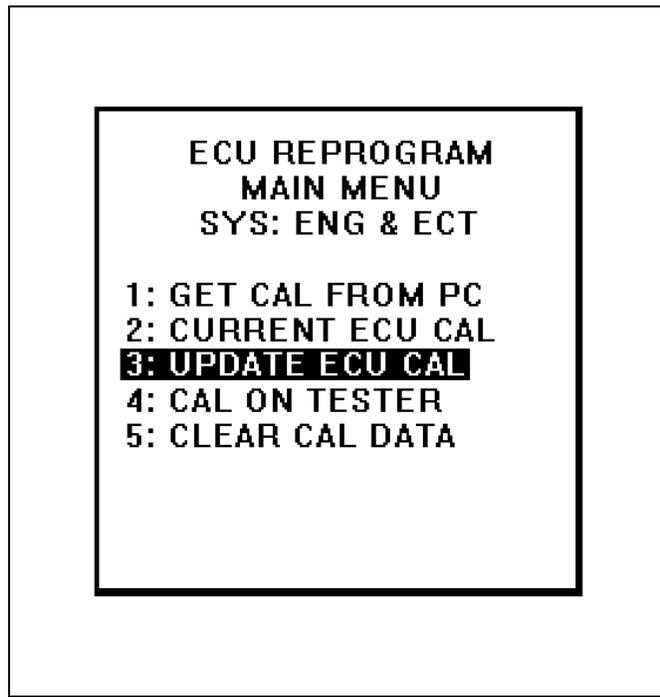


(o) Confirm the calibration ID.

- If the display shows **34705200**, the Engine ECU does not need to be reprogrammed. Press the "EXIT" key, turn off the diagnostic tester, and proceed to "**C. DIELECTRIC GREASE APPLICATION PROCEDURE**" on page 38.
- If the display shows a calibration ID of **34702000, 34702100, 34702200, 34705000, or 34705100****, proceed to "**4. REPROGRAM THE ENGINE ECU**" on the next page.

****Although the 34705100 calibration contains the correction to the current issue, since the customer is in the dealership please reflash the Engine ECM to the 34705200 calibration. THIS APPLIES ONLY TO VEHICLES THAT ARE INVOLVED IN SSC 50P, OTHER PRIUS VEHICLES NOT INVOLVED IN THE CAMPAIGN WITH THE 34705100 CALIBRATION DO NOT NEED TO BE REFLASHED!**

(p) Press the "ENTER" key to return to the "ECU REPROGRAM MAIN MENU."



4. REPROGRAM THE ENGINE ECU

- (a) Confirm the Prius Automatic Charger is still connected and set on the “HIGH” current setting to assure that the battery voltage stays consistently above 11.5 volts during reprogramming.

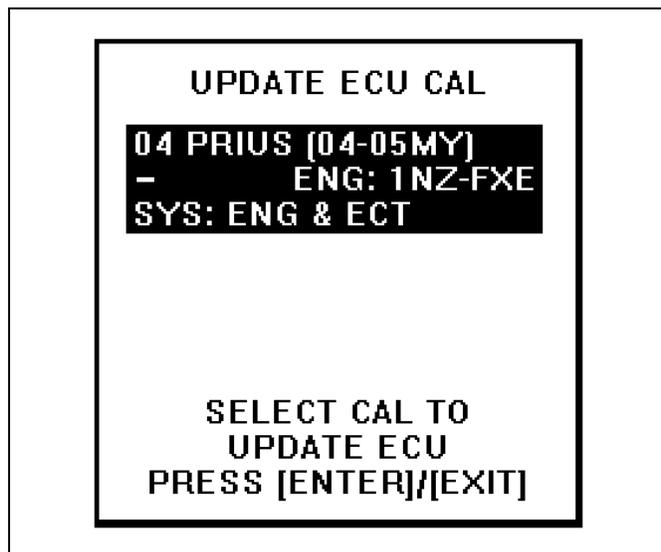


- (b) Select “3: UPDATE ECU CAL” from the “ECU REPROGRAM MAIN MENU.”
- (c) Select “1: IN-SERVICE ECU” from “UPDATE ECU CAL SELECT ECU TYPE” menu.

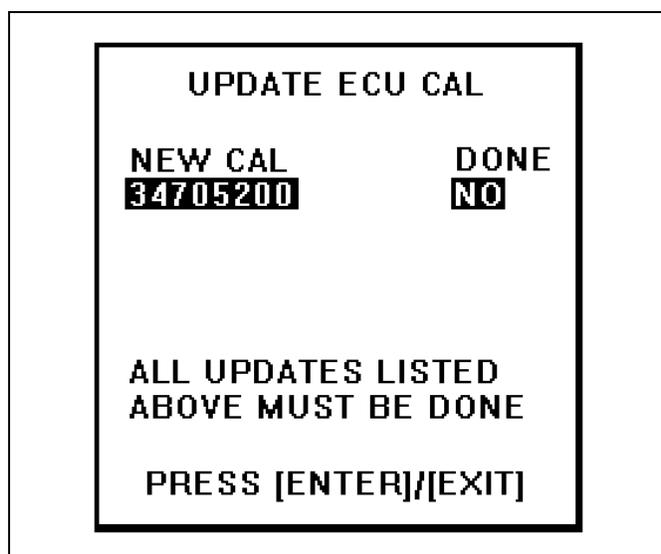
- (d) Confirm the following before proceeding:

- IG is “OFF.” Push the “POWER” switch without depressing brake pedal until the indicator lamp is not lit.
- Engine hood is opened.
- All electrical accessories are OFF (i.e. audio systems, dome lamp, navigation system, air conditioner, etc.)
- The parking brake is applied.

- (e) Press the “YES” key.



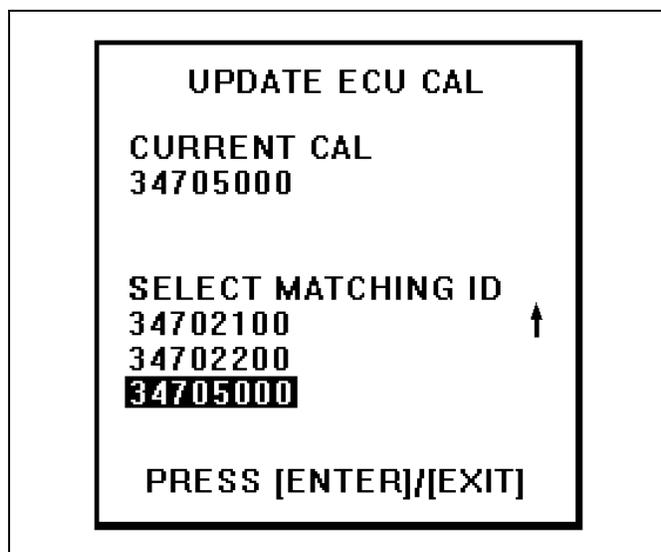
- (f) Confirm that the diagnostic tester displays the appropriate vehicle type for the car that you are working on.
- (g) Press the “ENTER” key.



- (h) Confirm that the diagnostic tester displays calibration ID **34705200** & “NO”.

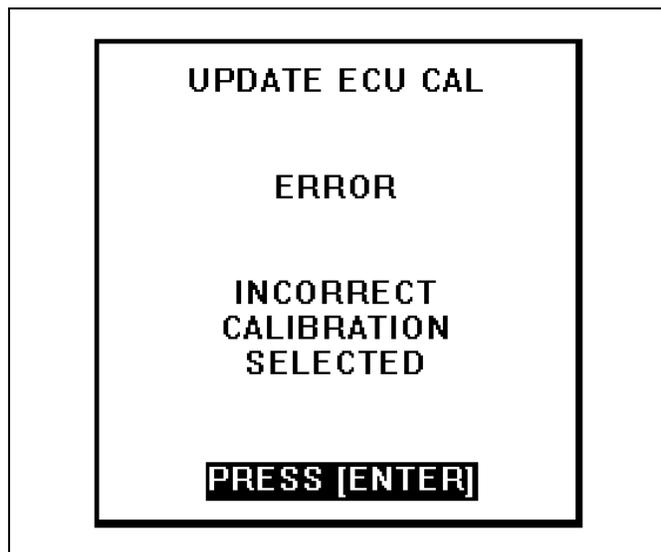
NOTE:
If the diagnostic tester displays “YES”, the Engine ECU has been reprogrammed already. Press the “EXIT” key and turn off the diagnostic tester.

- (i) Press the “ENTER” key.



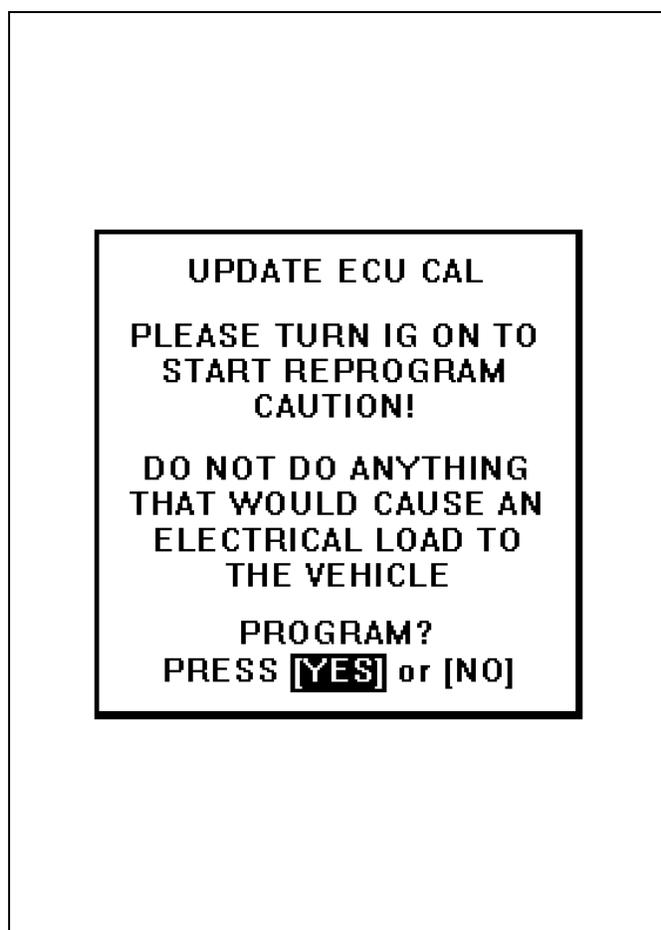
- (j) Select the matching calibration ID that is currently on the vehicle.
- (k) Press the “ENTER” key.

NOTE:
After the matching calibration ID is selected, the diagnostic tester will momentarily display a “VERIFYING PROGRAM CARD INFO” screen.



NOTE:

If you select the wrong calibration ID, the diagnostic tester will display the screen shown to the left. Please select the correct calibration ID again after pressing the “ENTER” key.



- (l) After the following screen is displayed, push the “POWER” switch twice without depressing the brake pedal and confirm that the hybrid system is “IG-ON.”

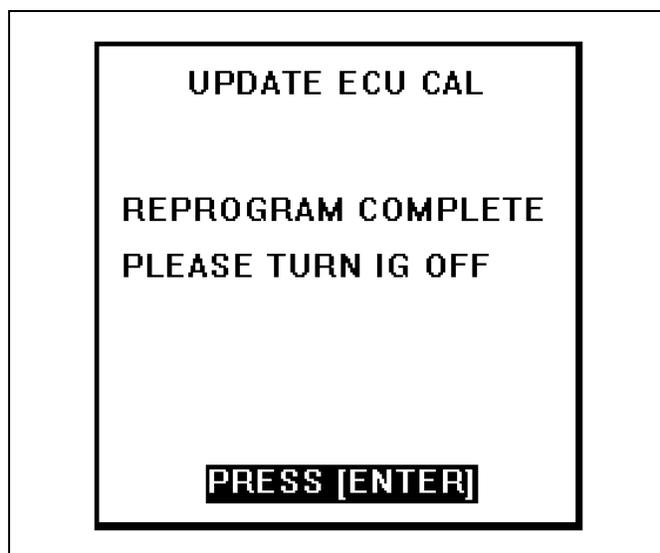
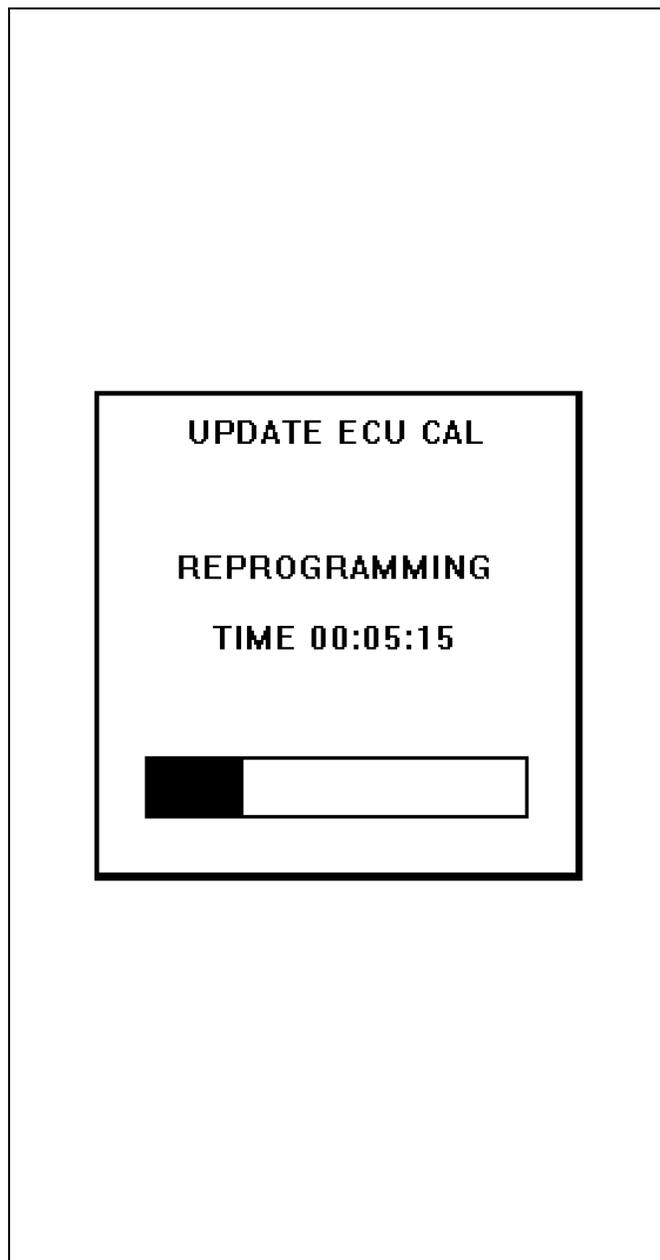
NOTE:

- Do not start the hybrid system, if the “READY” light is ON.
- Confirm that the power switch indicator is amber in color.

- (m) Press the “YES” key.

NOTE:

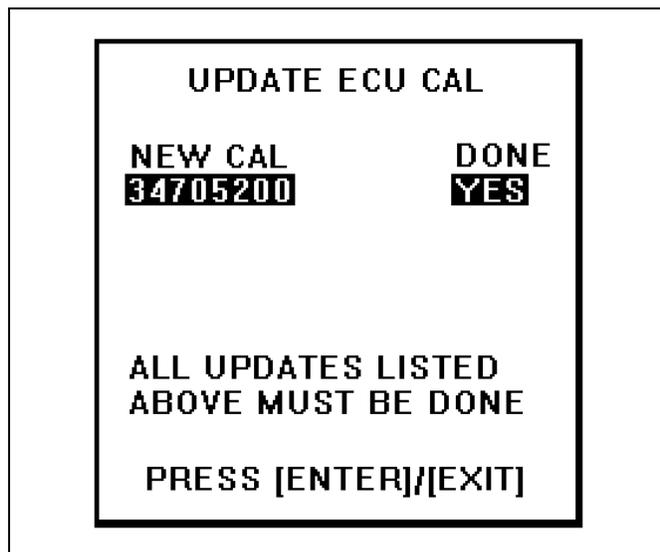
- Do not do anything that would cause an electrical load to the vehicle after pressing the “YES” key.
- After pressing the “YES” key, the diagnostic tester will momentarily display an “INITIALIZING CAN INTERFACE” screen.



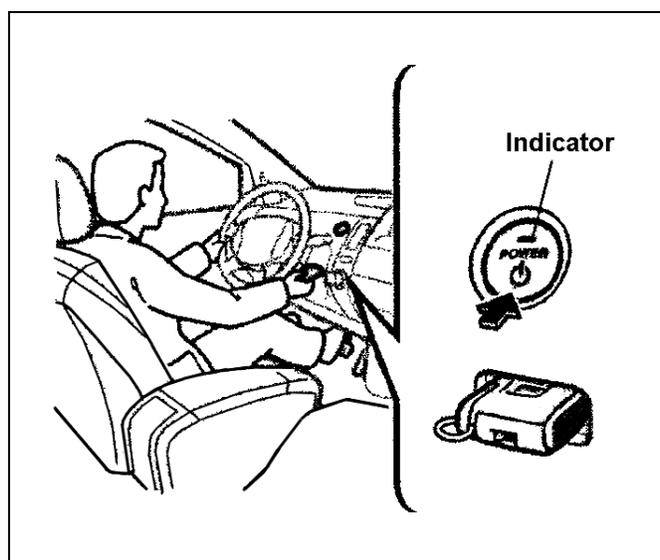
WARNING:

- It may take up to 2 minutes before the progress bar will begin to move.
- It will take approximately 23 minutes to complete the reprogramming.
- During the reprogramming, do not touch the diagnostic tester and the cable in order to avoid reprogramming failures.
- If the error screen is displayed during this step, confirm the following:
 - Confirm that a charger has been connected to the battery. Use the fast charge setting.
 - Confirm that the power switch indicator is amber in color.
 - Confirm that the diagnostic tester is firmly connected to the DLC connector.
- After reprogramming, warning lights may be displayed on the dash and multi-display. DTCs may be set in the memory of various ECUs. This is normal and the codes must be cleared prior to release of the vehicle.

- (n) After approximately 23 minutes, the diagnostic tester will display the illustrated screen.
- (o) Push the “POWER” switch without depressing the brake pedal until the indicator lamp is not lit, to turn the “IG-OFF.”
- (p) Press the “ENTER” key.



- (q) Confirm that the diagnostic tester displays calibration ID **34705200** & **“YES.”**
- (r) Press the “EXIT” key.

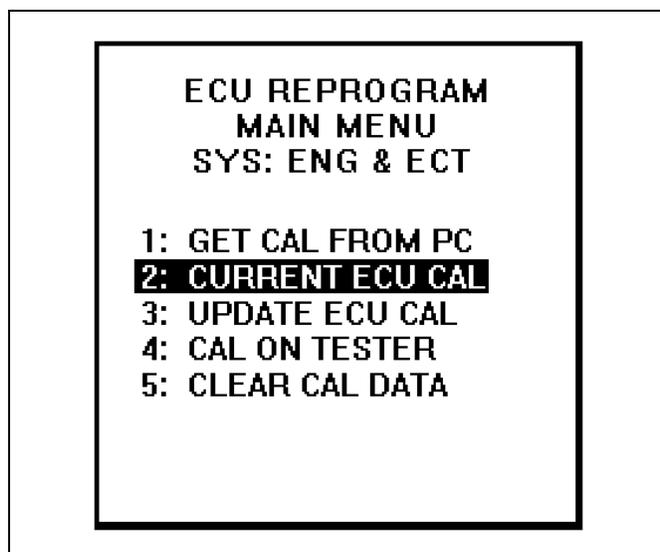


5. CONFIRM THE UPDATED CALIBRATION ID WAS LOADED INTO THE ENGINE ECU

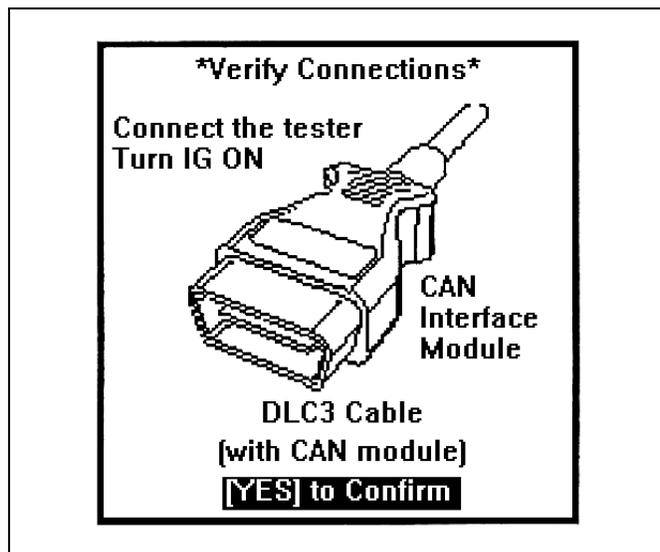
- (a) Push the “POWER” switch twice without depressing the brake pedal and confirm that the hybrid system is “IG-ON.”

NOTE:

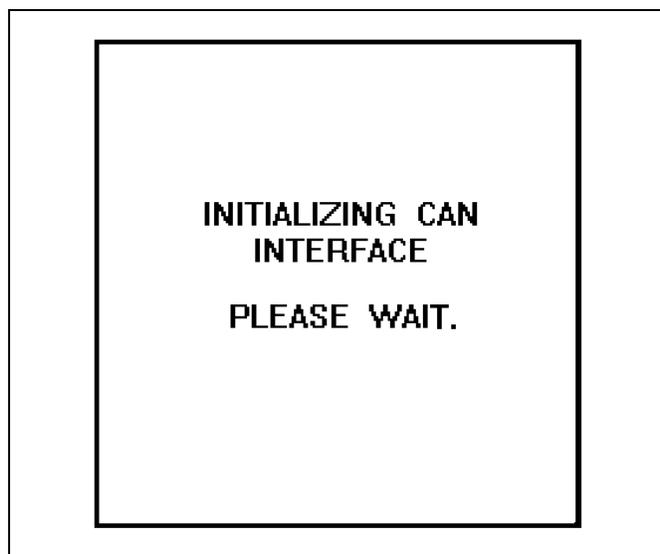
- Do not start the hybrid system, if the “READY” light is ON.
- Confirm that the power switch indicator is amber in color.



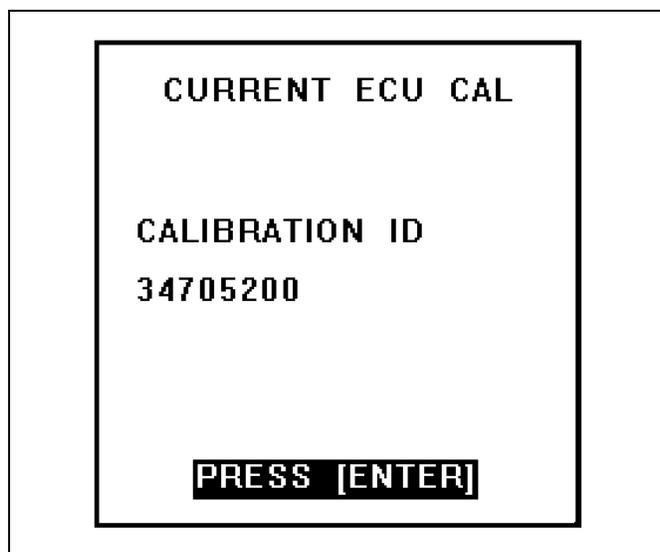
- (b) Select “2. CURRENT ECU CAL” from the “ECU REPROGRAM MAIN MENU”.



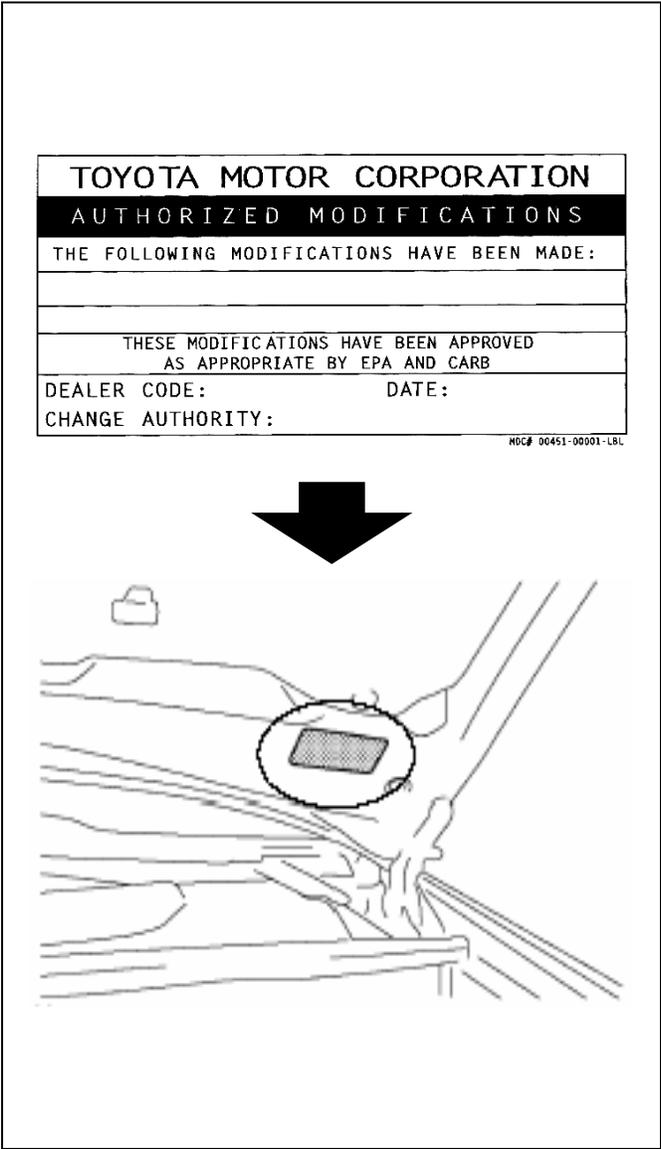
- (c) Press the “YES” key when the “VERIFY CONNECTIONS” screen appears.



- (d) The diagnostic tester is currently confirming that the CAN interface module has been updated.



- (e) Confirm that the diagnostic tester displays the calibration ID **34705200**.
- (f) Press the “ENTER” key.
- (g) Clear any DTC codes that have been set.
- (h) Turn off the diagnostic tester.
- (i) Push the “POWER” switch once without depressing the brake pedal until the indicator lamp is not lit to turn the ignition OFF.



6. RECALIBRATION LABEL INSTALLATION

(a) Using a permanent marker, write the following information on the recalibration label:

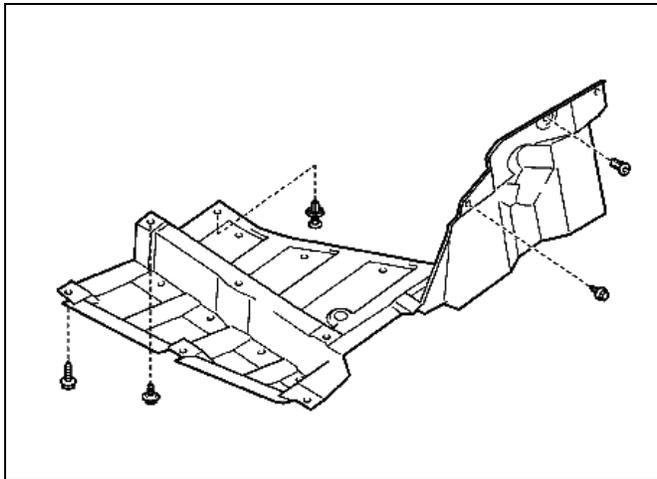
- **ECU Part Number**
– 89661-47101
- **Calibration number**
– 34705200
- **Dealer Code**
- **Repair Date**
- **Change Authority**
– Service Campaign No.

(b) Install the Recalibration Label on the underside of the hood in front of the driver (see illustration).

NOTE:
Additional recalibration labels (in packages of 25) can be ordered through the Material Distribution Center (MDC). The Material Number is 00451-00001-LBL.

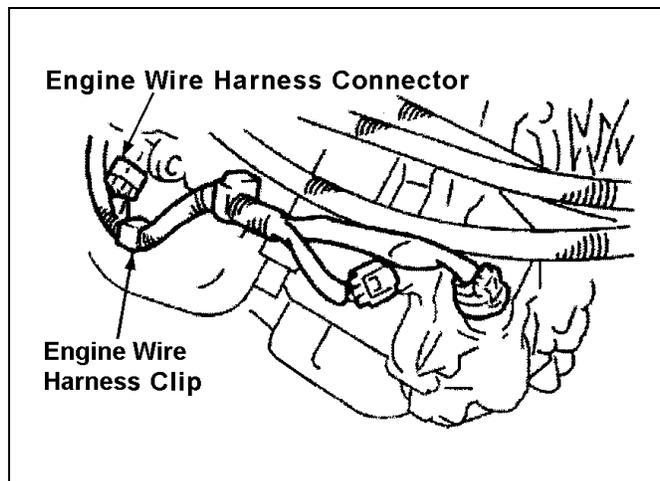
C. DIELECTRIC GREASE APPLICATION PROCEDURE

1. CHECK THE SSC 50P WEBSITE AT <http://50preflash.imagespm.info> TO DETERMINE IF THE APPLICATION OF DIELECTRIC GREASE TO THE GENERATOR RESOLVER CONNECTOR (M5 CONNECTOR) IS NECESSARY FOR THE VEHICLE YOU ARE WORKING ON

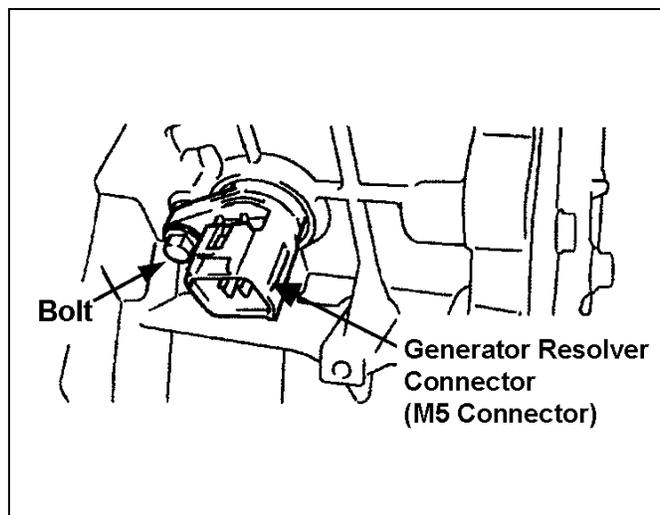


2. REMOVE THE GENERATOR RESOLVER CONNECTOR (M5 CONNECTOR)

- (a) Make sure the vehicle is **OFF** and the key is **NOT** in the ignition slot to prevent possible injury and the setting of DTC codes.
- (b) Remove the 5 clips.
- (c) Remove the 4 screws.
- (d) Remove the 2 bolts.
- (e) Remove the left engine under cover.



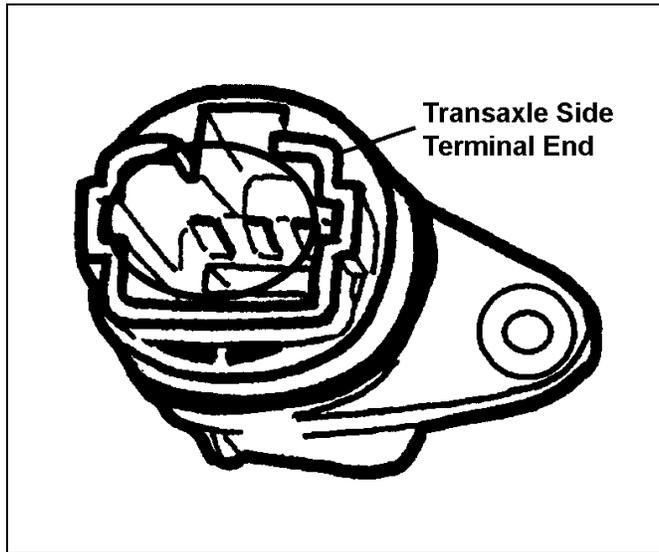
- (f) Clean the generator resolver connector (M5 connector) and the area around it to prevent any dirt and debris from entering transaxle.
- (g) Disconnect the engine wire harness connector from the generator resolver connector (M5 connector).
- (h) Disconnect the engine wire harness clip from the transaxle bracket.



- (i) Remove the bolt.
- (j) Slowly pull out the generator resolver connector (M5 connector) to gain access to the transaxle side connector behind it.

NOTE:

DO NOT pull the generator resolver connector (M5 connector) any more than is necessary to access and disconnect the transaxle side connector behind it.

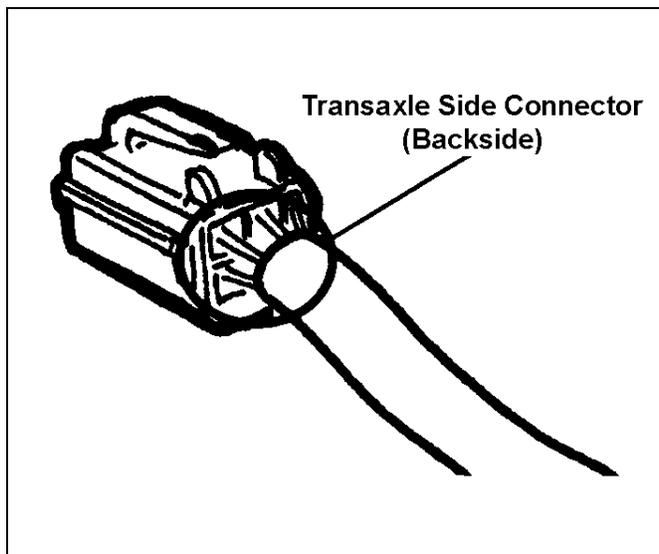


3. REMOVE ANY FLUIDS FROM THE GENERATOR RESOLVER CONNECTOR (M5 CONNECTOR)

- (a) Blow air into the terminal end (transaxle side) of the generator resolver connector (M5 connector) to assure it is clean and dry.

NOTE:

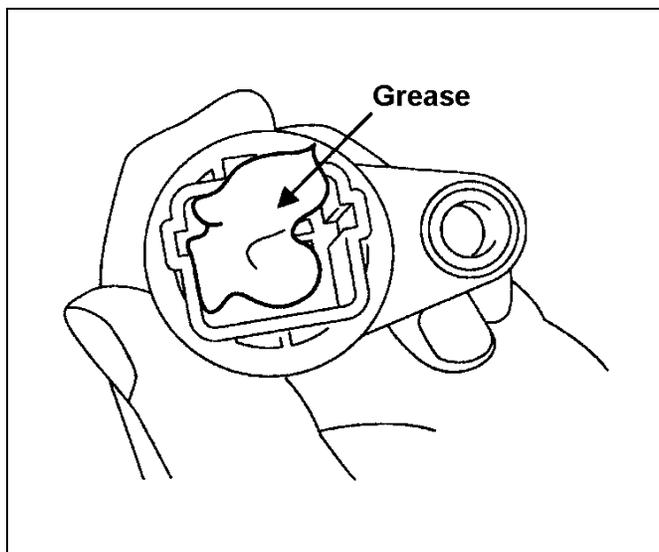
Make sure to wear eye protection when performing this procedure to prevent possible eye injury.



- (b) Blow air into the 6 holes on the backside of the transaxle side connector to assure it is clean and dry.

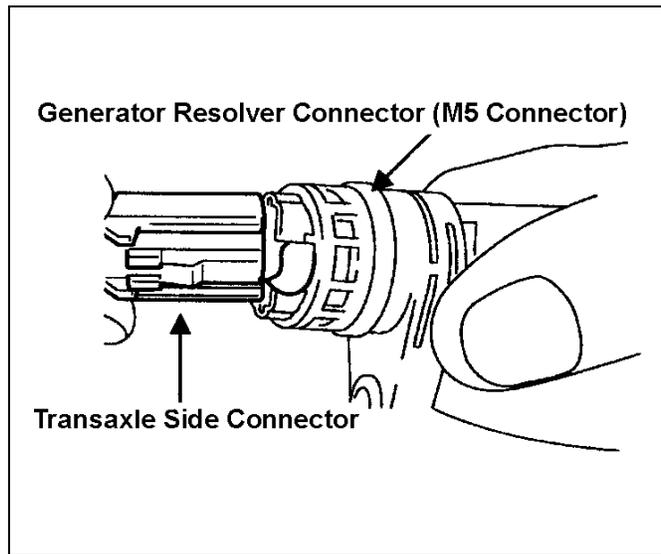
NOTE:

Make sure to wear eye protection when performing this procedure to prevent possible eye injury.



4. APPLY DIELECTRIC GREASE TO THE GENERATOR RESOLVER CONNECTOR (M5 CONNECTOR)

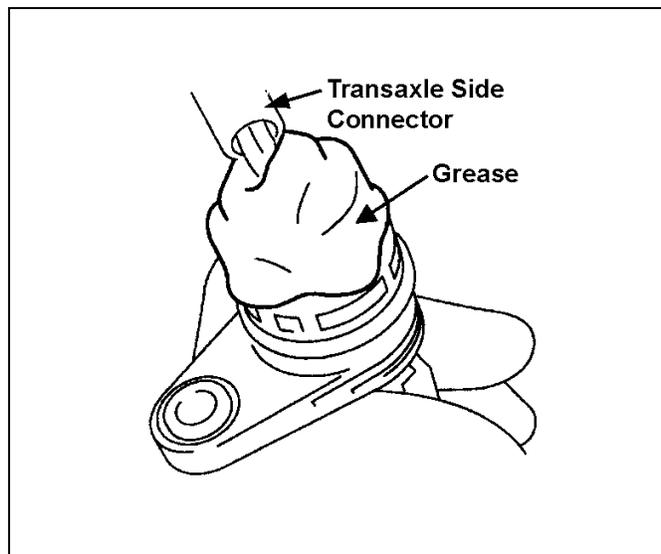
- (a) Apply enough dielectric grease to fill the terminal end (transaxle side) of the generator resolver connector (M5 connector). This grease is applied to prevent fluid entry.



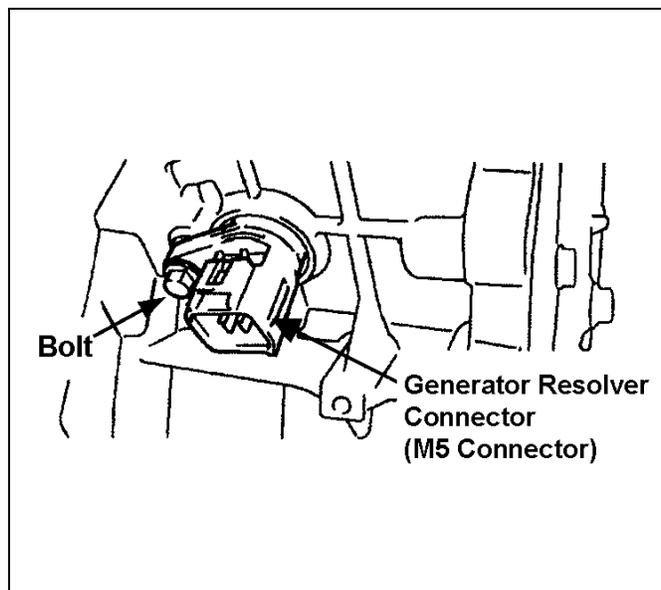
- (b) Reconnect the transaxle side connector to the generator resolver connector (M5 connector).

NOTE:

Make sure the transaxle side connector is securely attached to the generator resolver connector (M5 connector).



- (c) Apply enough dielectric grease to cover the backside of the transaxle side connector. This grease is applied to prevent fluid entry.

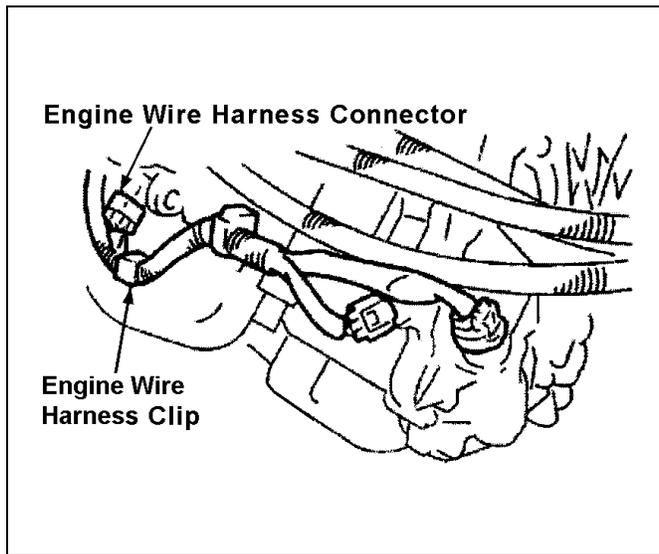


5. REINSTALL THE GENERATOR RESOLVER CONNECTOR (M5 CONNECTOR)

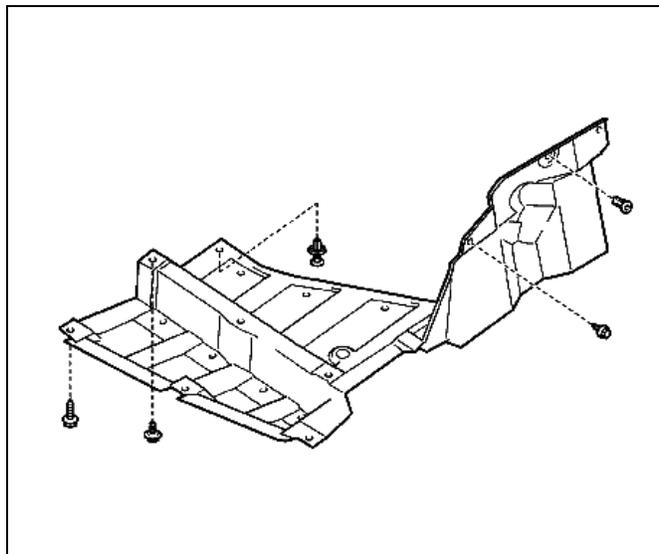
- (a) Apply ATF WS to the generator resolver connector (M5 connector) o-ring.
- (b) Reinstall the generator resolver connector (M5 connector).
- (c) Reinstall the bolt and torque to specification.

Torque Specification:

5.8 N·m (59 kgf·cm, 51 in·lbf)



- (d) Reconnect the engine wire harness clip to the transaxle bracket.
- (e) Reconnect the engine wire harness connector to the generator resolver connector (M5 connector).



- (f) Reinstall the left engine under cover.
- (g) Reinstall the 2 bolts.
- (h) Reinstall the 4 screws.
- (i) Reinstall the 5 clips.

6. FUNCTION TEST

- (a) Check the engine start status, and the idle rotation status.
- (b) Perform a run test to check that there are no abnormalities or MIL lights illuminating.

VII. SSC COMPLETION LABEL INSTALLATION

After completing the repair and before returning the vehicle to the owner, an SSC completion label must be affixed to the left front door hinge post, near the check strap.

(a) The label is to be filled out as follows:

- Write in SSC 50P.
- Write in date of repair.
- Write in your dealer code.

SSC	Date
DEALER CODE NO.	
00410-01917	

(b) Additional SSC completion labels, in sheets of 50 (P/N 00410-01917), may be ordered through the non-parts system on a 1450 order form or through the TDN system.

VIII. APPENDIX

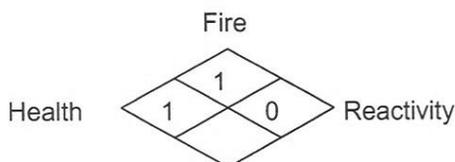
MSDS sheet for Toyota Genuine Connector Grease

KYODO YUSHI
MATERIAL SAFETY DATA SHEET

PAGE 1

MSDS No. : 04-480
PRODUCT NAME : MULTEMP CE-T No.2

DATE PREPARED:2003/ 3/ 20



NFPA HAZARD RATING

- 4 -- Extreme
- 3 -- Height
- 2 -- Moderate
- 1 -- Slight
- 0 -- Insignificant

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : MULTEMP CE-T No.2
PRODUCT CODE : 04480

COMPANY NAME : KYODO YUSHI CO., LTD.
DENTSU KOSAN DAI-3 BLDG.
2-16-7, GINZA, CHUO-KU, TOKYO, JAPAN 104

EMERGENCY TELEPHONE NUMBER : 03 - 3543 - 5813

2 COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL FAMILY : Lubricating Grease.

FORMULA : not applicable

COMPONENTS :

NAME	CONTENTS (%)
Base oil (Refined mineral oil)	75 - 85
Thickener (Lithium soap)	5 - 15
Corrosion inhibitor (Containing zinc compounds)	<10
Additives (Containing diphenylamine)	<5

HAZARDOUS INGREDIENTS

NAME	CAS No.	CONTENTS (%)
Zinc compounds	mixture	3 - 7

See Section 8 for exposure limits (if applicable)

3 HAZARDOUS IDENTIFICATION

CLASS NAME OF HAZARDOUS CHEMICALS FOR SDS IN JAPAN Not applicable

- PHYSICAL AND CHEMICAL HAZARDS : Combustible
- ADVERSE HUMAN HEALTH EFFECTS : Prolonged and repeated contact may cause skin irritation.
- ENVIRONMENTAL EFFECTS : No data available.

KYODO YUSHI
MATERIAL SAFETY DATA SHEET

PAGE 3

MSDS No. : 04-480
PRODUCT NAME : MULTEMP CE-T No.2

DATE PREPARED:2003/ 3/ 20

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS :

Oil mist, mineral: ACGIH TLV (1999): TWA 5mg/m³
Diphenylamine : ACGIH TLV (1999): TWA 10mg/m³

ENGINEERING MEASURES : none

PERSONAL PROTECTIVE EQUIPMENT :

- RESPIRETOY PROTECTION : Good general ventilation should be sufficient for most condition.
- EYE PROTECTION : Chemical safety goggles and if handled hot, full face shield.
- HAND AND BODY PROTECTION : Protective gloves, rubber or plastic oil resistant.
- OTHER PROTECTIVE EQUIPMENT : none

9 PHYSICAL AND CHEMICAL PROPERTIES

- | | | | |
|---|-------------|--------------------------|--------------|
| · APPEARANCE : | White paste | · ODOR : | Slight odor. |
| · VAPOR PRESSURE : | N/A | · VAPOR DENSITY(AIR=1) : | N/A |
| · SPECIFIC GRAVITY(H ₂ O=1): | 0.94 | · EVAPORATION RATE | Slower |
| · SOLUBILITY IN WATER : | Negligible | (n-Butyl Acetate=1) | |
| · SOLUBILITY IN ---- : | N/A | · FREEZING POINT : | N/A |
| · PH : | N/A | · VISCOSITY : | N/A |
| · BOILING POINT : | N/A | | |
| · MELTING POINT(Dropping Point) : | 195 °C | | |
- * N/A : Not applicable.

10 STABILITY AND REACTIVITY

- STABILITY :(CONDITION TO AVOID) Product is stable under normal condition. Avoid over heating.
- INCOMPATIBILITY : (SPECIFIC MATERIALS TO AVOID) Strong oxidizers such as hydrogen peroxide, bromine, and chromic acid.
- HAZARDOUS DECOMPOSITION PRODUCTS : Oxide of lithium, zinc, nitrogen.
- HAZARDOUS POLYMERIZATION : none
- REACTIVITY WITH WATER : none

11 TOXICOLOGICAL INFORMATION

- CORROSIVE AND IRRITANT PROPERTIES : No data available
- ALLERGENIC AND SENSITIZING EFFECTS :No data available
- ACUTE TOXICITY : Refined mineral oil LD50 Acute oral 5<g/kg(rat)
Diphenylamine LD50 Acute oral 2g/kg (rat)
- SUB-CHRONIC TOXICITY : No data available
- CHRONIC TOXICITY : Prolonged and repeated skin contact may cause irritation.
- CARCINOGENIC EFFECT : Not listed IARC,NTP,ACGIH.
- MUTAGENIC EFFECTS : No data available
- EFFECTS ON THE REPRODUCTIVE SYSTEM : No data available
- TERATOGENIC EFFECTS : No data available

KYODO YUSHI
MATERIAL SAFETY DATA SHEET

PAGE 4

MSDS No. : 04-480
PRODUCT NAME : MULTEMP CE-T No.2

DATE PREPARED:2003/ 3/ 20

1 2 ECOLOGICAL INFORMATION

- BIODEGRABILITY : No data available
- BIOACCUMULATION : No data available
- FISH TOXICITY : No data available

1 3 DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD : Incinerate in accordance with applicable regulation.

ATTENTION : Do not use pressure to empty this container. When empty, container may have vapor or product residue. Do not cut, puncture or weld on near the drum.

1 4 TRANSPORT INFORMATION

DOT : Not applicable
UN No. : Not applicable
FIRE SERVICE LAW (JAPAN) : Not applicable

1 5 REGULATORY INFORMATION

Regulatory information with regard to this product in your country or your region should be examined by your own responsibility.

US TSCA (Toxic Substances Control Act):

All components of this product are listed on the TSCA inventory of Chemical Substances.

US OSHA (Occupational Safety and Health Act):

This product is not hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

US CERCLA (Comprehensive Environmental Release, Compensation & Liability Act):

Zinc compounds no RQ is assigned to this generic or broad class.

US SARA (Superfund Amendment & Reauthorization Act) Title III:

This product contains no Extremely Hazardous Substances.

SARA Hazard Categories (311/312): None

SARA Toxic Release Inventory (TRI) (313): Zinc compounds, Diphenylamine (122-39-4 : 0.3 – 0.7%)

KYODO YUSHI
MATERIAL SAFETY DATA SHEET

PAGE 5

MSDS No. : 04-480
PRODUCT NAME : MULTEMP CE-T No.2

DATE PREPARED:2003/ 3/ 20

1 6 OTHER INFORMATION

INFORMATION CONTACT : KYODO YUSHI CO., LTD.

Technical Headquarters

1-4-1 Tsujido Kandai Fujisawa City, Kanagawa Pref. Japan.

Tel 0466 - 33 - 3111

REFERENCE : CMA Interim Guideline for the Preparation of MSDS.

Chapter 7 : MSDS Examples.

ACGIH Threshold Limit Values for Chemical Substances in the Work Environment.
(1998-1999)

ORIGINAL DATE : 97/ 8 / 27 ,

REVISION DATE : 2003/ 3 / 20 ,

This MSDS is an addition and complementary document beside the technical data sheet.
The information is based upon our knowledge about the product at the date of edition.
Since we cannot anticipate or control the different conditions under which these information
or our product may be used, we make no guarantee that recommendations will be adequate for all
individuals and situations.