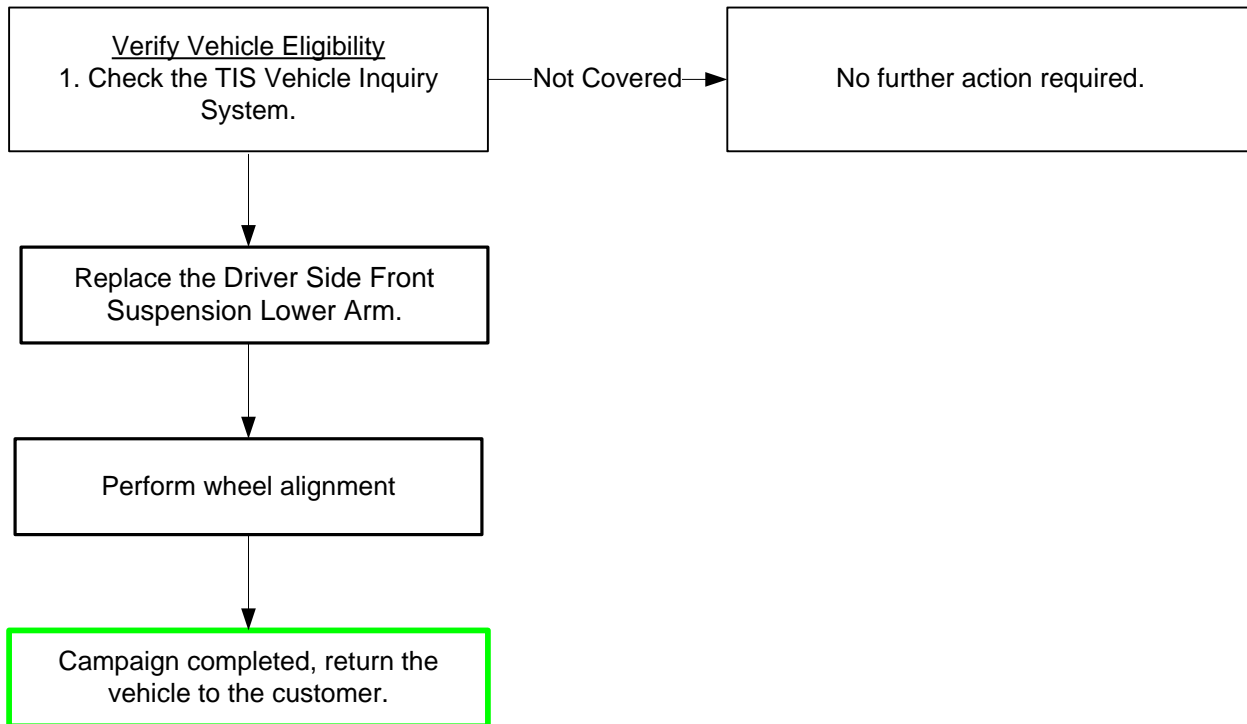


TECHNICAL INSTRUCTIONS
FOR
SAFETY RECALL CAMPAIGN E05
DRIVER SIDE FRONT SUSPENSION LOWER ARM REPLACEMENT
CERTAIN 2014 MODEL YEAR AVALON, AVALON HV, CAMRY & CAMRY HV

All dealership associates involved in the campaign process are required to successfully complete E-Learning course SC13A. To ensure that all vehicles have the repair performed correctly; technicians performing this recall repair are required to currently hold at least one of the following certifications levels:

- Toyota Certified (Chassis)
- Toyota Expert (Chassis)
- Master
- Master Diagnostic Technicians

I. OPERATION FLOW CHART



II. IDENTIFICATION OF AFFECTED VEHICLES

NOTE:

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this SSC and that the campaign 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.**

III. PREPARATION

A. PARTS

Part Number	Part Description	Quantity
48069-07050	Arm sub-assy., front suspension, lower No.1 LH	1

B. TOOLS & EQUIPMENT

- Standard Hand Tools
- Torque Wrench
- Wheel Alignment Equipment
- Transmission jack or screw jack

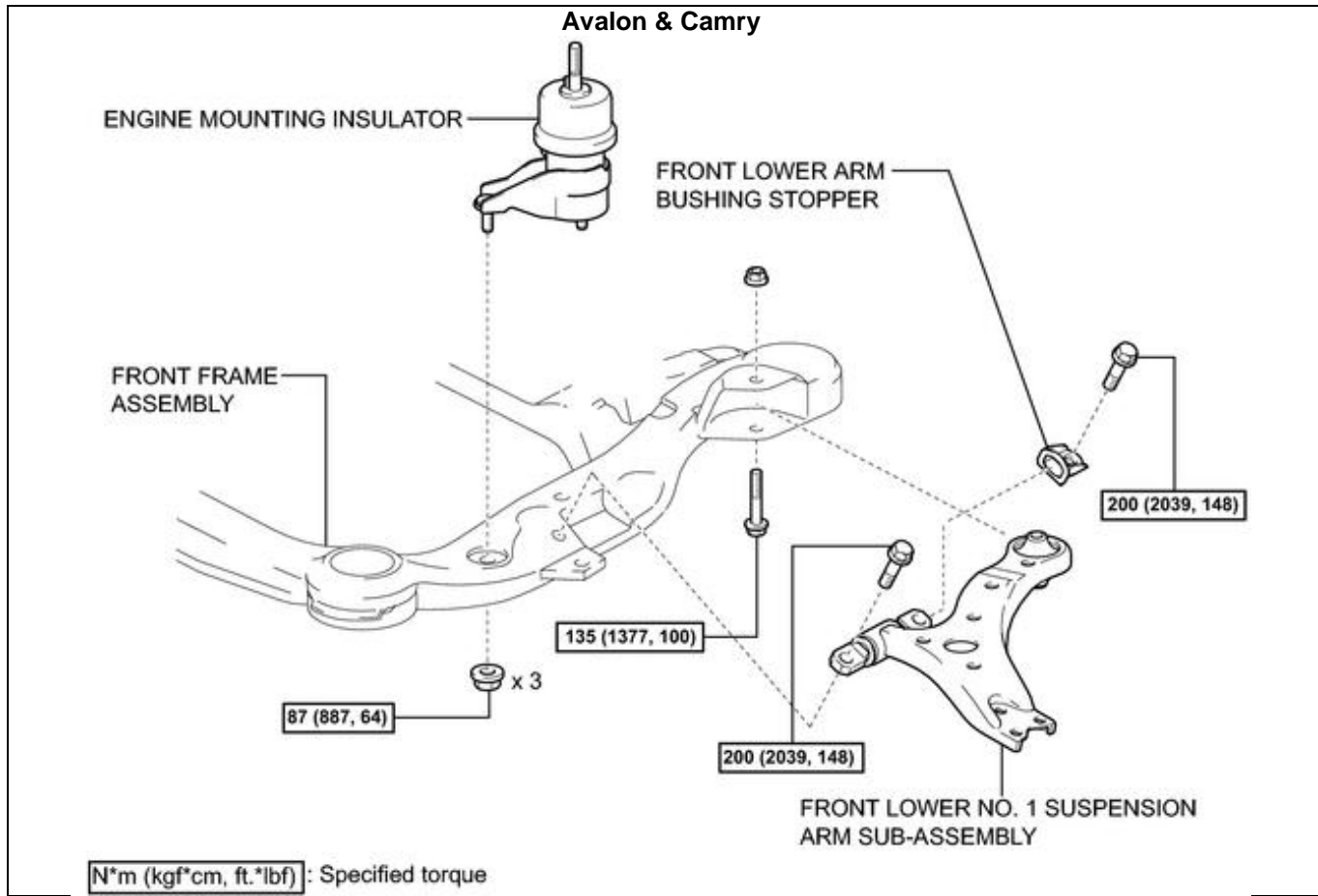
SST- These are essential special service tools that the dealership should have.

Part Number	Part Name	Quantity
09961-00950	TORQUE WRENCH ADAPTER	1

IV. BACKGROUND

On some of these vehicles, the left front suspension lower arm may have an improperly manufactured bolt hole where it connects to the ball joint. This could affect bolt clamping force. If this condition exists, in the event of a severe impact to the lower ball joint, which could result from varying road surfaces during normal driving, the lower arm could separate from the ball joint. Separation of the lower arm can cause a loss of steering control, which can increase the risk of a crash.

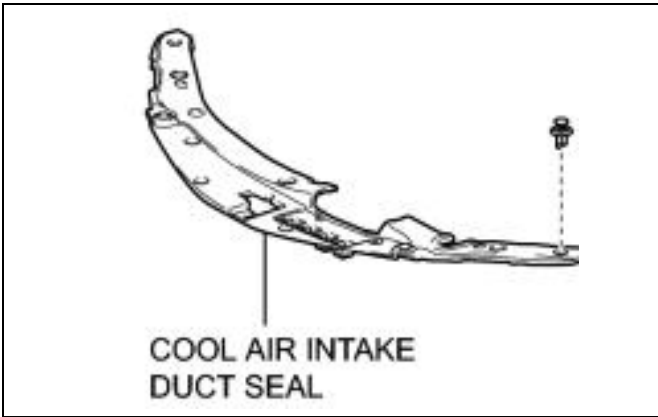
V. COMPONENTS



VI. WORK PROCEDURE

A. 2AR-FE & 2AR-FXE ENGINE DRIVER SIDE FRONT SUSPENSION LOWER ARM REMOVAL

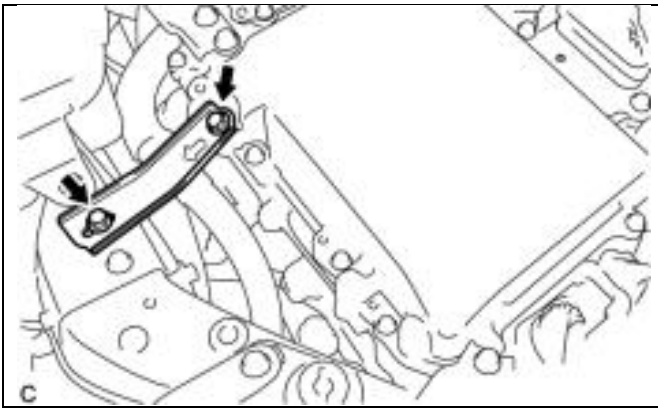
1. DISCONNECT THE NEGATIVE BATTERY CABLE



2. REMOVE THE COOL AIR INTAKE DUCT SEAL (HV only)

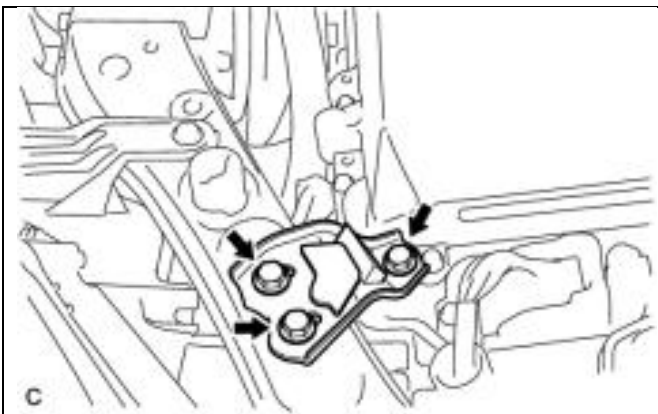
Avalon HV: Remove the 9 clips and remove the duct seal

Camry HV: Remove the 7 clips and remove the duct seal



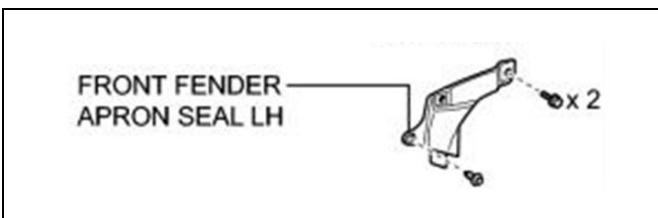
3. REMOVE NO. 5 INVERTER BRACKET (HV only)

a) Remove the 2 bolts and No. 5 inverter bracket.



4. REMOVE NO. 4 INVERTER BRACKET (HV only)

a) Remove the 3 bolts and No. 4 inverter bracket.



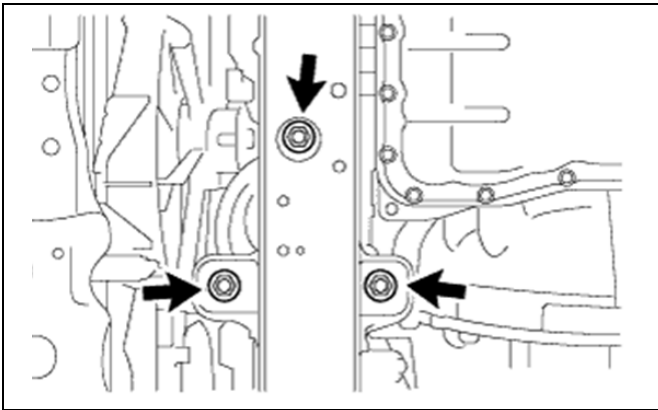
5. REMOVE THE LEFT FRONT WHEEL

6. REMOVE THE LEFT FRONT FENDER APRON SEAL

a) Remove the 2 bolts.

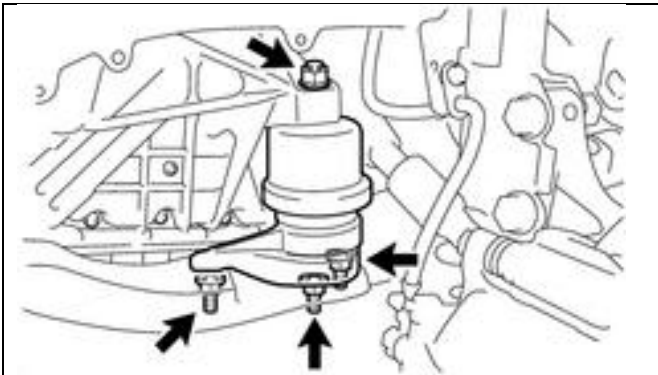
b) Remove the clip behind the fender liner.

c) Remove the apron seal.



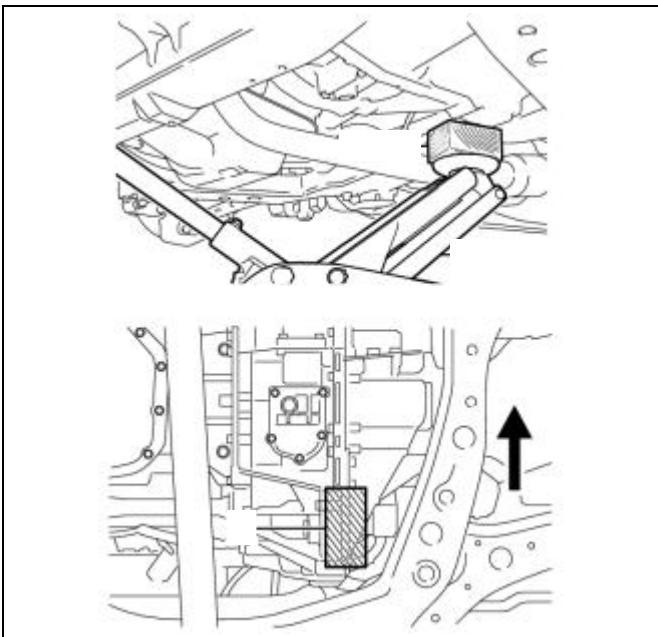
7. FRONT ENGINE MOUNT

- a) Remove the left engine under cover.
- b) Remove the 3 nuts that secure the front mount to the sub-frame.



8. REMOVE THE LEFT ENGINE MOUNT

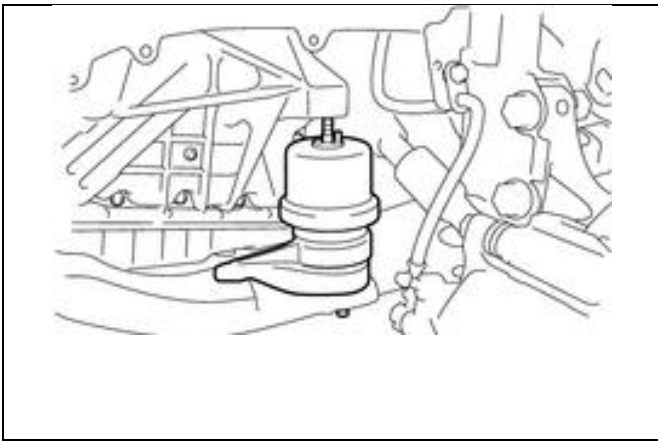
- a) Remove the 2 hole plugs from the sub-frame.
- b) Remove the 3 lower nuts for the left engine mount.
- c) Remove the upper nut for the left engine mount.



- d) Using a transmission jack or screw jack, place a block of wood under the under the transaxle to support the powertrain assembly. Ensure that it does not interfere with surrounding components.



- **DO NOT** position the wood block on the oil pan, otherwise damage can occur.
- **Ensure that the jack and block are stable before lifting the powertrain.**

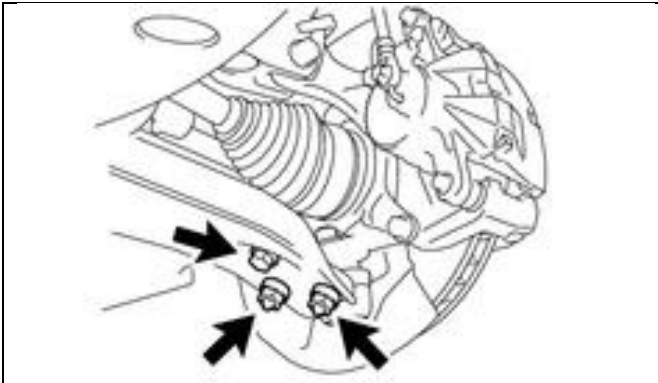


- e) Slightly lift the powertrain assembly to clear the upper stud.
- f) Remove the left engine mount from the front frame assembly.

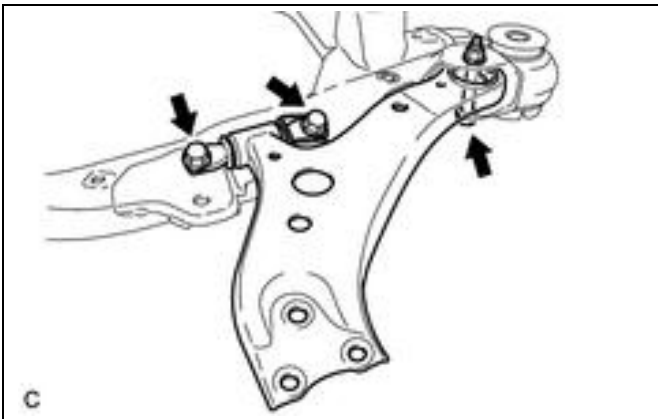
NOTE: When lifting the powertrain assembly check that the engine control rod does not contact the body.



Always keep the powertrain assembly supported until the left mount is reinstalled.



- g) Remove the bolt and 2 nuts, and separate the left front lower No. 1 suspension arm sub-assembly from the front lower ball joint assembly.

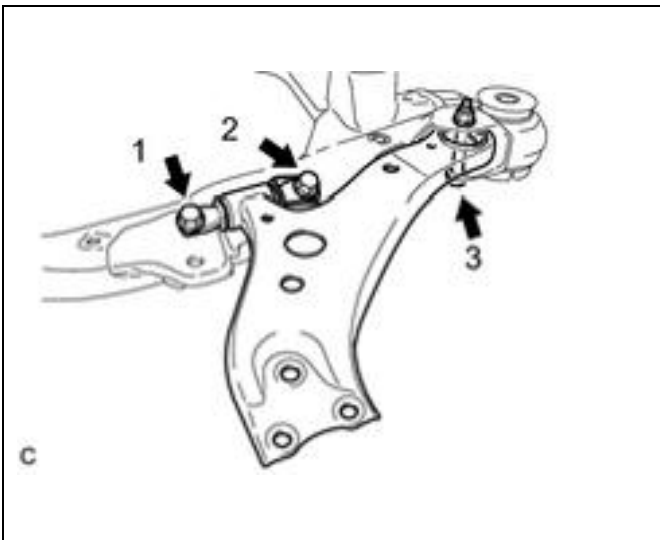


- h) Remove the 3 bolts, nut and left front lower No. 1 suspension arm sub-assembly from the front frame assembly.

NOTE: When removing the rear bolt, keep the nut from rotating.

- i) Remove the left front lower arm bushing stopper from the front lower No. 1 suspension arm sub-assembly.

B. 2AR-FE & 2AR-FXE ENGINE NEW DRIVER SIDE FRONT SUSPENSION LOWER ARM INSTALLATION



1. INSTALL THE NEW No. 1 SUSPENSION ARM

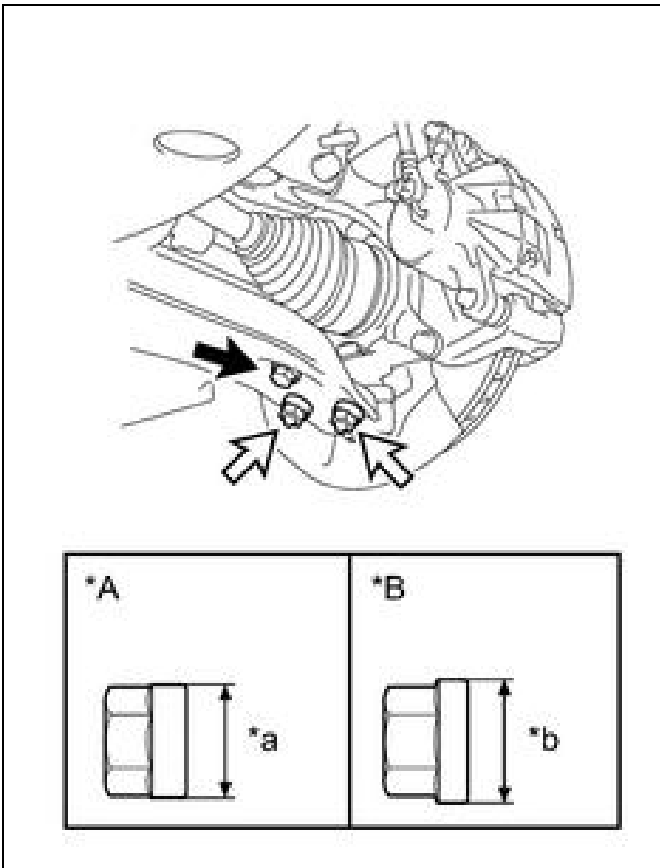
- a) Install the left front lower arm bushing stopper to the front lower No. 1 suspension arm sub-assembly.
- b) Install the **NEW** left front lower No. 1 suspension arm sub-assembly to the front frame assembly with the 3 bolts and nut in the order shown in the illustration.

Torque:

Bolt 1 and 2: 200 Nm (2,039kpf-cm, 148 ft-lbs)

Bolt 3: 135 Nm (1,377kpf-cm, 100 ft-lbs)

NOTE: When tightening bolt number 3, keep the nut from rotating.



- c) Install the left front lower No. 1 suspension arm sub-assembly to the front lower ball joint assembly with the bolt and 2 nuts.

NOTE: Check that the left driveshaft is fully inserted into the transaxle.

Avalon and Camry Hybrid only:

Torque: 75 Nm (765 kpf-cm, 55 ft-lbs)

NON HYBRID CAMRY ONLY

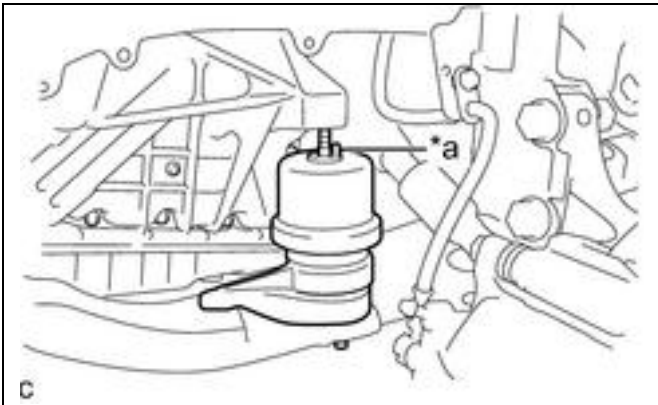
The tightening torque of the ball joint fasteners is dependent upon the diameter of the nut as shown. However, ensure that the nut and bolt are tightened to the same torque.

Camry

Torque:

**Nut *A (20 mm *a) and Bolt:
75 Nm (765 kpf-cm, 55 ft-lbs)**

**Nut *B (22 mm *b) and Bolt:
92 Nm (938kpf-cm, 68 ft-lbs)**

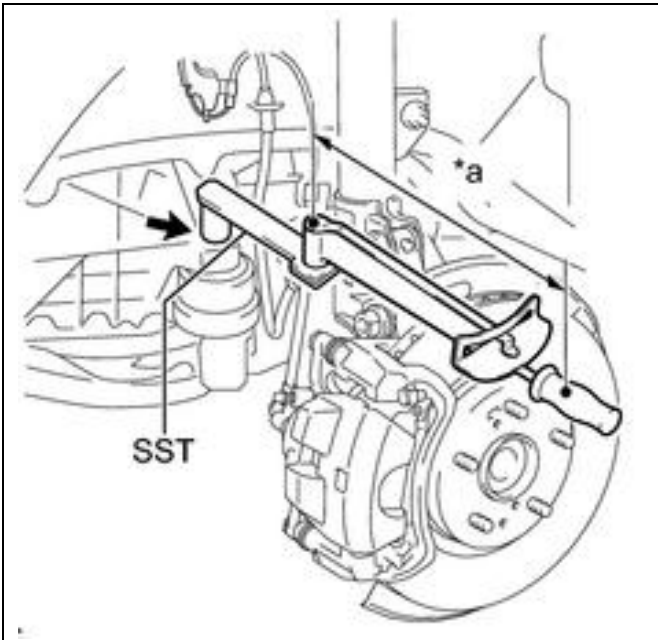


2. REINSTALL THE LEFT ENGINE MOUNT

- a) Place the left engine mount on the front frame assembly.
- b) Carefully lower the powertrain assembly.



Ensure that pin *a is engaged into the transaxle bracket. This will ensure that the engine mount and transaxle bracket are not damaged.



- c) Using the SST, reinstall the upper nut onto the engine mount.

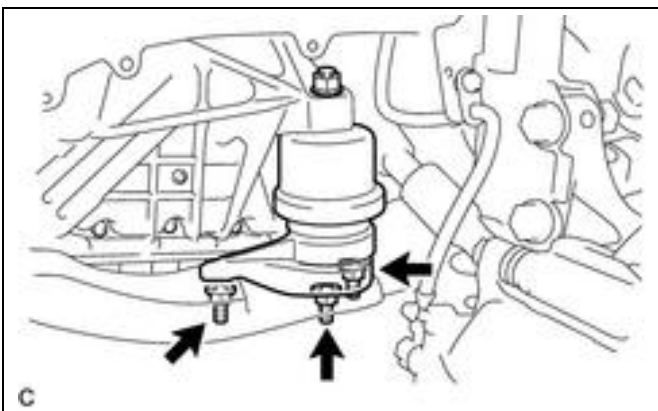
SST: 09961-00950

Torque:

With SST: 68 Nm (695 kpf-cm, 50 ft-lbs)

NOTE: Use a torque wrench with a fulcrum length of 380 mm (1.25ft). This torque value is effective when using the SST in parallel to the torque wrench.

Without SST: 95 Nm (969 kpf-cm, 70 ft-lbs)



- d) Reinstall the lower 3 engine mount nuts.

Avalon & Avalon Hybrid

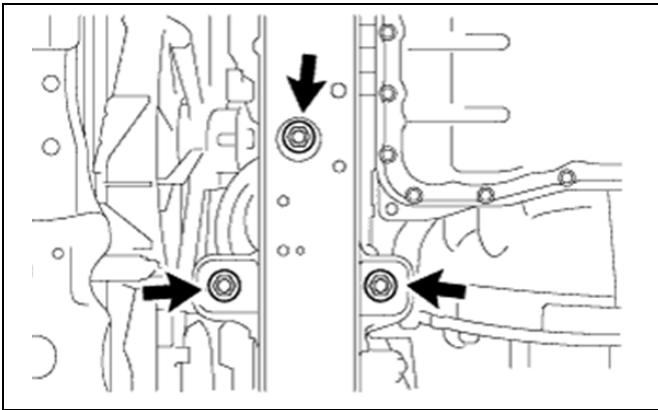
Torque:

87 Nm (887 kpf-cm, 64 ft-lbs)

Camry & Camry Hybrid

Torque:

99 Nm (1,010 kpf-cm, 73 ft-lbs)



3. FRONT MOUNT

- a) Reinstall the 3 nuts that secure the front mount to the sub-frame.

Avalon & Avalon Hybrid

Torque: 52 Nm (530 kpf-cm, 38 ft-lbs)

Camry & Camry Hybrid

Torque: 58 Nm (591 kpf-cm, 43 ft-lbs)

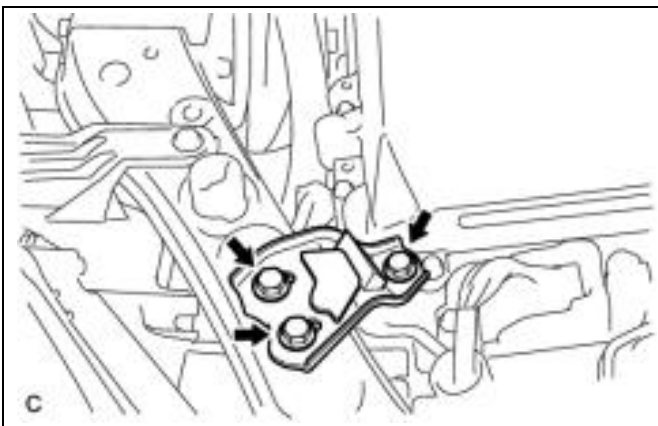
- b) Reinstall the left engine under cover.

4. REINSTALL THE LEFT FRONT FENDER APRON SEAL

- a) Reinstall the apron seal.
- b) Reinstall the clip behind the fender liner.

5. REINSTALL THE LEFT FRONT WHEEL

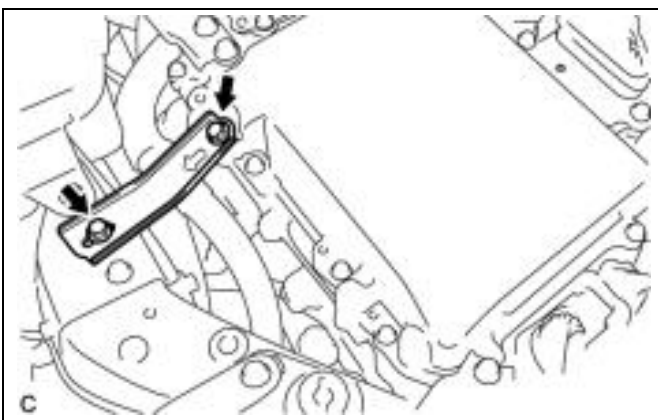
Torque: 103 Nm (1,049 kpf-cm, 76 ft-lbs)



6. REINSTALL THE NO. 4 INVERTER BRACKET (HV only)

- a) Reinstall the No. 4 inverter bracket and the 3 bolts.

Torque: 10 N·m (102 kgf-cm, 7ft-lbf)



7. REINSTALL THE NO. 5 INVERTER BRACKET (HV only)

- a) Reinstall the No. 5 inverter bracket and the 2 bolts.

Torque: 10 N·m (102 kgf-cm, 7ft-lbf)

8. RECONNECT THE NEGATIVE BATTERY CABLE

- a) Restore any memory settings and initialize any system needed (i.e. power windows, moonroof, etc.).

9. PREFORM WHEEL ALIGNMENT

Refer to the Technical Information System (TIS), using the applicable vehicle and model year.

- [Avalon HV](#)
- [Camry](#)
- [Camry HV](#)

C. 2GR-FE ENGINE LOWER SUSPENSION ARM REMOVAL & INSTALLATION

1. REFER TO THE TECHNICAL INFORMATION SYSTEM (TIS), USING THE APPLICABLE VEHICLE AND MODEL YEAR TO REPLACE THE LEFT LOWER SUSPENSION ARM.

Lower Suspension Arm Removal

[Avalon Removal \(2GR-FE V6\)](#)

[Camry Removal \(2GR-FE V6\)](#)

Lower Suspension Arm Installation

[Avalon Installation \(2GR-FE V6\)](#)

[Camry Installation \(2GR-FE V6\)](#)

2. PERFORM WHEEL ALIGNMENT

[Avalon](#)

[Camry](#)

◀ VERIFY REPAIR QUALITY ▶

- Confirm that the powertrain was properly supported
- Confirm the Lower Front Suspension Arm has been installed and torqued properly
- Confirm that the vehicle has been aligned properly

If you have any questions regarding this campaign, please contact your area representative.

VII. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

