

TECHNICAL INSTRUCTIONS

FOR

SAFETY RECALL 20TA08

Potential Loss of Vehicle Control due to Front Lower Suspension Arm Separation

CERTAIN 2019 - 2020 RAV4 & RAV4 HV

UPDATE 11/05/2020

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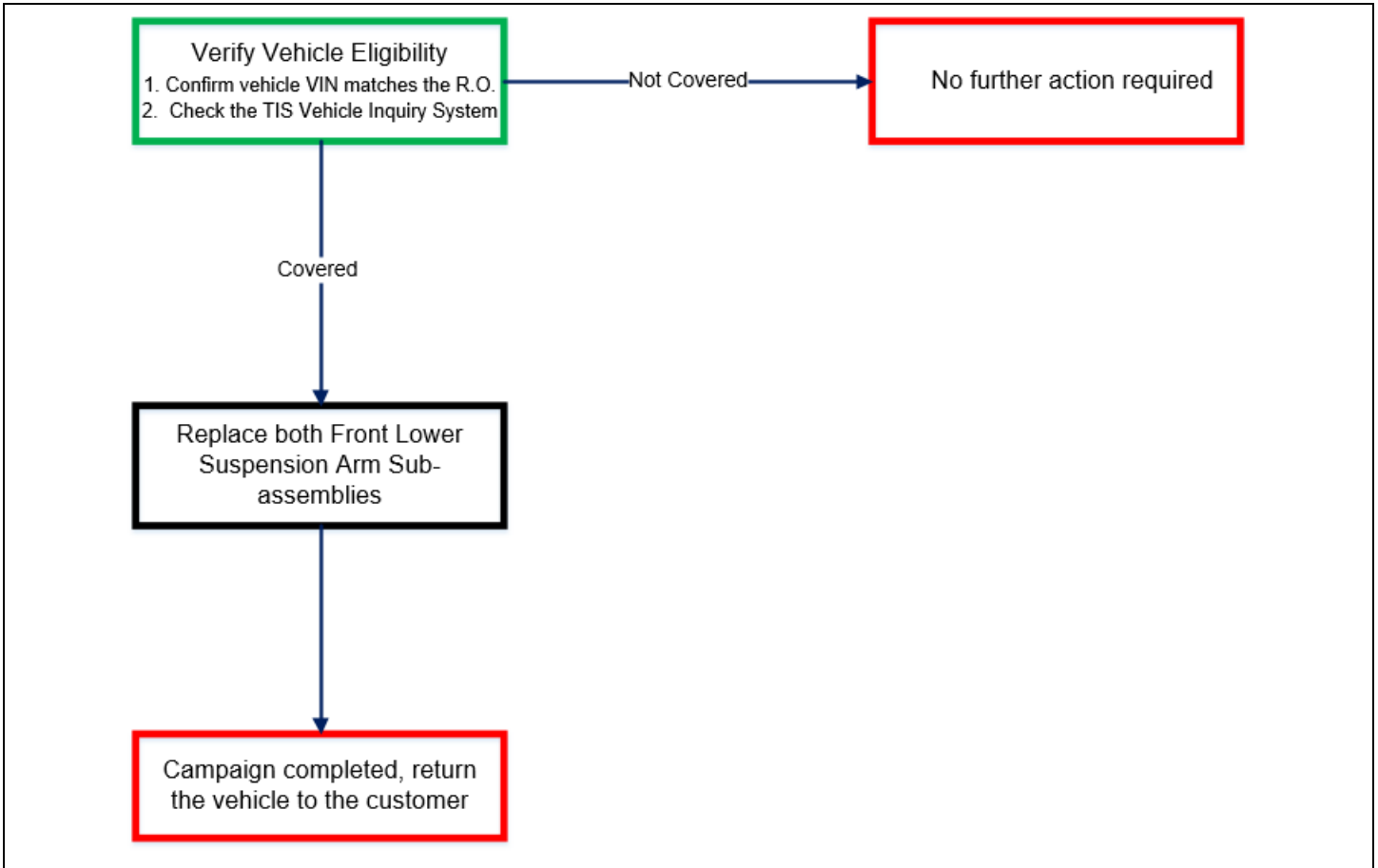
- **Added step for sway bar link removal prior to control arm bolt removal.**

The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course "Safety Recall and Service Campaign Essentials". 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 certification levels:

- Certified Technician (Chassis)
- Expert Technician (any specialty)
- Master Technician
- Master Diagnostic Technician

It is the dealership's responsibility to select technicians with the above certification level or greater to perform this recall repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider technician days off and vacation schedules to ensure there are properly trained technicians available to perform this repair at all times.

I. OPERATION FLOW CHART



II. IDENTIFICATION OF AFFECTED VEHICLES

1. CHECK VEHICLE FOR CAMPAIGN ELIGIBILITY

- Compare the vehicles VIN to the VIN listed on the Repair Order to ensure they match.
- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Campaign, and that it has not already been completed.

Note: TMNA warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were previously completed, even by another dealer.

III. PREPARATION

A. PARTS

Part Number	Part Description	Quantity
04009-1B142	ARM SUB-ASSY, SUSPENSION LWR RH W/BUSH	1
04009-1B242	ARM SUB-ASSY, SUSPENSION LWR LH W/BUSH	1

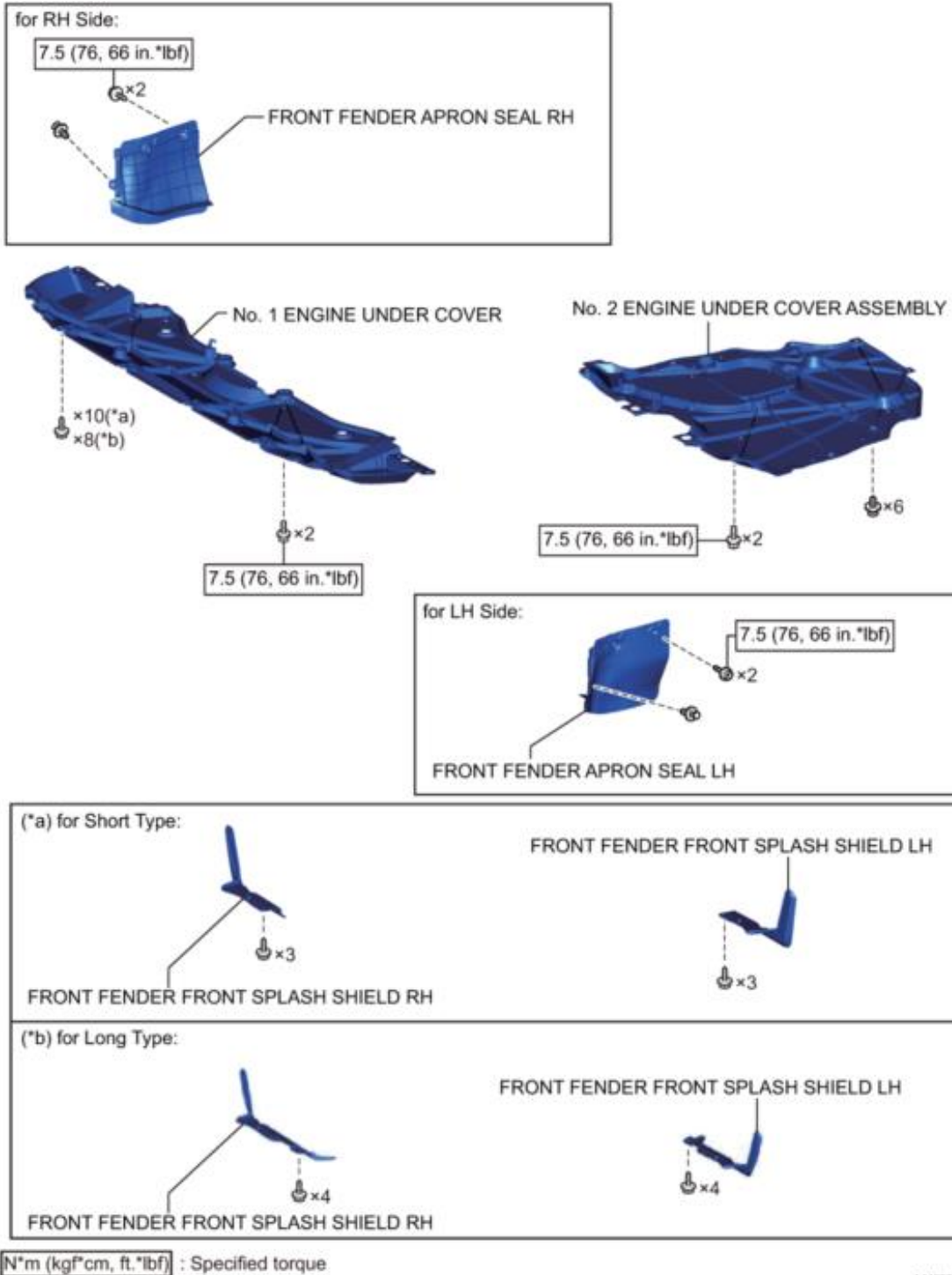
B. TOOLS & EQUIPMENT

- Alignment Rack
- Standard Hand Tools
- Torque Wrench

IV. BACKGROUND

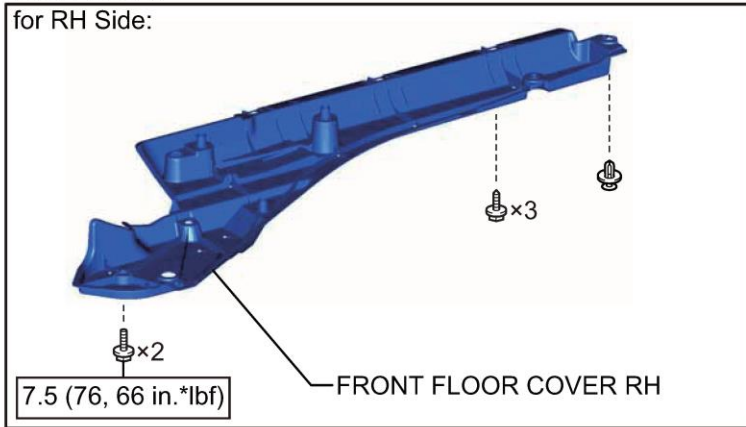
The front lower suspension arms, which connect to the front wheels, on the subject vehicles may have been manufactured with improperly produced material. Under certain driving conditions, over time, affected front lower suspension arms can separate from the front wheel assembly, resulting in a loss of vehicle control and an increase risk of a crash.

V. COMPONENTS

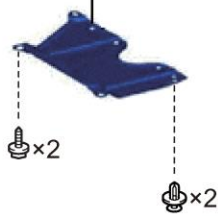


for HV Model:

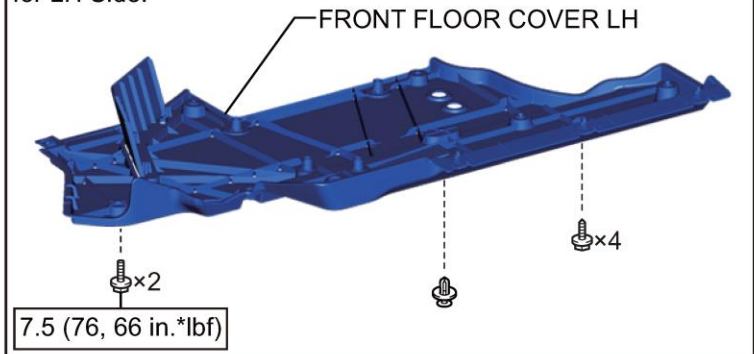
for RH Side:



ENGINE UNDER COVER
HEAT INSULATOR

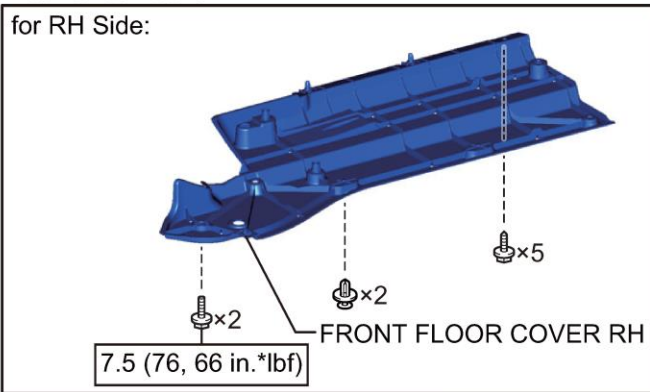


for LH Side:

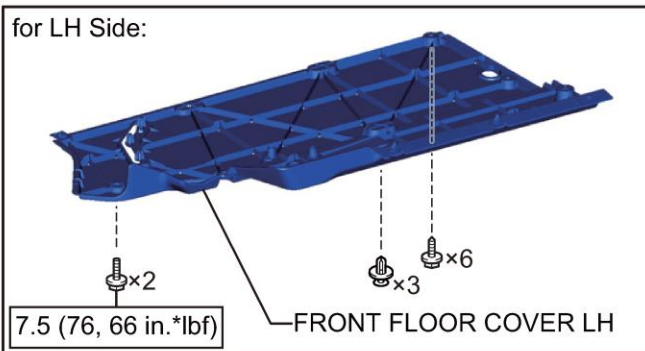


for Gasoline Model:
w/ Floor Under Cover:

for RH Side:



for LH Side:

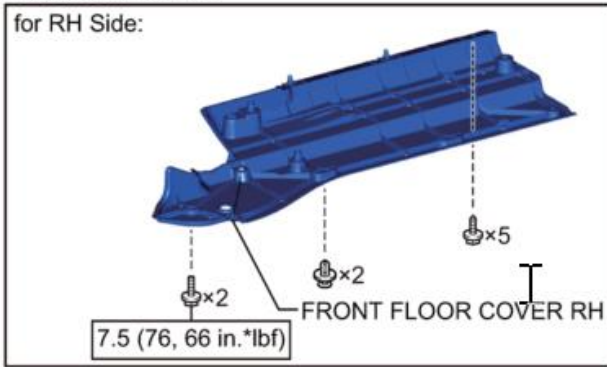


N*m (kgf*cm, ft.*lbf) : Specified torque

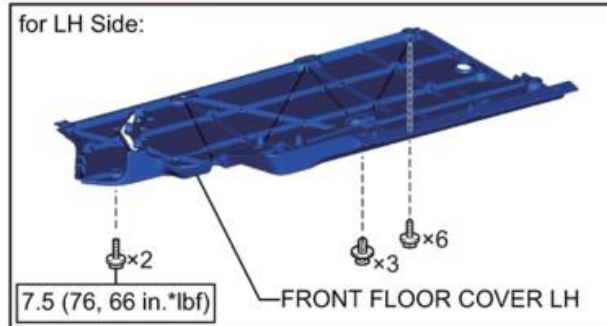
C406810

w/ Floor Under Cover:

for RH Side:

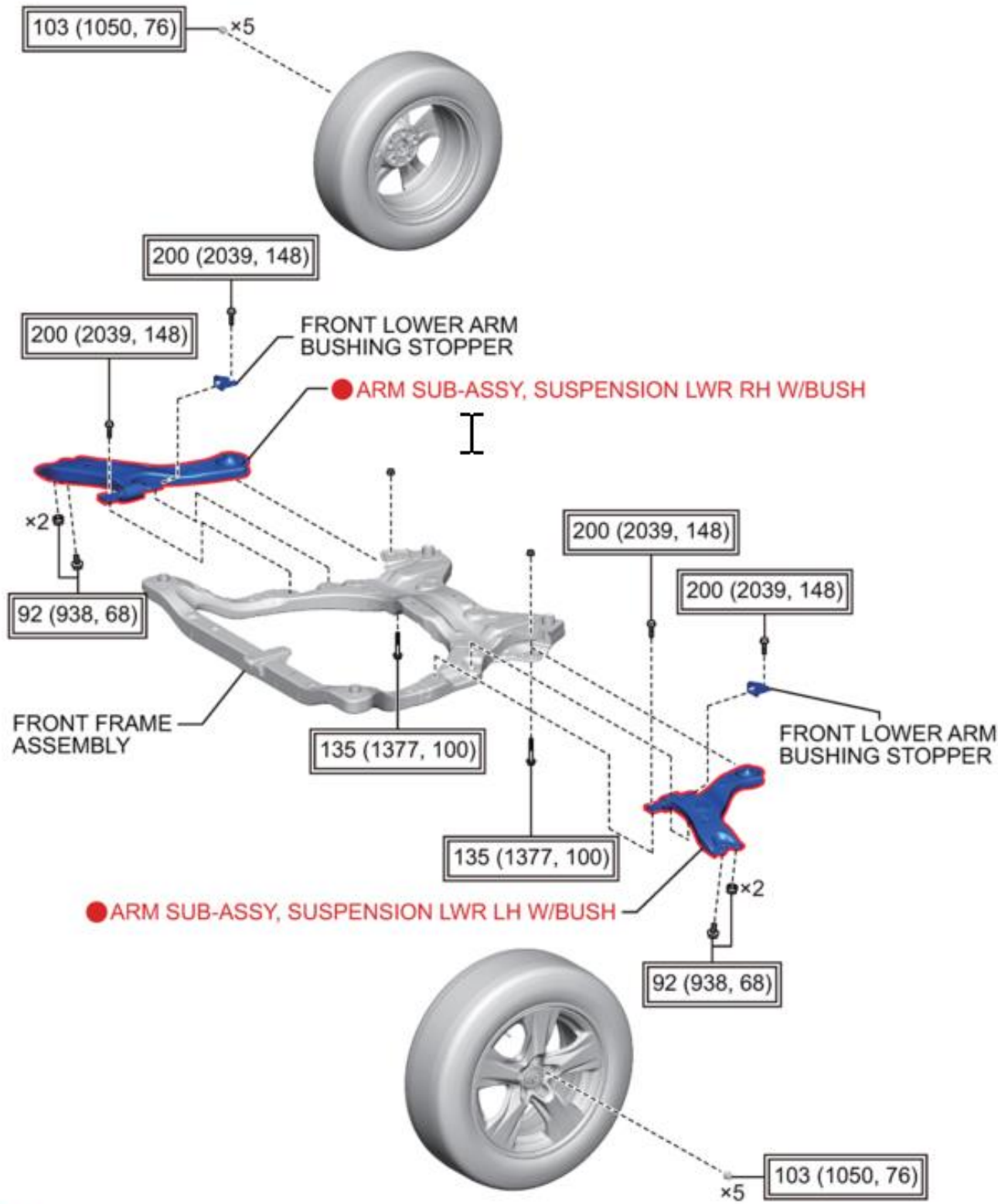


for LH Side:



N*m (kgf*cm, ft.*lbf) : Specified torque

C406810

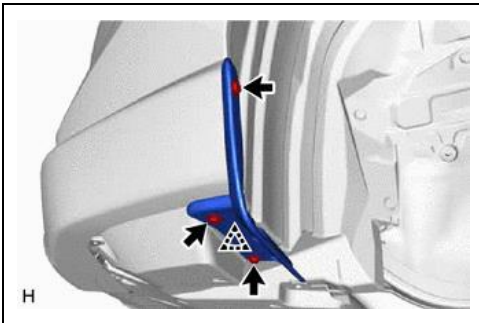


● : Replacement part

[N*m (kgf*cm, ft.*lbf)] : Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping"

VI. REMOVE THE FRONT SUSPENSION ARM SUB ASSY (LH & RH)

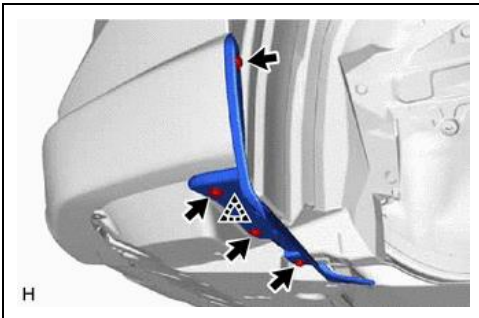
1. REMOVE FRONT WHEELS LH & RH



2. REMOVE FRONT FENDER SPLASH SHIELD LH & RH

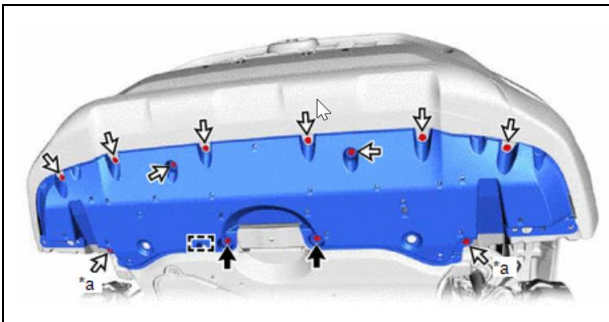
a. For Short Type:

1. Remove the 3 screws.
2. Detach the clip and remove the front fender front splash shield.



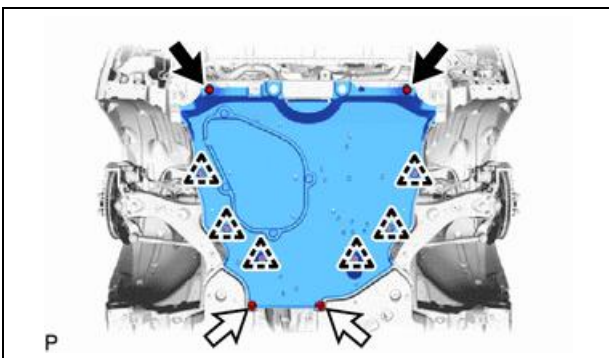
b. For Long Type:

1. Remove the 4 screws.
2. Detach the clip and remove the front fender front splash shield.



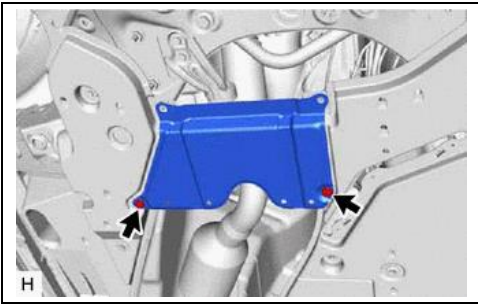
3. REMOVE NO. 1 ENGINE UNDER COVER

- a. Remove the 2 bolts and 10 screws. (Short Type Front Fender Front Splash Shield).
- b. Remove the 2 bolts and 8 screws. (Long Type Front Fender Front Splash Shield).
- c. Detach the guide and remove the No. 1 engine under cover.

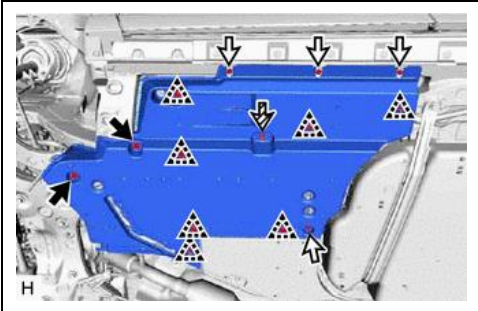


4. REMOVE NO. 2 ENGINE UNDER COVER

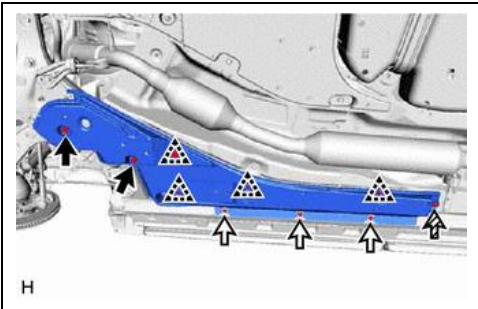
- a. Remove the 2 bolts, 2 screws, 6 clips.



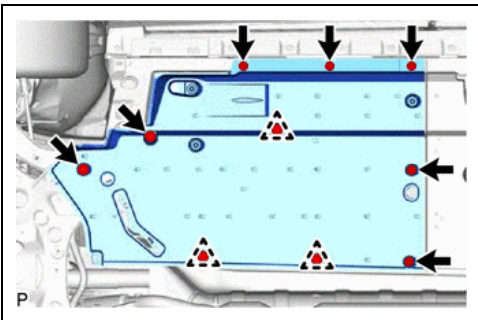
- 5. REMOVE UNDER COVER HEAT SHIELD (HV ONLY)**
 a. Remove the 2 clips and engine under cover heat insulator.



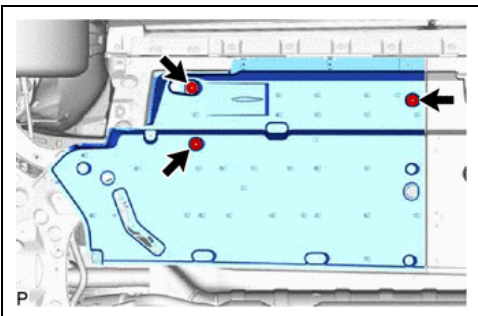
- 6. REMOVE FRONT FLOOR COVER LH (HV only)**
 a. Remove the 2 bolts, 4 screws and clip.
 b. Detach the clips and remove the front floor cover LH.



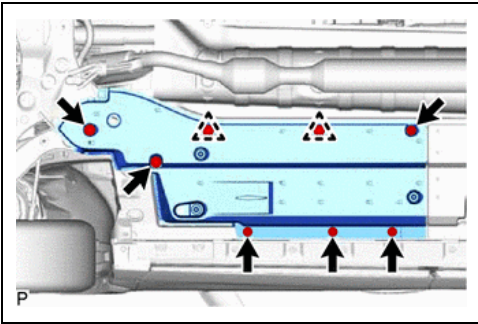
- 7. REMOVE FRONT FLOOR COVER RH (HV only)**
 a. Remove the 2 bolts, 3 screws and clip.
 b. Detach the clips and remove the front floor cover RH.



- 8. REMOVE FRONT FLOOR COVER LH**
 a. Detach the 3 clips and remove the 2 bolts and 5 screws.

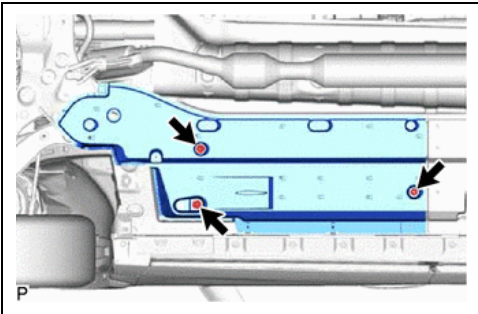


- b. Loosen the 3 nuts and remove the front floor cover LH from the body.

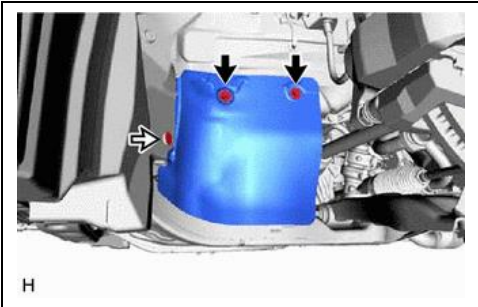


9. REMOVE FRONT FLOOR COVER RH

a. Detach the 2 clips and remove the 2 bolts and 4 screws.

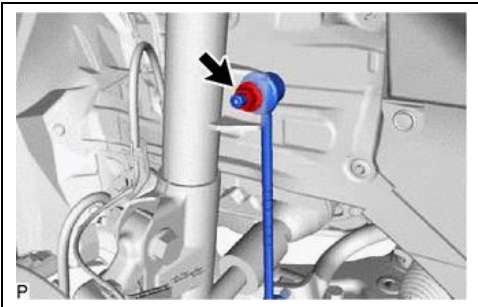


b. Loosen the 3 nuts and remove the front floor cover RH from the body.



10. REMOVE FRONT FENDER APRON SEAL LH & RH

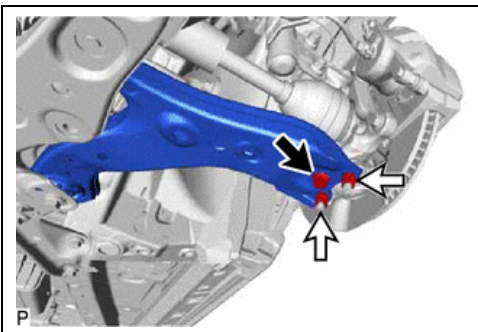
a. Remove the 2 bolts and clip.



11. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH & RH

a. Remove the nut and separate the front stabilizer link assembly from the front shock absorber assembly.

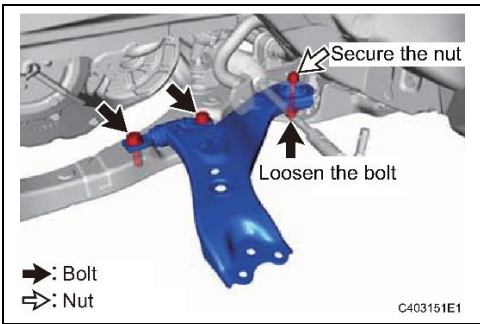
Note: If the stud bolt turns together with the nut, use a 6mm hexagon socket wrench to hold the stud bolt.



12. REMOVE SUSPENSION ARM ASSEMBLY LH & RH

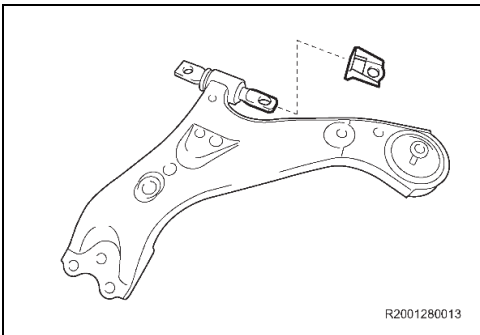
a. Remove the bolt and 2 nuts and separate the front lower No. 1 suspension arm sub-assembly from the front lower ball joint assembly.

Note: DO NOT let the front lower No. 1 suspension arm contact the front lower ball joint assembly.



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

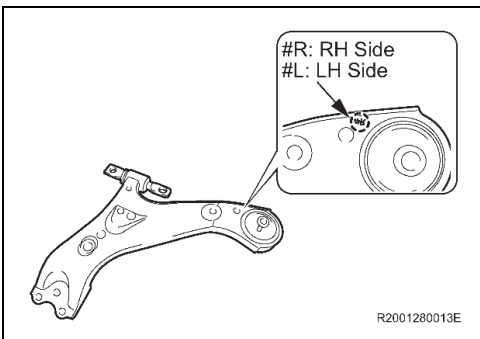
Note: DO NOT turn the nut. The nut has its own stopper. Loosen the bolt while securing the nut.



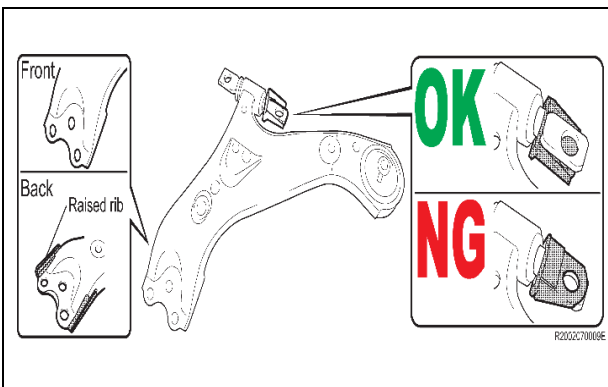
13. REMOVE BUSHING STOPPER

- a. Remove the front lower arm bushing stopper from the front lower No. 1 suspension arm sub-assembly.

VII. INSTALL THE FRONT SUSPENSION ARM SUB-ASSY (LH & RH)



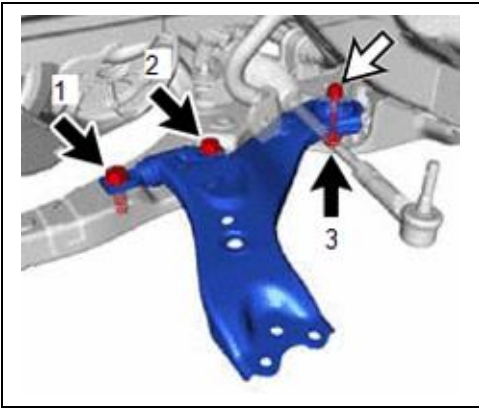
1. CHECK THE MARK STAMPED ON THE **NEW FRONT LOWER NO. 1 ARM SUB-ASSEMBLY**



2. INSTALL THE **NEW FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY (LH & RH)**

- a. Install the front lower arm bushing stopper to the front lower No. 1 suspension arm sub-assembly.

Note: DO NOT install the front lower arm bushing stopper in the wrong direction.



- b. Install the 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.

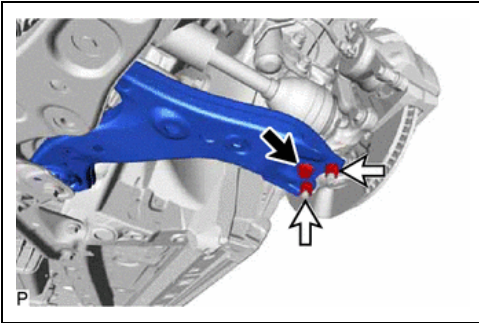
Torque:

Bolt (1) & (2): 148 ft. lbs {200 N·m, 2039 kgf·cm}

Bolt (3): 100 ft. lbs {135 N·m, 1377 kgf·cm}

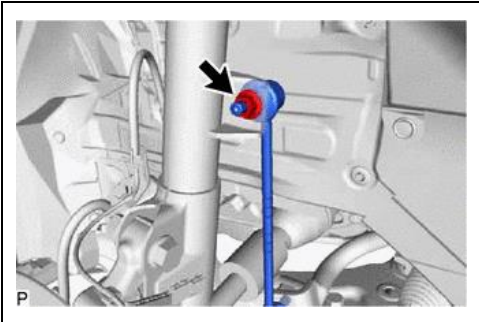


DO NOT turn the nut. The nut has its own stopper. Tighten the bolt while securing the nut.



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

Torque: 68 ft. lbs {92 N·m, 938 kgf·cm}

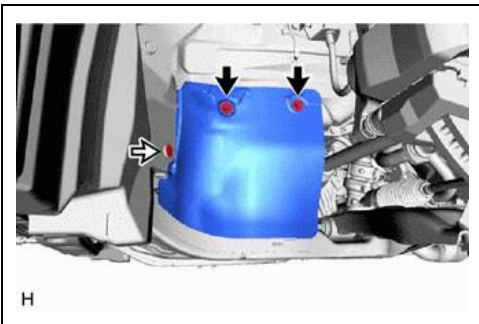


3. INSTALL FRONT STABILIZER LINK ASSEMBLY LH & RH

- a. Install the front stabilizer link assembly to the front shock absorber with the nut.

Torque: 55 ft lbs. {74 N·m, 755 kgf·cm}

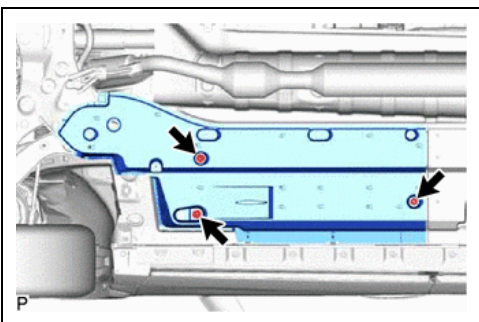
Note: If the stud bolt turns together with the nut, use a 6mm hexagon socket wrench to hold the stud bolt.



4. INSTALL FRONT FENDER APRON SEAL LH & RH

- a. Install the front fender apron seal with the 2 bolts and clip.

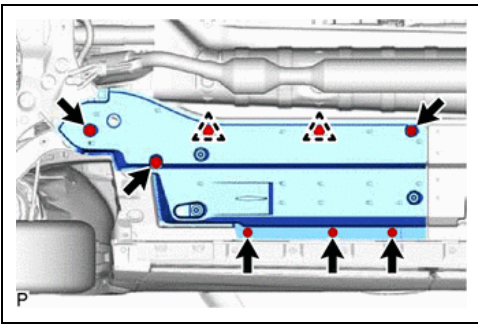
Torque: 66 in. lbs {7.5 N·m, 76 kgf·cm}



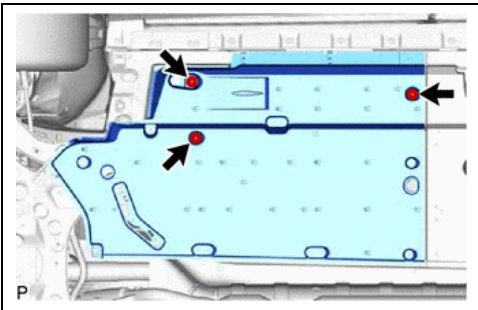
5. INSTALL FRONT FLOOR COVER RH

- a. Install the front floor cover and tighten the 3 nuts.

Torque: 66 in. lbs {7.5 N·m, 76 kgf·cm}

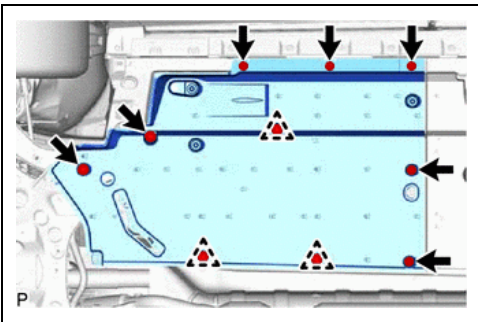


- b. Attach the 2 clips and install the 2 bolts and 4 screws.
Torque: 66 in. lbs {7.5 N·m, 76 kgf·cm}

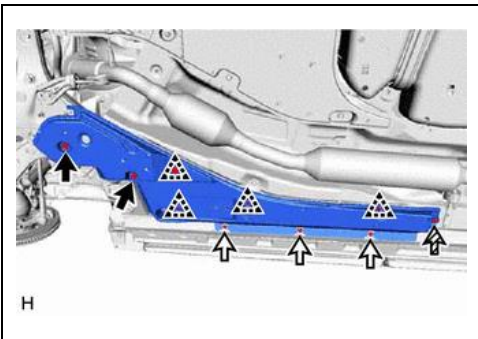


6. INSTALL FRONT FLOOR COVER LH

- a. Install the front floor cover LH and tighten the 3 nuts.
Torque: 66 in. lbs {7.5 N·m, 76 kgf·cm}

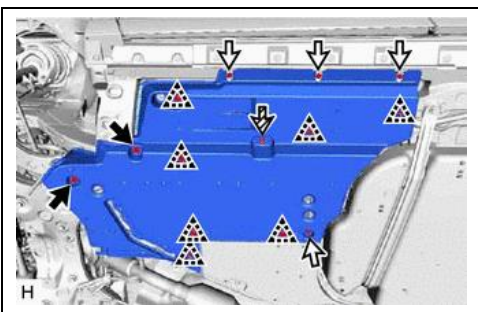


- b. Attach the 3 clips and install the 2 bolts and 5 screws.
Torque: 66 in. lbs {7.5 N·m, 76 kgf·cm}



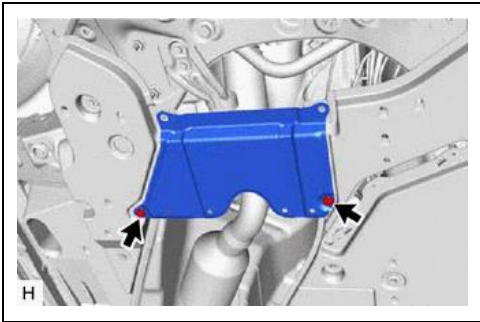
14. INSTALL FRONT FLOOR COVER RH (HV only)

- a. Attach the clips to install the front floor cover RH.
 b. Install the 2 bolts, 3 screws and clip.
Torque: 66 in. lbs {7.5 N·m, 76 kgf·cm}



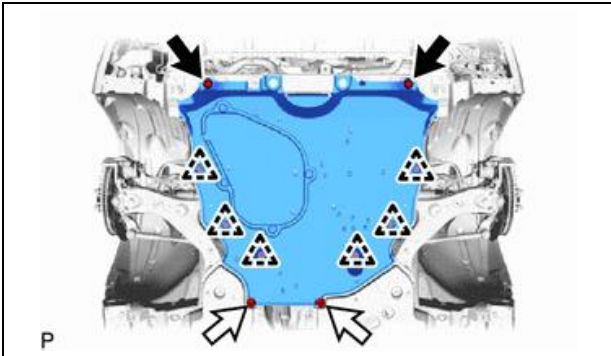
15. INSTALL FRONT FLOOR COVER LH (HV only)

- a. Attach the clips to install the front floor cover LH.
 b. Install the 2 bolts, 4 screws and clip.
Torque: 66 in. lbs {7.5 N·m, 76 kgf·cm}



16. INSTALL UNDER COVER HEAT SHIELD (HV only)

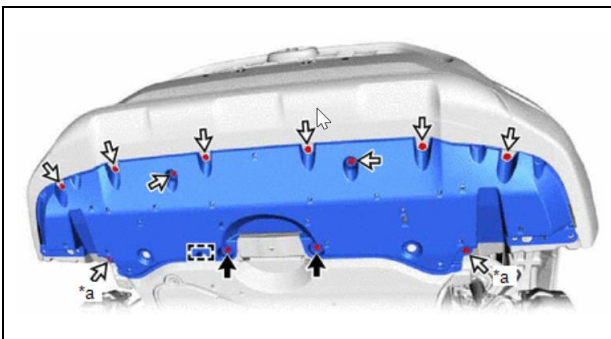
- a. Install the engine under cover heat insulator with the 2 clips.



7. INSTALL NO. 2 ENGINE UNDER COVER

- a. Install the No 2. Engine under cover assembly with the 2 bolts, 2 screws and 6 clips.

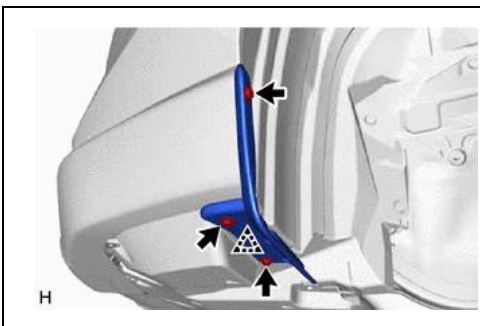
Torque: Bolt: 66 in. lbs {7.5 N·m, 76 kgf·cm}



8. INSTALL NO. 1 ENGINE UNDER COVER

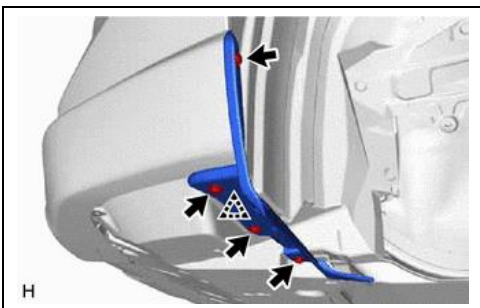
- a. Attach the guise and install the No. 1 engine under cover.
- b. Install the 2 bolts and 10 screws. (Short Type Front Fender Front Splash Shield).
- c. Install the 2 bolts and 8 screws. (Long Type Front Fender Front Splash Shield).

Torque: Bolt: 66 in. lbs {7.5 N·m, 76 kgf·cm}



9. INSTALL FRONT FENDER SPLASH SHIELD LH & RH

- a. For Short Type:
 - 1. Attach the clip to install the front fender front splash shield.
 - 2. Install the 3 screws.



- b. For Long Type:
 - 1. Attach the clip to install the front fender front splash shield.
 - 2. Install the 4 screws.

10. INSTALL FRONT WHEEL (LH & RH)
Torque: 76 ft. lbs {103 N·m, 1050 kgf·cm}

11. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

- a. Follow the Repair Manual procedure to inspect and adjust front wheel alignment.

[FRONT WHEEL ALIGNMENT: ADJUSTMENT; 2019 - 2020 MY RAV4 RAV4 HV](#)

(RM100000001FI9B)

◀ VERIFY REPAIR QUALITY ▶

- Verify all removed covers were reinstalled.
- Verify bolts and nuts were torqued to specified value.
- Verify alignment angles are within manufacture specifications.

If you have any questions regarding this Safety Recall, please contact your regional representative.

VIII. APPENDIX

A. PARTS DISPOSAL

In accordance with Federal law, please make sure all recalled parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused, ***unless requested for parts recovery return.***

B. CAMPAIGN DESIGNATION DECORDER

