TECHNICAL INSTRUCTIONS

FOR

WARRANTY ENHANCEMENT PROGRAM ZH9

* *

CERTAIN 2008 MODEL YEAR SEQUOIA

* *

FRAME REPLACEMENT

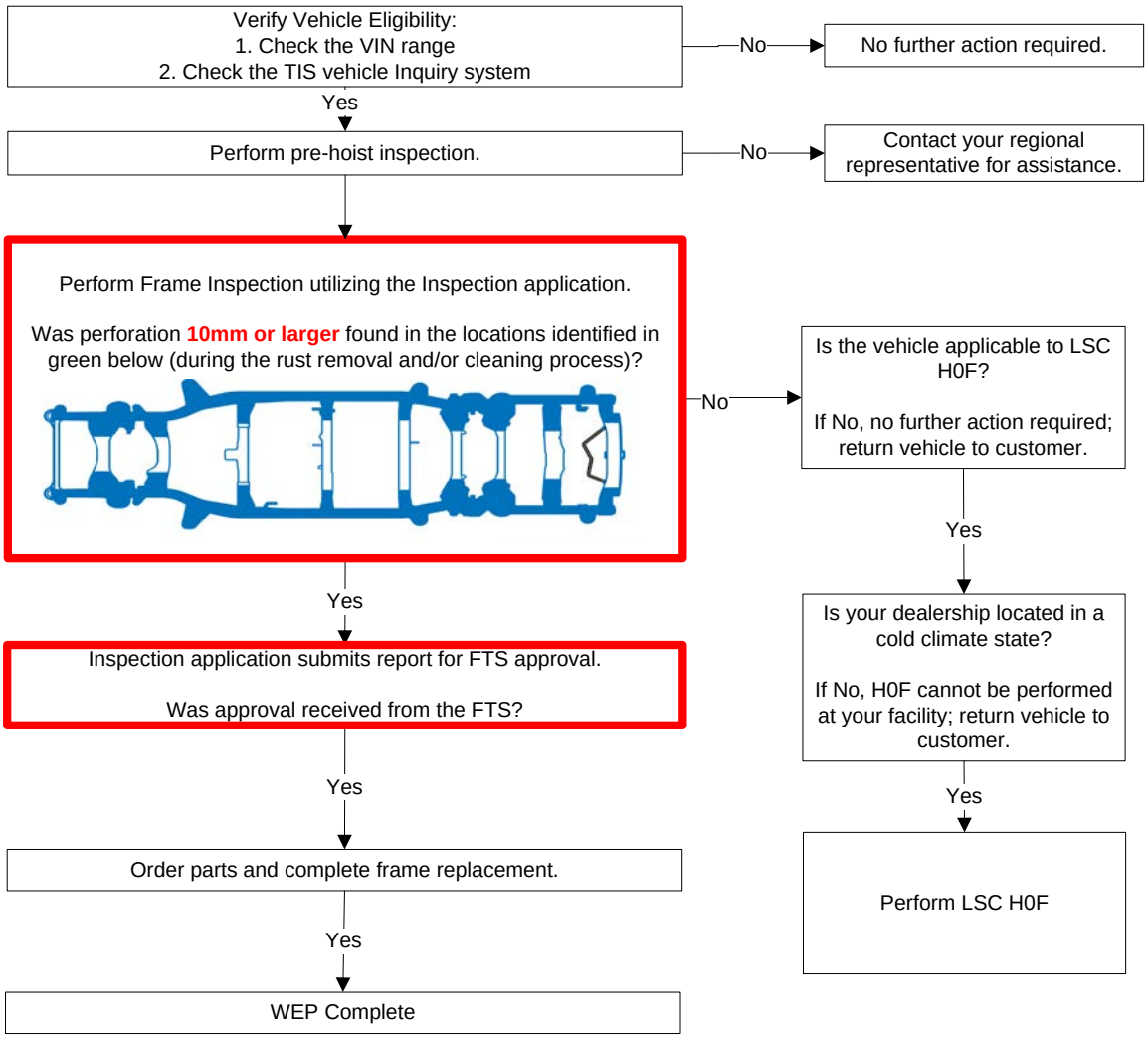
The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course "Safety Recall and Service Campaign Essentials". To ensure that all vehicles have the repair performed correctly; technicians performing this repair are required to currently hold at least one of the following certification levels:

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

Final repair must be signed off and validated by a MDT, Shop Foreman or Service Manager using the Frame Replacement Inspection Form.

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 FLOWCHART



II. PREPARATION

A. TOOLS & EQUIPMENT

- A/C service equipment
- Alignment rack
- Brake bleeder
- Engine Hanger
  - 3UR-FE Engine
    - 12281-38150 – Engine hanger no. 1 (Qty: 2)
    - 90119-14120 – Bolt (Qty: 2) (Japan sourced parts)
    - 90119-A0166 – Bolt (Qty: 2) (Local sourced parts)
- Engine hoist (Qty: 2) or Hydraulic mini crane (Qty: 2)
- Engine sling (Qty: 2)
- Floor jack
- Protective eyewear
- Protective gloves
- Ratcheting tie down strap (2 in X 27 ft, minimum work load capacity: 3,000 lbs)
- Special Service Tools (SST)
  - 09985-20010 – Air conditioner service tool set ***or*** Commercially available air conditioning manifold gauge set
  - 09325-40010 – Transmission oil plug (Transmission A750E)
  - 09325-60010 – Transmission oil plug (Transmission AB60E)
  - 09610-20012 – Pitman arm puller
  - 09520-32040 – A component of SST 09520-24010, Differential side gear shaft puller
  - 09520-01010 – Drive Shaft Remover Attachment
  - 09951-04010,09952-04010,09953-04020,09954-04010,09955-04031,09958-04011, – A component of SST 09950-40011, Puller B set
  - 09727-30021-Coil spring compressor
  - 09730-00010-Air tube separator
  - 09955-04090 – Craw no.9
  - 09922-10010-01 – Variable open wrench
- Standard hand tools
- Techstream
- Torque wrench
- Socket wrench 39mm
- Hexagon wrench 4, 6, 10
- Deep socket wrench 10, 12, 14, 17, 19, 24mm
- Union nut wrench 10mm
- Weights

B. SUPPLIES

- Toyota Genuine ATF WS or DEXRON® lll (DEXRON® ll) – As needed
- Hypoid gear oil API GL-5 SAE 75W-90 – 2.1 liters
- R134a refrigerant – As needed
- Toyota DOT 3 brake fluid – 3 pints
- Toyota long life coolant – 2 gallons
- Paint
- MP Grease
- Rope

C. PARTS

To assist dealers in determining the correct part number(s) to order, a website has been set up to look up part numbers by VIN. Please go to http://toyota-frame-parts-lookup.imagespm.info (also linked through TIS), enter the VIN, and the correct part numbers to order will be displayed. ***The website is for part(s) application reference only and will not order the part, nor will it confirm campaign completion status.***

- The parts will need to be ordered through the Dealer Daily Parts system.
- ETAs for the parts will be available via the normal system.
- Frame ETAs will be made available on the Dealer Daily website, in the MAC reference area.

Note: When first logging in; enter your dealer code and the default password; XXXXX. Upon logging in the website will ask for you to reset the password and provide an email address.

Individual Parts:

Part Number	Part Description	Quantity	Illustration Name
04004-1410C	Frame, Sub-Assy	1	Frame
04004-1420C	Frame, Sub-Assy	1	Frame
04004-1430C	Frame, Sub-Assy	1	Frame
04004-1440C	Frame, Sub-Assy	1	Frame
04004-1450C	Frame, Sub-Assy	1	Frame
04004-1460C	Frame, Sub-Assy	1	Frame

Individual Parts (Continued):

Part Number	Part Description	Quantity	Illustration Name
47324-0C101	Tube, Rear Brake, No.4	1	Brake Tubes
47325-0C121	Tube, Rear Brake, No.5	1	Brake Tubes
48068-09100	Arm Sub-Assy, Front Suspension, Lower No.1 RH	1	Front Suspension
48069-09090	Arm Sub-Assy, Front Suspension, Lower No.1 LH	1	Front Suspension
51900-34040	Carrier Assy,Spare Wheel	1	Spare Tire Carrier
82164-0C200	Wire, Frame	1	Wire Harness Clamps
82164-0C210	Wire, Frame	1	Wire Harness Clamps
82164-0C220	Wire, Frame	1	Wire Harness Clamps
90080-46263	Clamp No.1, Exhaust TAIL Pipe (For Rear)	1	Exhaust System
90126-A0011	Bolt, Stud (For Exhaust Manifold, RH)	3	Exhaust System
90126-A0011	Bolt, Stud (For Exhaust Manifold, LH)	3	Exhaust System
90126-A0011	Bolt, Stud (For Manifold To Exhaust Pipe)	6	Exhaust System
90178-A0052	Nut (For Front Suspension Support)	1	Front Suspension
90461-15017	Clamp	1	Exhaust System
90917-06085	Gasket, Exhaust Pipe, Center	1	Exhaust System
90917-06093	Gasket, Exhaust Pipe, Center	1	Exhaust System
47312-0C080	BRAKE TUBE & CLAMP	1	Brake Tubes
47313-0C090	BRAKE TUBE & CLAMP	1	Brake Tubes
47322-0C110	BRAKE TUBE & CLAMP	1	Brake Tubes
47323-0C090	BRAKE TUBE & CLAMP	1	Brake Tubes
90950-01A31	PLUG, HOLE	2	NA

Parts Kits:

Part Number	Part Description	Quantity
04004-20134	Parts Kit No.1 – Common Replacement Kit A	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name
48190-34010	Cam Assy, Camber Adjust	2	Front Suspension
48198-34010	Cam, Camber Adjust, No.2	2	Front Suspension
48409-34041	Cam Sub-Assy, Front Suspension Toe Adjust	2	Front Suspension
48452-34011	Plate, Front Suspension Toe Adjust, No.2	2	Front Suspension
77285-34370	Clamp, Fuel Tube, No.2	4	Fuel Tank & Tubes
77289-26010	Clamp, Fuel Tube, No.1	1	Fuel Tank & Tubes
90099-14120	O-Ring	1	Air Conditioning
90119-08782	Bolt	4	Rear Spring & Shock Absorber
90178-18003	Nut	2	Front Suspension
90179-06178	Nut	6	Front Bumper
90201-19011	Washer	2	Front Suspension
90252-04003	Cotter Pin	2	Power Steering
90412-10266	Way, No.1 (For Front Brake Tube)	1	Brake Tubes
90412-10267	Way, No.2 (For Front Brake Tube)	1	Brake Tubes
90412-10268	Way (For Rear Brake Tube)	1	Brake Tubes
94130-01202	Nut	2	Front Suspension

Parts Kits (Continued):

Part Number	Part Description	Quantity
04004-2020C	Parts Kit No.2 – Common Replacement Kit B	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illutration Name
16492-21050	Packing (For Radiator Drain Cock)	1	Radiator
47314-0C020 Or 47314-0C021	Tube, Front Brake, No.4	1	Brake Tubes
47315-0C030 Or 47315-0C031	Tube, Front Brake, No.5	1	Brake Tubes
48304-0C030	Bumper, Front Spring, No.1 RH	2	Front Suspension
48304-0C030	Bumper, Front Spring, No.1 LH	2	Front Suspension
51911-0C010	Bolt, Spare Wheel	2	Spare Tire Carrier
52173-0C080	Bracket, Rear Bumper Bar, RH	1	Rear Bumper
52173-0C080	Bracket, Rear Bumper Bar, LH	1	Rear Bumper
77296-0C010 Or 77296-0C020	Support, Fuel Tube Protector, No.1	1	Fuel Tank & Tubes
90069-08009	O-Ring	1	Air Conditioning
90080-11555	Bolt	1	Power Steering
90080-17187	Nut	6	Exhaust System
90080-17229	Nut	1	AT Shift Cable
90080-46327	Clip (For Front Fender Apron Seal)	22	Front Fender Apron
90119-A0316	Bolt	2	Spare Tire Carrier
90119-A0380	Bolt	1	Exhaust System
90119-A0050	Bolt	2	Rear Bumper
90119-A0050	Bolt	5	ABS & VSC
90119-A0077	Bolt	2	Fuel Tank & Tubes
90119-A0169	Bolt	5	Suspension Crossmember & Under Cover
90119-A0169	Bolt	4	Spare Tire Carrier
90119-A0170	Bolt	1	Engine Mounting
90119-A0184	Bolt	1	Brake Tubes
90119-A0192	Bolt	4	Front Suspension
90119-A0204	Bolt	2	Front Suspension
90119-A0210	Bolt	4	Engine Mounting
90119-A0222	Bolt	6	Brake Tubes
90119-A0224	Bolt	4	Engine Mounting
90178-A0044	Nut	8	Front Bumper
90178-A0052	Nut (For Front Suspension Support)	8	Front Suspension
90178-A0067	Nut	6	Front Bumper
90468-A0007	Clip	4	Brake Tubes
90469-A0004	Clamp, Brake Tube, No.7	6	Brake Tubes
90917-A6002	Gasket, Exhaust Pipe	2	Exhaust System
90949-A1016	Clamp, Brake Tube, No.6	2	Brake Tubes
90949-A1016	Clamp, Brake Tube, No.8	2	Brake Tubes

Parts Kits (Continued):

Part Number	Part Description	Quantity
04004-19334	Parts Kit No.3 – JPN Source Parts Kit 4WD	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name
12157-10010	Gasket, Front Differential Filer Plug	1	Front Differential
43514-34020	Cap, Front Axle Hub Grease, RH	1	Front Suspension
43514-34020	Cap, Front Axle Hub Grease, LH	1	Front Suspension
90311-47012 Or 90311-47027	Seal, Oil (For Differential Side Gear Shaft) RH	1	Front Differential
90311-47013	Seal, Oil (For Differential Side Gear Shaft) LH	1	Front Differential
90430-24003	Gasket (For Front Differential Drain Plug)	1	Front Differential
95381-04050	Cotter Pin	2	Front Suspension

Part Number	Part Description	Quantity
04004-1940C	Parts Kit No.4 – USA Source Parts Kit 4WD	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name
43425-0C010	Ring, Shaft Snap (For Front Drive Inner Shaft Outer)	2	Front Suspension
90105-A0193	Bolt	1	Front Differential
90119-A0151	Bolt	2	Propeller Shaft
90464-00897	Clamp	1	Front Differential

Part Number	Part Description	Quantity
04004-20334	Parts Kit No.5 – Air Suspension Kit 1	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name
48932-30010	Plate, Height Control Tube	2	Rear Spring & Shock Absorber
48932-30010	Plate, Height Control Tube	1	Height Control (Auto Leveler)
48933-30010	Holder, Air Connector Clip	2	Height Control (Auto Leveler)
48934-30010	Connector, Height Control Tube	2	Rear Spring & Shock Absorber
48934-30010	Connector, Height Control Tube	1	Height Control (Auto Leveler)
90301-04004	Ring, O (For Height Control Tube No.2)	2	Height Control (Auto Leveler)
90301-04011	Ring, O (For Rear Pneumatic Cylinder RH)	2	Rear Spring & Shock Absorber
90301-04011	Ring, O (For Rear Pneumatic Cylinder LH)	2	Rear Spring & Shock Absorber
90301-04011	Ring, O (For Height Control No.6 Tube)	2	Height Control (Auto Leveler)
90467-07201	Clip	3	Height Control (Auto Leveler)
90468-12012	Clamp	2	Height Control (Auto Leveler)
82711-1E360	Clamp, Wiring Harness	1	Electronic Modulated Suspension
82711-26380	Clamp, Wiring Harness	4	Electronic Modulated Suspension

Parts Kits (Continued):

Part Number	Part Description	Quantity
04004-20434	Parts Kit No.6 – Air Suspension Kit 2	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name
48932-30010	Plate, Height Control Tube	2	Rear Spring & Shock Absorber
48932-30010	Plate, Height Control Tube	1	Height Control (Auto Leveler)
48933-30010	Holder, Air Connector Clip	2	Height Control (Auto Leveler)
48934-30010	Connector, Height Control Tube	2	Rear Spring & Shock Absorber
48934-30010	Connector, Height Control Tube	1	Height Control (Auto Leveler)
89269-34010	Bracket, Suspension Control RH	1	Electronic Modulated Suspension
89269-34020	Bracket, Suspension Control LH	1	Electronic Modulated Suspension
90110-05004	Bolt	4	Electronic Modulated Suspension
90301-04004	Ring, O (For Height Control Tube No.2)	2	Height Control (Auto Leveler)
90301-04011	Ring, O (For Rear Pneumatic Cylinder RH)	2	Rear Spring & Shock Absorber
90301-04011	Ring, O (For Rear Pneumatic Cylinder LH)	2	Rear Spring & Shock Absorber
90301-04011	Ring, O (For Height Control No.6 Tube)	2	Height Control (Auto Leveler)
90467-07201	Clip	3	Height Control (Auto Leveler)
90468-12012	Clamp	2	Height Control (Auto Leveler)
82711-1E360	Clamp, Wiring Harness	1	Electronic Modulated Suspension
82711-26380	Clamp, Wiring Harness	4	Electronic Modulated Suspension

Part Number	Part Description	Quantity
04004-2060C	Parts Kit No.7 – Air Suspension Kit 3	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name
48958-0C010	Clip, Pneumatic Cylinder	2	Rear Spring & Shock Absorber
90080-11180	Bolt	2	Height Control (Auto Leveler)
90119-A0266	Bolt	3	Height Control (Auto Leveler)

Part Number	Part Description	Quantity
04007-18434	Plug, Hole Kit	1

The kit listed above includes the following parts

Part Number	Part Description	Qty
90950-01993	Plug, Hole	8
90950-01A06	Plug, Hole	2
90950-01A09	Plug, Hole	10
90950-01987	Plug, Hole	6
90950-01994	Plug, Hole	5
90950-01986	Plug, Hole	2
90950-01990	Plug, Hole	2
90950-01992	Plug, Hole	10
90950-01A24	Plug, Hole	2

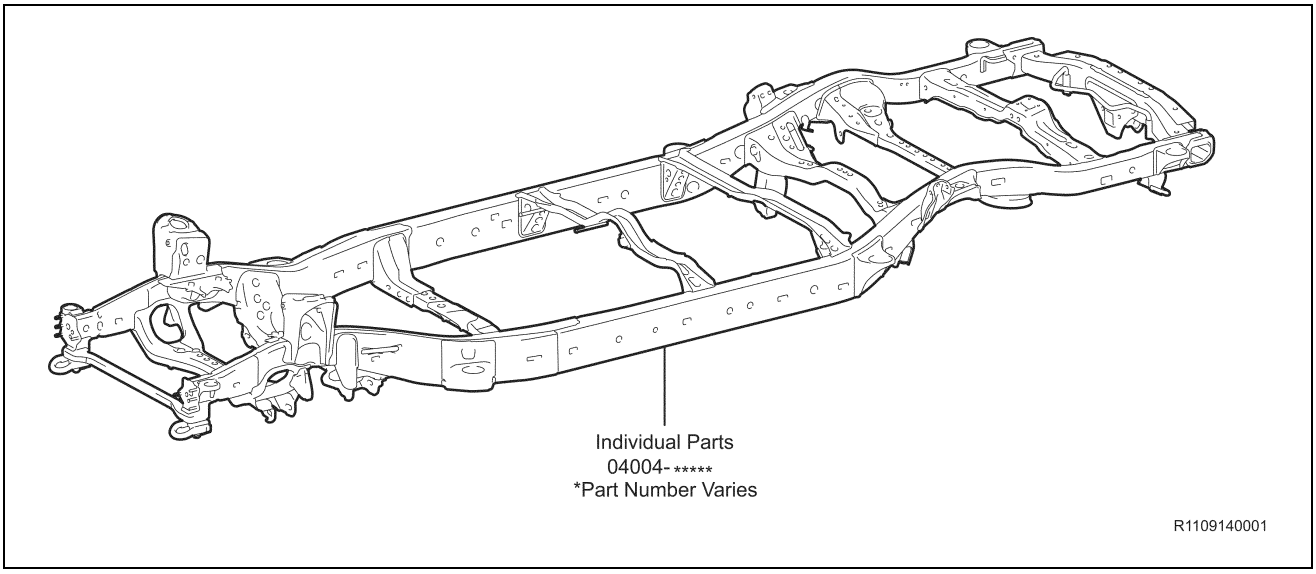
Part Number	Part Description	Quantity
04004-2060C	Parts Kit No.8	1

The kit listed above includes the following parts

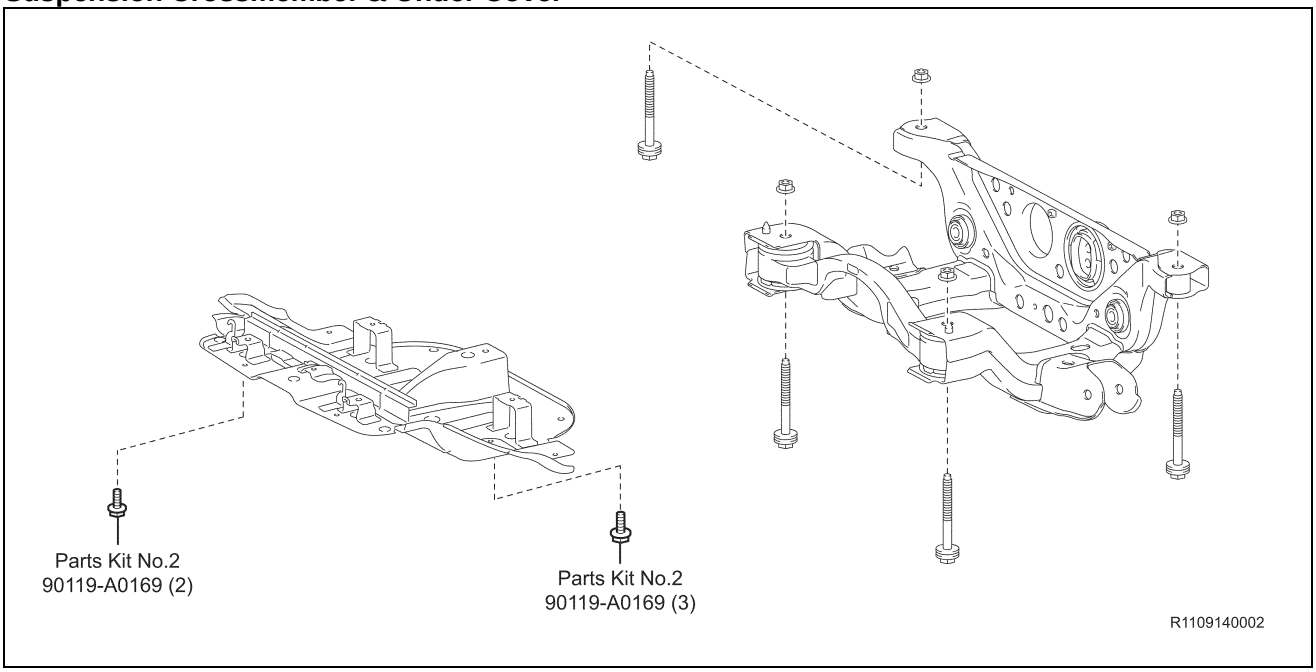
Part Number	Part Description	Qty
48958-0C010	PNEUMATIC CYLINDER	2
90080-11180	BOLT, W/WASHER	2
90119-A0266	BOLT, W/WASHER	3

D. PARTS ILLUSTRATION

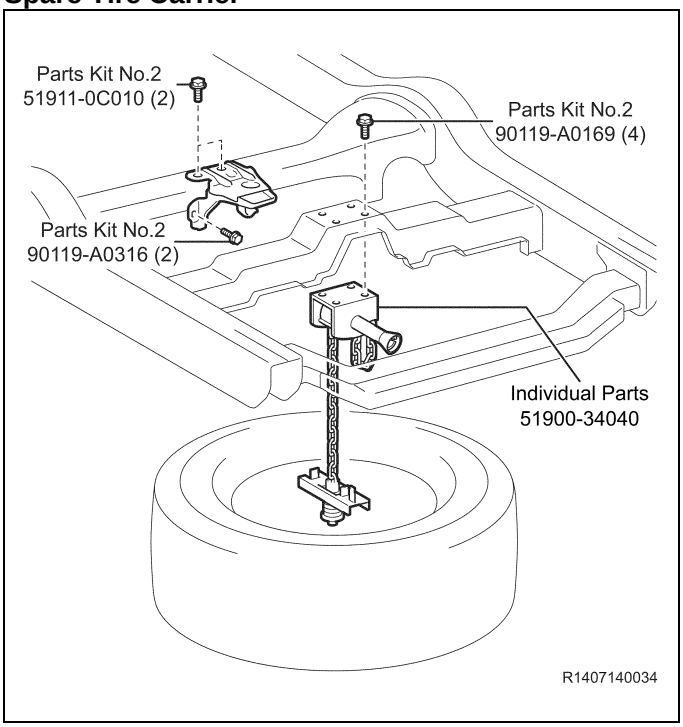
Frame



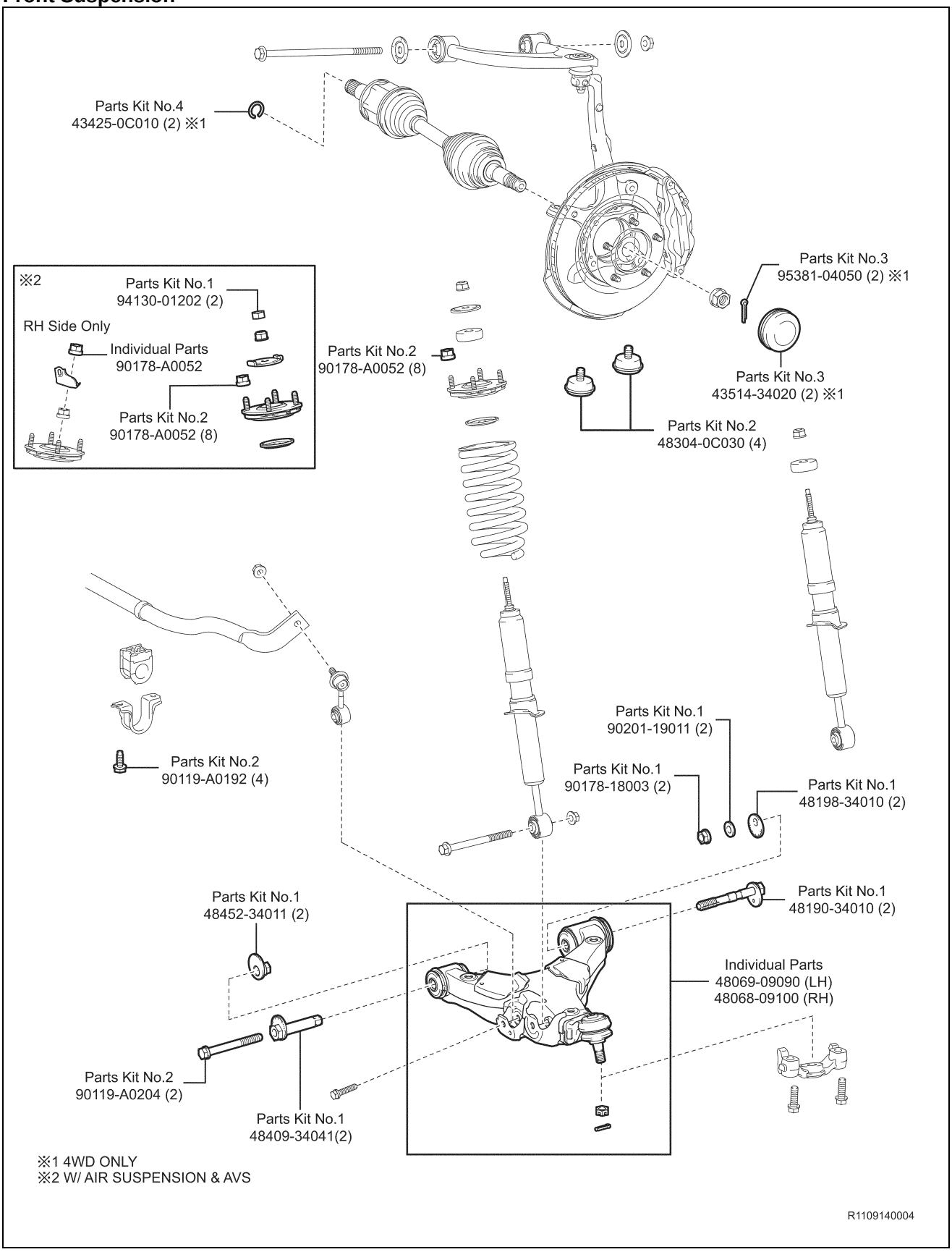
Suspension Crossmember & Under Cover



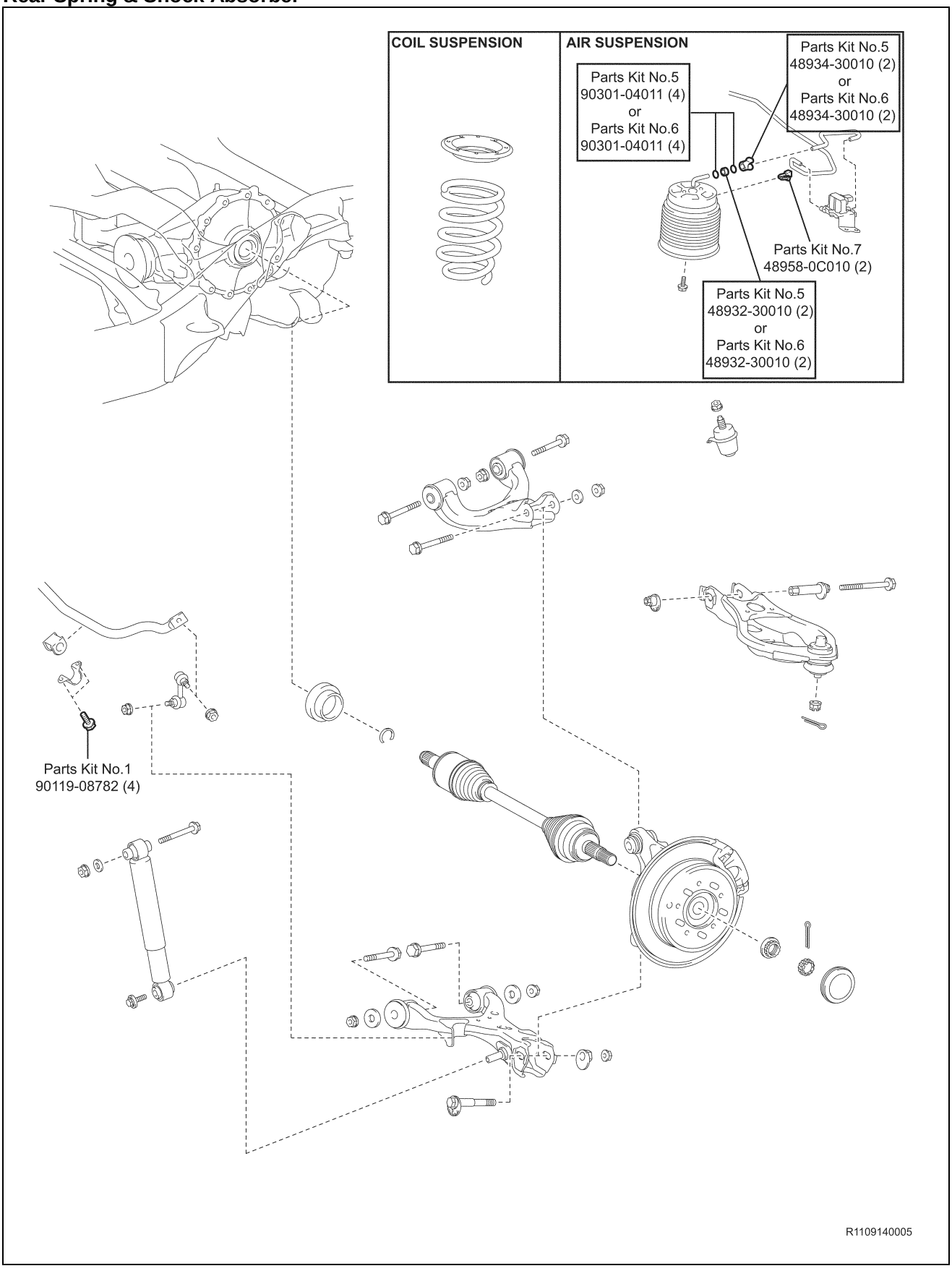
Spare Tire Carrier



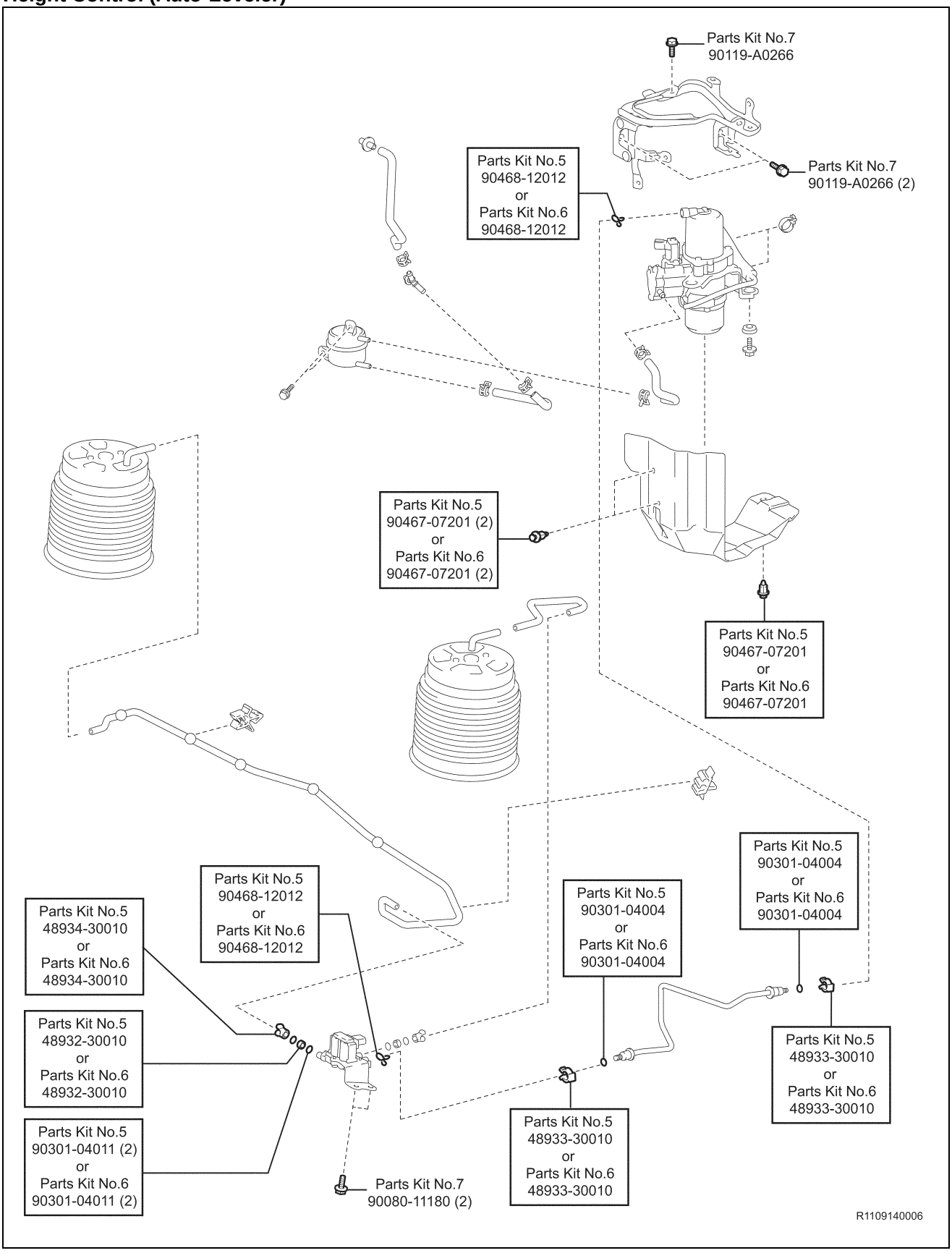
Front Suspension



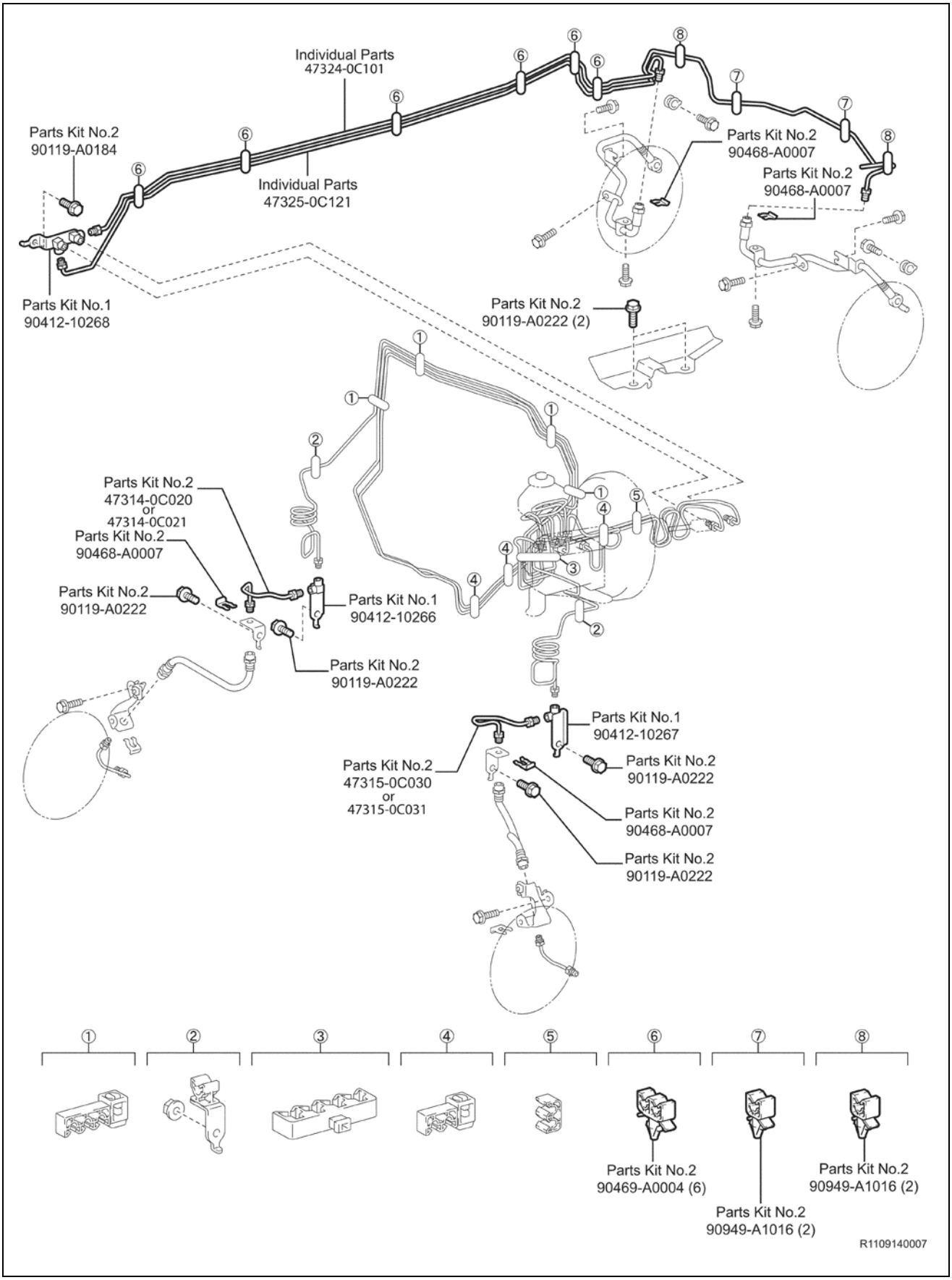
Rear Spring & Shock Absorber



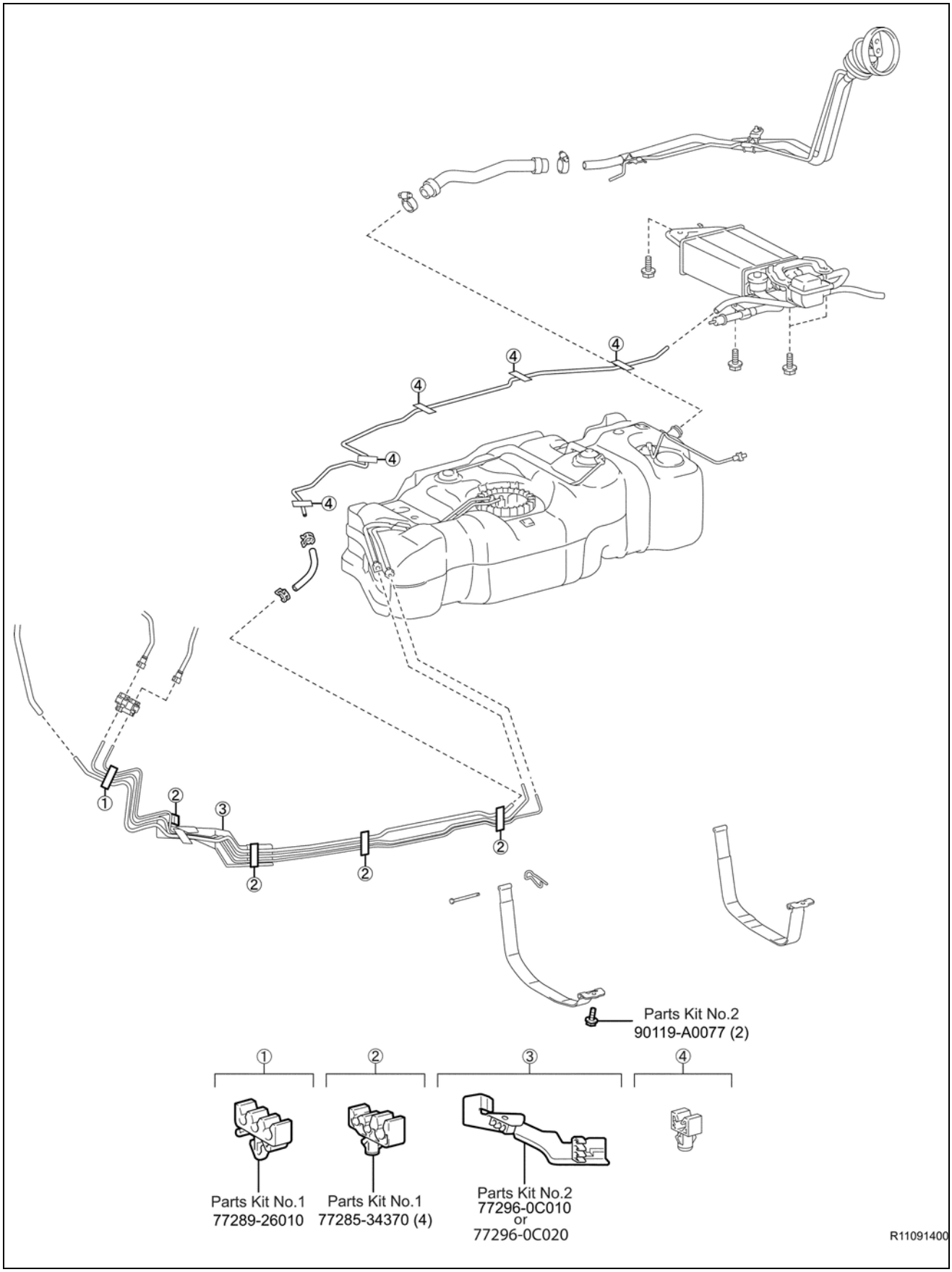
Height Control (Auto-Leveler)



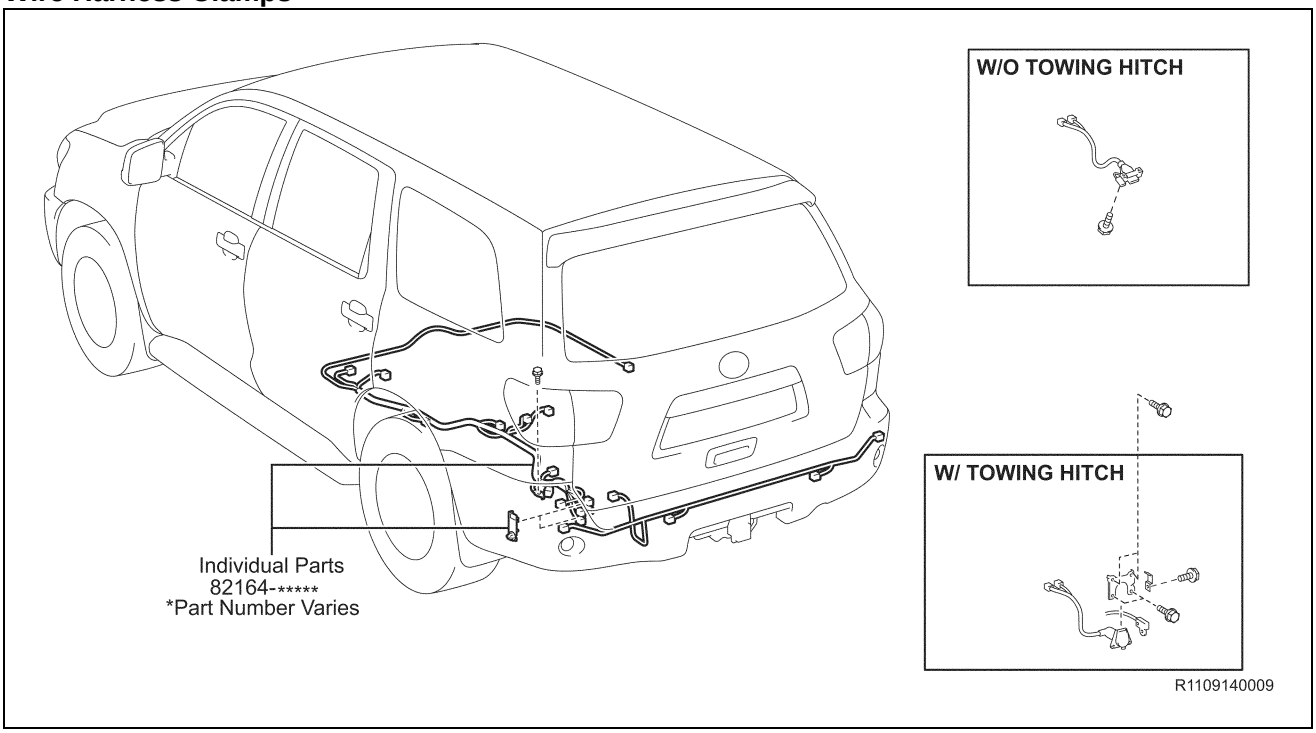
Brake Tubes


Individual Parts
47324-0C101
Individual Parts
47325-0C121
Parts Kit No.2
90119-A0184
Parts Kit No.1
90412-10268
Parts Kit No.2
90468-A0007
Parts Kit No.2
90468-A0007
Parts Kit No.2
90119-A0222 (2)
Parts Kit No.2
47314-0C020
or
47314-0C021
Parts Kit No.2
90468-A0007
Parts Kit No.2
90119-A0222
Parts Kit No.1
90412-10266
Parts Kit No.2
90119-A0222
Parts Kit No.1
90412-10267
Parts Kit No.2
47315-0C030
or
47315-0C031
Parts Kit No.2
90119-A0222
Parts Kit No.2
90468-A0007
Parts Kit No.2
90119-A0222
Parts Kit No.2
90469-A0004 (6)
Parts Kit No.2
90949-A1016 (2)
Parts Kit No.2
90949-A1016 (2)
R1109140007

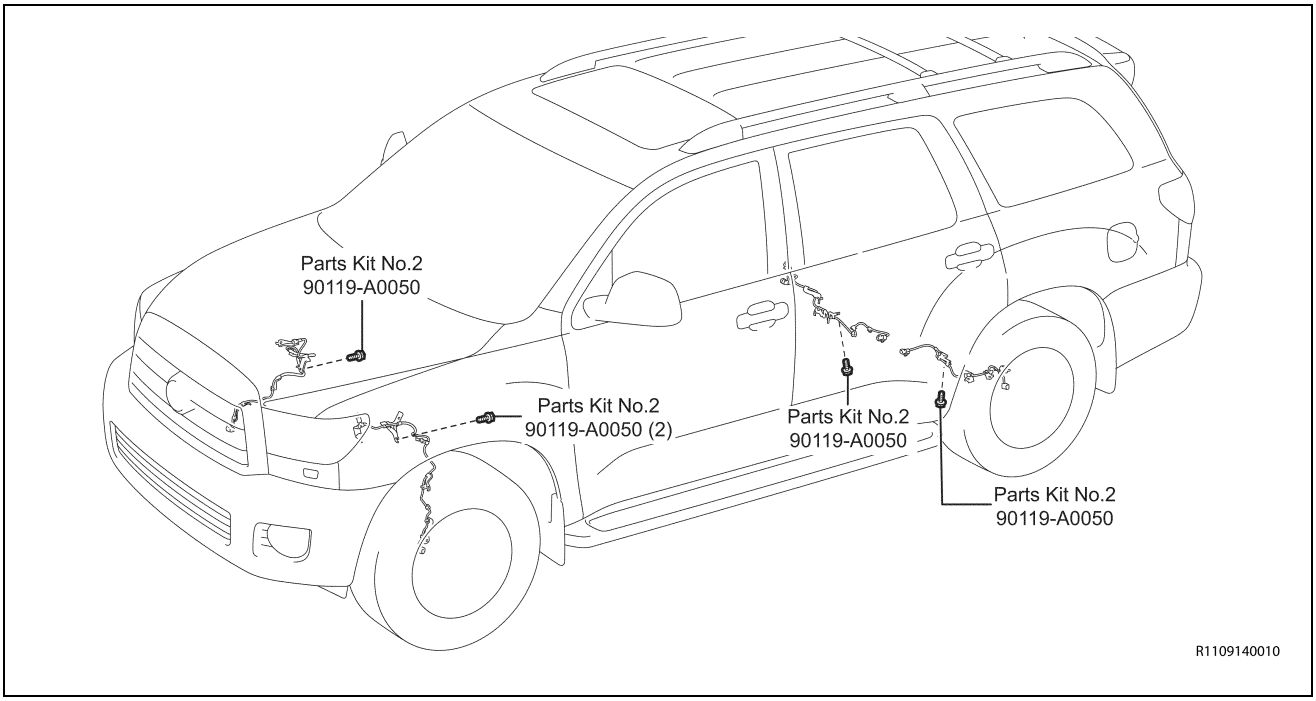
Fuel Tank & Tubes



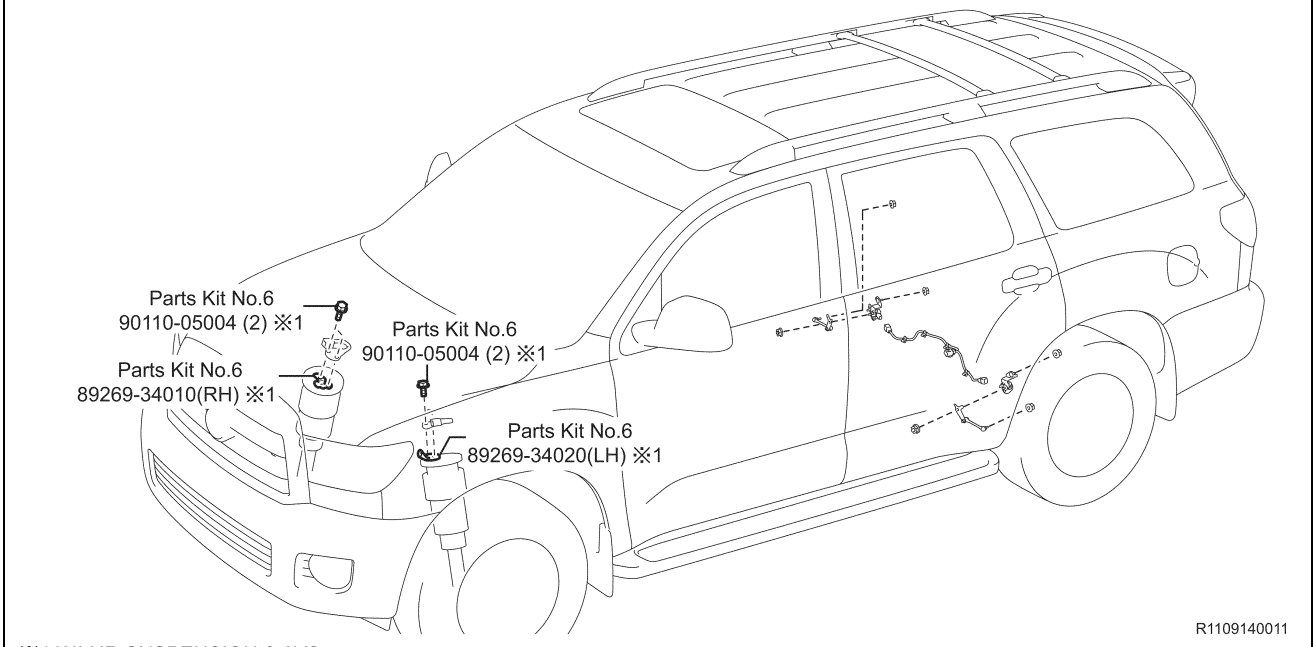
Wire Harness Clamps



ABS & VSC

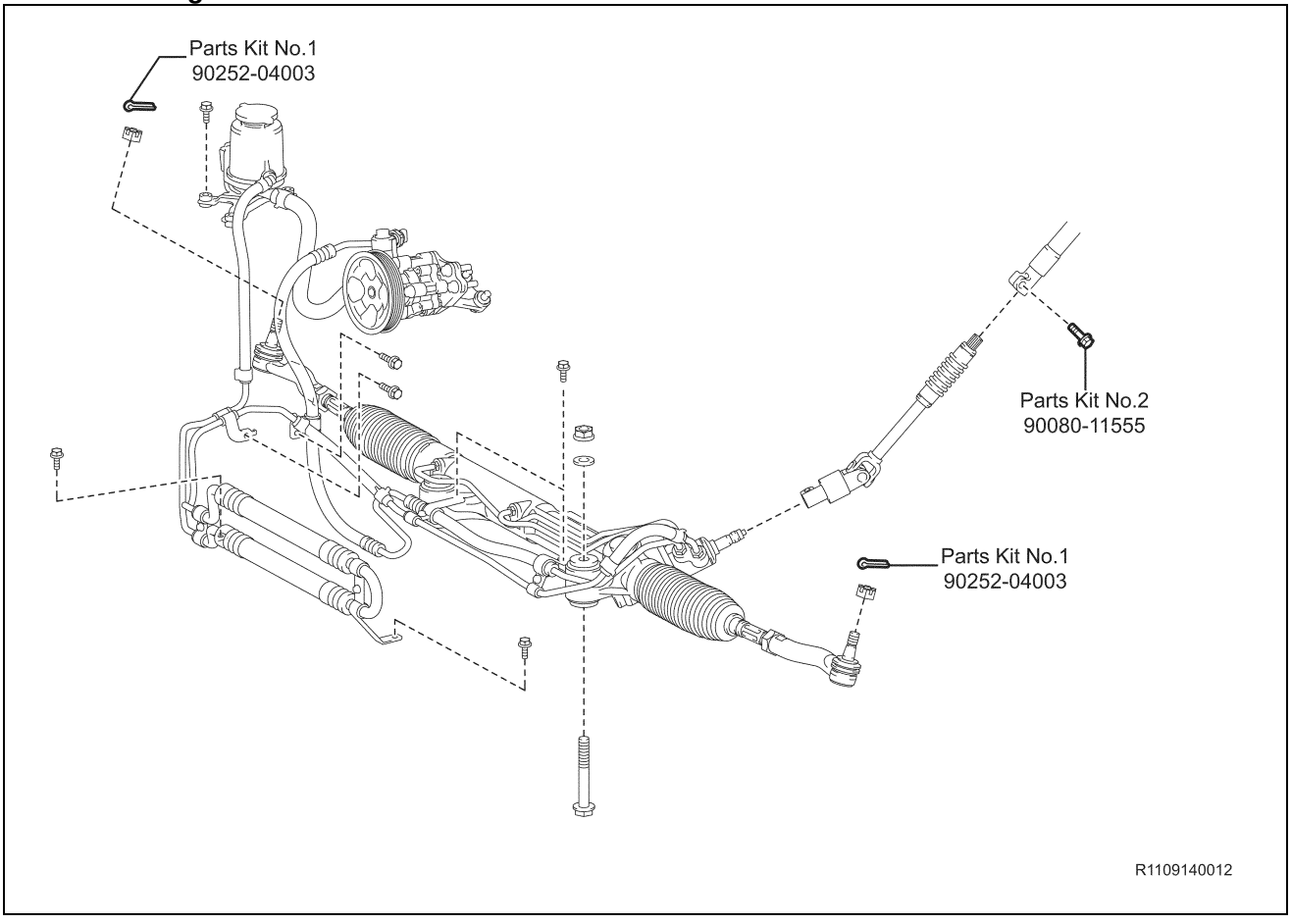


Electronic Modulated Suspension

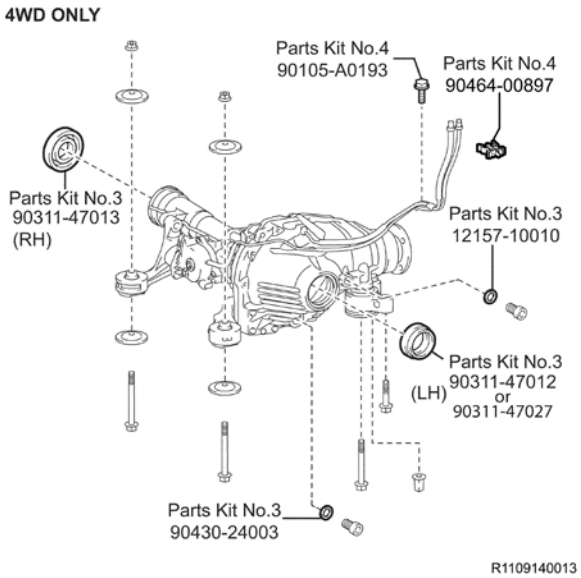


※1 W/ AIR SUSPENSION & AVS

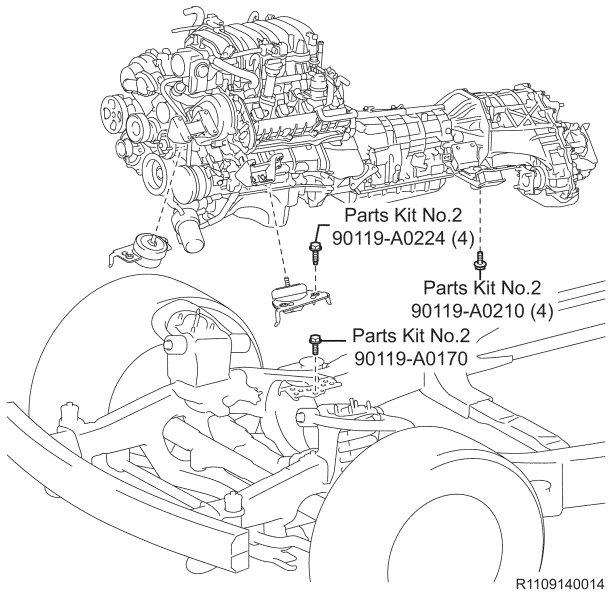
Power Steering



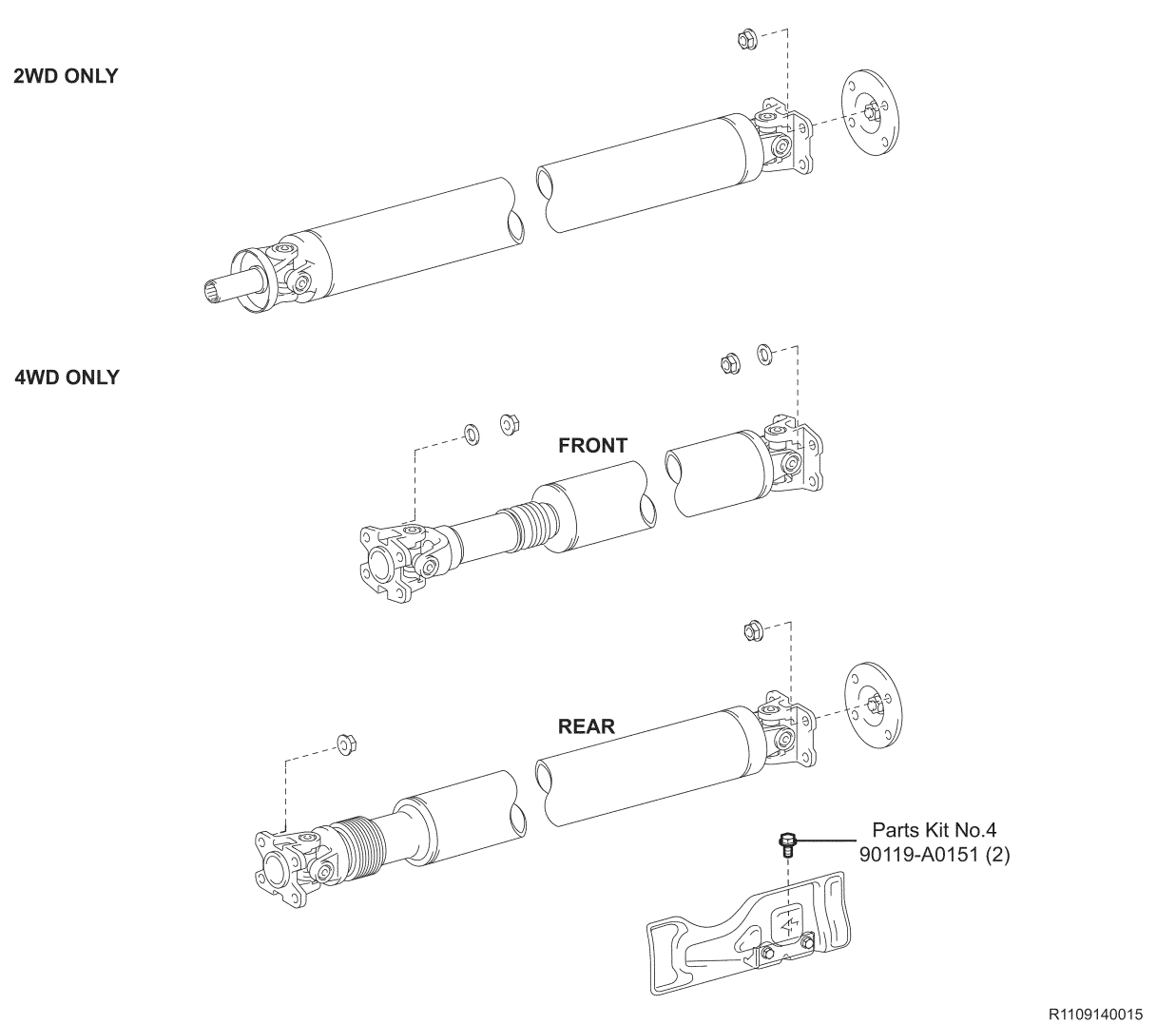
Front Differential



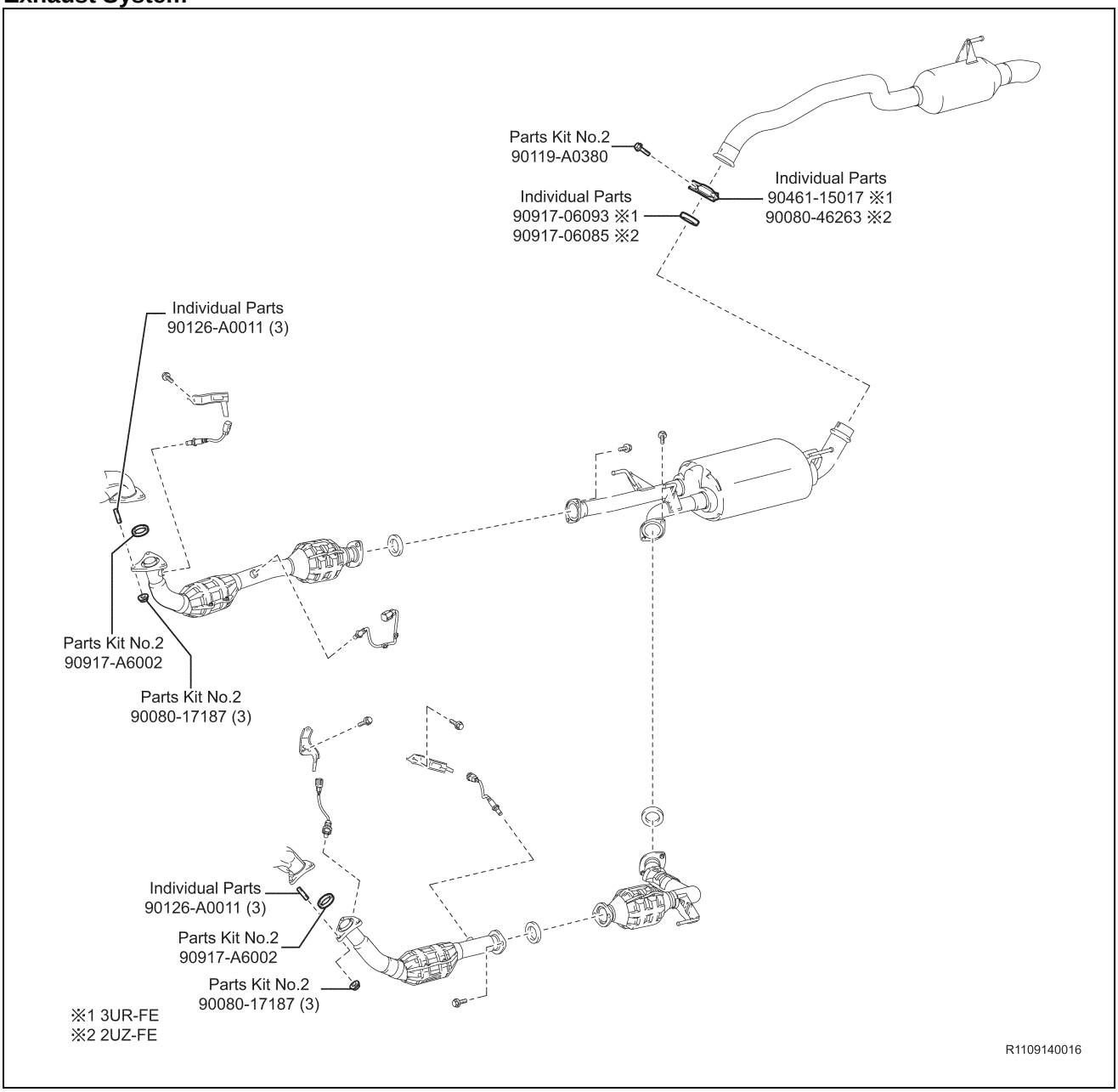
Engine Mounting



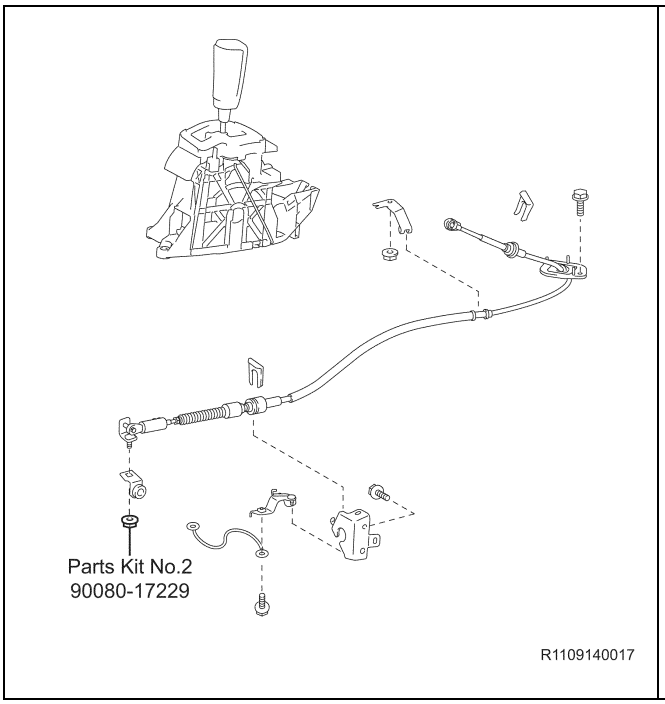
Propeller Shaft



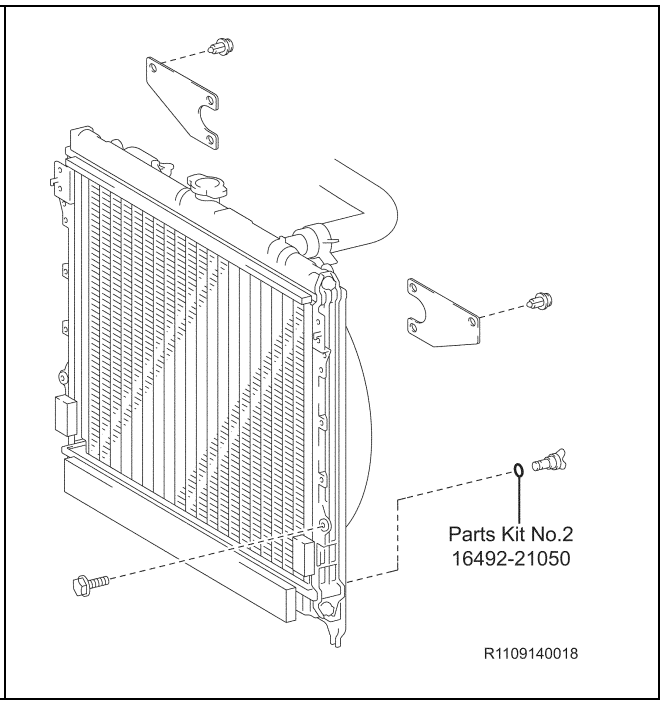
Exhaust System



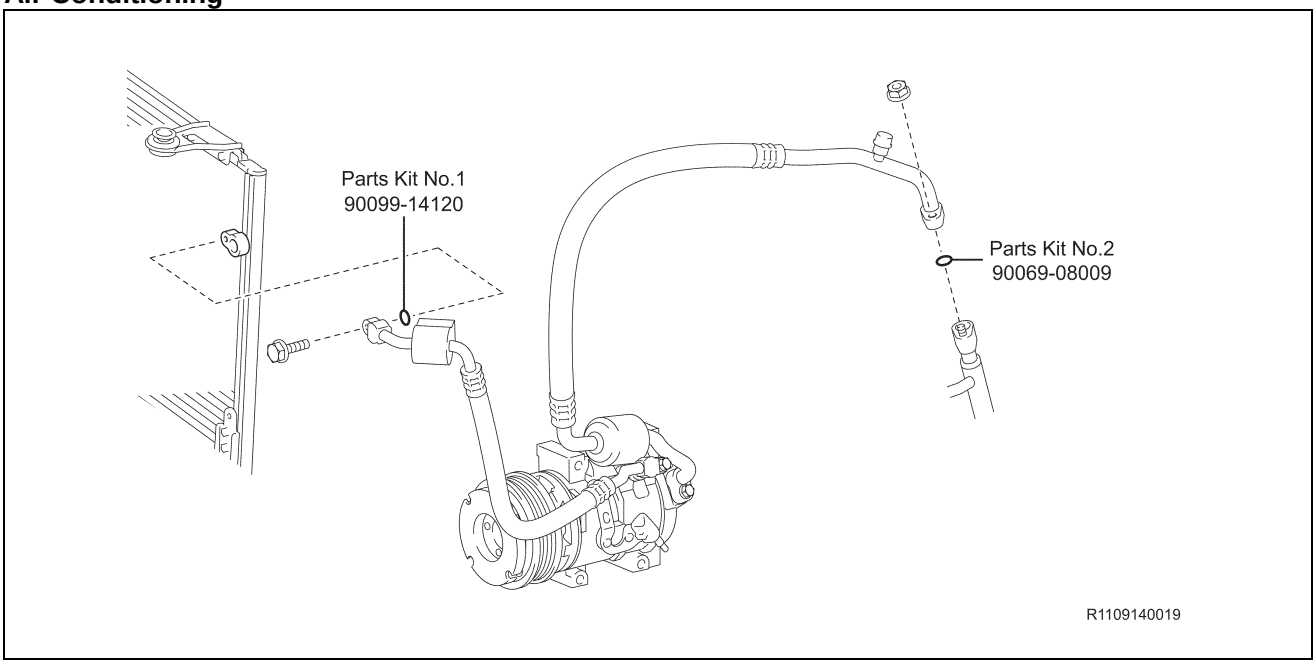
AT Shift Cable



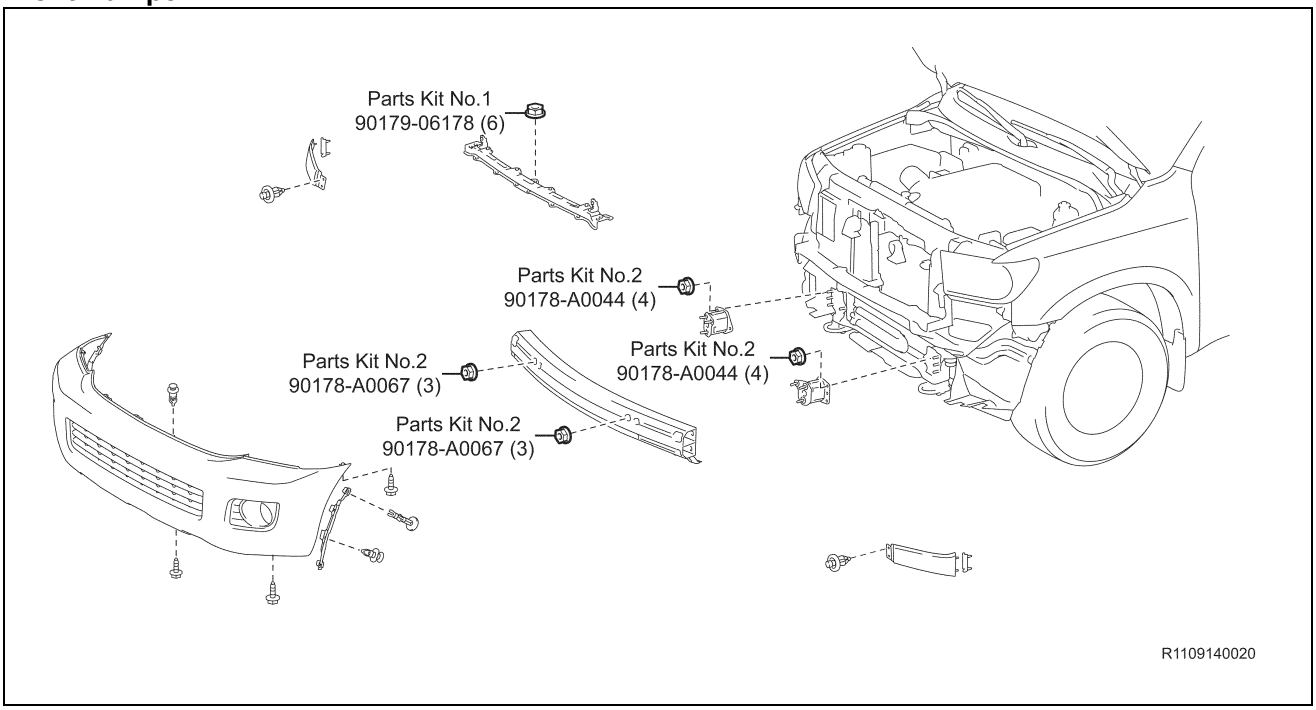
Radiator



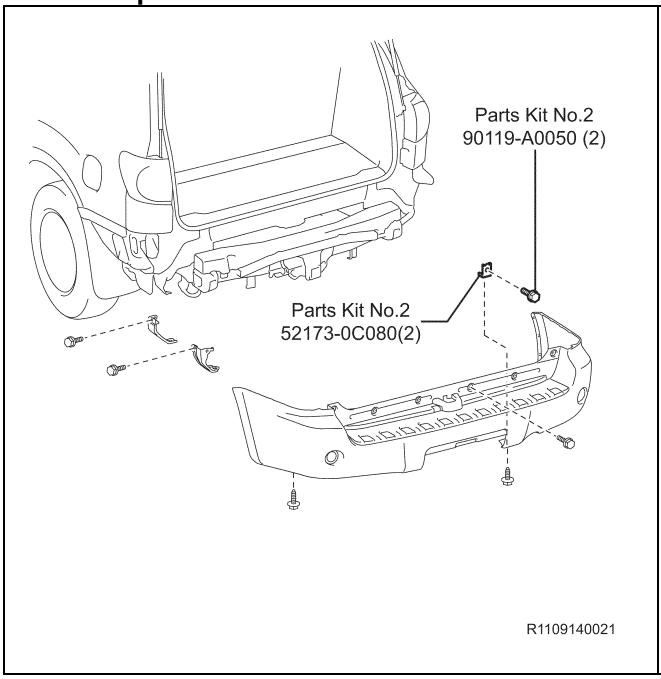
Air Conditioning



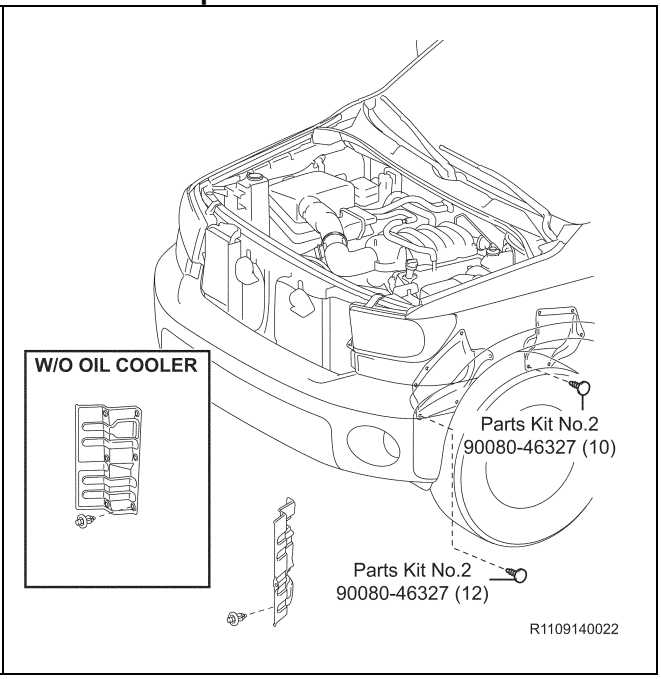
Front Bumper



Rear Bumper

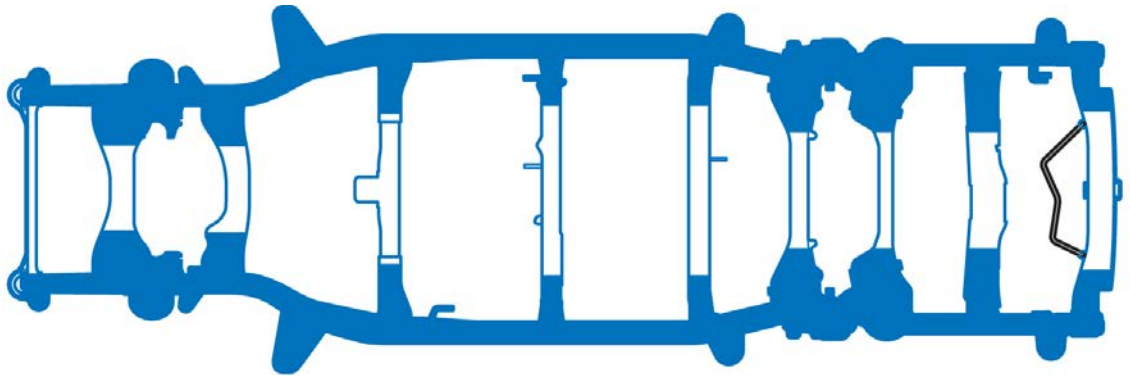


Front Fender Apron



III. FRAME INSPECTION

1. PERFORM INITIAL PRE-HOIST INSPECTION



R1107220001A

2. VISUALLY INSPECT THE FRAME

a) Visually inspect the specific areas (highlighted in blue) of the frame assembly as shown for visible signs of perforation.

Judgement Criteria	Result	Action
Perforation (hole) of 10 mm or more	NG	• Replace the frame • Proceed to section **IV. VEHICLE INSPECTION** below to begin the frame replacement process.
Perforation (hole) of less than 10 mm	OK	• No action required

NOTE:
Use protective eyewear and gloves when performing the under vehicle inspection as rusted metal may flake off.

I. FRAME INSPECTION

1. PERFORM INITIAL PRE-HOIST INSPECTION

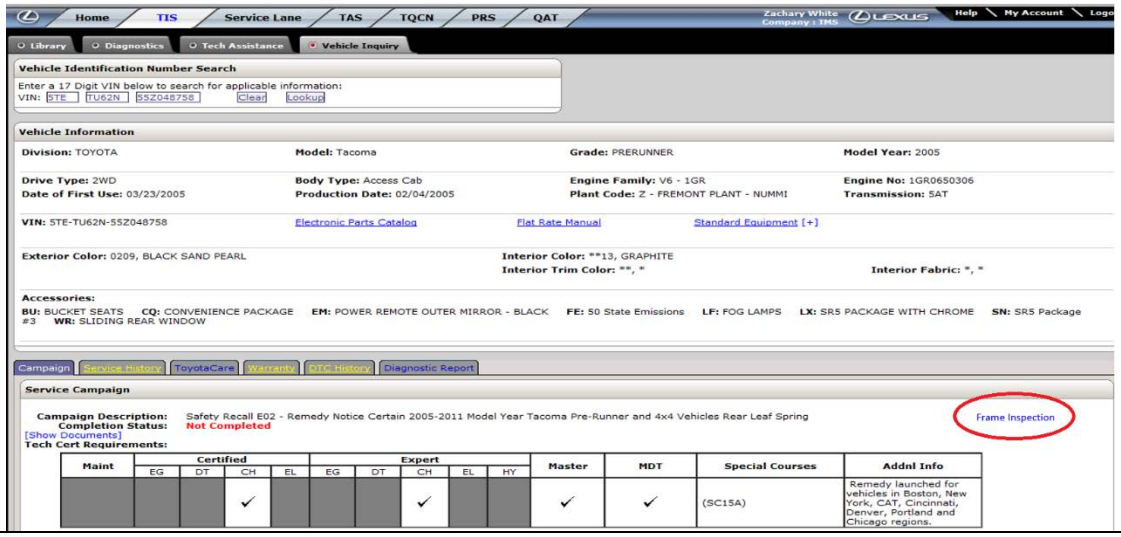
1. INSPECT THE FRAME FOR EXCESSIVE FRAME CORROSION THAT COULD AFFECT THE STRUCTURAL INTEGRITY OF THE FRAME

2. FRAME INSPECTION

All frame inspection must be performed using the NEW frame inspection application on TIS. Ensure you inspect the frame and properly document the inspection. Failure to perform this will result in denial of the claim.

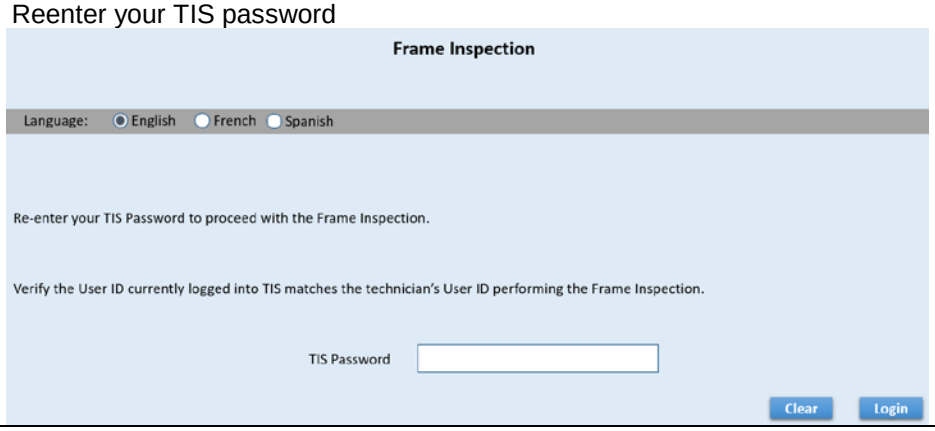
1. ACCESS INSPECTION APPLICATION

a. Run the VIN in TIS and click on the Warranty Tab
b. Click on the "Frame Inspection" link on TIS



2. LOG INTO THE INSPECTION APPLICATION

a. Reenter your TIS password



3. ENTER VEHICLE INFORMATION

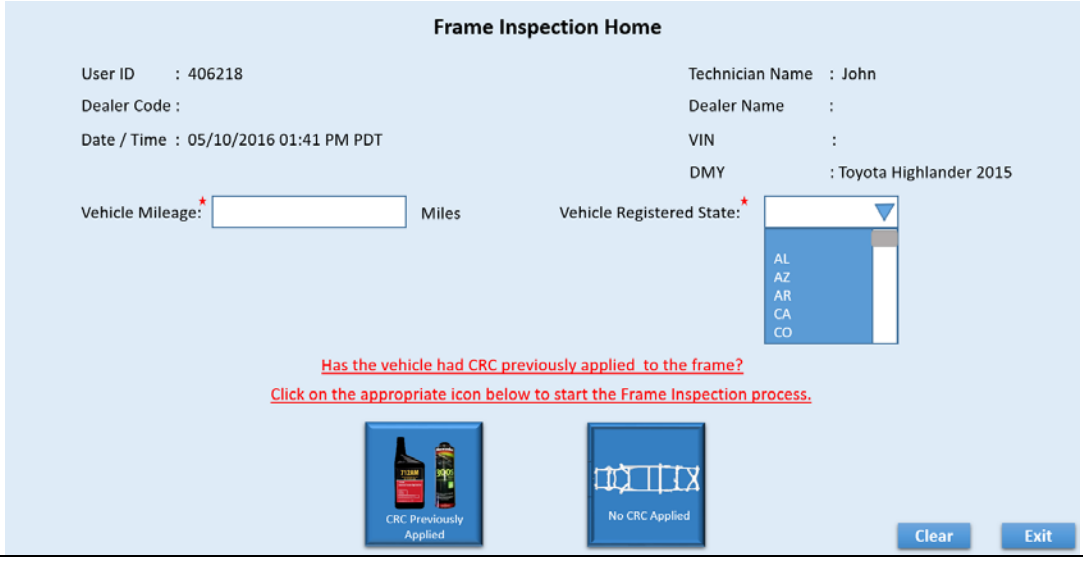
a. Enter the vehicle mileage.
b. Select the state from the drop-down menu that the vehicle is registered.

Note: Do NOT select the state the dealership is located.

c. Inspect the frame for CRC compound that could have been previously applied:

CRC was Previously Applied: Select the CRC Bottle Button
NO CRC Previously Applied: Select Frame Button

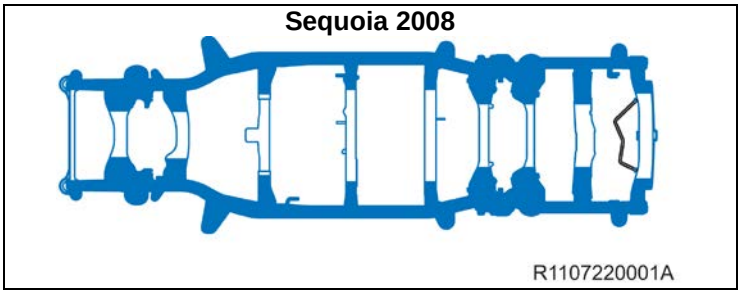
Note: CRC could only be previously applied to 2005 to 2008 Tacoma vehicles.



4. INSPECT THE FRAME SECTIONS

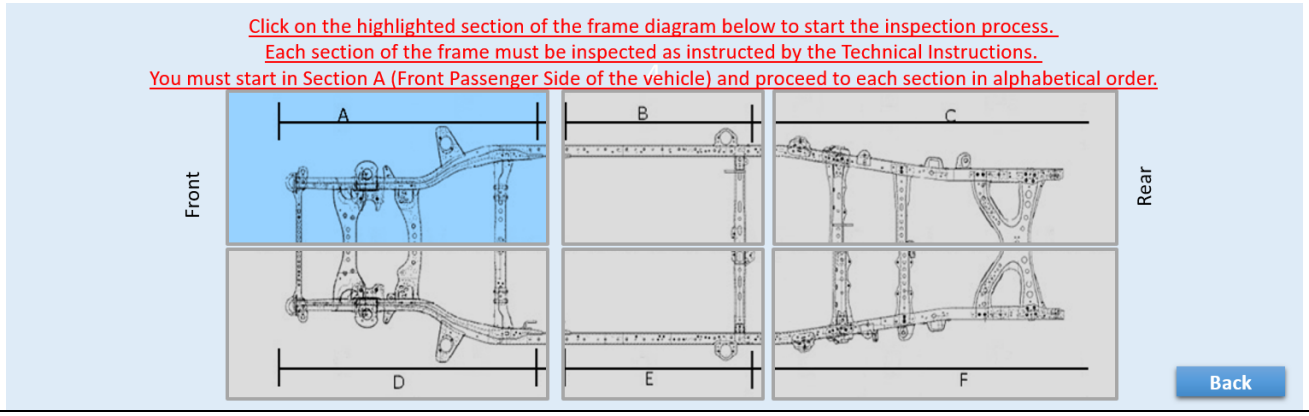
a. Inspect the frame in the colored areas below and use the application to document the results of the inspection.

Note: Crossmember mounting locations should be inspected 6" into the crossmember.



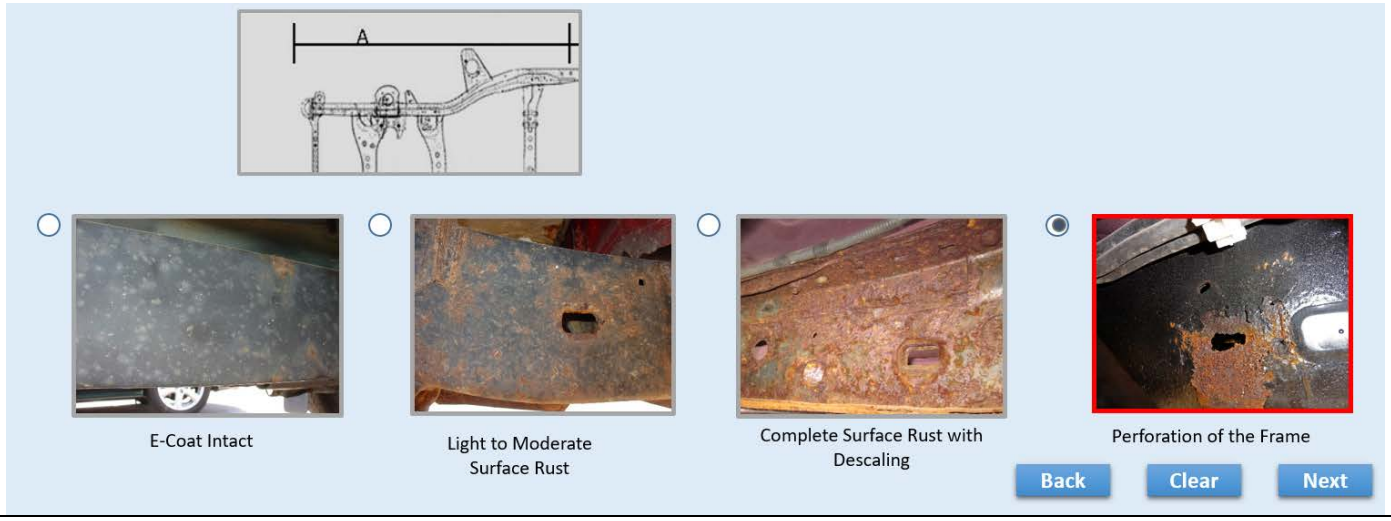
b. Select Section A

Note: The frame inspection application must be completed in alphabetical order.



c. Inspect the frame section and inspect all surfaces of the frame rail and crossmember. Select the photo that best represents the frame condition. If perforation of 10mm or larger is identified select "Peroration of the Frame".

Note: You must click the bubble next to the image to select the condition.

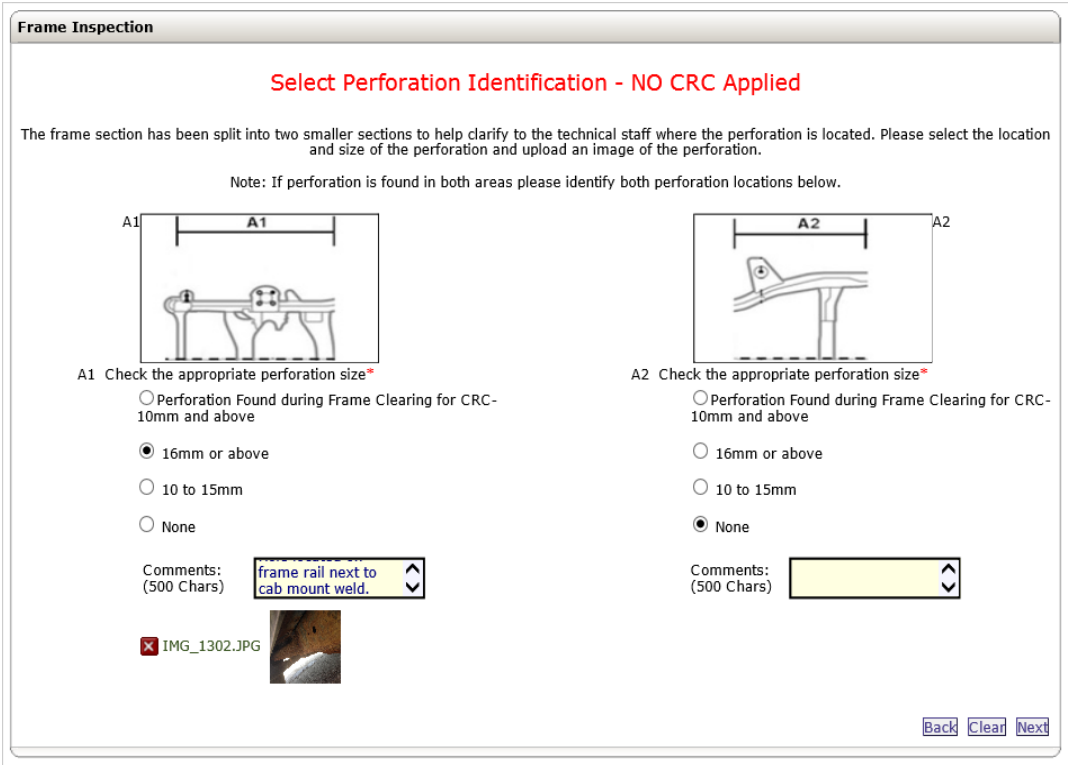


d. If you selected Perforation of the Frame, the application will request more information about the size of perforation(s) and location.
e. The section with perforation will split into 2 sub-sections to further identify the perforation location.
f. Select the size of the perforation in each sub-section.
g. Upload a photo for each area containing perforation and describe the location in the comments section.

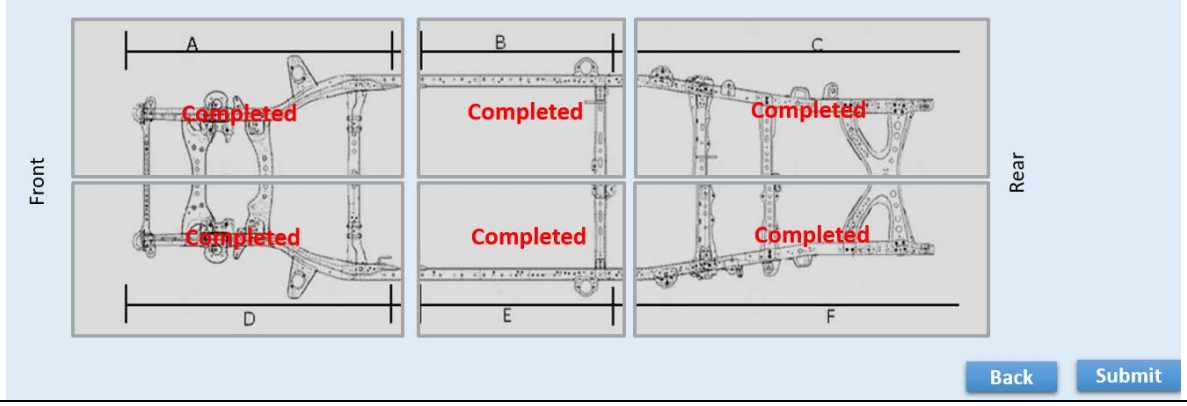
Note:

- **Include the R.O. in the image of at least one of the perforation holes.**
- **If both sub-sections have perforation, it will require two pictures to be uploaded.**
- **If perforation was accidentally selected use the back button to reselect the correct frame condition.**

h. Select Next to move onto the next section.



i. Once all sections have been completed, select the Submit button.



NO Perforation Found

j. If no perforation was not found, follow the directions as provided.

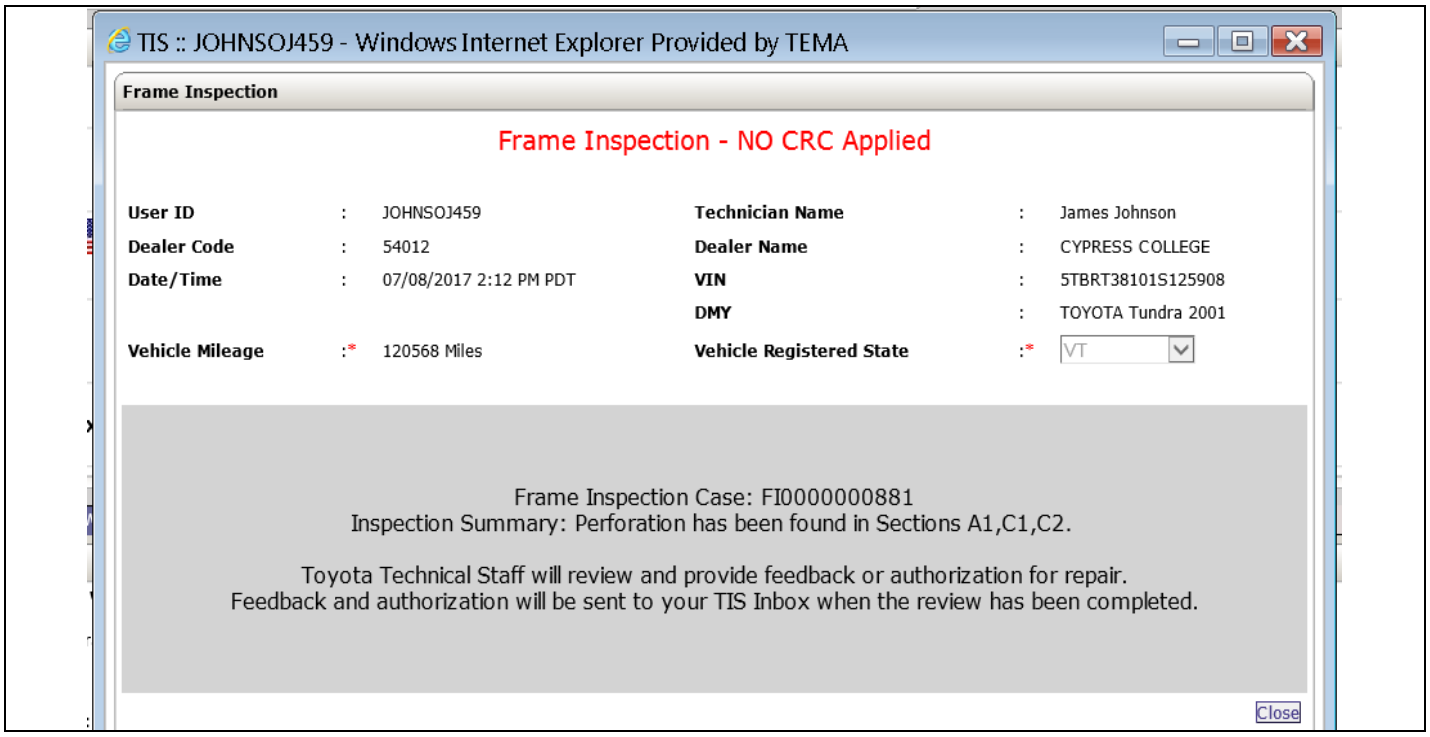
Frame Inspection Case: FI0000000001
Inspection Summary: No Perforation Found

The frame inspection has been completed successfully. Please print a copy of the inspection case and file it with the R.O. for warranty claim filing.

Perforation Found

k. If perforation was found, this application will be submitted to your Regional Office for review. The region office will review the inspection and provide feedback if the frame replacement is approved for future repair.

DO NOT proceed with frame replacement or parts ordering until you are provided with approval from the Regional Office. Approval will be sent to the TIS inbox for the inspection, Service Manager and Parts Manager.



II. VEHICLE INSPECTION

- Visually inspect both the vehicle interior and exterior. Note any damage found during the visual inspection prior to beginning work.
- As you disassemble the vehicle you may encounter parts that are in need of replacement, which are not covered by this repair procedure. If this is the case, please take the time to inform the customer that these parts can be replaced with minimal labor cost.

III. FRAME REPLACEMENT WORK PROCEDURE

A. PERFORM PRELIMINARY VEHICLE INSPECTION

1. Perform health check and record any preexisting DTCs
2. Test drive the vehicle and inspect the following vehicle functions/current operating conditions prior to vehicle repair.

- 4WD System (***4WD Only***)
- Interior Lights
- Exterior Lights
- HVAC System
- Audio System
- Power Windows
- Power Door Locks
- All Gauges, Indicators and Warning Lights
- Cooling Fans
- Etc.

3. Documents the current vehicle operating condition on the **Frame Replacement Inspection Sheet**.

B. SAFETY CHECKLIST & PRECAUTIONS WHEN DRAINING THE FUEL SYSTEM

- Always remember "***SAFETY FIRST***".
- Be extremely careful when handling fuel to prevent fires from occurring.
- Before beginning work on the fuel system, perform the following safety check list.
- Before removing any fuel system part, drain all fuel to prevent spilling.

1. AIR VENTILATION

☐ Perform work in a well-ventilated area.
☐ **DO NOT** work underground or in an area where fuel vapors may fill the room due to poor ventilation.
☐ Quickly clean up any spilled fuel with a dry cloth and dissipate the fuel vapors.
☐ Dry all cloths that have come in contact with fuel in a well-ventilated area and dispose of them properly (according to applicable local regulations).

2. FIRES AND IGNITION SOURCES ARE STRICTLY PROHIBITED

☐ Fires and ignition sources are prohibited while working on the fuel system.
☐ Clearly display the sign found on the next page stating **"WORKING WITH GASOLINE, NO FIRES OR IGNITION SOURCES".**
☐ Smoking is prohibited near the work area.
☐ **DO NOT** work in areas where there are welders, grinders, drills, electric motors, heaters, etc.
☐ **DO NOT** use work lamps or any other electrical appliance due to the risk of sparks flying from the power switch or a rise in temperature.
☐ **DO NOT** use metal hammers while working, due to the risk of flying sparks.
☐ **DO NOT** start any engines or perform any of the above in neighboring work bays.

3. FIRE EXTINGUISHER

☐ Have a fire extinguisher ready and available before beginning work.

4. PREVENT STATIC ELECTRICITY

☐ To help prevent static electricity, lightly wet the floor with water, but not to the point where it creates a hazardous working condition.
☐ Place appropriate warning cones or stand signs around the area as a caution.

5. PRECAUTIONS WHEN USING A LIFT

☐ For bays equipped with auto lifts, cover all access cover joints with duct tape.
☐ In the event that fuel has leaked inside the auto lift, remove the access cover and clean up any spilled fuel. Dissipate fuel vapors until the smell is gone.

6. PREVENT THE FUEL FROM SPRAYING

☐ When disconnecting any fuel tubes, pipes, hoses or connectors there may still be some pressure remaining, even after discharging the system. To prevent the fuel from spraying, cover the tubes, pipes or connectors with a shop rag before disconnecting.
☐ Remember to always wear protective goggles especially when disconnecting fuel tubes, pipes, hoses or connectors.

7. PREVENT THE FUEL FROM CONTACTING OTHER PARTS

☐ Do not allow the fuel to come in contact with any parts made of rubber or leather.

8. ASSIGN A SAFETY SUPERVISOR

☐ Assign a safety supervisor to be in charge of all safety precautions and fire hazards around the work area.

■Copy And Display When Working

WORKING WITH GASOLINE

NO FIRES
NO IGNITION SOURCES

Supervisor _____

■ Copiar y exhibir al trabajar

TRABAJANDO CON GASOLINA

NINGÚN INCENDIOS

NINGUNA FUENTE DE IGNICIÓN

Supervisor _____

C. DISCHARGE THE FUEL SYSTEM PRESSURE

- **DO NOT** disconnect any part of the fuel system until you have discharged the fuel system pressure.
- Even after discharging the fuel system pressure, place a piece of cloth around the tubes, pipe, hoses and connectors as you separate them to reduce the risk of fuel spraying on yourself, in the engine compartment and onto other parts.
- For additional repair information, please reference to the appropriate repair manual in TIS for the vehicle you are working on.

1. CENTER THE VEHICLE BETWEEN THE LIFT ARMS

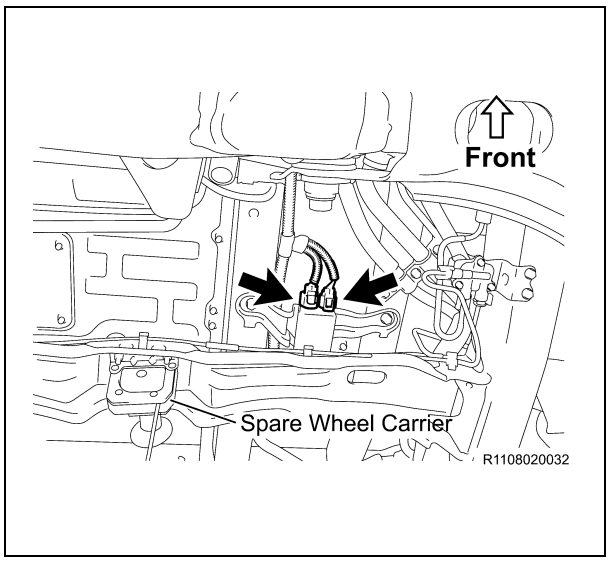
a) Verify the vehicle is aligned with the center point of the lift to prevent interference and damage to the frame and/or lift.

2. REMOVE THE SPARE WHEEL

3. CHECK FOR DTCs

4. RECORD THE RADIO STATION PRESETS & REMOVE THE BATTERY

NOTE:
Wait 90 seconds after the negative (-) terminal cable is disconnected from the battery before proceeding. Doing so will prevent the SRS from being deployed (i.e. airbag, seat belt pretensioner, etc.).



5. DISCHARGE THE FUEL SYSTEM PRESSURE

a) Disconnect the 2 fuel pump ECU connectors.
b) Reconnect the cable to the negative (-) battery terminal.
c) Start the engine.
d) After the engine has stopped, turn the ignition switch OFF.
e) Crank the engine again to check that it does not start.
f) Disconnect the negative (-) battery terminal.
g) Loosen the fuel tank cap, and then discharge the pressure in the fuel tank completely.

NOTE:
Please make sure to follow the procedure listed above. This will prevent a large amount of gasoline from spilling out when high pressure fuel tube is disconnected.

D. REMOVE THE CAB BODY ASSEMBLY

- **If the frame is perforated, ONLY raise the vehicle high enough to remove the tires.**
- **For added safety and support place jack stands under the front and rear portions of the frame.**
- **DO NOT work directly underneath the vehicle when performing cab body assembly removal, unless noted.**
- **The actual vehicle specs, equipment and parts required may differ than what is shown. Please use the correct specs and parts for the model you are working on.**
- **For additional repair information, please reference to the appropriate repair manual for the vehicle you are working on.**

1. REMOVE THE FOLLOWING PARTS

- Engine Under Cover No.1
- Side Step assy LH/RH

NOTE:
Use precaution when performing this step, as you will need to work underneath the vehicle.

2. EVACUATE THE REFRIGERANT FROM THE AIR CONDITIONING SYSTEM

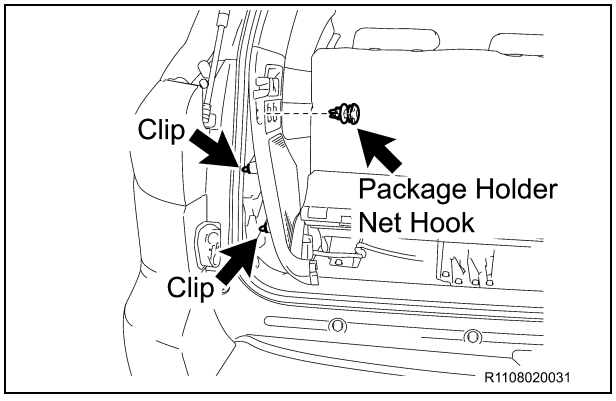
3. DRAIN THE FOLLOWING FLUIDS

- Coolant
- Brake Fluid

NOTE:
DO NOT remove the radiator cap while the radiator and engine are hot, doing so may cause the coolant to spray out causing potential injuries.

4. REMOVE THE FOLLOWING PARTS

- Front Door Scuff Plate LH/RH
- Cowl Side Trim Board LH/RH
- No.2 Dash Panel Insulator Pad
- No.3 Dash Panel Insulator Pad
- Rear Door Scuff Plate LH/RH
- Luggage Compartment Trim Box
- Rear Floor Mat Support Plate

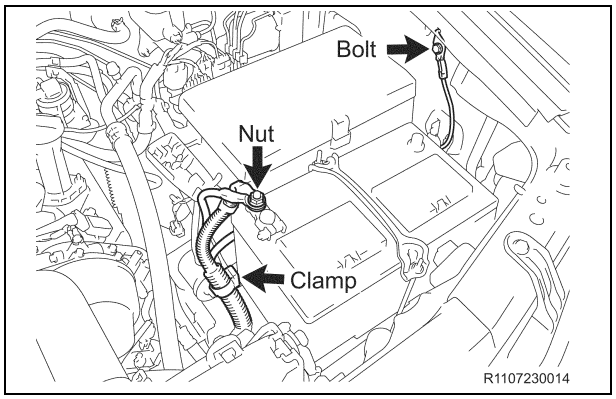


5. DISCONNECT THE QUARTER TRIM PANEL ASSY

a) Remove the package holder net hook.
b) Disconnect the 2 clips and the quarter trim panel assy.
c) Repeat the procedure on the opposite side.

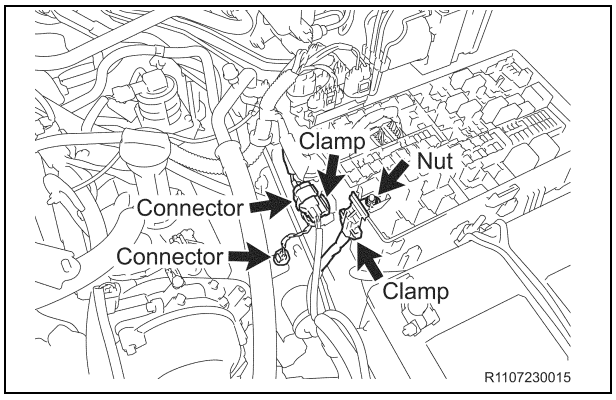
6. REMOVE THE FOLLOWING PARTS

- Front Wheel
- Front End Panel LH/RH
- Front Fender Splash Shield Sub-Assy LH/RH
- Front Bumper Cover Assy
- Front Bumper Reinforcement Sub- Assy
- No.2 Front Bumper Extension Sub- Assy LH/RH
- Front Fender Mudguard LH/RH ***(If Equipped)***
- Throttle Body Cover Sub- Assy ***(2UZ-FE Only)***
- V-Bank Cover Sub- Assy ***(3UR-FE Only)***
- Air Cleaner Hose and Air Cleaner Assy

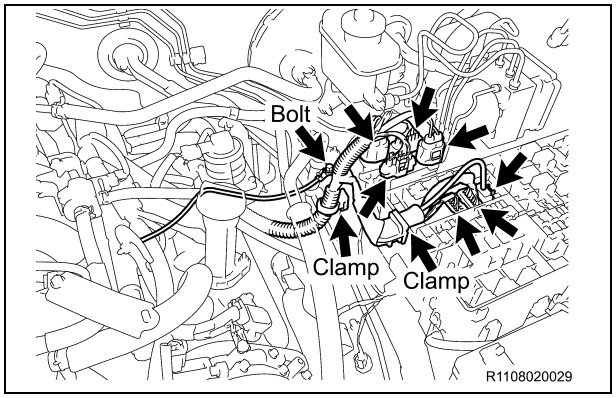


7. DISCONNECT THE ENGINE WIRE HARNESS (LH SIDE)

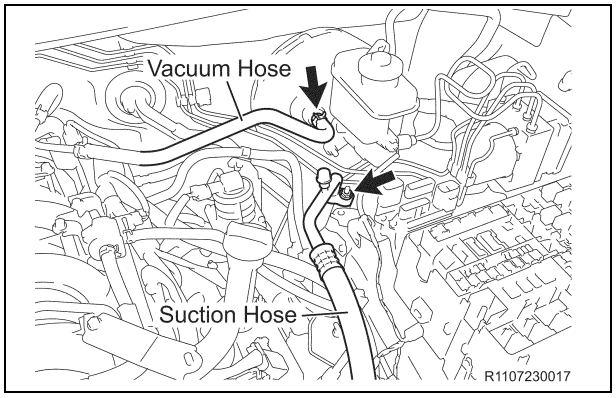
a) Remove the nut and disconnect the 2 (+) positive battery cables.
b) Remove the bolt and disconnect the ground wire.
c) Disconnect the clamp.



d) Remove the No.1 relay block cover.
e) Disconnect the 2 connectors and clamps.
f) Remove the nut and disconnect the (+) positive battery cable.



g) Disconnect the 7 connectors and 2 clamps.
h) Remove the bolt and disconnect the ground wire.

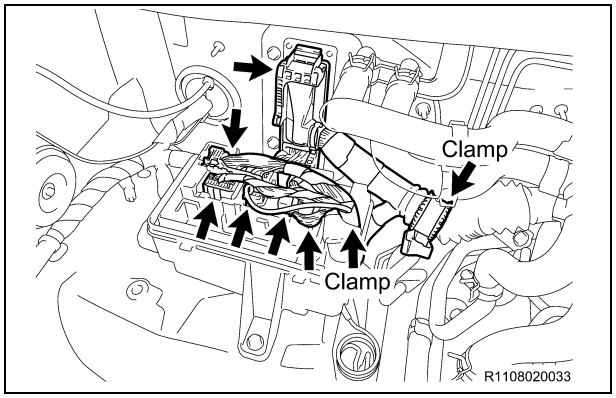


8. DISCONNECT THE No.1 COOLER REFRIGERANT SUCTION HOSE ASSY

a) Remove the nut and disconnect the suction hose.

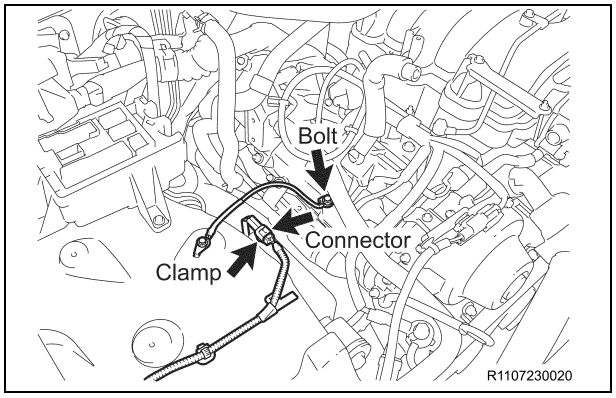
9. DISCONNECT THE VACUUM HOSE ASSY

a) Disconnect the vacuum hose.



10. DISCONNECT THE ENGINE WIRE HARNESS (RH SIDE)

a) Remove the connector holder block cover upper.
b) Disconnect the 6 connectors and 2 clamps.



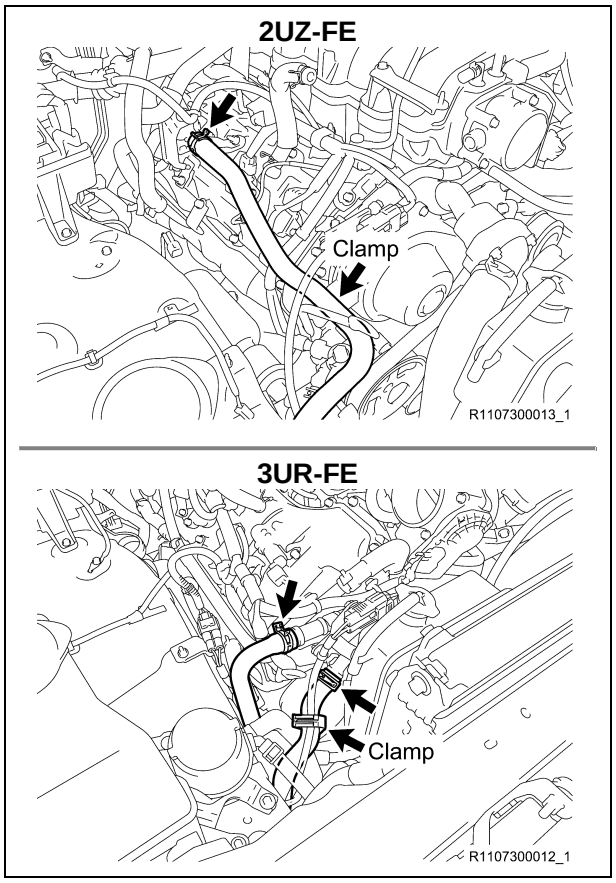
c) Disconnect the skid control sensor connector and clamp.

NOTE:
Disconnect the clamp of the sensor completely.

d) Remove the bolt and disconnect the ground wire.

NOTE:
Disconnect on the engine side otherwise the bolt may be broken.

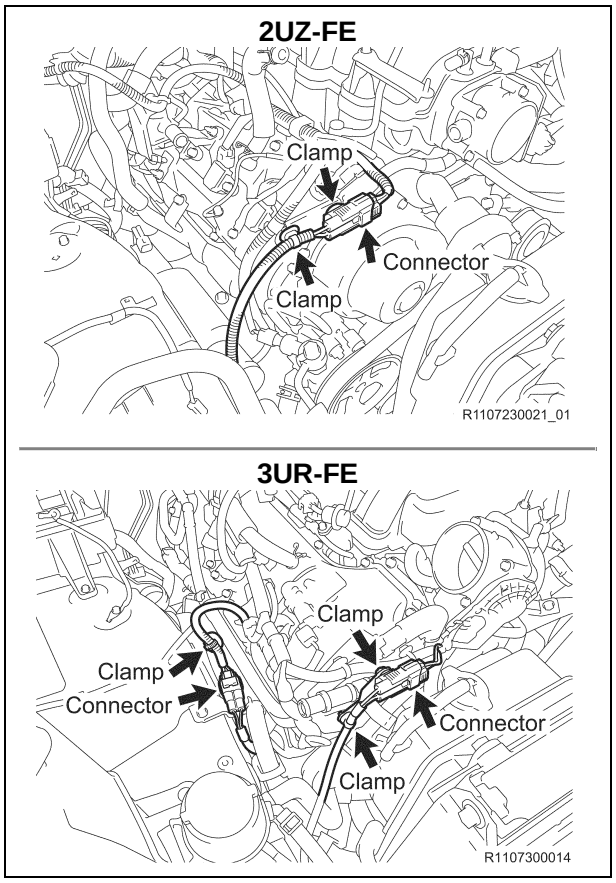
11. DISCONNECT THE INLET HEATER HOSE AND OUTLET HEATER HOSE, ENGINE SIDE



12. DISCONNECT THE AIR INJECTION SYSTEM HOSES

a) Disconnect the No.2 Hose and clamp. ***(2UZ-FE)***

b) Disconnect the clamp, No.2 hose and No.3 hose. ***(3UR-FE)***



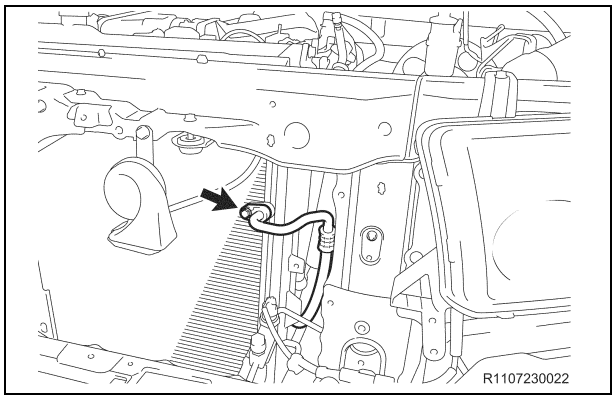
13. DISCONNECT THE AIR PUMP HARNESS

a) Disconnect the connector and 2 clamps. ***(2UZ-FE)***

b) Disconnect the 2 connectors and 3 clamps. ***(3UR-FE)***

14. REMOVE THE FOLLOWING PARTS

- Upper Center Front Bumper Retainer ***(Air Oil Cooler Equipped Vehicles Only)***
- Oil Cooler Assy ***(Air Oil Cooler Equipped Vehicles Only)***
- Radiator Side Deflector LH
- Radiator Side Deflector RH ***(If Equipped)***

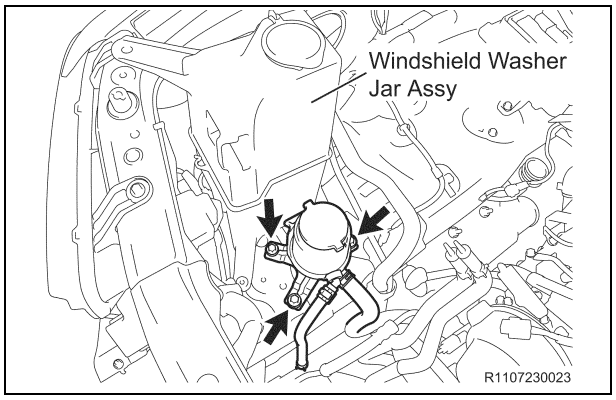


15. DISCONNECT THE No.1 COOLER REFRIGERANT DISCHARGE HOSE

a) Remove the bolt and disconnect the discharge hose.

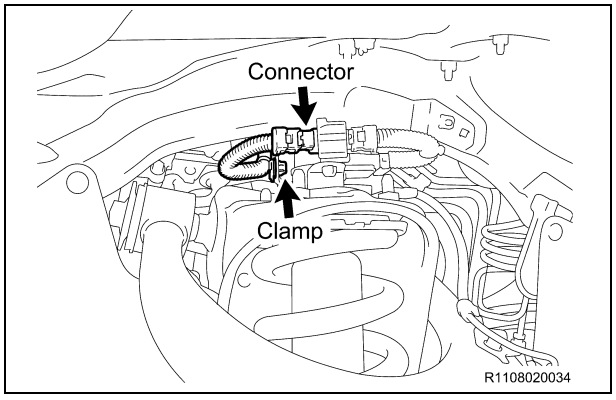
16. REMOVE THE FOLLOWING PARTS

- Radiator Inlet Hose
- Radiator Outlet Hose
- Fan Shroud
- Radiator Assy



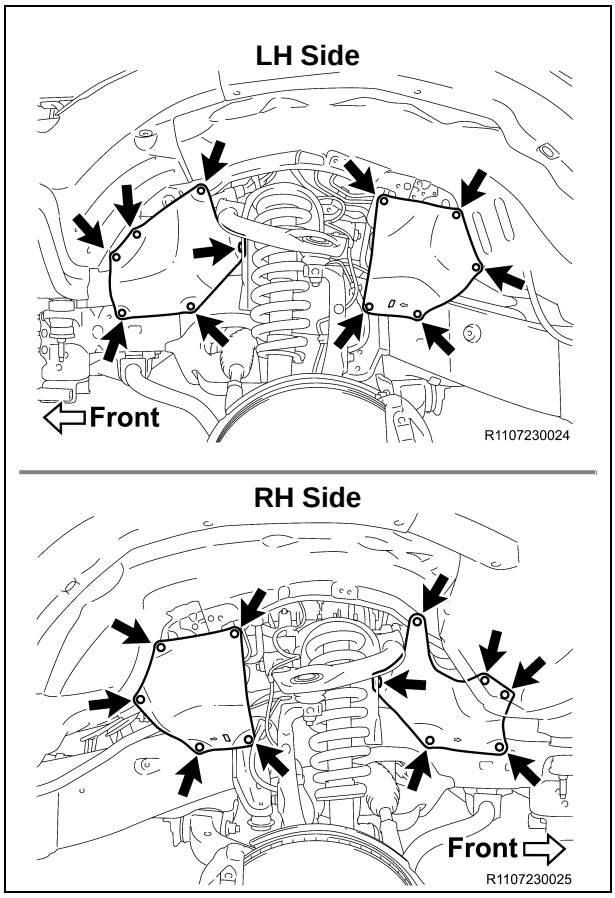
17. DISCONNECT THE VANE PUMP OIL RESERVOIR ASSY

a) Remove the 3 bolts of the windshield washer jar assy to make space for removal of the bolt.
b) Remove the 3 bolts and disconnect the vane pump oil reservoir assy.



18. DISCONNECT THE ABSORBER CONTROL ACTUATOR CONNECTOR (W/ AIR SUSPENSION)

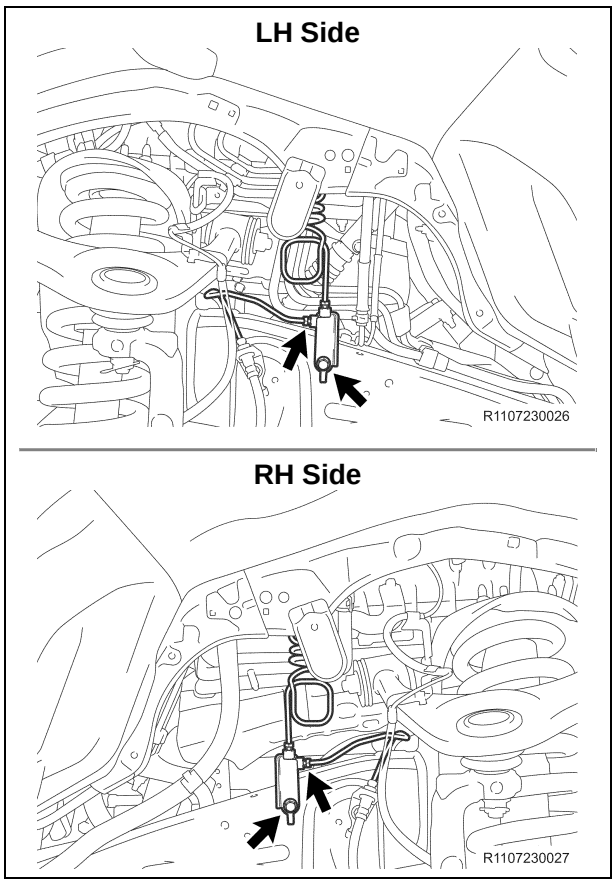
a) Disconnect the connector and clamp.
b) Repeat the procedure on the opposite side.



19. REMOVE THE FRONT FENDER APRON SEALS

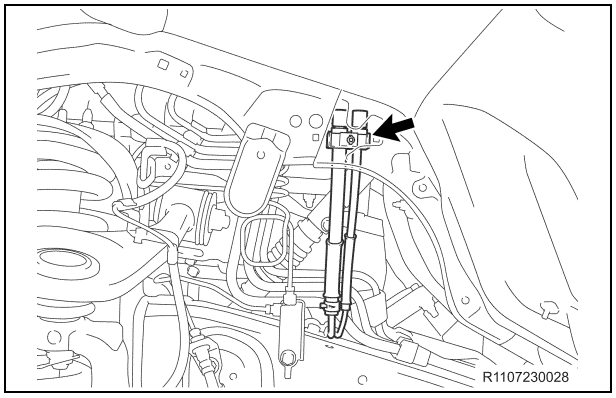
a) Remove the 11 clips and front fender apron seal rear LH/RH.

b) Remove the 11 clips and front fender apron seal LH/RH.



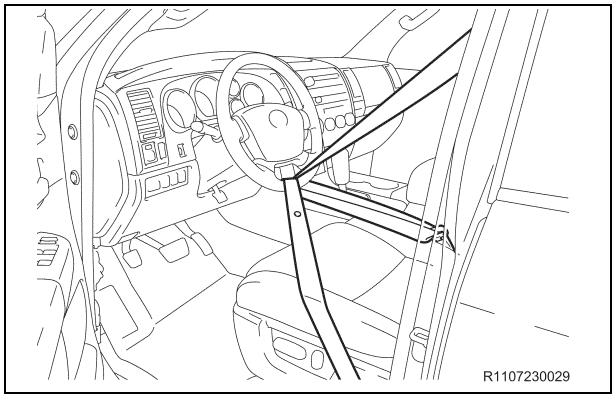
20. DISCONNECT THE FRONT BRAKE TUBES

a) Disconnect the front brake tube.
b) Remove the bolt and disconnect the front brake tube.
c) Repeat the procedure on the opposite side.



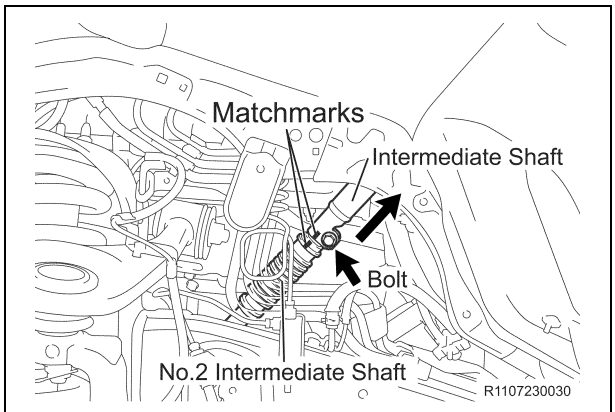
21. DISCONNECT THE FRONT DIFFERENTIAL VACUUM HOSES (4WD ONLY)

a) Disconnect the clamp and vacuum hoses.



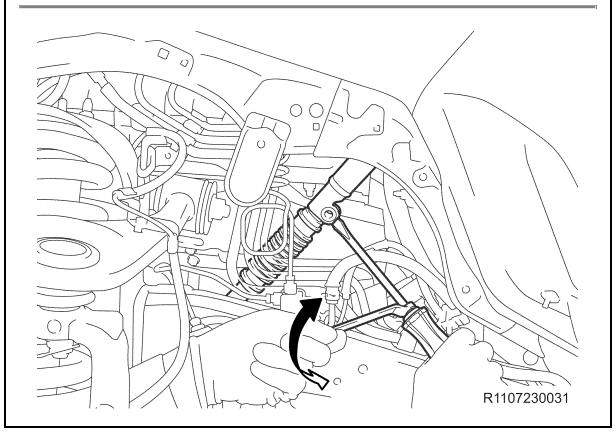
22. DISCONNECT THE No.2 STEERING INTERMEDIATE SHAFT

a) Make sure the front wheels are in a straight-ahead position and the steering wheel is centered.
b) Using the seat belt, hold the steering wheel in position as shown in the illustration, iNo.rder to prevent damage to the spiral cable.



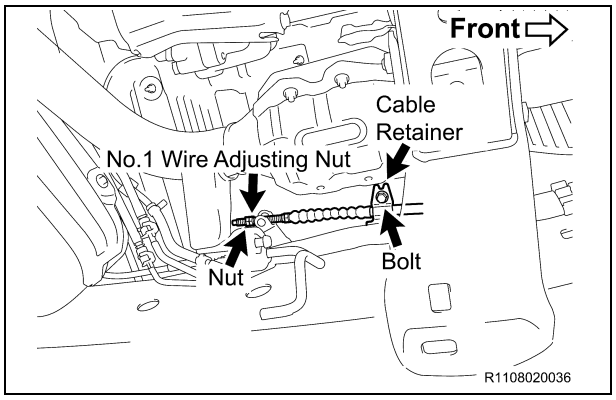
c) Place matchmarks on the intermediate shaft and No.2 intermediate shaft.
d) Remove the bolt.
e) Disconnect the intermediate shaft from the No.2 intermediate shaft.

NOTE:
If the intermediate shaft cannot be pulled out completely, spread the gap of the sliding yoke with a flathead screwdriver or a wrench and pull out the intermediate shaft.



23. REMOVE THE FOLLOWING PARTS

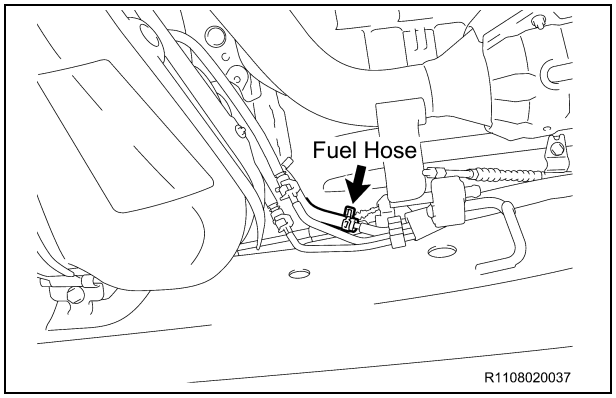
- Rear Quarter Panel Mudguard LH/RH
- Rear Bumper Cover Assy
- Rear Bumper Arm Bracket LH/RH
- Rear Bumper Energy Absorber
- Receiver Hitch Cap ***(If Equipped)***



24. DISCONNECT THE No.1 PARKING BRAKE CABLE

a) Remove the nut and No.1 wire adjusting nut.
b) Remove the bolt and cable retainer.
c) Disconnect the No.1 parking brake cable.

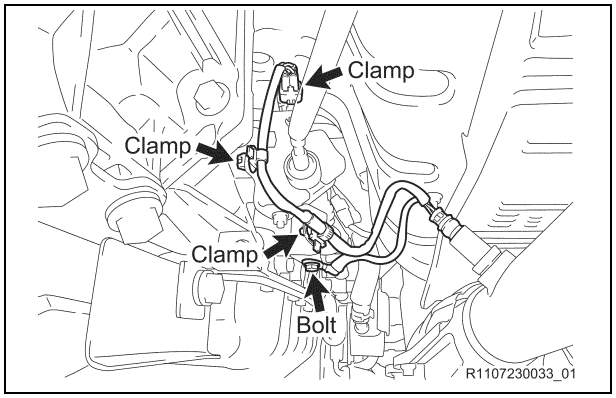
NOTE:
Use precaution when performing this step, as you will need to work underneath the vehicle.



25. DISCONNECT THE FUEL HOSE

a) Disconnect the fuel hose.

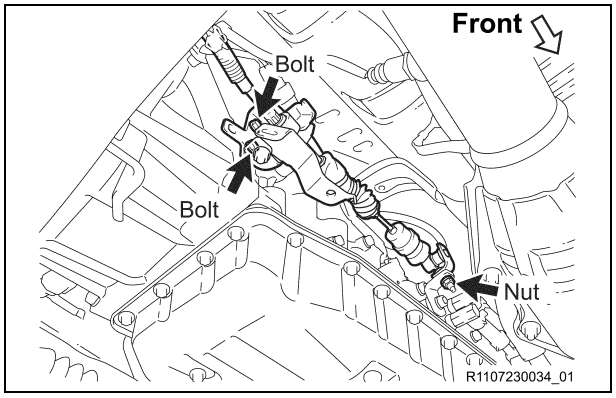
NOTE:
Use precaution when performing this step, as you will need to work underneath the vehicle.



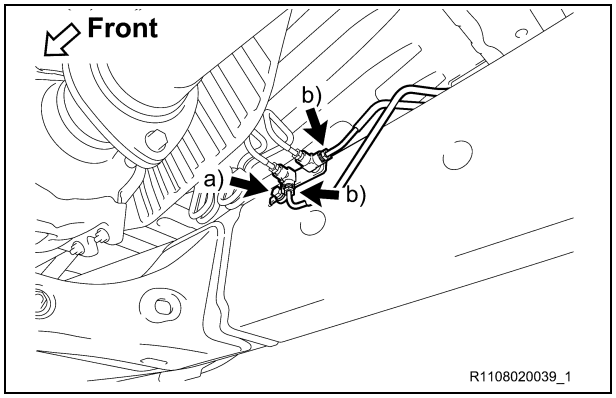
26. DISCONNECT THE TRANSMISSION CONTROL CABLE

a) Remove the bolt and disconnect the ground wire.
b) Disconnect the 3 clamps.

NOTE:
Use precaution when performing this step, as you will need to work underneath the vehicle.



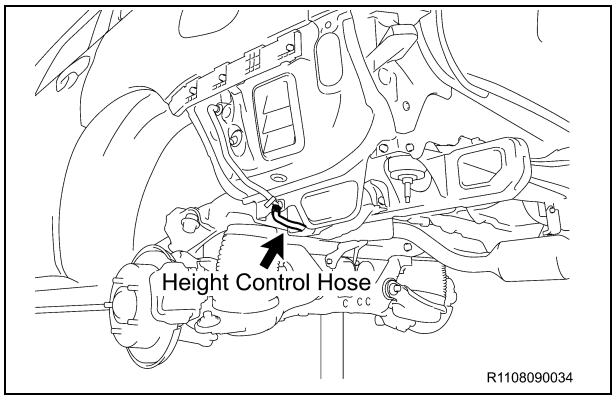
c) Remove the nut.
d) Remove the 2 bolts and disconnect the transmission control cable.



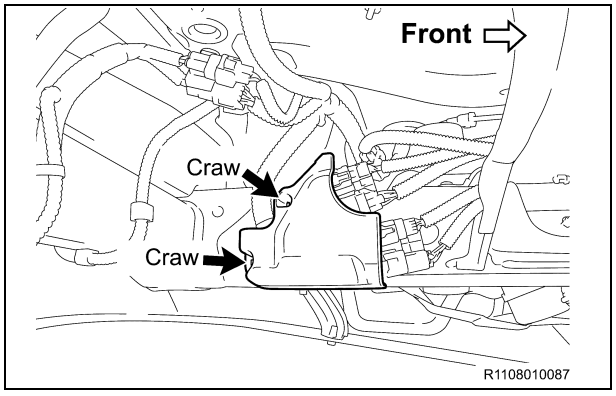
27. DISCONNECT THE REAR BRAKE TUBES

a) Disconnect the 2 rear brake tubes.
b) Remove the bolt and disconnect brake tube.

NOTE:
Use precaution when performing this step, as you will need to work underneath the vehicle.



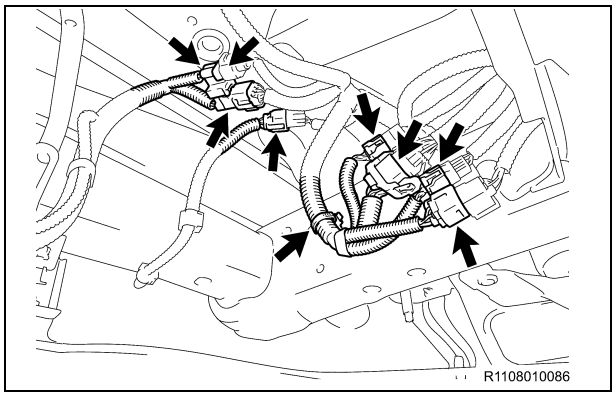
28. DISCONNECT THE HEIGHT CONTROL HOSE (W/ AIR SUSPENSION)



29. DISCONNECT THE FRAME WIRE AND No.3 FRAME WIRE

a) Disconnect the 2 craws and remove the connector cover.

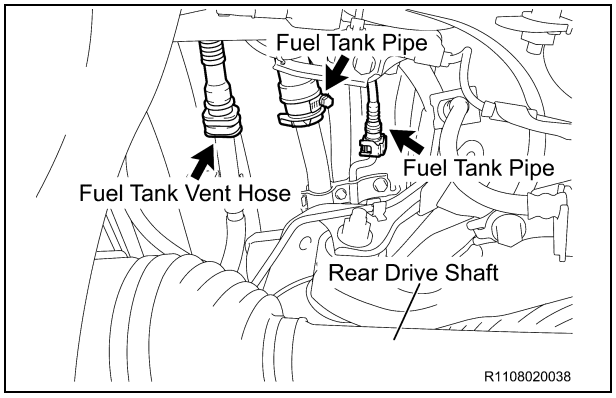
NOTE:
Use precaution when performing this step, as you will need to work underneath the vehicle.



b) Disconnect each connector and clamp.

NOTE:

- **The number of connectors will differ depending on the vehicle spec.**
- **Use precaution when performing this step, as you will need to work underneath the vehicle.**

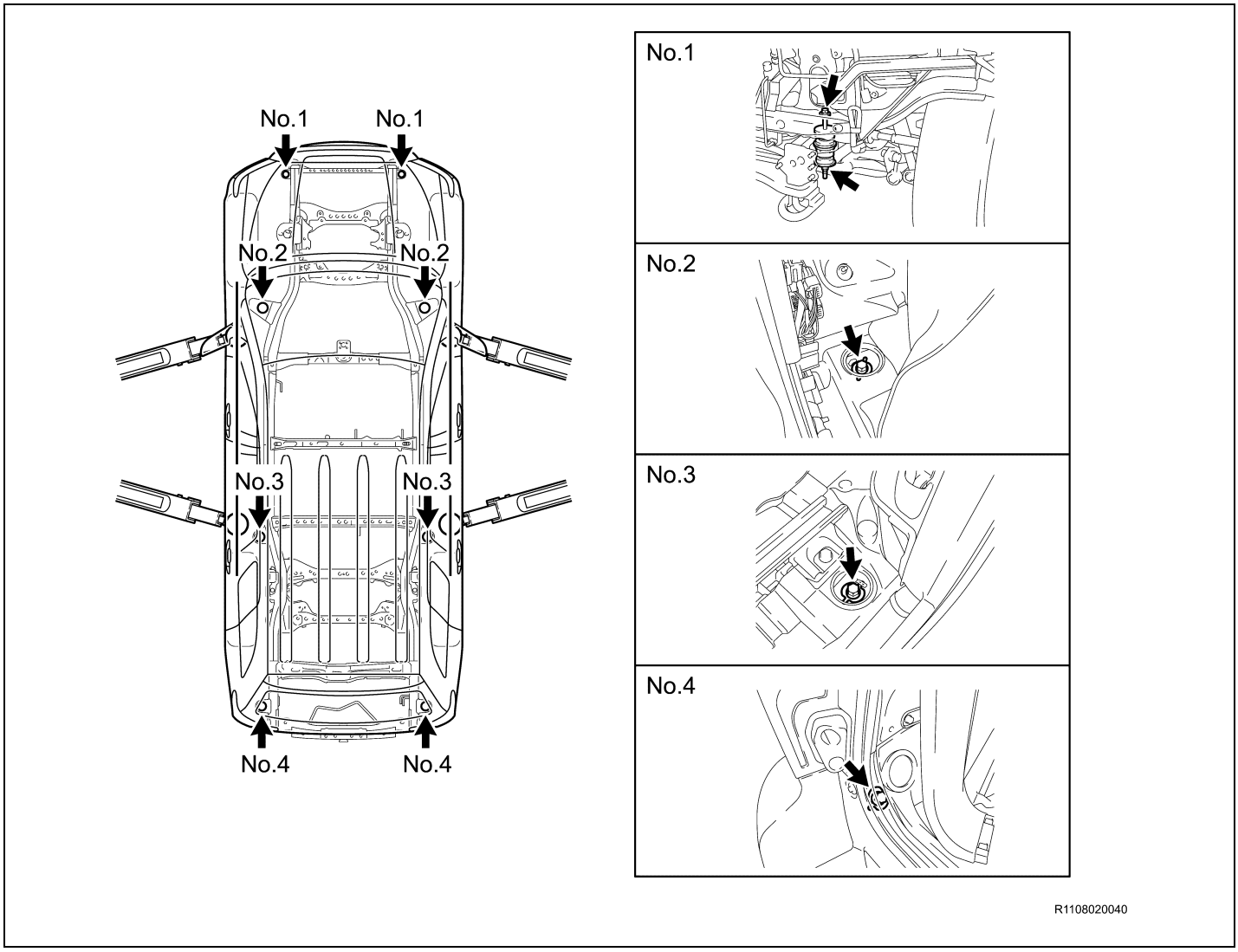


30. DISCONNECT THE FUEL TANK PIPES AND FUEL TANK VENT HOSE

a) Disconnect the 2 fuel tank pipes and fuel tank vent hose.

NOTE:
Use precaution when performing this step, as you will need to work underneath the vehicle.

31. REINSTALL THE FRONT WHEELS



32. REMOVE THE CAB BODY ASSY USING AN ABOVE GROUND LIFT

a) Remove the 8 bolts, 8 nuts, 6 washers and 2 No.1 lower cab mounting cushion sub-assy.
b) Set the lift arms under the cab body assy so they **DO NOT** interfere with the frame or cab mounts.
c) Check that all wire harnesses, hoses, cables and the steering shaft are disconnected.
d) Lift the cab assy up slowly, making sure it does not interfere with anything while being raised.
e) Raise the cab assy high enough so that the top of the engine clears the lowest point of the cab assy.
f) Pull the frame assy out from under the vehicle.
g) Lower the cab assy all the way down and leave it on the lift.

NOTE:

- **Center the cab assy weight on the lift arms so that it does not slant/tilt to one side.**
- **Raise the cab assy slightly off the frame and verify that it is held securely by the lift arms.**
- **The center of gravity position of the cab body may become inappropriate depending on the shape of the lift arm used and under such situation the cab body may fall when lifted. To prevent falling off of the cab body, use some weights to establish right balance and secure the cab body to the lift arm using ratchet tie down belts.**
- **DO NOT work directly underneath the vehicle when pulling the frame assy out from under.**
- **DO NOT remove the cab mount bolts, as they will be used as guides during cab assy reinstallation process.**

E. DISASSEMBLY THE FRAME

1. PLACE THE FRAME ON THE LIFT

a) Place the frame on the lift, and secure it with a ratcheting tie down strap. This will prevent the frame from tilting or falling off as parts are removed.

- **Ratcheting Tie Down: Qty 1**
  - **Length: 2 in X 27 ft**
  - **Minimum Work Load Capacity: 3,000 lbs**

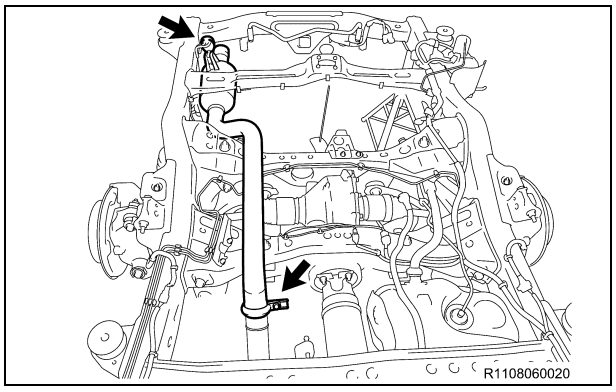
2. REMOVE THE WHEELS

3. REMOVE THE REAR PROPELLER SHAFT ASSY

Insert **SST 09325-40010** ***(A750E)*** or **SST 09325-60010** ***(AB60E)*** into the transmission after the rear propeller shaft assy is removed to prevent oil leakage. ***(2WD Only)***

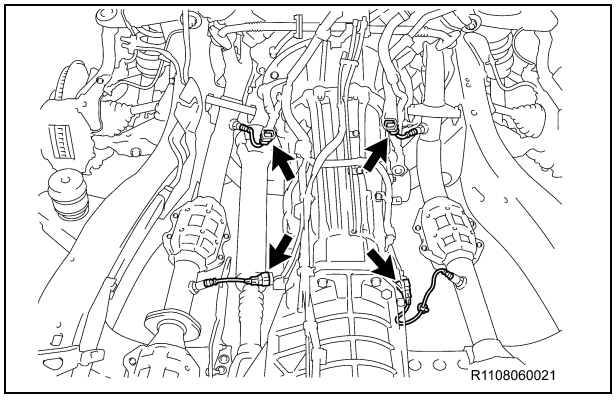
NOTE:
Make sure to place matchmarks on the rear propeller shafts prior to removal.

4. REMOVE THE REAR STABILIZER BAR



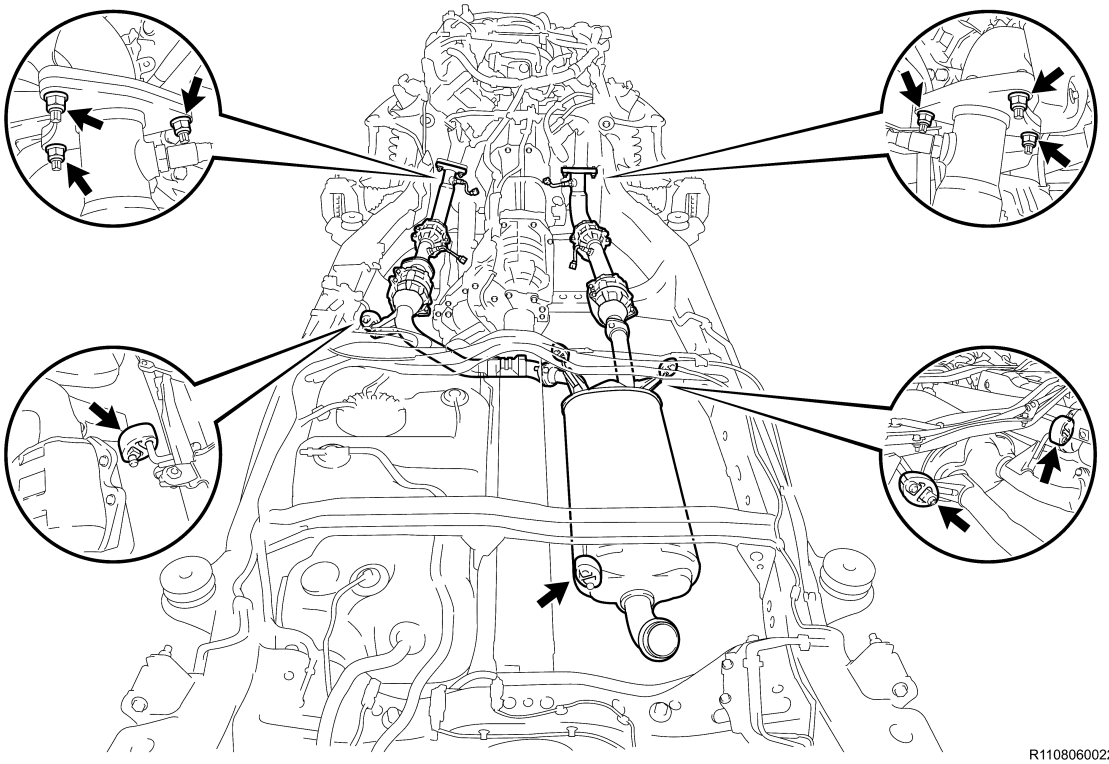
5. REMOVE THE EXHAUST TAIL PIPE ASSY

a) Remove the bolt and clamp.
b) Remove the exhaust tail pipe and exhaust pipe support.
c) Remove the exhaust pipe gasket.



6. DISCONNECT THE OXYGEN SENSOR CONNECTORS

a) Disconnect the 4 oxygen sensor connectors.



7. REMOVE THE EXHAUST SYSTEM

a) Remove the 6 nuts.
b) Remove the exhaust and 4 exhaust pipe supports.
c) Remove the 2 exhaust pipe gaskets.

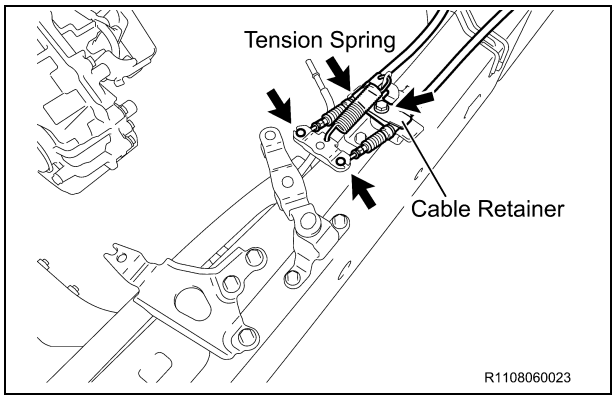
8. REMOVE THE FOLLOWING PARTS (4WD ONLY)

- Propeller Shaft Heat Insulator
- Front Propeller Shaft Assy

NOTE:
Make sure to place matchmarks on the front propeller shafts prior to removal.

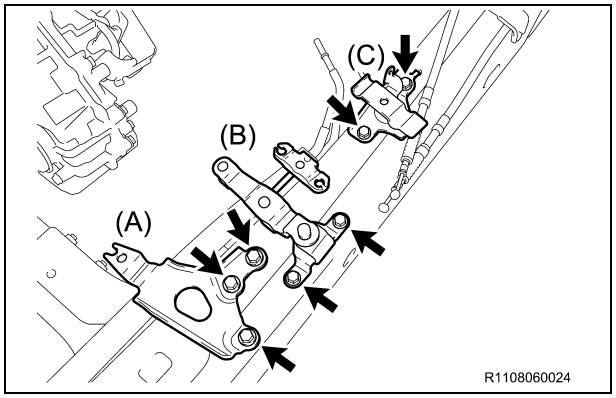
9. REMOVE THE FOLLOWING PARTS

- Fuel Tank Strap
- Fuel Tank Assy

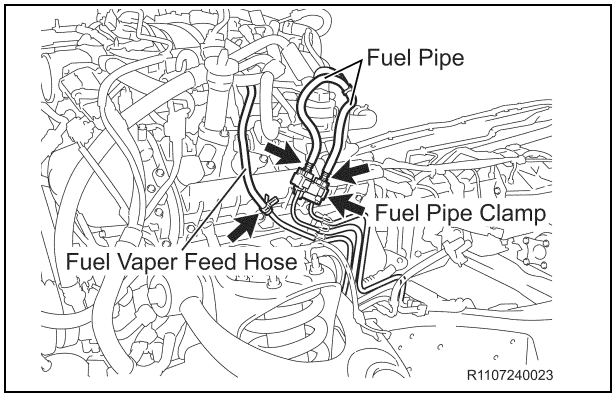


10. DISCONNECT THE PARKING BRAKE SYSTEM

a) Remove the tension spring.
b) Remove the bolt and cable retainer.
c) Disconnect the 2 parking brake cables.



d) Remove the 3 bolts and cable support bracket (A).
e) Remove the 2 bolts and parking brake intermediate lever (B).
f) Remove the 2 bolts and No.2 cable support bracket (C).

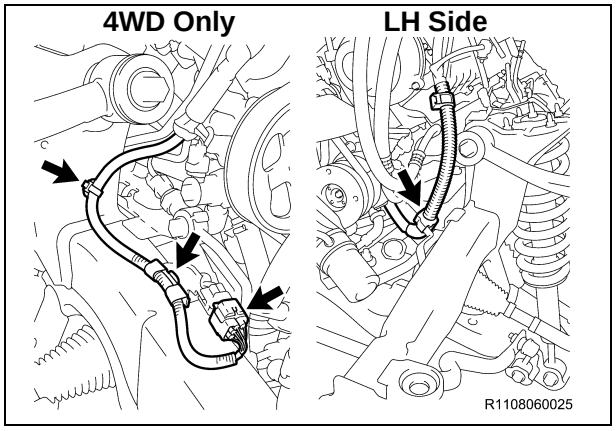


11. DISCONNECT THE FUEL PIPES

a) Remove the No.1 fuel pipe clamp.
b) Disconnect the 2 fuel pipes.

NOTE:
Put a shop towel under the fuel pipe to catch any spilled fuel.

12. DISCONNECT THE FUEL VAPOR FEED HOSE ASSY



13. DISCONNECT THE ENGINE WIRE

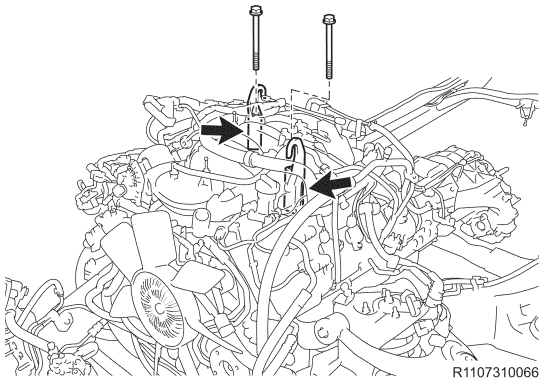
14. DISCONNECT THE DIFFERENTIAL WIRE (4WD ONLY)

15. REMOVE AND SET ASIDE THE POWER STEERING PUMP ASSY

a) Remove the drive belt.
b) Disconnect the connectors.
c) Disconnect the harness clamp. ***(3UR-FE Only*)**
d) Remove the 2 bolts and the nut ***(2UZ-FE Only*)** or the 2 bolts ***(3UR-FE Only)*** and the power steering vane pump.

NOTE:
- **DO NOT disconnect the power steering pump hoses or tubes.**
- **Make sure to keep the power steering pump reservoir in an upright position to prevent the fluid from leaking out.**

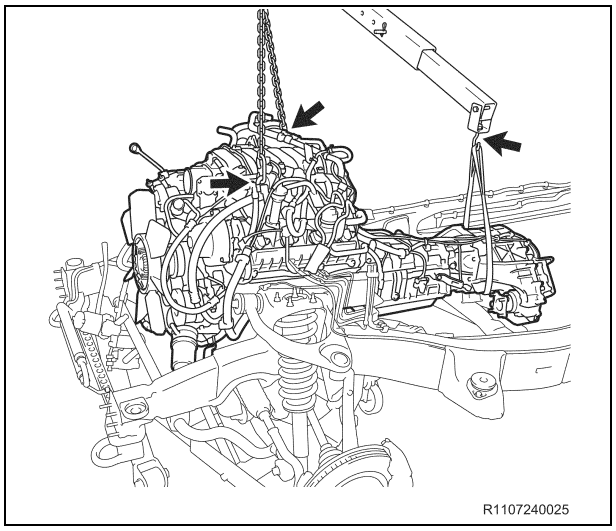
3UR-FE



16. REMOVE THE ENGINE AND TRANSMISSION ASSY

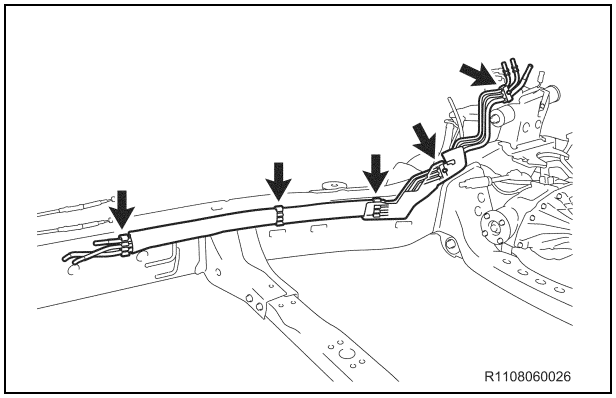
a) Disconnect and remove the necessary items/parts to prepare the engine and transmission assy for removal.
b) Install the engine hanger. ***(3UR-FE Only*)**

12281-38150 = Engine Hanger No. 1, Qty: 2
90119-14120 or 90119-A0166 = Bolt, Qty: 2



c) Remove the engine and transmission assy.

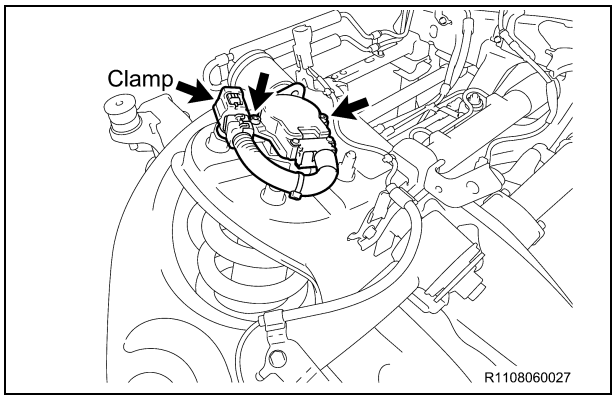
NOTE:
- **When removing the engine and transmission assy, ALWAYS use 2 engine hoists or mini cranes to lift it.**
- **DO NOT use 1 engine hoist or mini crane to lift the engine and transmission assy, as the unbalanced weight may lead to an accident or injury.**
- **ONLY use engine hoists or mini cranes that can properly support the weight of the engine and transmission assy.**
- **Carefully adjust the 2 engine hoists or mini cranes used so that the engine and transmission assy is properly balanced.**



17. REMOVE THE FUEL TUBES

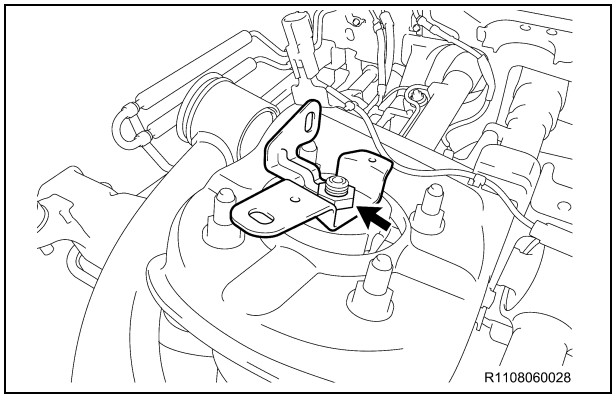
a) Remove the clamps and fuel tubes.

NOTE:
Take care not to damage or break the clamps during removal.

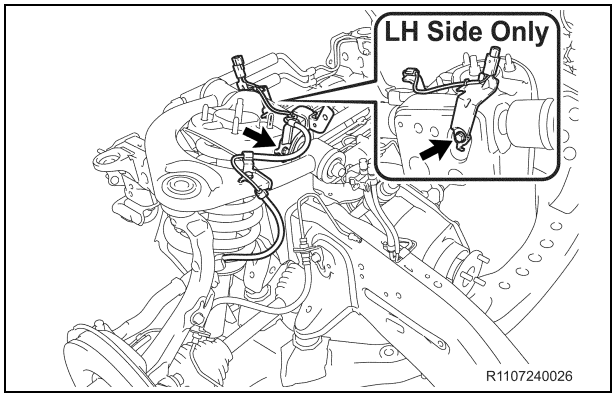


18. REMOVE THE ABSORBER CONTROL ACTUATORS (W/ AIR SUSPENSION)

a) Disconnect the clamp.
b) Using a hexagon wrench, remove the 2 bolts and the absorber control actuator.



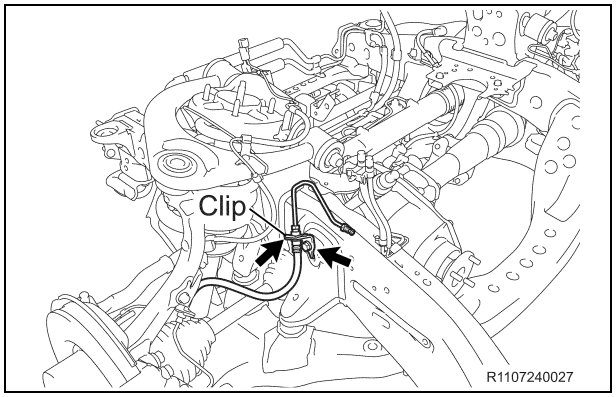
c) Remove the nut and the suspension control bracket.
d) Repeat the procedure on the opposite side.



19. DISCONNECT THE SKID CONTROL SENSOR WIRES

a) Remove the 2 bolts and disconnect the skid control sensor wire. ***(LH Side)***

b) Remove the bolt and disconnect the skid control sensor wire. ***(RH Side)***

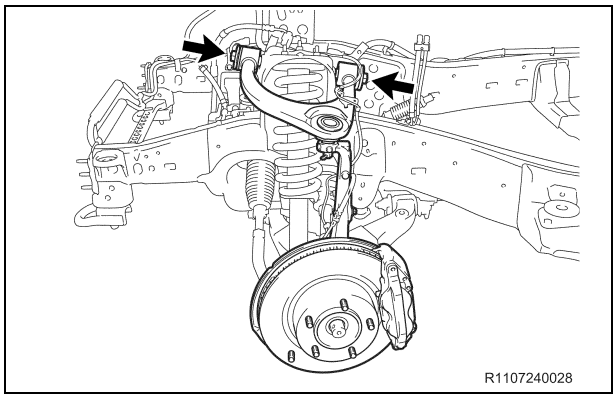


20. DISCONNECT THE FRONT BRAKE HOSES

a) Remove the clip.
b) Remove the bolt and disconnect the front brake hose.
c) Repeat the procedure on the opposite side.

21. REMOVE THE FOLLOWING PARTS

- Front Stabilizer Bar
- Front Axle Shaft Nut **(*4WD Only*)**
- Tie Rod End Sub-Assy
  - Remove the cotter pin and nut.
  - Using the **SST 09610-20012**, disconnect the tie rod end.
- Lower Ball Joint
  - Remove the 2 bolts and disconnect the lower ball joint from the steering knuckle.



22. REMOVE THE FRONT SUSPENSION UPPER ARM AND STEERING KNUCKLE ASSY

a) Remove the bolt, nut, 2 washers and front suspension upper arm and steering knuckle assy.
b) Repeat the procedure on the opposite side.

NOTE:
If the drive shaft is difficult to disconnect, tap the drive shaft loose with a plastic hammer *(4WD Only)*.

23. DRAIN THE FRONT DIFFERENTIAL OIL (4WD ONLY)

24. REMOVE THE FOLLOWING PARTS

- Front Shock Absorber Assy
- Front Drive Shaft Assy ***(4WD Only)***
  - Using the **SST 09520-24010 (09520-32040), 09520-01010,** remove the front drive shaft.

NOTE:
Be careful not to damage the dust cover and oil seal.

- Power Steering Link Assy w/ Power Steering Vane Pump

NOTE:
- **When removing the power steering link with the vane pump attached, have one person support the power steering link and the other support the vane pump.**
- **Make sure to keep the power steering pump reservoir in an upright position to prevent the fluid from leaking out.**

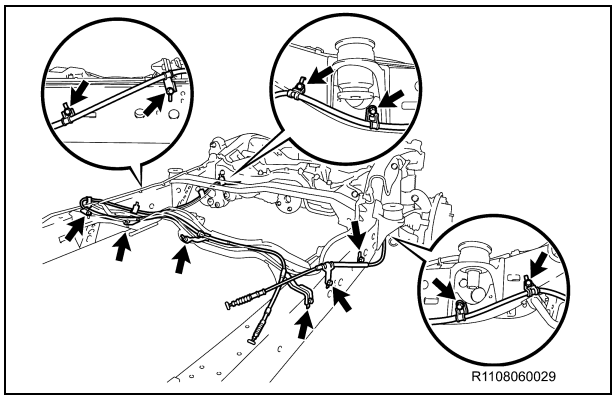
- Front Differential Carrier Assy **(*4WD Only*)**
- Front Suspension Lower Arm Sub-Assy

NOTE:
If the bolt is seized and the front suspension lower arm cannot be removed, remove the lower ball joint with the front suspension lower arm left on the frame.

- Lower Ball Joint

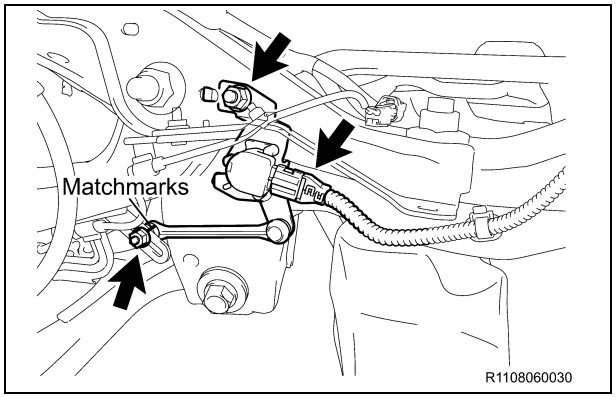
NOTE:
When the front suspension arm can be removed, this work is not required.
  - Remove the cotter pin and nut.
  - Using the **SST 09950-40010 (09951-04010,09953-04020,09954-04010,09955-04031, 09958-04011,09952-04010),09955-04090,** remove the lower ball joint.

- No.1 Front Spring Bumper (Qty: 4)
  - Using the **SST 09922-10010-01**, remove the front spring bumper.



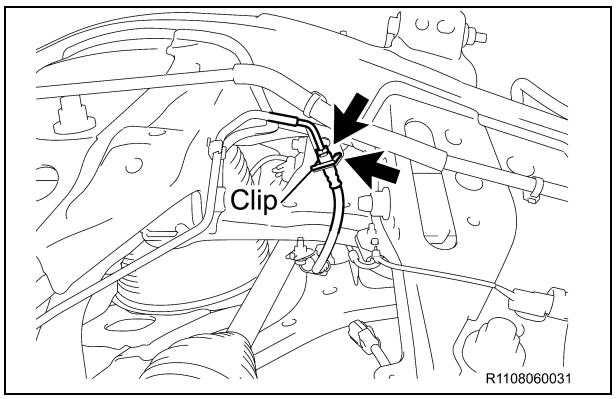
25. DISCONNECT THE PARKING BRAKE CABLES

a) Remove the 12 bolts and disconnect the parking brake cables.



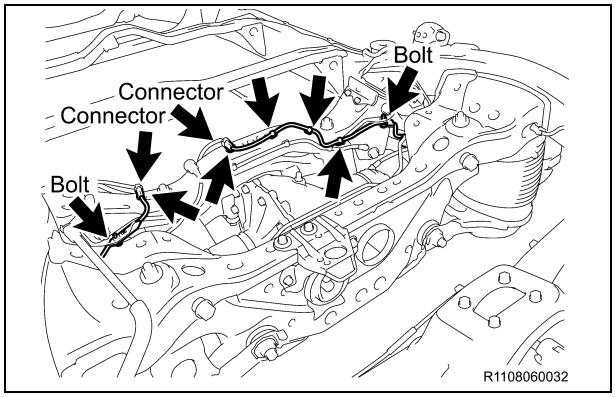
26. REMOVE THE REAR HEIGHT CONTROL SENSORS (W/ AIR SUSPENSION)

a) Put matchmarks on the rear height control sensor link and bracket.
b) Disconnect the rear height control sensor connector.
c) Remove the nuts and the rear height control sensor.
d) Repeat the procedure on the opposite side.



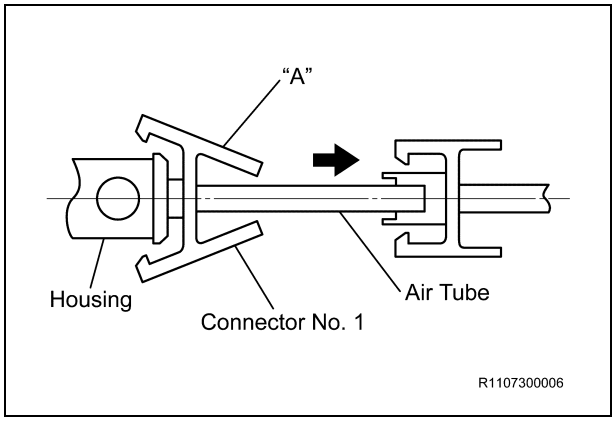
27. DISCONNECT THE REAR BRAKE HOSES

a) Disconnect the rear brake tube.
b) Remove the clip.
c) Repeat the procedure on the opposite side.



28. DISCONNECT THE SKID CONTROL SENSOR WIRES

a) Disconnect the 2 connectors and 5 clamps.
b) Remove the 2 bolts and disconnect the skid control wires.

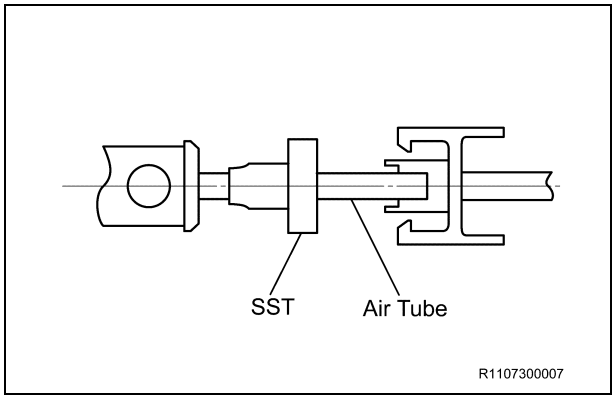


29. DISCONNECT THE HEIGHT CONTROL TUBE (W/ AIR SUSPENSION, TYPE1)

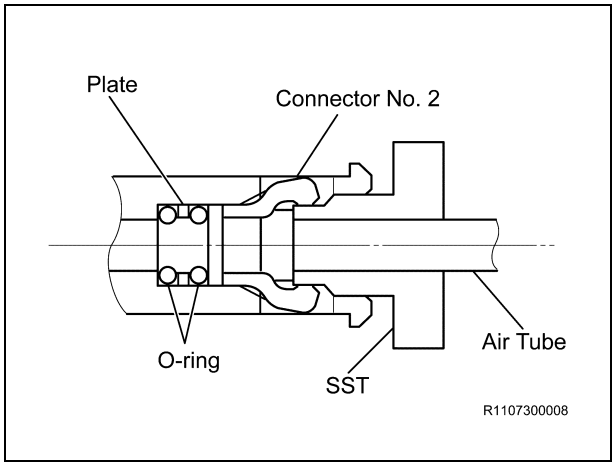
NOTE:

- ☒ **Disconnect and connection of the height control tube should be performed by hand to prevent foreign objects from entering.**
- ☒ **Never damage the height control tube.**

a) Disconnect the height control tube.
1) Pinch section "A" of the connector No. 1 and pull it from the housing.



2) Set the **SST 09730-00010** to the tube.

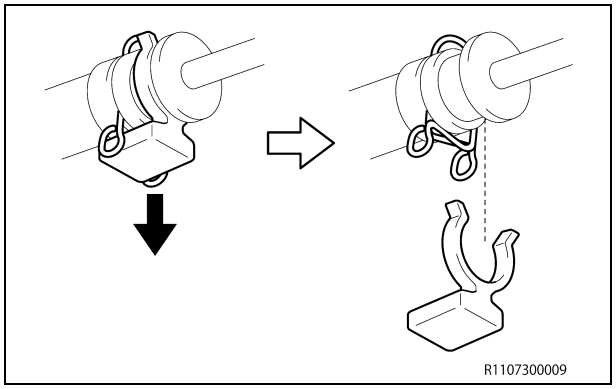


3) Insert SST into the housing to expand the claw of the connector No.2 in the housing.
4) Pull out the tube with **SST 09730-00010** inserted.

NOTE:
DO NOT pull on the tube with excessive force.

5) Insert a screwdriver into the circular hole on the housing, and remove the connector No.2, the 2 O-rings and the plate from the housing.

NOTE:
The O-rings, plate and connector No.2 are nonreusable parts.

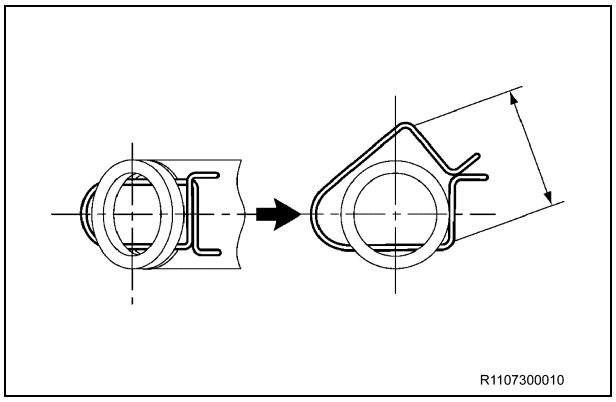


30. DISCONNECT THE HEIGHT CONTROL TUBE (W/ AIR SUSPENSION, TYPE2)

NOTE:

- ☒ **Disconnecting and connecting the height control tube should be performed by hand to prevent dust or foreign objects from entering it.**
- ☒ **Be careful not to damage the height control tube.**

a) Disconnect the height control tube.
1) Remove the holder.



2) Spread the clip and slowly pull the height control tube straight out.

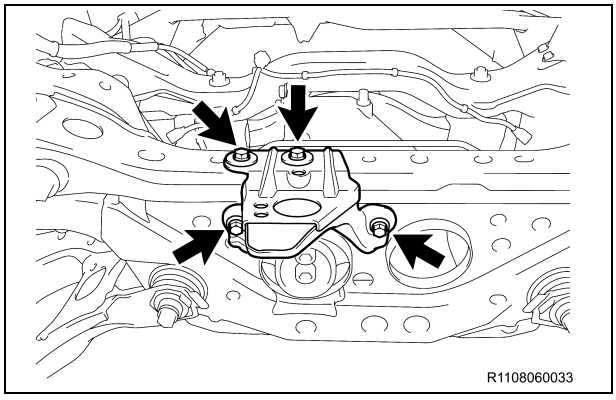
NOTE:
DO NOT completely remove the clip except when replacing it.

3) Remove the 2 O-rings.

NOTE:
Some tubes are equipped with only one O-ring.

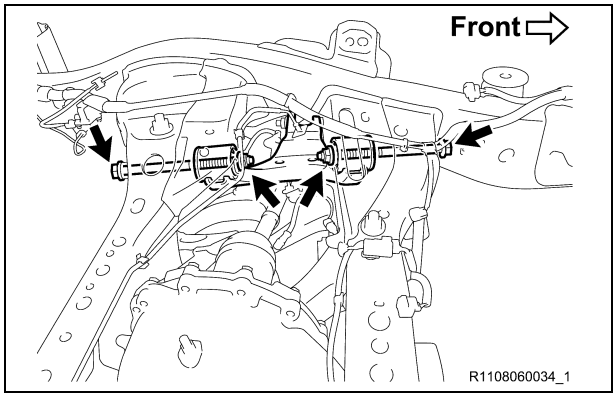
31. REMOVE THE FOLLOWING PARTS

- Rear Shock Absorber Assy
- Rear Coil Spring
  - Using the **SST 09727-30021**, remove the rear coil spring.
- Rear Pneumatic Cylinder ***(w/ Air Suspension)***



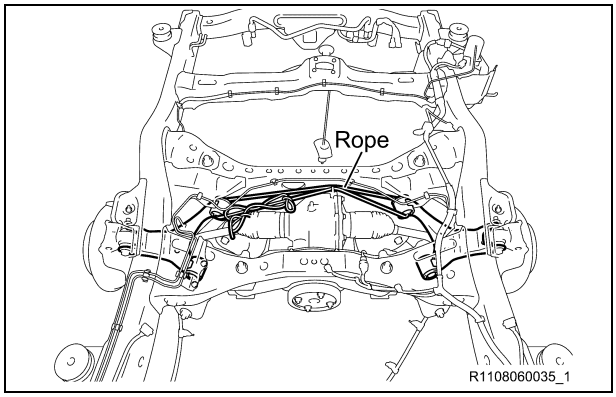
32. REMOVE THE SPARE WHEEL STOPPER

a) Remove the 4 bolts and spare wheel stopper.

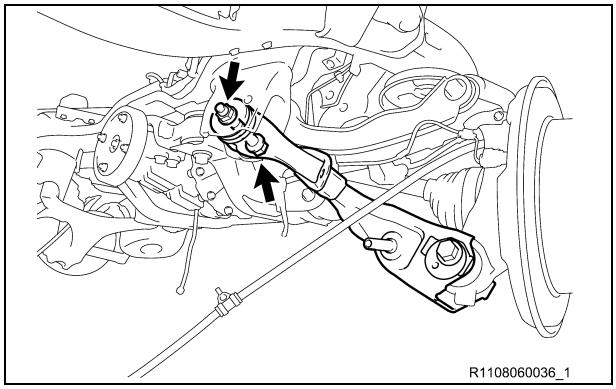


33. DISCONNECT THE REAR SUSPENSION UPPER ARMS

a) Disconnect the 2 bolts and 2 nuts.
b) Repeat the procedure on the opposite side.

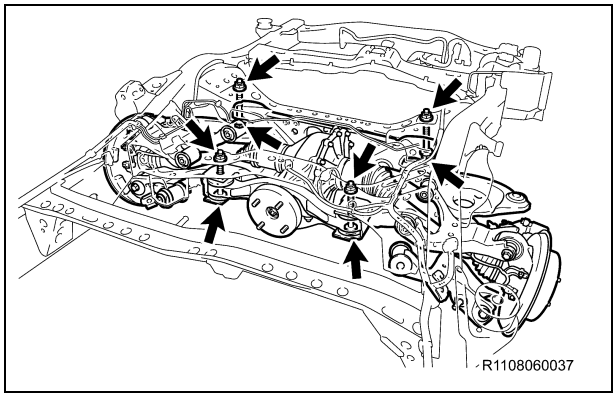


c) Fix the upper arm with a rope etc. to restrain expansion of the upper arm in order to prevent the drive shaft from coming off.



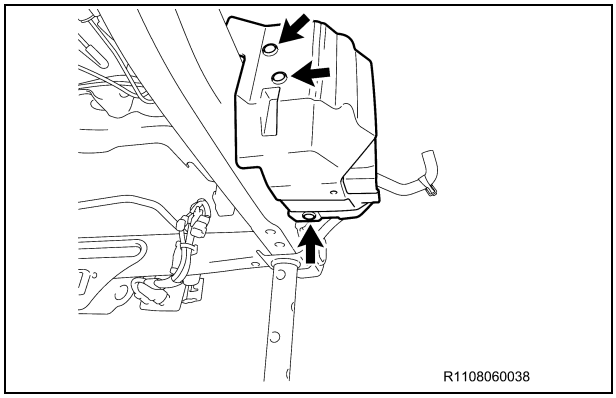
34. DISCONNECT THE REAR SUSPENSION LOWER ARMS

a) Disconnect the bolt and nut. ***(Front Side Only)***
b) Repeat the procedure on the opposite side.



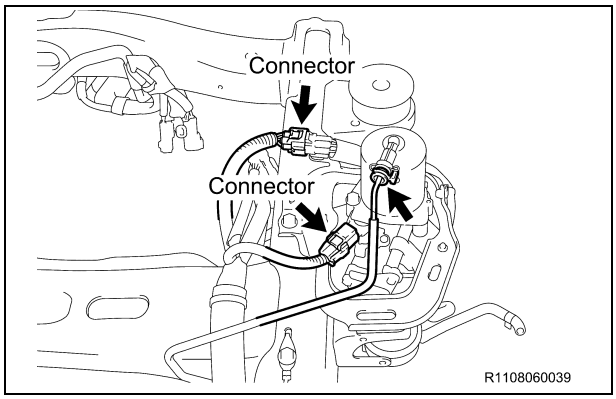
35. REMOVE THE REAR DIFFERENTIAL ASSY

a) Remove the 4 bolts and 4 nuts.
b) Remove the rear differential assy.

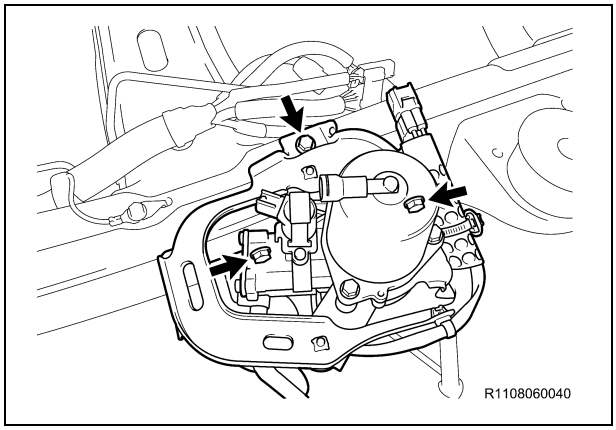


36. REMOVE THE No.1 HEIGHT CONTROL COMPRESSOR ASSY (W/ AIR SUSPENSION)

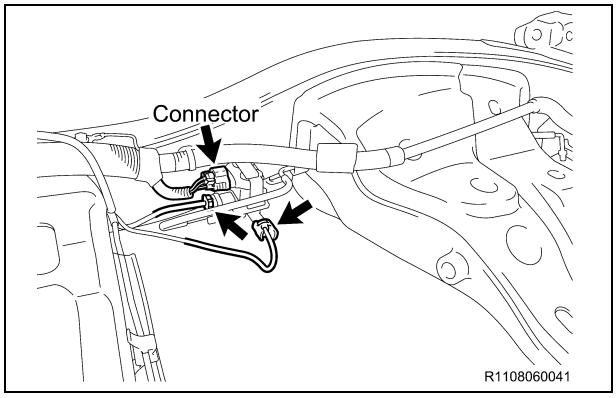
a) Remove the 3 clips and height control compressor cover.



b) Disconnect the 2 connectors and tube.

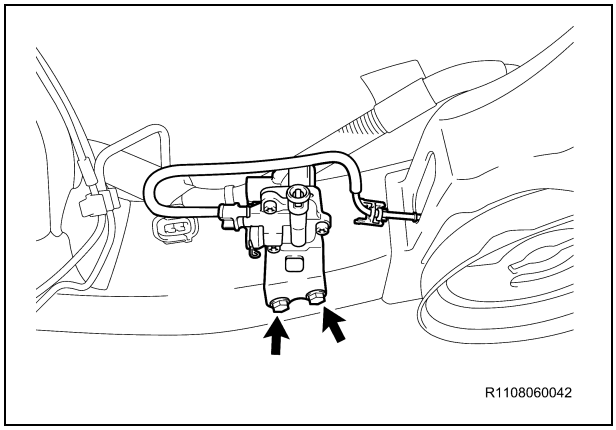


c) Remove the 3 bolts and No.1 height control compressor assy.

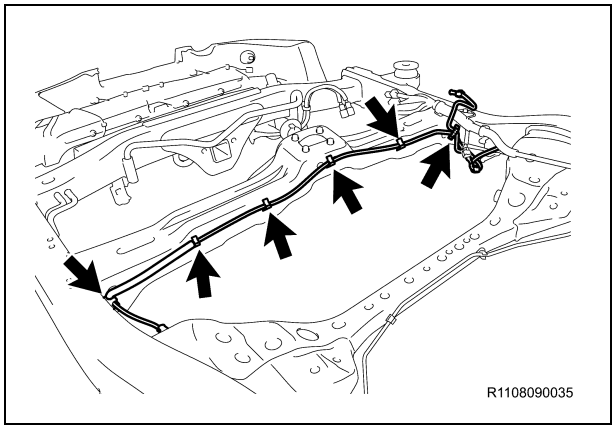


37. REMOVE THE No.2 HEIGHT CONTROL VALVE SUB-ASSY (W/ AIR SUSPENSION)

a) Disconnect the connector.
b) Disconnect the tubes.



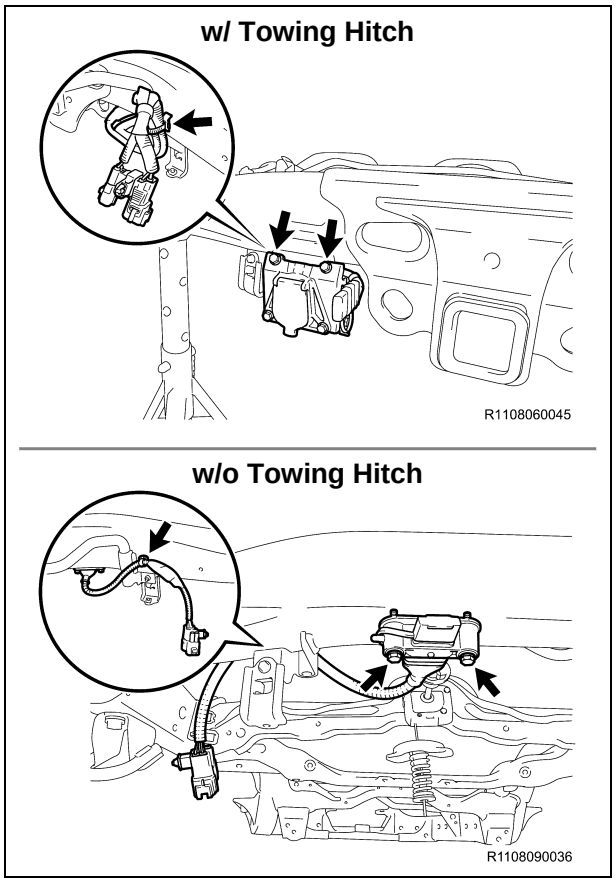
c) Remove the 2 bolts and No.2 height control valve sub-assy.



38. REMOVE THE HEIGHT CONTROL TUBES (W/ AIR SUSPENSION)

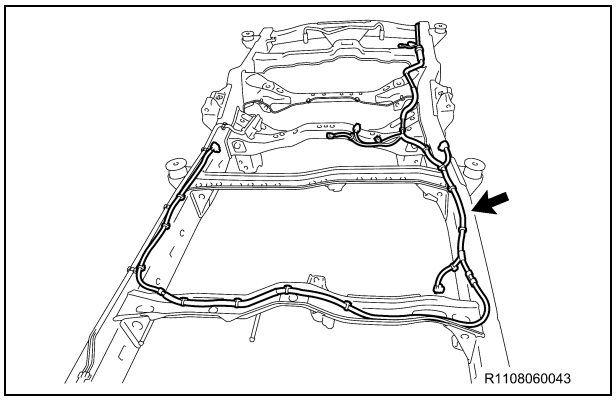
a) Remove the 6 clips and height control tubes.

NOTE:
Take care not to damage or break the clamps during removal.



39. REMOVE THE No.3 FRAME WIRE HARNESS

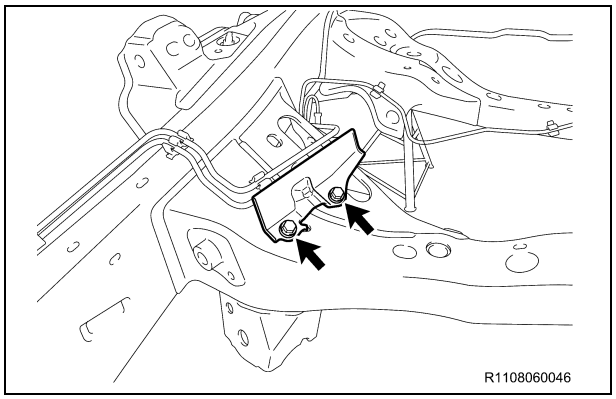
a) Disconnect the clamp.
b) Remove the 2 bolts and No.3 frame wire harness.



40. REMOVE THE FRAME WIRE HARNESS

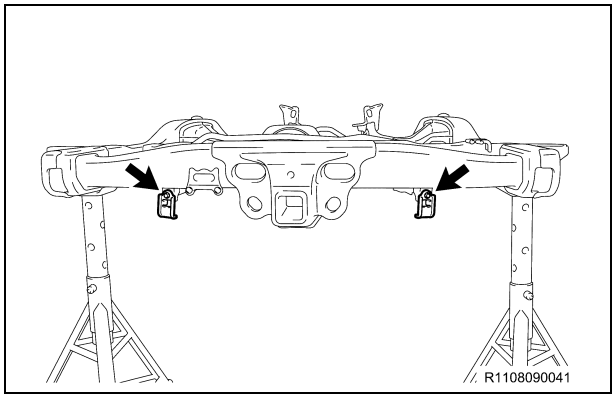
a) Remove the bolt and disconnect the ground wire ***(If Equipped)***.
b) Disconnect each clamp and remove the frame wire harness.

NOTE:
- **The number of wire harness clamps will differ depending on the vehicle specification.**
- **Take care not to damage or break the wire harness clamps during removal.**



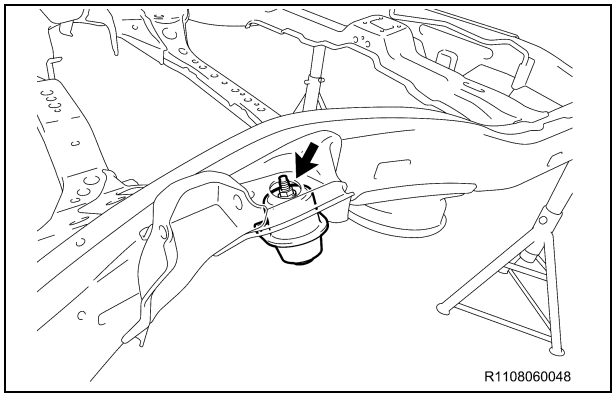
41. REMOVE THE BRAKE TUBE HEAT INSULATOR

a) Remove the 2 bolts and brake tube heat insulator.



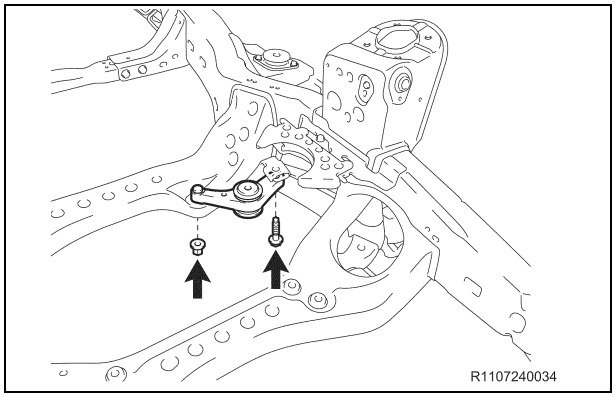
42. REMOVE THE REAR BUMPER BRACKETS

a) Remove the 2 bolts and 2 rear bumper brackets.



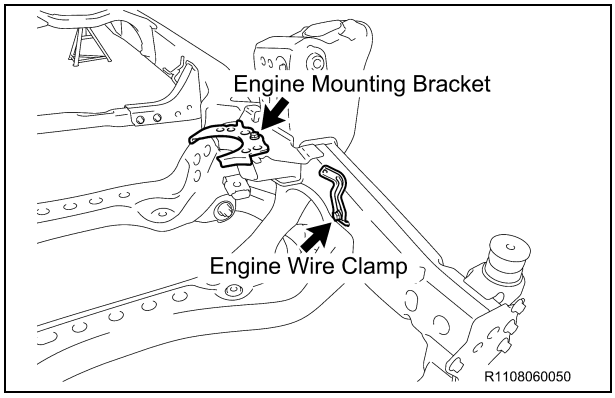
43. REMOVE THE No.1 REAR SPRING BUMPERS

a) Remove the nut and No.1 rear spring bumper.
b) Repeat the procedure on the opposite side.



44. REMOVE THE FRONT DIFFERENTIAL SUPPORT ASSY (4WD ONLY)

a) Remove the bolt, nut and differential support assy.



45. REMOVE THE ENGINE WIRE CLAMP

46. REMOVE THE No.2 FRONT ENGINE MOUNTING BRACKET LH

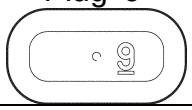
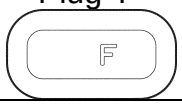
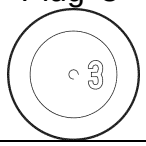
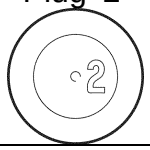
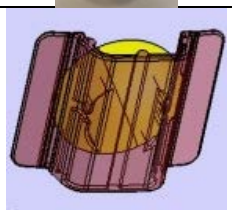
47. REMOVE THE CAB MOUNTS

48. REMOVE THE FRAME FROM THE LIFT

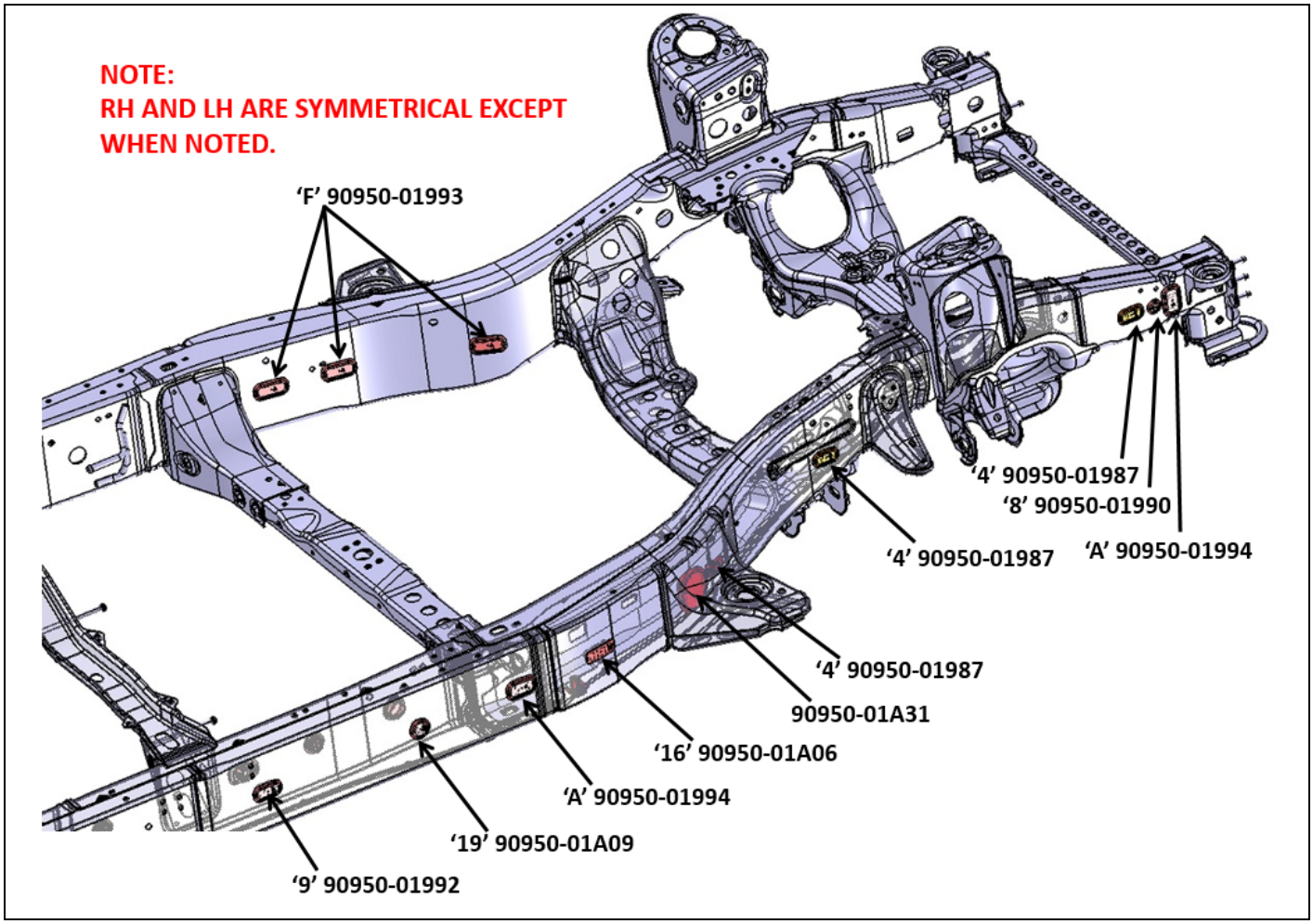
a) Remove the ratcheting tie down strap and the frame from the lift.

F. INSTALL FRAME PLUGS

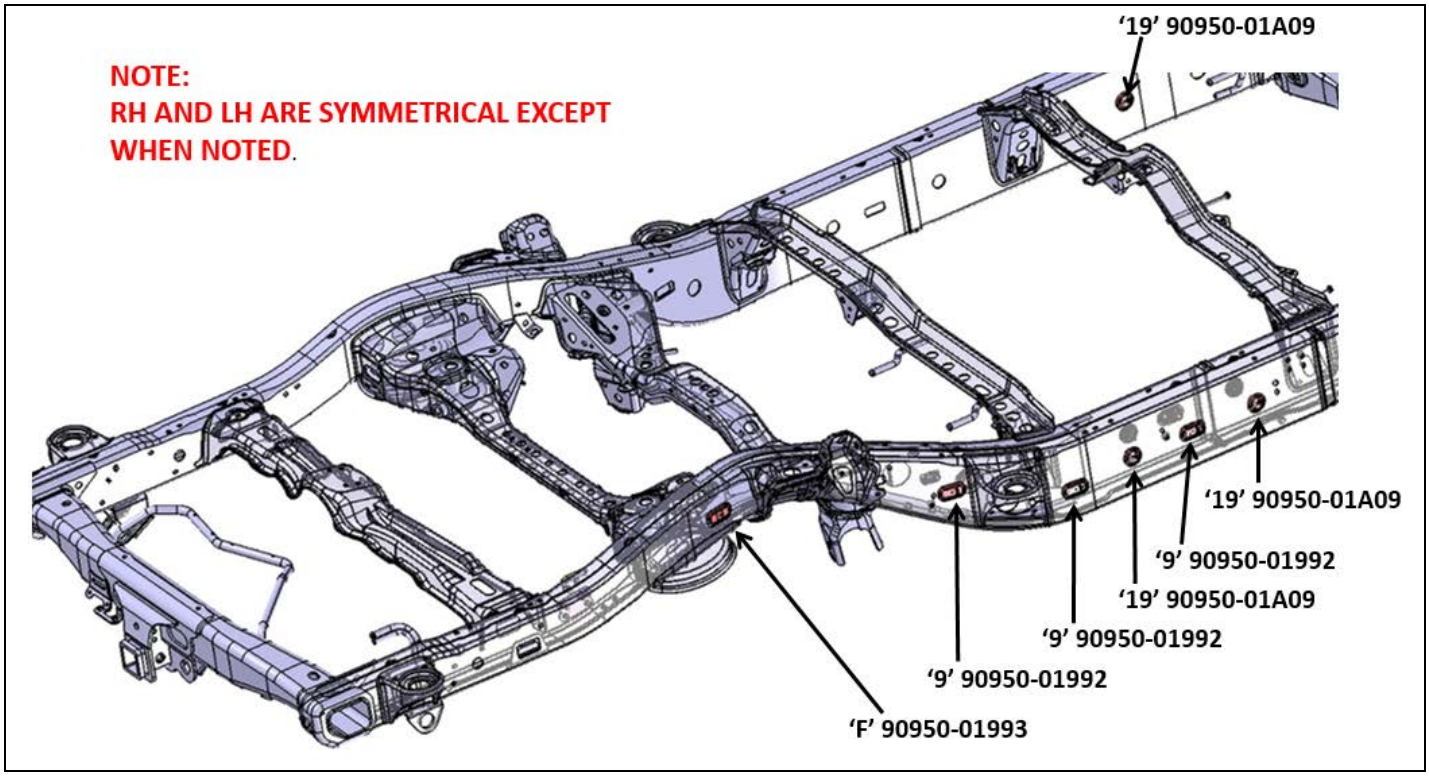
1. INSTALL THE FRAME PLUGS AS SHOWN IN THE DIAGRAMS BELOW

PLUG DIAGRAM/ID	P/N	INSTALLATION INSTRUCTIONS	TOTAL QTY
Plug ‘9’ 	**90950-01992**	Push to seat installation	**10**
Plug ‘8’ 	**90950-01990**	Push to seat install.	**2**
Plug ‘4’ 	**90950-01987**	Push to seat install.	**6**
Plug ‘F’ 	**90950-01993**	Push to seat install.	**8**
Plug ‘A’ 	**90950-01994**	Push to seat install.	**5**
Plug ‘3’ 	**90950-01986**	Push to seat install.	**2**
Plug ‘16’ 	**90950-01A06**	Push to seat install.	**2**
Plug ‘2’ 	**90950-01A09**	Push to seat install.	**10**
Plug ‘19’ 	**90950-01A31**	Push to seat install.	**2**
	**90950-01A24**	Install this plug into the bottom of the frame rail as shown. It must be installed with the channel opening facing the outer portion of the frame to ensure road spray does not enter the frame.	**2**

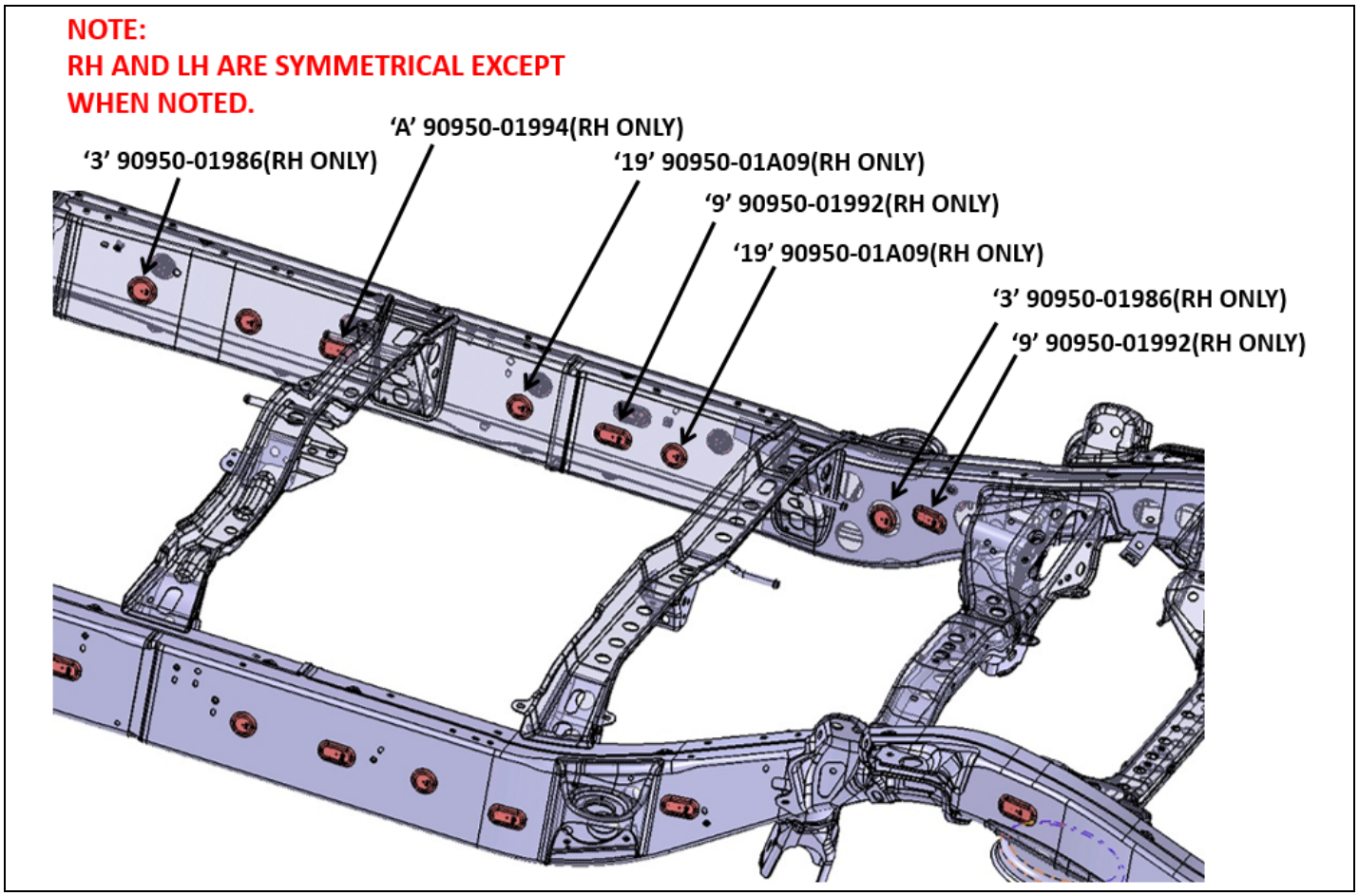
PLUG INSTALLATION 1/4



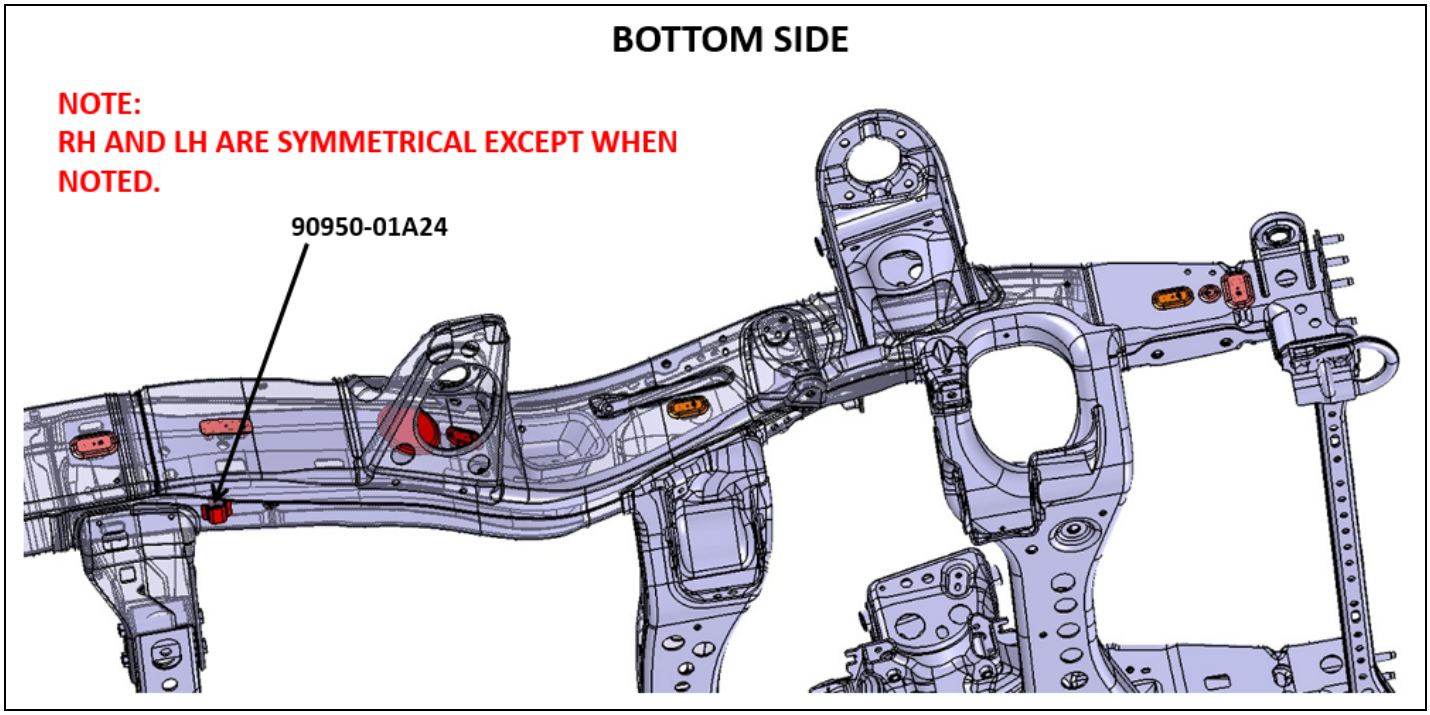
PLUG INSTALLATION 2/4



PLUG INSTALLATION 3/4



PLUG INTALLATION 4/4

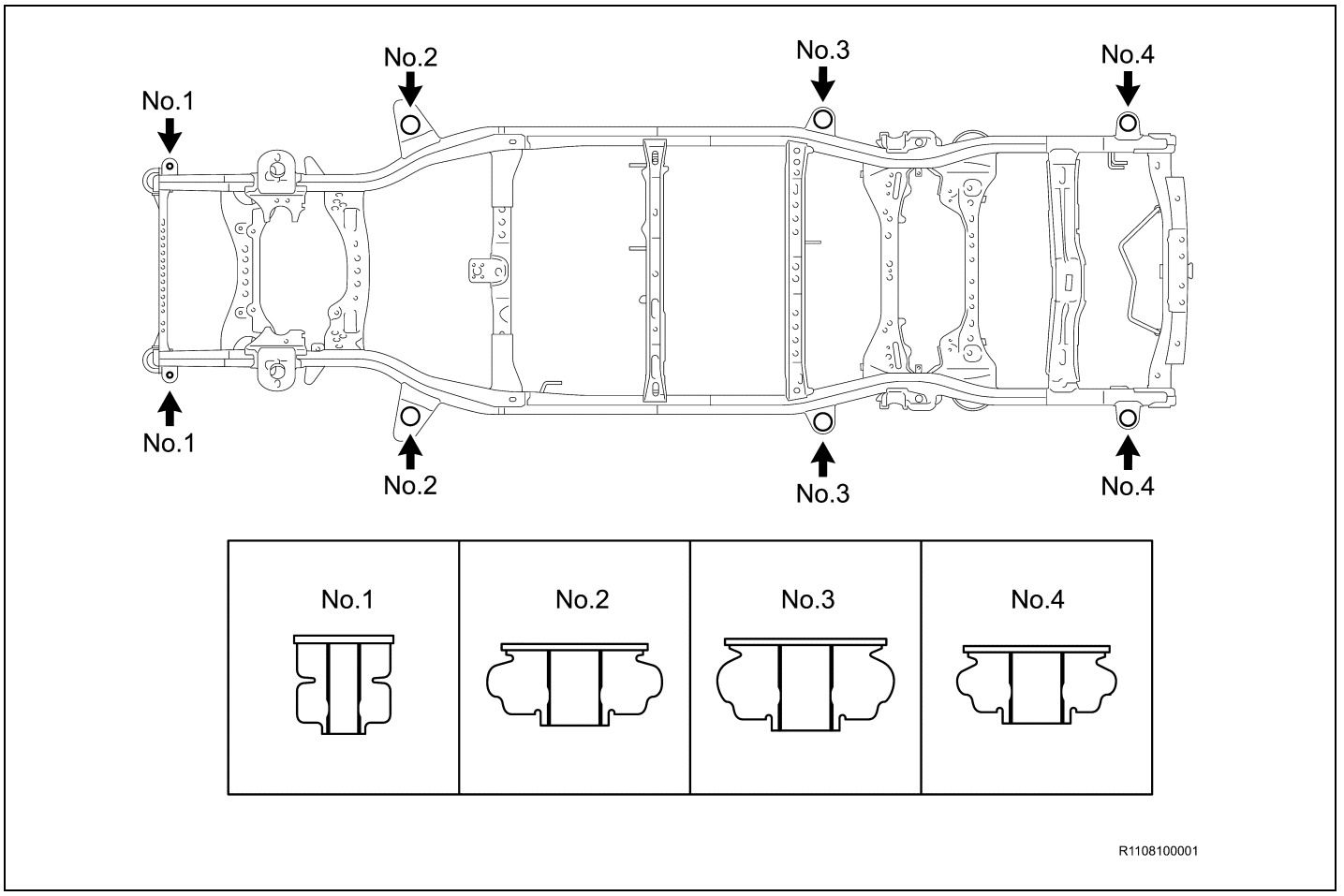


ASSEMBLE THE NEW FRAME

1. PLACE THE *NEW* FRAME ON THE LIFT

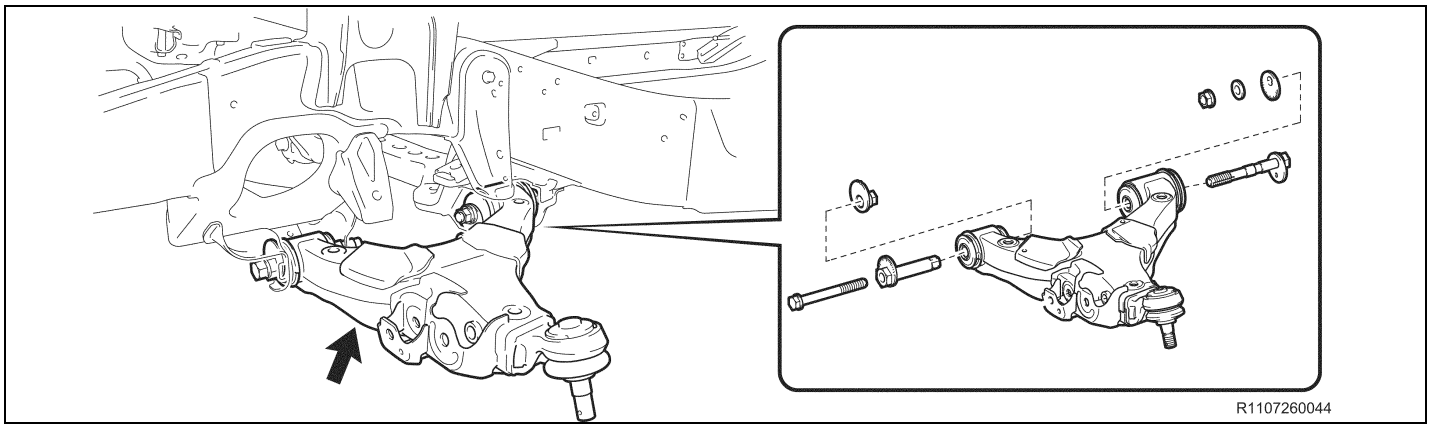
a) Place the ***NEW*** frame on the lift, and secure it with a ratcheting tie down strap. This will prevent the frame from tilting or falling off as parts are installed.

- **Ratcheting Tie Down: Qty 1**
  - **Length: 2 in X 27 ft**
  - **Minimum Work Load Capacity: 3,000 lbs**



2. REINSTALL THE CAB MOUNTS

a) Reinstall cab mounts No.1 and No.2.
b) Reinstall cab mounts No.3 and No.4.



NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
48068-09100	Arm Sub-Assy, Front Suspension, Lower No.1 RH	NA*	1
48069-09090	Arm Sub-Assy, Front Suspension, Lower No.1 LH	NA*	1
90119-A0204	Bolt	2	2
48190-34010	Cam Assy, Camber Adjust	1	2
48452-34011	Plate, front Suspension Toe Adjust, No.2	1	2
90178-18003	Nut	1	2
90201-19011	Washer	1	2
48198-34010	Cam, Camber Adjust, No.2	1	2
48409-34041	Cam Sub-Assy, Front Suspension Toe Adjust	1	2

*Individual Part(s)

3. INSTALL THE FRONT SUSPENSION LOWER ARMS

a) Install the ***NEW*** front suspension lower arm sub-assy with ***NEW*** bolt, ***NEW*** toe adjusting cam, ***NEW*** toe adjusting plate, ***NEW*** nut, ***NEW*** washer, ***NEW*** No.2 camber adjusting cam, ***NEW*** camber adjusting cam, then torque to spec.

Torque Spec: 207 ft·lbf (280N.m, 2855 kgf·cm)

b) Repeat the procedure on the opposite side.

4. REINSTALL THE LOWER BALL JOINTS

NOTE:

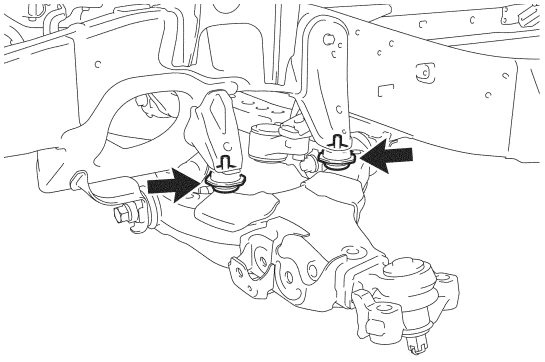
- **If the front suspension lower arm is to be replaced with a new one, install the lower ball joint on the new front suspension lower arm.**
- **If the holes for the cotter pin are not aligned, tighten the axle nut further, up to 60 degree.**

a) Reinstall the lower ball joint with the nut and torque to spec.
Torque Spec: 123 ft·lbf (167 N·m, 1703 kgf·cm)

b) Install the ***NEW*** cotter pin.
c) Repeat the procedure on the opposite side.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
48304-0C030	Bumper, Front Spring, No.1 RH	2	2
48304-0C030	Bumper, Front Spring, No.1 LH	2	2



5. INSTALL THE No.1 FRONT SPRING BUMPERS

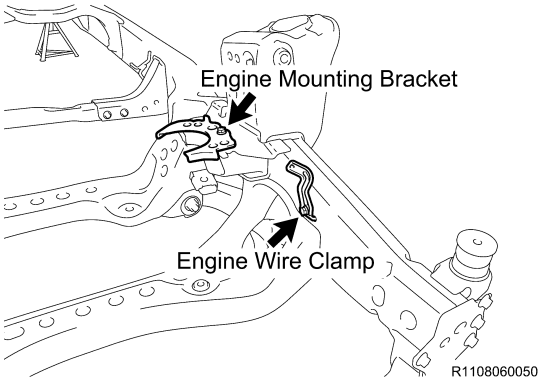
a) Install the 2 ***NEW*** No.1 front spring bumpers to the frame and torque to spec.

Torque Spec: 23 ft·lbf (31 N·m, 316 kgf·cm)

b) Repeat the procedure on the opposite side.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0170	Bolt	2	1

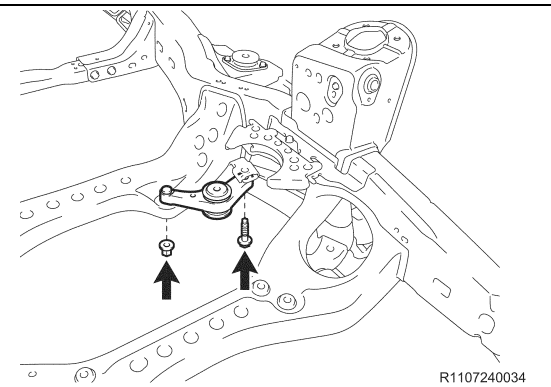


6. REINSTALL THE ENGINE WIRE CLAMP

Torque Spec: 23 ft·lbf (31 N·m, 316 kgf·cm)

7. REINSTALL THE No.2 FRONT ENGINE MOUNTING BRACKET LH

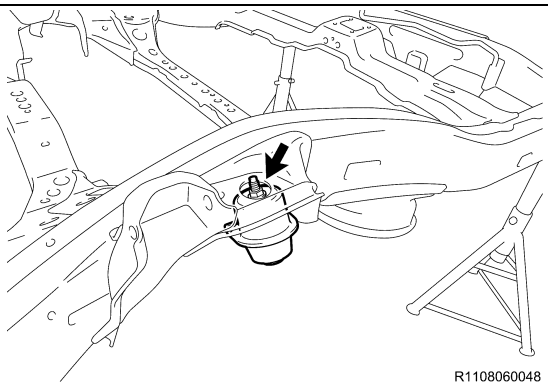
Torque Spec: 24 ft·lbf (32 N·m, 326 kgf·cm)



8. REINSTALL THE FRONT DIFFERENTIAL SUPPORT ASSY (4WD ONLY)

a) Reinstall the front differential support assy with the nut and bolt, then torque to spec.

Torque Spec: 83 ft·lbf (113 N·m, 1152 kgf·cm)



9. REINSTALL THE No.1 REAR SPRING BUMPERS

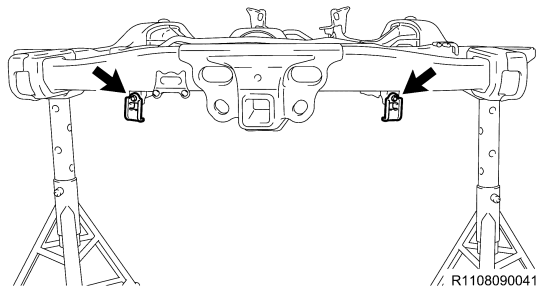
a) Reinstall the No.1 rear spring bumper with the nut and torque to spec.

Torque Spec: 22 ft·lbf (30 N·m, 306 kgf·cm)

b) Repeat the procedure on the opposite side.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
52173-0C080	Bracket, Rear Bumper Bar, RH	2	1
52173-0C080	Bracket, Rear Bumper Bar, LH	2	1
90119-A0050	Bolt	2	2



10. INSTALL THE REAR BUMPER BRACKETS

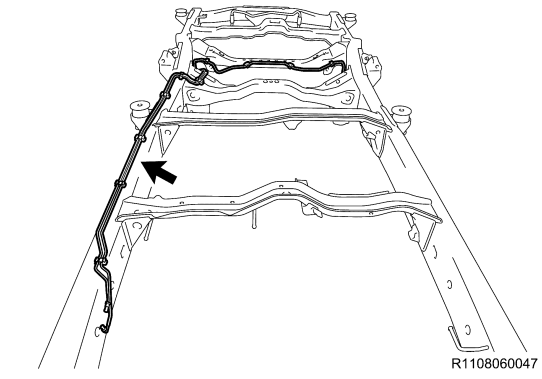
a) Install the rear 2 ***NEW*** bumper brackets with the 2 ***NEW*** bolts and torque to spec.

Torque Spec: 71 in·lbf (8.0 N·m, 82 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
47324-0C100	Tube, Rear Brake, No.4	NA*	1
47325-0C120	Tube, Rear Brake, No.5	NA*	1
90949-A1016	Clamp, Brake Tube, No.6	2	2
90469-A0004	Clamp, Brake Tube, No.7	2	6
90949-A1016	Clamp, Brake Tube, No.8	2	2

*Individual Part(s)



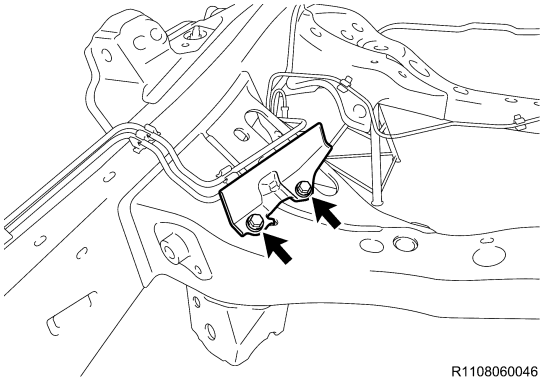
11. INSTALL THE REAR BRAKE TUBES

a) Install the ***NEW*** rear brake tubes with the ***NEW*** clamp(s).

NOTE:
The number of clamps will differ depending on the vehicle spec.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0222	Bolt	2	2



12. REINSTALL THE BRAKE TUBE HEAT INSULATOR

a) Reinstall the brake tube heat insulator with the 2 ***NEW*** bolts and torque to spec.

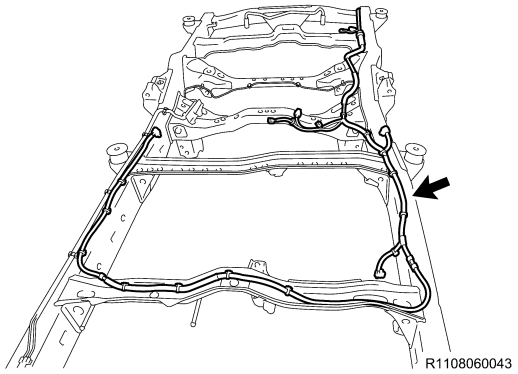
Torque Spec: 23 ft·lbf (31 N·m, 316 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
82164-0C200	Wire, Frame**	NA*	1
82164-0C210		NA*	1
82164-0C220		NA*	1

*Individual Part(s)

** Only 1 part used. The part number depending on the list.



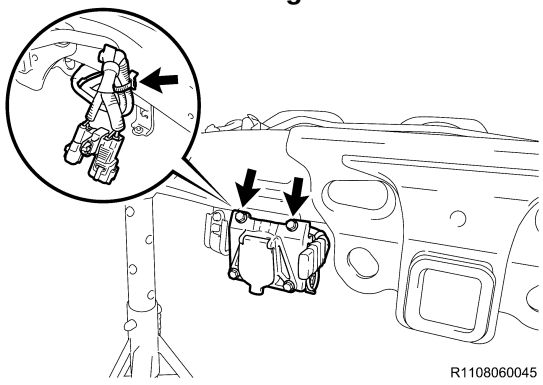
13. REINSTALL THE FRAME WIRE HARNESS

a) Reconnect the clamps to reinstall the ***NEW*** frame wire harness.
b) Reconnect the ground wire with the bolt and torque to spec. ***(If Equipped)***

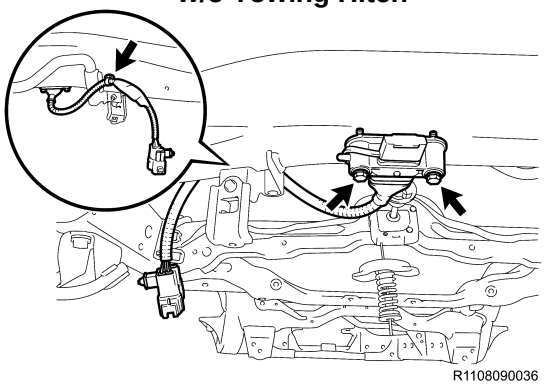
Torque Spec: 12 ft·lbf (16 N·m, 163 kgf·cm)

NOTE:
The number of wire harness clamps will differ depending on the vehicle spec.

w/ Towing Hitch



w/o Towing Hitch



14. REINSTALL THE No.3 FRAME WIRE HARNESS

a) Reinstall the No.3 frame wire harness No.3 with the 2 bolts and torque to spec.

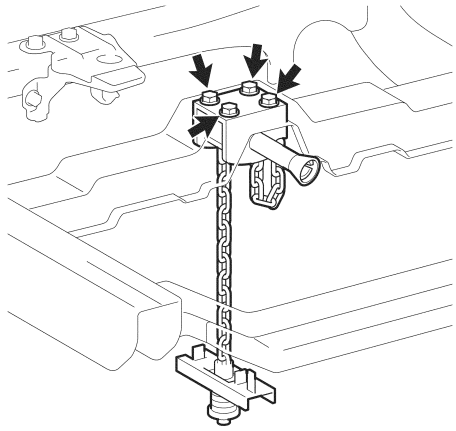
Torque Spec: 73 in·lbf (8.3 N·m, 85 kgf·cm)

b) Reconnect the clamp.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0169	Bolt	2	4
51900-34040	Carrier Assy,Spare Wheel	NA*	1

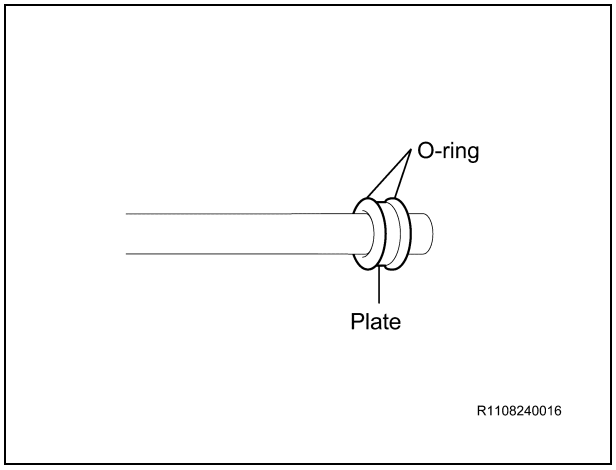
*Individual Part(s)



15. INSTALL THE SPARE WHEEL CARRIER ASSY

a) Install the ***NEW*** spare wheel carrier assy with the 4 ***NEW*** bolts and torque to spec.

Torque Spec: 15 ft·lbf (20 N·m, 204 kgf·cm)



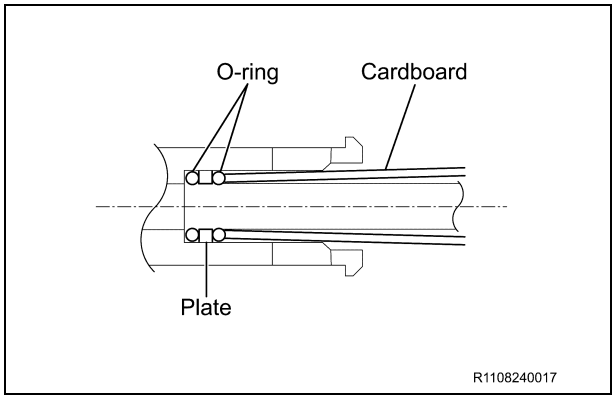
16. REINSTALL THE HEIGHT CONTROL TUBE (W/ AIR SUSPENSION,TYPE1)

a) Install 2 ***NEW*** O-rings and the plate.

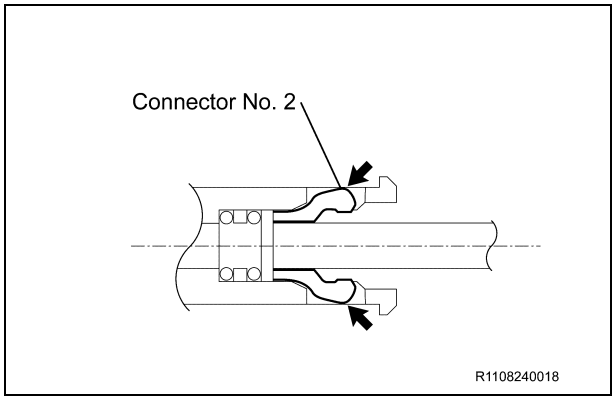
1) Apply MP grease to 2 ***NEW*** O-rings and the plate and install them to the straight tube or an equivalent.

NOTE:

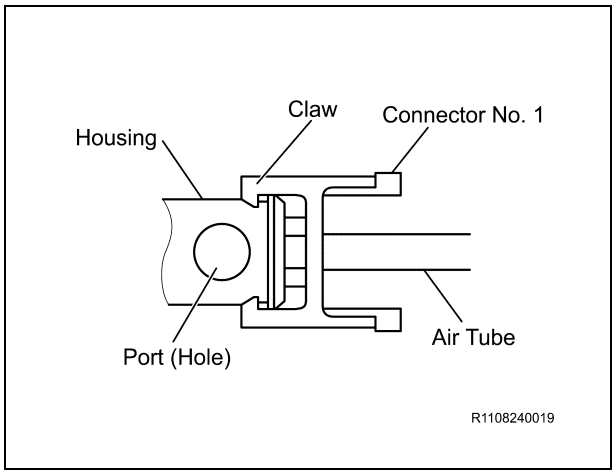
- **Install the plate between the O-rings.**
- **Keep foreign matter from adhering to the O-rings and the height control tube in order to prevent air leaks.**



2) Insert the tube on which the 2 ***NEW*** O-rings and ***NEW*** plate are installed into the housing, and then push it in lightly with a piece of rolled up cardboard.



3) Push the connector No.2 into the housing to where a clicking sound is heard.



b) Install the height control tube.

4) Push the tube and ***NEW*** connector No.1 into the housing to where a clicking sound is heard.

NOTE:

- **The port (hole) of the housing should be set in the position 90 degree from the claws of connector No.1.**
- **Pull the tube lightly to make sure that it is securely connected.**
- **Prevent foreign matter from being attached to the O-rings and height control tube. Failure to do so may cause air leakage.**

17. REINSTALL THE HEIGHT CONTROL TUBE (W/ AIR SUSPENSION, TYPE 2)

a) Install the height control tube.

1) If replacing the clip: Hook one side of the ***NEW*** clip around the union groove, and slide the other side into the opposite side of the union groove.
2) If not replacing the clip: Install 2 ***NEW*** O-rings to the height control tube and coat them with MP grease No.2.

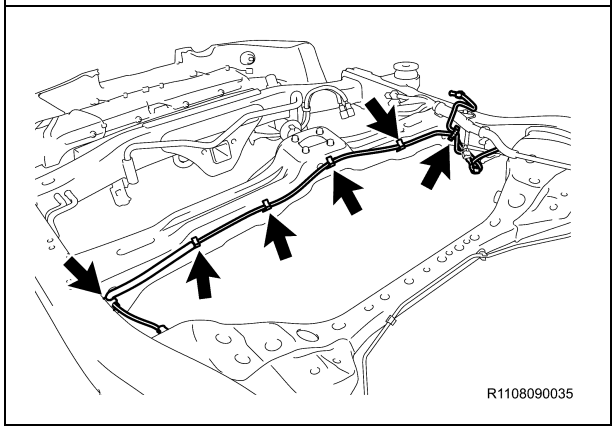
NOTE:

- **Air leaks may occur if dust or foreign objects come into contact with the O-rings.**
- **Some tubes are equipped with only one O-ring.**

3) Securely connect the height control tube straight onto the connector until a clicking sound is heard.

NOTE:
Connect the height control tube straight in order to prevent air leaks.

4) Install the height control tube to the ***NEW*** holder, being careful not to apply excessive force to the clip.

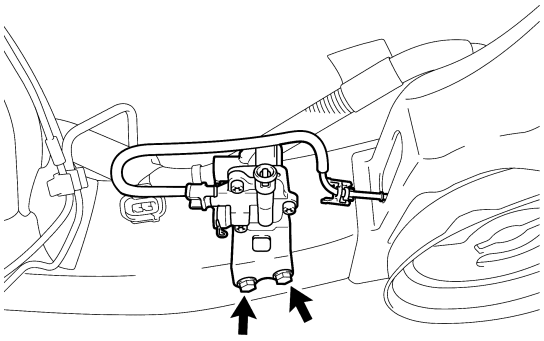


18. REINSTALL THE HEIGHT CONTROL TUBES (W/ AIR SUSPENSION)

a) Reinstall the height control tubes with the 6 clamps.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90080-11180	Bolt	7	2
48932-30010	Plate, Height Control Tube	5,6	1
48934-30010	Connector, Height Control Tube	5,6	1
90301-04011	Ring, O (For Height Control No.6 Tube)	5,6	2
48933-30010	Holder, Air Connector Clip	5,6	1
90301-04004	Ring, O (For Height Control Tube No.2)	5,6	1
90468-12012	Clamp	5,6	1

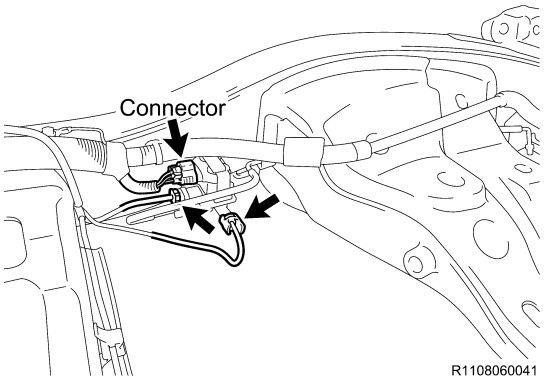


R1108060042

19. REINSTALL THE No.2 HEIGHT CONTROL VALVE SUB-ASSY (W/ AIR SUSPENSION)

a) Reinstall the No.2 height control valve sub-assy with the 2 ***NEW*** bolts and torque to spec.

Torque Spec: 21 ft·lbf (29 N·m, 296 kgf·cm)

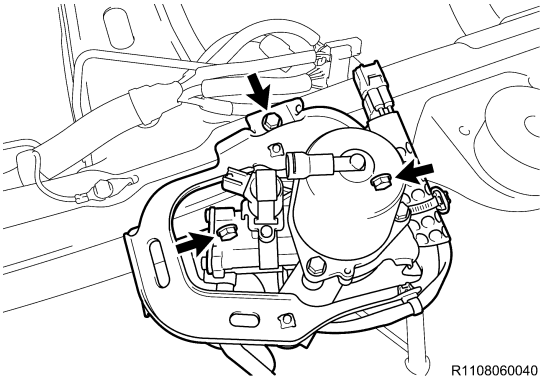


R1108060041

b) Reconnect the tubes.
c) Reconnect the connector**.**

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0266	Bolt	7	3



R1108060040

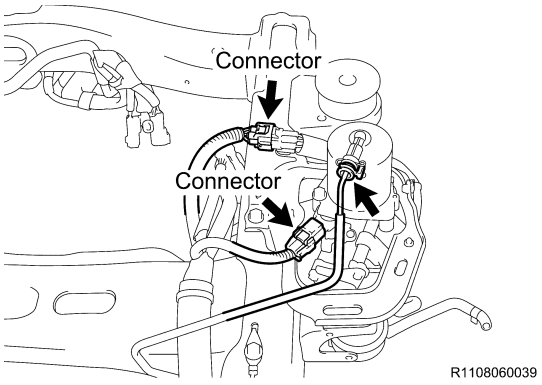
20. REINSTALL THE No.1 HEIGHT CONTROL COMPRESSOR ASSY (W/ AIR SUSPENSION)

a) Reinstall the No.1 height control compressor assy with the 3 ***NEW*** bolts and torque to spec.

Torque Spec: 21 ft·lbf (29 N·m, 296 kgf·cm)

NEW Replacement Parts

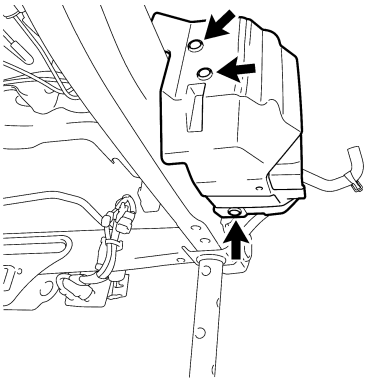
Part Number	Part Name	Kit #	Qty
48933-30010	Holder, Air Connector Clip	5,6	1
90301-04004	Ring, O (For Height Control Tube No.2)	5,6	1
90468-12012	Clamp	5,6	1



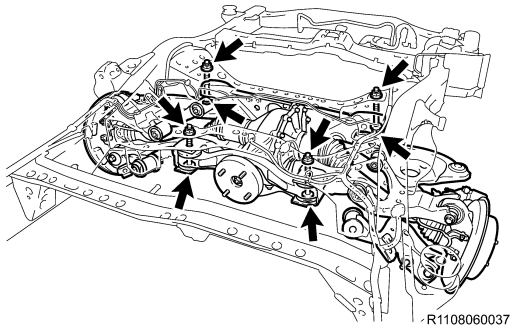
b) Reconnect the 2 connectors and tube.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90467-07201	Clip	5,6	3



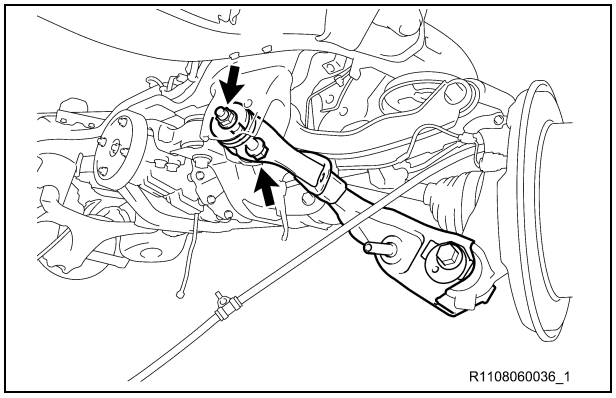
c) Reinstall the height control compressor cover with the 3 ***NEW*** clips.



21. REINSTALL THE REAR DIFFERENTIAL ASSY

a) Temporarily reinstall the rear differential assy with the 4 bolts and 4 nuts, then torque to spec.
b) Tighten the bolt side to rear differential assy torque to spec.

Torque Spec: 239 ft·lbf (324 N·m, 3304 kgf·cm)

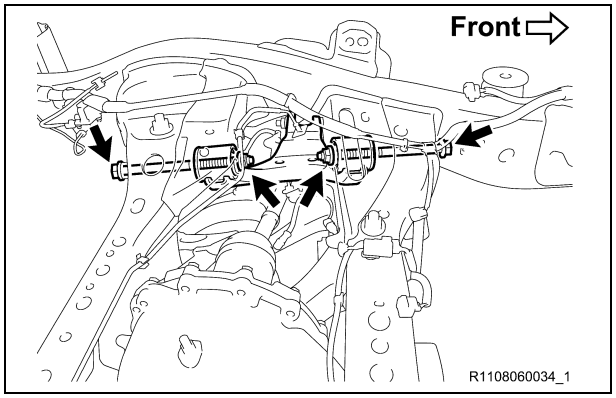


22. RECONNECT THE REAR SUSPENSION LOWER ARMS

a) Temporarily reconnect the rear suspension lower arm with the bolt and nut, then torque to spec.
b) Tighten the nut side to rear differential assy torque to spec.

Torque Spec: 187 ft·lbf (253 N·m, 2580 kgf·cm)

c) Repeat the procedure on the opposite side.



23. RECONNECT THE REAR SUSPENSION UPPER ARMS

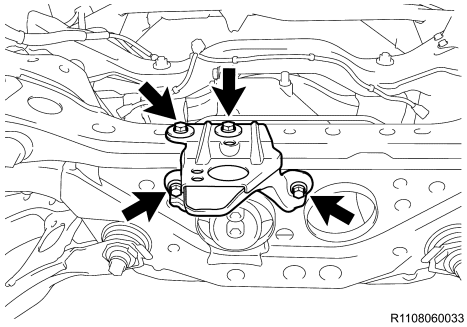
a) Reconnect the rear suspension upper arm with the 2 bolts and 2 nuts, then torque to spec.

Torque Spec: 137 ft·lbf (185 N·m, 1886 kgf·cm)

b) Repeat the procedure on the opposite side.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
51911-0C010	Bolt, Spare Wheel	2	2
90119-A0316	Bolt	2	2



24. REINSTALL THE SPARE WHEEL STOPPER

a) Reinstall the spare wheel stopper with the 4 ***NEW*** bolts and torque to spec.

Torque Spec: 15 ft·lbf (20 N·m, 204 kgf·cm)

NEW Replacement Parts

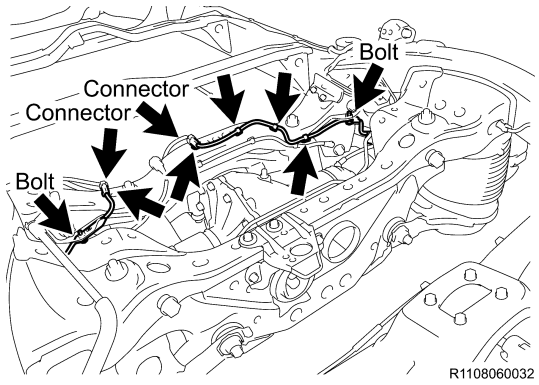
Part Number	Part Name	Kit #	Qty
48958-0C010	Clip, Pneumatic Cylinder	7	2
90301-04011	Ring, O (For Rear Pneumatic Cylinder RH)	5,6	2
90301-04011	Ring, O (For Rear Pneumatic Cylinder LH)	5,6	2
48932-30010	PLATE, Height Control Tube	5,6	2
48934-30010	Connector, Height Control Tube	5,6	2

25. REINSTALL THE FOLLOWING THE PARTS

- Rear Pneumatic Cylinder ***(w/ Air Suspension)***
  - Reinstall the rear pneumatic cylinder with bolt and torque to spec.
  - **Torque Spec: 13 ft·lbf (17 N·m, 173 kgf·cm)**
  - Install the ***NEW*** pneumatic cylinder clip.
  - Repeat the procedure on the opposite side.
- Rear Coil spring
  - Using the SST **09727-30021**, reinstall the rear coil spring.
- Rear Shock Absorber Assy
  - Reinstall the rear shock absorber assy with the 2 bolts and nut, then torque to spec.
  - **Torque Spec:**
    Nut (Upper Side) - 100 ft·lbf (135N·m, 1377 kgf·cm)
    Bolt (Lower Side) - 67 ft·lbf (90 N·m, 918 kgf·cm)
  - Reconnect the connector and clamps. ***(If Equipped)***
  - Repeat the procedure on the opposite side.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0050	Bolt	2	2



26. RECONNECT THE SKID CONTROL SENSOR WIRES

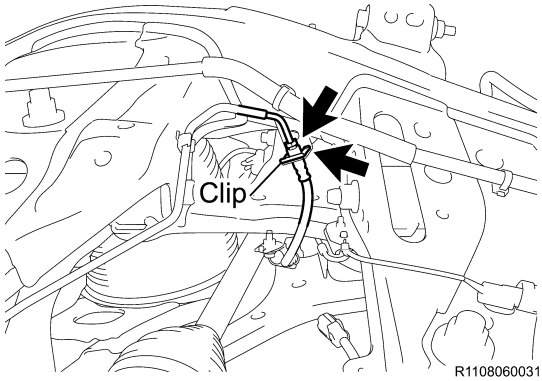
a) Reconnect the skid control wires with the 2 ***NEW*** bolts and torque to spec.

Torque Spec: 9 ft·lbf (12. 5N·m, 127 kgf·cm)

b) Reconnect the 2 connectors and 5 clips.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90468-A0007	Clip	2	2



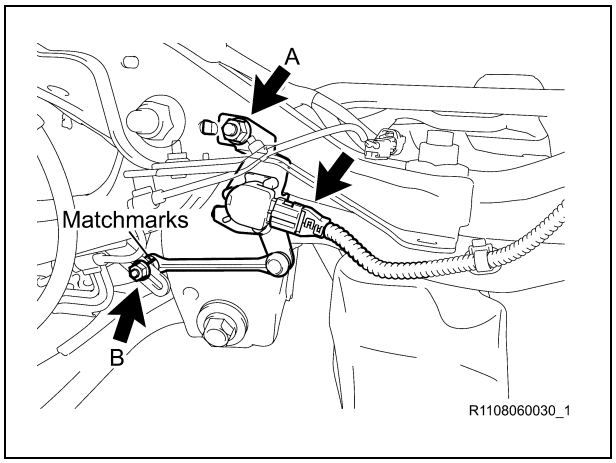
27. RECONNECT THE REAR BRAKE HOSES

a) Install the ***NEW*** clip.

b) Reconnect the front brake tube and torque to spec.

Torque Spec: 11 ft·lbf (15.2 N·m, 155 kgf·cm)

c) Repeat the procedure on the opposite side.

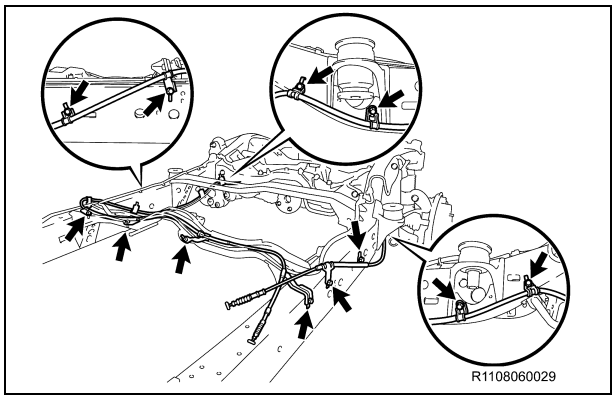


28. REINSTALL THE REAR HEIGHT CONTROL SENSORS (W/ AIR SUSPENSION)

a) Align the matchmarks on the rear height control sensor link and bracket.
b) Reinstall the rear height control sensor with the 2 nuts and torque to spec.

Torque Spec:
Nut A - 9 ft·lbf (12.5 N·m, 127 kgf·cm)
Nut B - 48 in·lbf (5.4 N·m, 55 kgf·cm)

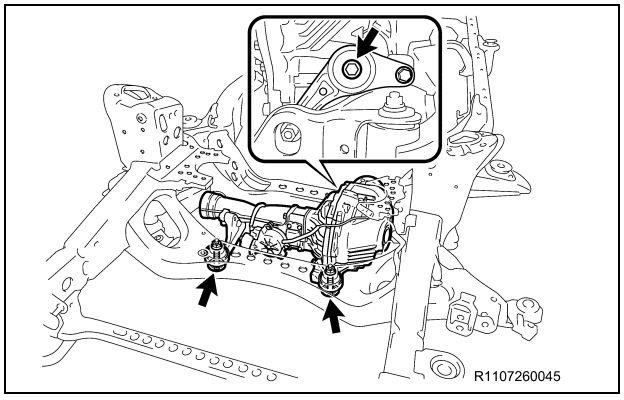
c) Reconnect the rear height control sensor connector.
d) Repeat the procedure on the opposite side.



29. REINSTALL THE PARKING BRAKE CABLES

a) Reinstall the parking brakes cable with 12 bolts and torque to spec.

Torque Spec: 14 ft·lbf (19 N·m, 194 kgf·cm)



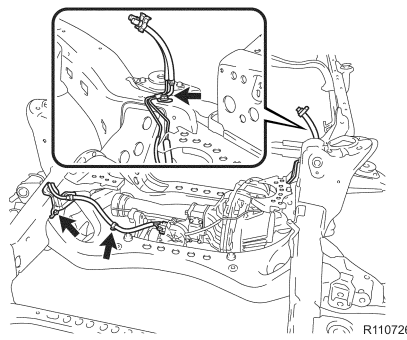
30. REINSTALL THE FRONT DIFFERENTIAL CARRIER ASSY (4WD ONLY)

a) Reinstall the front differential carrier assy with the 3 bolts, 2 stoppers and 2 nuts, then torque to spec.

Torque Spec: 83 ft·lbf (113 N·m, 1152 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90105-A0193	Bolt	4	1

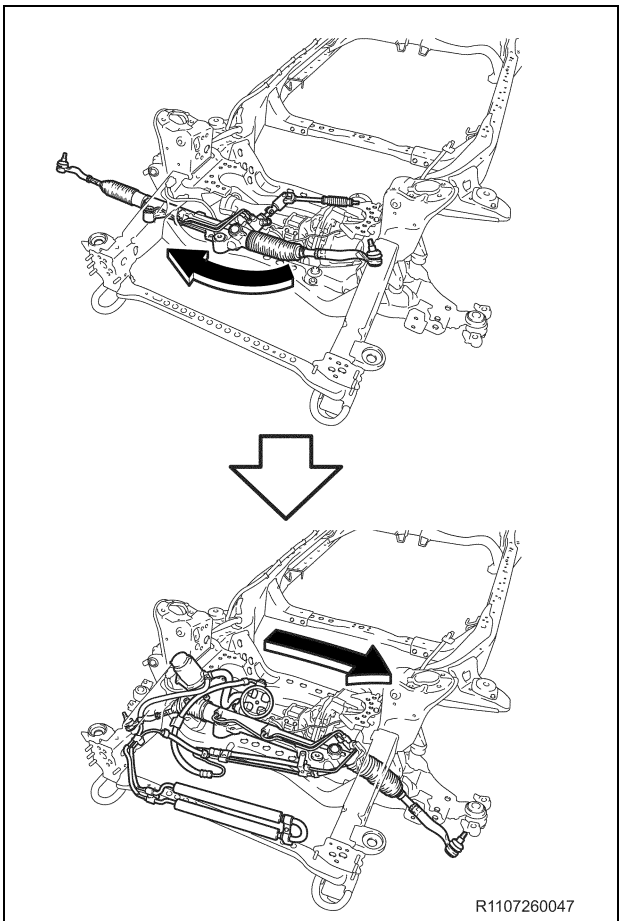


b) Reinstall the breather tubes with the ***NEW*** bolt and torque to spec.

Torque Spec: 12 ft·lbf (16.6 N·m, 169 kgf·cm)

c) Reinstall the differential wire connector with the bolt and clamp, then torque to spec.

Torque Spec: 13 ft·lbf (17.2 N·m, 175 kgf·cm)

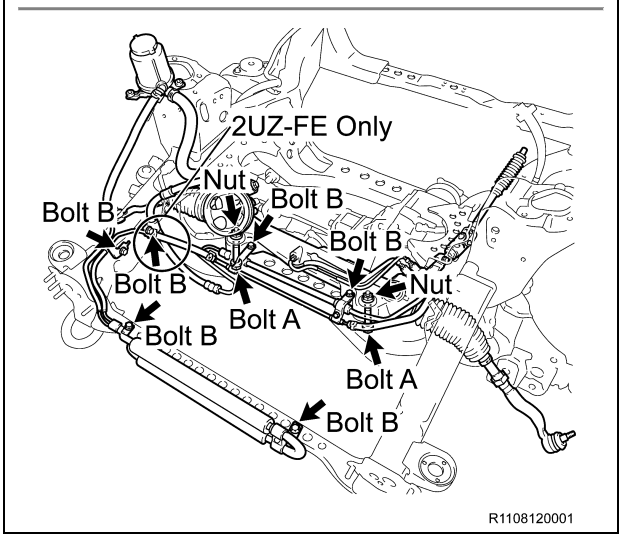


31. REINSTALL THE POWER STEERING LINK ASSY W/ POWER STEERING VANE PUMP

a) Place the power steering link assy w/ power steering vane pump on the frame as shown in the figure.

NOTE:

- **When reinstalling the power steering link with the vane pump attached, have one person support the power steering link and the other support the vane pump.**
- **Make sure to keep the power steering pump reservoir in an upright position to prevent the fluid from leaking out.**
- **Take care not to deform the power steering tube etc. during placement.**



b) Install the 2 bolts (A) and 2 nuts, then torque to spec.

Torque Spec: Bolt A - 89 ft·lbf (120 N·m, 1224 kgf·cm)

c) Install the bolts (B) (2UZ-FE: 6 bolts, 3UR-FE 5 bolts), then torque to spec.

Torque Spec: Bolt B - 21 ft·lbf (28 N·m, 286 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90311-47012 Or 90311-47027	Seal, Oil (For Differential Side Gear Shaft) LH	3	1
90311-47013	Seal, Oil (For Differential Side Gear Shaft) RH	3	1
43425-0C010	Ring, Shaft Snap (For Front Drive Inner Shaft Outer)	4	2

32. REINSTALL THE FRONT DRIVE SHAFT ASSY (4WD ONLY)

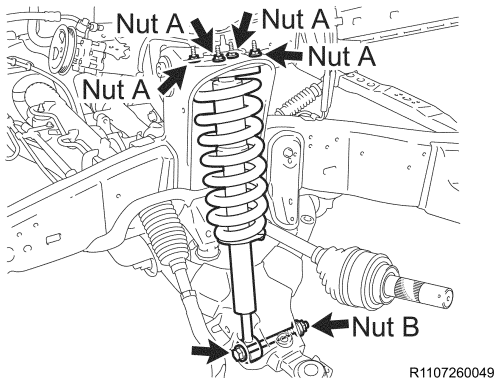
a) Install a ***NEW*** snap ring.
b) Reinstall the front drive shaft assy.
c) Repeat the procedure on the opposite side.

NOTE:

- **Be careful not to damage the dust cover and oil seal.**
- **If the oil seal is damaged, replace the *NEW* parts.**

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90178-A0052	Nut (For Front Suspension Support)	2	8



33. REINSTALL THE FRONT SHOCK ABSORBERS

a) Reinstall the front shock absorber assy with the 4 ***NEW*** nuts (A) and torque to spec.

Torque Spec: Nut A - 33 ft·lbf (45 N·m, 459 kgf·cm)

b) Reinstall the bolt and nut (B), then torque to spec.

Torque Spec: Nut B - 144 ft·lbf (195 N·m, 1988 kgf·cm)

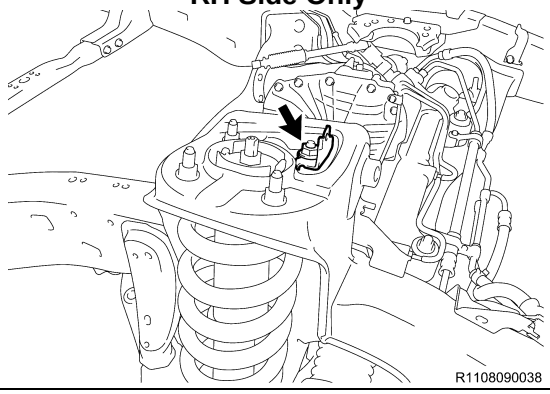
c) Repeat the procedure on the opposite side.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90178-A0052	Nut (For Front Suspension Support)	NA*	1

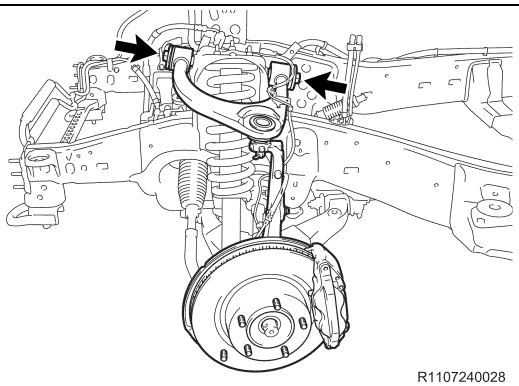
*Individual Part(s)

RH Side Only



d) Reinstall the bracket with the ***NEW*** nut and torque to spec. ***(W/ AIR SUSPENSION, RH Side Only)***

Torque Spec: 11 ft·lbf (15 N·m, 153 kgf·cm)



34. REINSTALL THE FRONT SUSPENSION UPPER ARM AND STEERING KNUCKLES

a) Reinstall the front suspension upper arm and steering knuckle assy with the bolt, nut and 2 washers, then torque to spec.

Torque Spec: 173 ft·lbf (235 N·m, 2396 kgf·cm)

b) Repeat the procedure on the opposite side.

NEW Replacement Parts

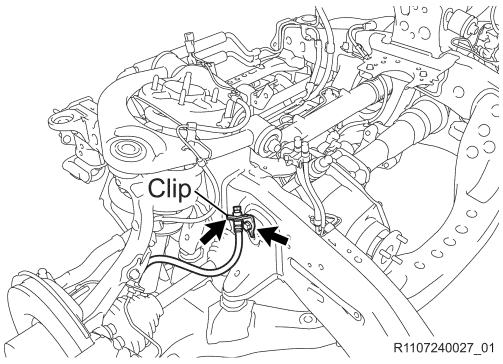
Part Number	Part Name	Kit #	Qty
90252-04003	Cotter Pin	1	2
90119-A0192	Bolt	2	4

35. REINSTALL THE FOLLOWING PARTS

- Lower Ball Joint
  - Reinstall the lower ball joint with the 2 bolts and torque to spec.
  - **Torque Spec: 221 ft·lbf (300 N·m, 3059 kgf·cm)**
  - Repeat the procedure on the opposite side.
- Tie Rod End sub-assy
  - Reinstall the tie rod end with the nut and torque to spec.
  - **Torque Spec: 51 ft·lbf (69 N·m, 704 kgf·cm)**
  - Install the ***NEW*** cotter pin.
  - Repeat the procedure on the opposite side.
- Front Axle Shaft Nut **(*4WD Only*)**
  - Temporarily reinstall the front axle nut.
  - This nut will be tightened when the vehicle is completed.
  - Repeat the procedure on the opposite side.
- Front Stabilizer Bar
  - Reinstall the stabilizer bar with 2 brackets and 4 ***NEW*** bolts, then torque to spec.
  - **Torque Spec: 51 ft·lbf (69 N·m, 704 kgf·cm)**
  - Reconnect the stabilizer bar links with the 2bolts and torque to spec.
  - **Torque Spec: 89 ft·lbf (120 N·m, 1224 kgf·cm)**

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0222	Bolt	2	2
90468-A0007	Clip	2	2



36. RECONNECT THE FRONT BRAKE HOSES

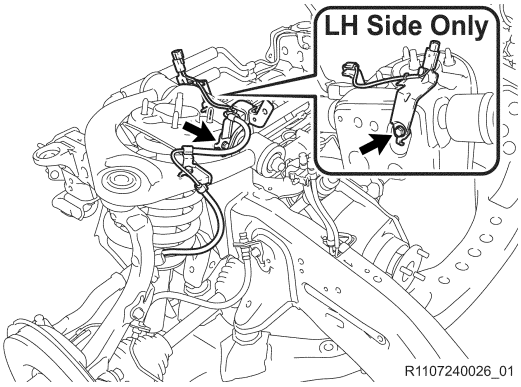
a) Reinstall a bracket with a ***NEW*** bolt and torque to spec.

Torque Spec: 21 ft·lbf (29 N·m, 296 kgf·cm)

b) Reinstall the front brake hose with the ***NEW*** clip.
c) Repeat the procedure on the opposite side.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0050	Bolt	2	3



37. RECONNECT THE SKID CONTROL SENSOR WIRES

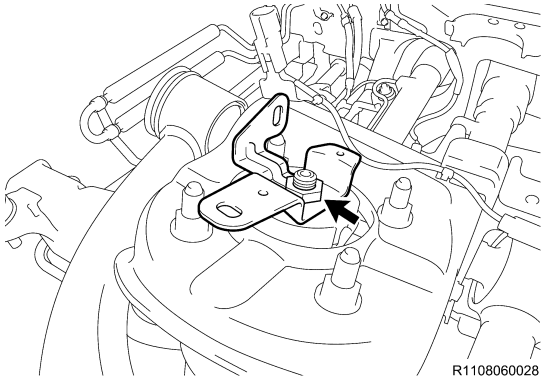
a) Reinstall the skid control sensor wire with the 2 ***NEW*** bolts and torque to spec. ***(LH Side)***

b) Reinstall the skid control sensor wire with the ***NEW*** bolt and torque to spec. ***(RH Side)***

Torque Spec: 9 ft·lbf (12.5 N·m, 127 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
89269-34010	Bracket, Suspension Control RH	6	1
89269-34020	Bracket, Suspension Control LH	6	1
94130-01202	Nut	1	2



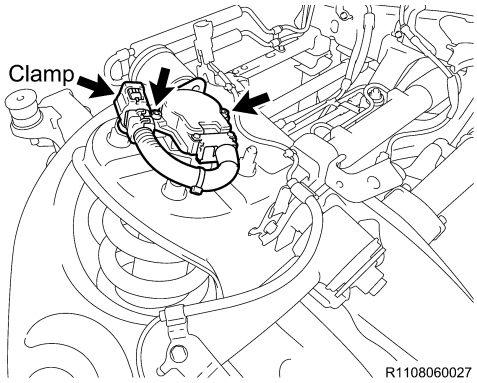
38. RECONNECT THE ABSORBER CONTROL ACTUATORS (W/ AIR SUSPENSION)

a) Install the ***NEW*** suspension control bracket with a ***NEW*** nut and torque to spec.

Torque Spec: 11 ft·lbf (15 N·m, 153 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90110-05004	Bolt	6	4



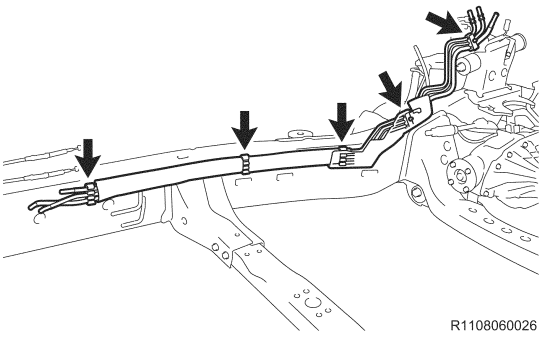
b) Using a hexagon wrench, reinstall the absorber control actuator with the 2 ***NEW*** bolts and torque to spec.

Torque Spec: 69 in·lbf (7.8 N·m, 80 kgf·cm)

c) Reconnect the clamp.
d) Repeat the procedure on the opposite side.

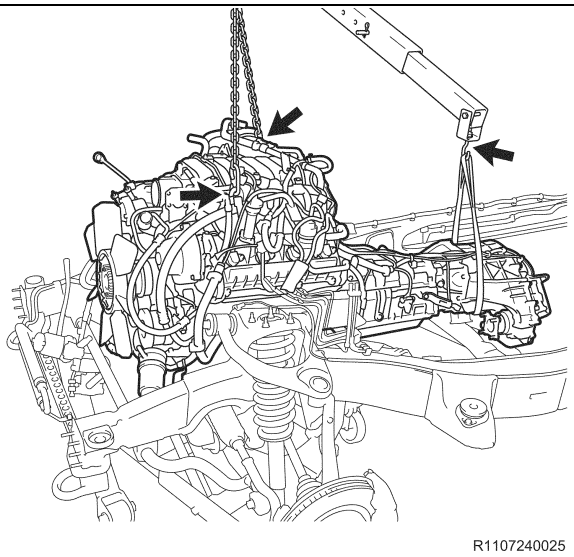
NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
77289-26010	Clamp, Fuel Tube, No.1	1	1
77285-34370	Clamp, Fuel Tube, No.2	1	4
77296-0C010	Support, Fuel Tube Protector, No.1	2	1



39. REINSTALL THE FUEL TUBES

a) Reinstall the fuel tubes with the ***NEW*** clamps.



40. REINSTALL THE ENGINE AND TRANSMISSION ASSY

a) Reinstall engine and transmission assy.

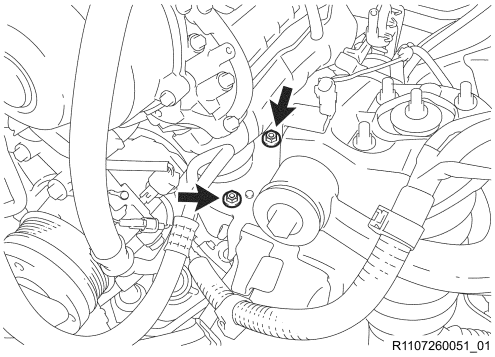
NOTE:

- **When reinstalling the engine and transmission assy, ALWAYS use 2 engine hoists or mini cranes to lift it.**
- **DO NOT use 1 engine hoist or mini crane to lift the engine and transmission assy, as the unbalanced weight may lead to an accident or injury.**
- **ONLY use engine hoists or mini cranes that can properly support the weight of the engine and transmission assy.**
- **Carefully adjust the 2 engine hoists or mini cranes used so that the engine and transmission assy is properly balanced.**

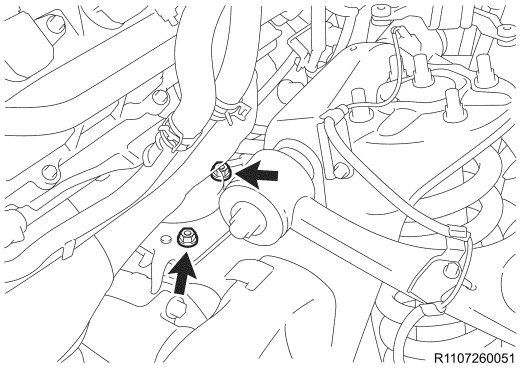
NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0224	Bolt	2	4

LH Side



RH Side

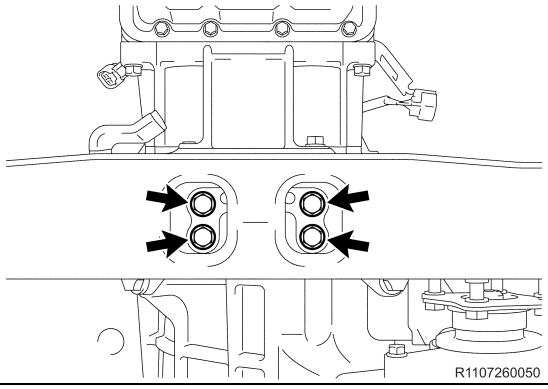


b) Attach the engine mounts with the 4 ***NEW*** bolts and torque to spec.

Torque Spec: 58 ft·lbf (79 N·m, 806 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0210	Bolt	2	4



c) Attach the transmission mount with 4 ***NEW*** bolts and torque to spec.

Torque Spec: 12 ft·lbf (16 N·m, 163 kgf·cm)

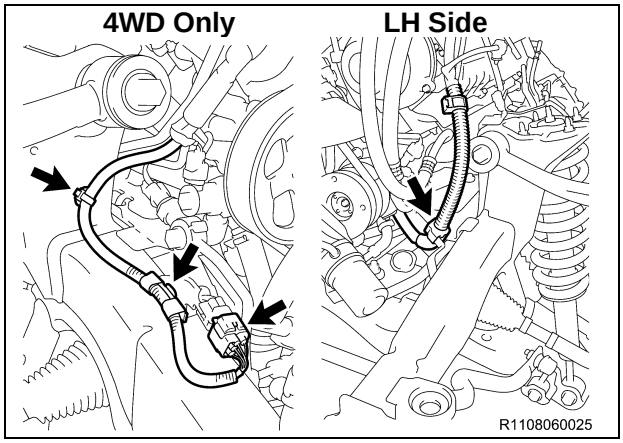
d) Remove the bolt(s) and the engine hangers ***(3UR-FE Only)***.
e) Reinstall the items/parts that were removed during the engine and transmission assy removal.

41. REINSTALL THE POWER STEERING PUMP ASSY

a) Reinstall the power steering vane pump with the 2 bolts and the nut ***(2UZ-FE Only)*** or the 2 bolts ***(3UR-FE Only)***, then toque to spec.

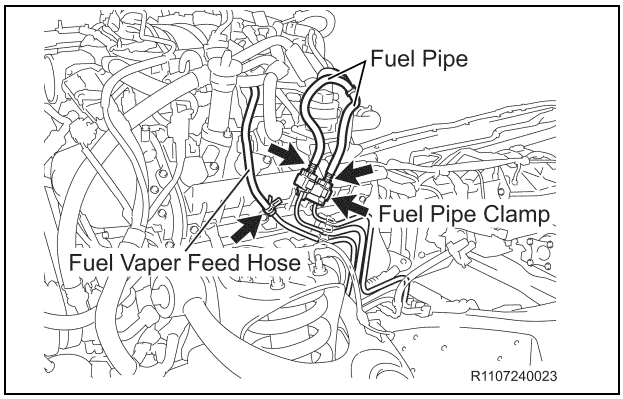
Torque Spec: 21 ft·lbf (28 N·m, 286 kgf·cm)

b) Reconnect the clamp. ***(3UR-FE Only)***
c) Reconnect the connectors.
d) Reinstall the drive belt.



42. RECONNECT THE DIFFERENTIAL WIRE (4WD ONLY)

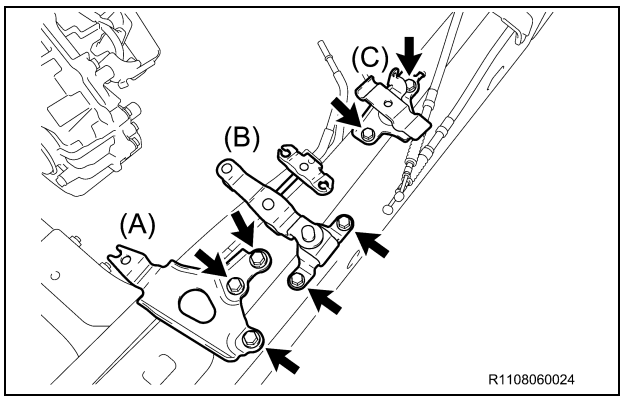
43. RECONNECT THE ENGINE WIRE



44. RECONNECT THE FUEL PIPES

a) Reconnect the 2 fuel pipes.
b) Reinstall the No.1 fuel pipe clamp.

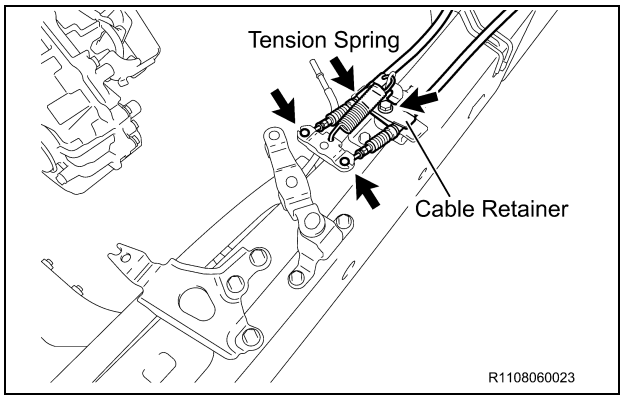
45. RECONNECT THE FUEL VAPOR FEED HOSE ASSY



46. RECONNECT THE PARKING BRAKE SYSTEM

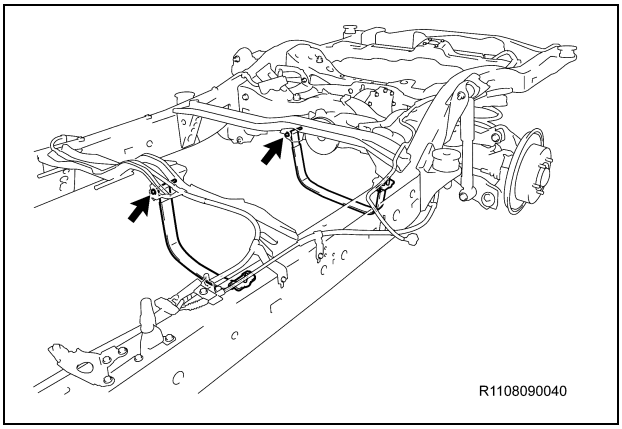
a) Reconnect the cable support bracket with the 3 bolts and torque to spec (A).
b) Reconnect the parking brake intermediate lever with the 2 bolts and torque to spec (B).
c) Reconnect the No.2 cable support bracket with the 2 bolts and torque to spec (C).

Torque Spec: 14 ft·lbf (19 N·m, 194 kgf·cm)



d) Reconnect the 2 parking brake cables.
e) Reinstall the tension spring.
f) Reinstall the cable retainer with the bolt and torque to spec.

Torque Spec: 9 ft·lbf (12.5 N·m, 127 kgf·cm)

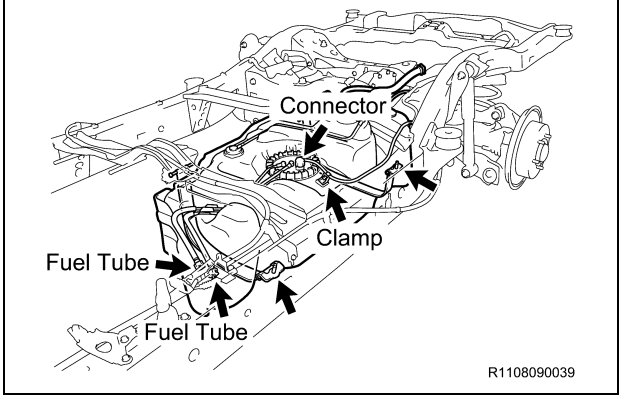


47. REINSTALL THE FUEL TANK STRAPS

a) Reinstall the fuel tank straps with the 2 pins and 2 clips.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0077	Bolt	2	2



48. REINSTALL THE FUEL TANK ASSY

a) Reinstall the fuel tank assy with the 2 ***NEW*** bolts and torque to spec.

Torque Spec: 30 ft·lbf (40 N·m, 408 kgf·cm)

b) Reconnect the 2 fuel tubes.
c) Reconnect the connector and clamp.

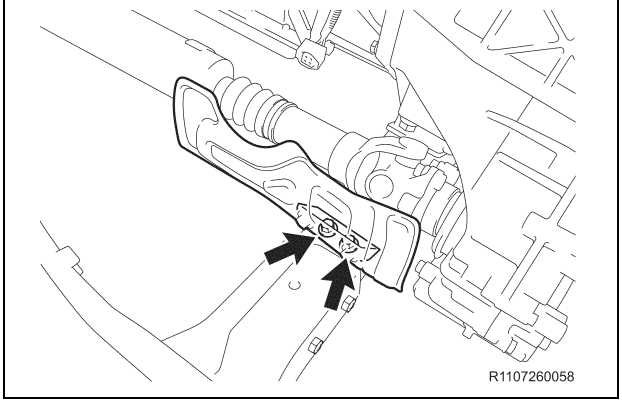
49. REINSTALL THE FRONT PROPELLER SHAFT ASSY (4WD ONLY)

a) Referencing the matchmarks, install the front propeller shaft assy to the transfer case and the front differential with 8 washers and 8 nuts, then torque to spec.

Torque Spec: 59 ft·lbf (80.3 N·m, 819 kgf·cm)

NEW Replacement Parts

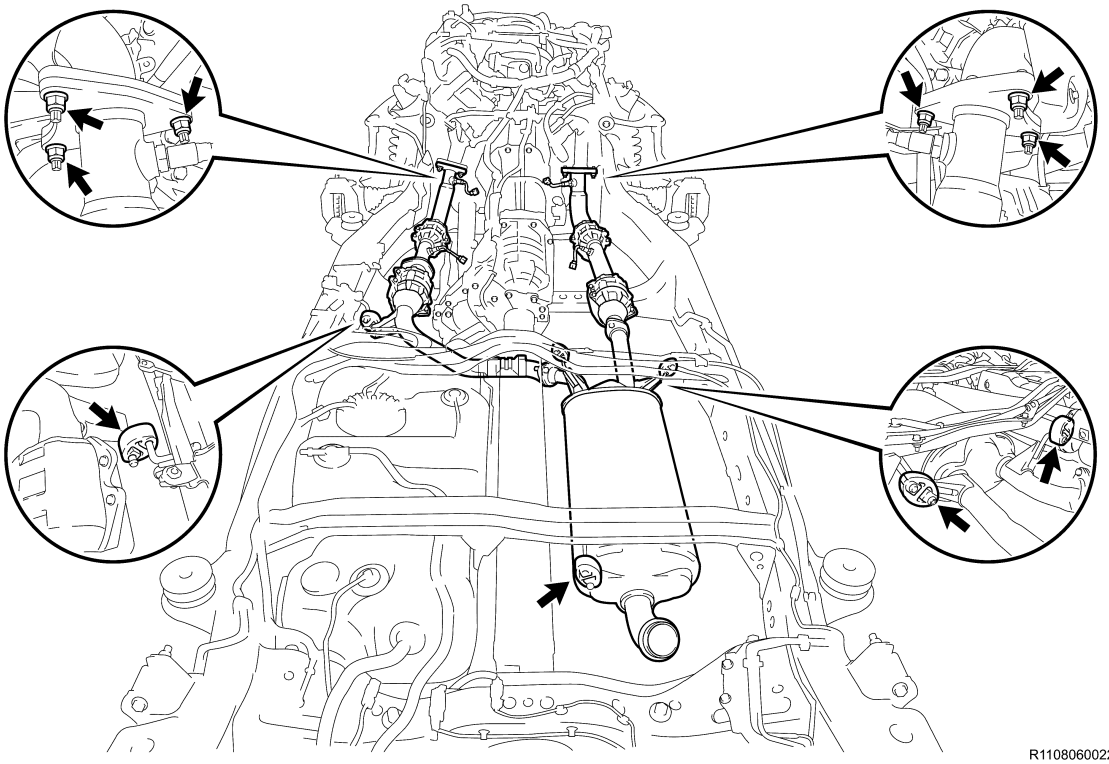
Part Number	Part Name	Kit #	Qty
90119-A0151	Bolt	4	2



50. REINSTALL THE PROPELLER SHAFT HEAT INSULATOR (4WD ONLY)

a) Reinstall the propeller shaft heat insulator with the 2 ***NEW*** bolts and torque to spec.

Torque Spec: 12 ft·lbf (15.7 N·m, 160 kgf·cm)



NEW Replacement Parts

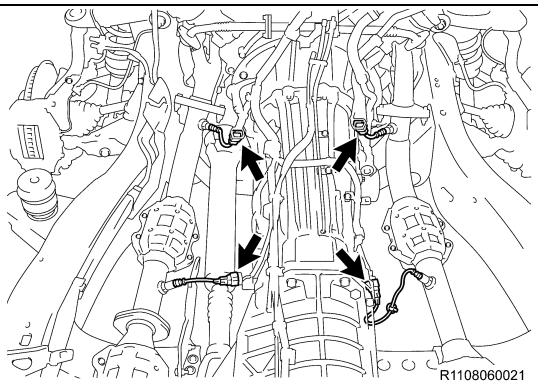
Part Number	Part Name	Kit #	Qty
90917-A6002	Gasket, Exhaust Pipe	2	2
90080-17187	Nut	2	6
90126-A0011	Bolt, Stud (For Exhaust Manifold, RH) 3UR# USK6#	NA*	3
90126-A0011	Bolt, Stud (For Exhaust Manifold, LH) 3UR# USK6#	NA*	3
90126-A0011	Bolt, Stud (For Manifold To Exhaust Pipe) 2UZ-FE UCK6#	NA*	6

*Individual Part(s)

51. REINSTALL THE EXHAUST SYSTEM

a) Install the 2 ***NEW*** exhaust pipe gaskets.
b) Reinstall the exhaust pipe and 4exhaust pipe supports.
c) Install the 6 ***NEW*** nuts and torque to spec.

Torque Spec: 40 ft·lbf (54.3 N·m, 554 kgf·cm)



52. RECONNECT THE OXYGEN SENSOR CONNECTORS

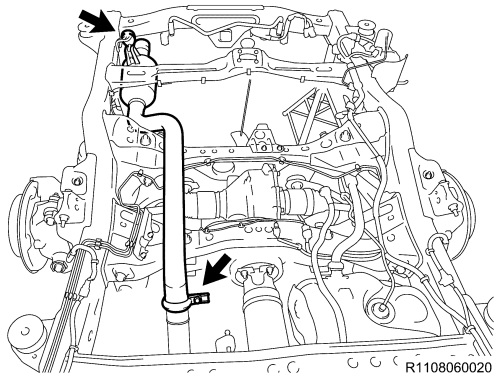
a) Reconnect the 4 oxygen sensor connectors.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90917-06085	Gasket, Exhaust Pipe, Center**	NA*	1
90917-06093		NA*	1
90080-46263	Clamp No.1, Exhaust TAIL Pipe (For Rear)**	NA*	1
90461-15017	Clamp**	NA*	1
90119-A0380	Bolt	2	1

*Individual Part(s)

** Only 1 part used. The part number depending on the list.



53. REINSTALL THE EXHAUST TAIL PIPE ASSY

a) Install the ***NEW*** exhaust pipe gasket.
b) Reinstall the exhaust tail pipe and exhaust pipe supports.
c) Install the ***NEW*** bolt and ***NEW*** clamp, then torque to spec.

Torque Spec: 24 ft·lbf (32 N·m, 326 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-08782	Bolt	1	4

54. REINSTALL THE REAR STABILIZER

a) Reinstall the stabilizer bar with the 2 brackets and 4 ***NEW*** bolts, then torque to spec.

Torque Spec: 20 ft·lbf (27 N·m, 275 kgf·cm)

b) Reconnect the 2 stabilizer links with the 2 nuts, then torque to spec.

Torque Spec: 72 ft·lbf (98 N·m, 999 kgf·cm)

55. REINSTALL THE REAR PROPELLER SHAFT ASSY

a) Remove the SST. ***(2WD Only)***
b) Referencing the matchmarks, reinstall the propeller shaft assy to the transmission / transfer case.
c) Reinstall the 4 nuts and torque to spec. **(*4WD Only*)**

Torque Spec: 52 ft·lbf (70 N·m, 714 kgf·cm)

d) Referencing the matchmarks, reinstall the propeller shaft assy to the rear differential with 4 nuts and torque to spec.

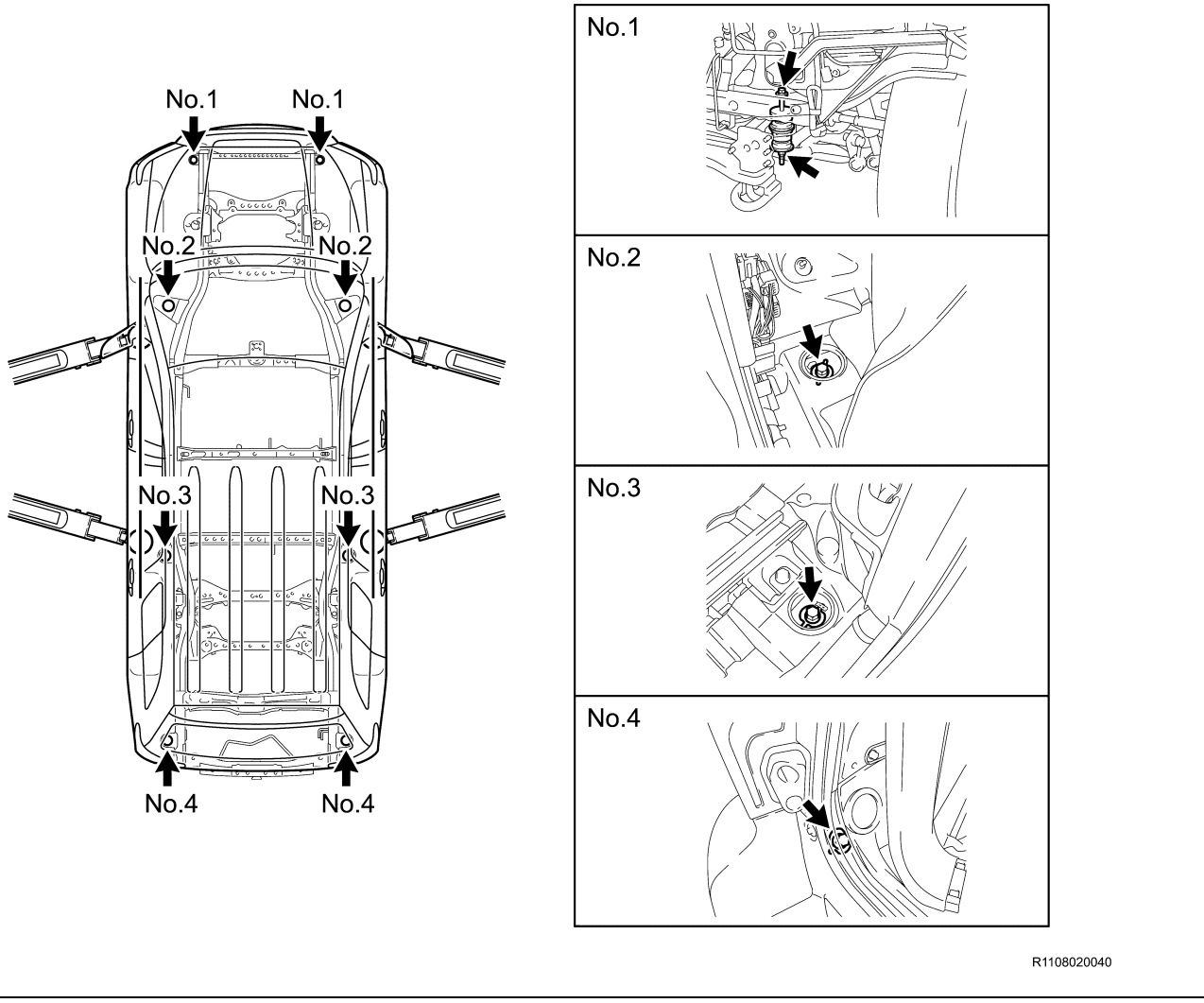
Torque Spec: 52 ft·lbf (70 N·m, 714 kgf·cm)

56. REINSTALL THE WHEELS

57. REMOVE THE FRAME FROM THE LIFT

a) Remove the ratcheting tie down strap from the frame.
b) Lower the frame to the ground.

G. REINSTALL THE CAB BODY ASSY



1. REINSTALL THE CAB BODY ASSY

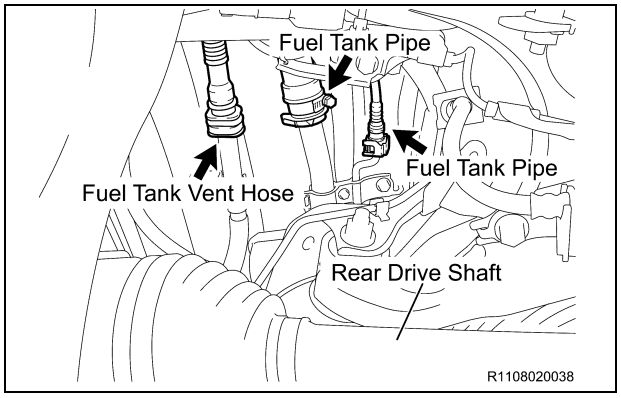
a) Raise the cab assy high enough so that the top of the engine clears the lowest point of the cab.
b) Push the frame under the cab assy.
c) Lower the cab assy slowly, making sure it does not interfere with anything.
d) Adjust the vehicle's frame as needed to align the cab mounts with the cab assy bolts.
e) Once the cab assy is set on the mounts, secure it to the frame with 8 bolts, 8 nuts, 6 washers and 2 No.1 lower cab mounting cushion sub-assy, then torque to spec.

Torque Spec: 40 ft·lbf (54 N·m, 551 kgf·cm)

NOTE:

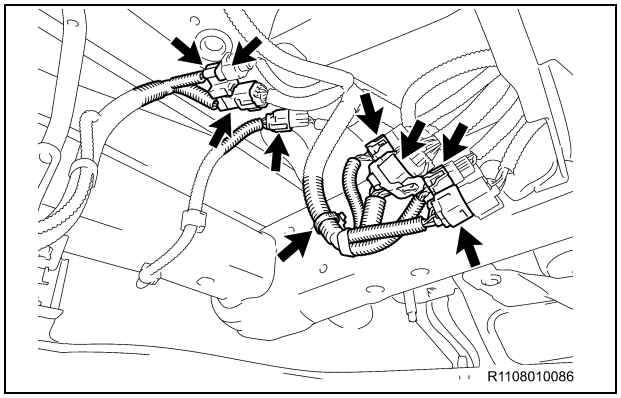
- **DO NOT work directly underneath the vehicle when pushing the frame under the cab assy.**
- **Slowly lower the cab body assy while making sure that the wire harness, steering shaft and hoses do not interfere.**
- **With 2 to 3 people checking for interference, slowly lower the cab body assy to the frame.**

2. REMOVE THE WHEELS



3. RECONNECT THE FUEL TANK PIPES AND TANK VENT HOSE

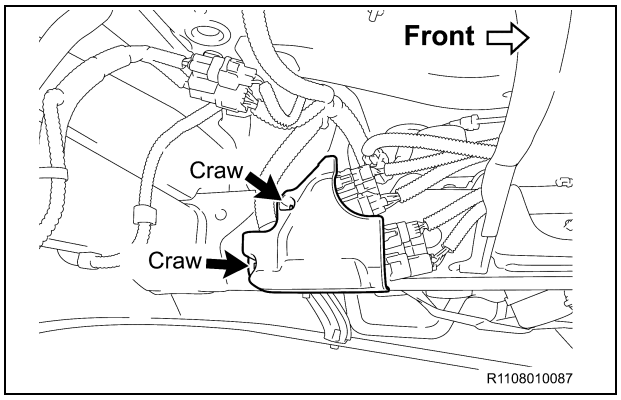
a) Reconnect the 2 fuel tank pipes and fuel tank vent hose.



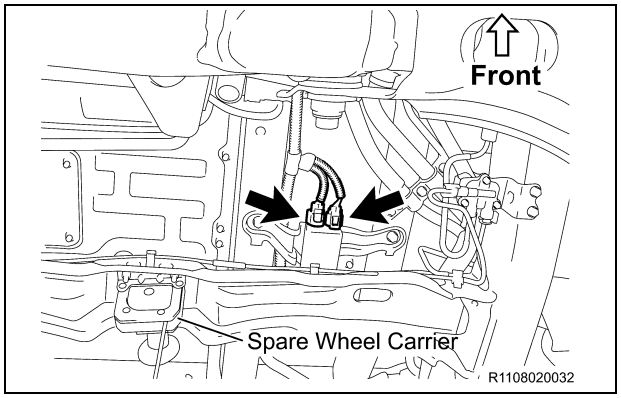
4. RECONNECT THE FRAME WIRE AND No.3 FRAME WIRE

a) Reconnect each connector and clamp.

NOTE:
The number of connectors and clamps will differ depending on the vehicle spec.



b) Reinstall the connector cover and reconnect the 2 craws.

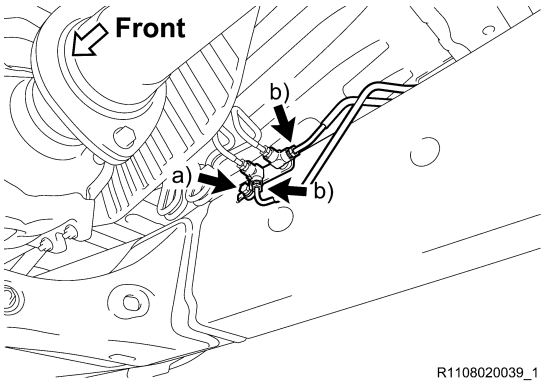


5. RECONNECT THE FUEL PUMP ECU CONNECTORS

a) Reconnect the 2 connectors.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90412-10268	Way (For Rear Brake Tube)	1	1
90119-A0184	Bolt	2	1



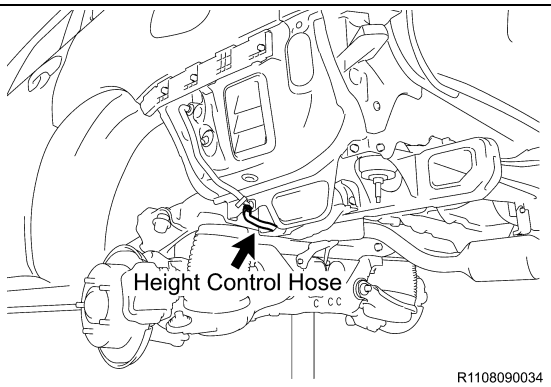
6. RECONNECT THE REAR BRAKE TUBES

a) Reconnect the rear brake tubes with the ***NEW*** bolt and torque to spec.

Torque Spec: 23 ft·lbf (31 N·m, 316 kgf·cm)

b) Reconnect the 2 rear brake tubes and torque to spec.

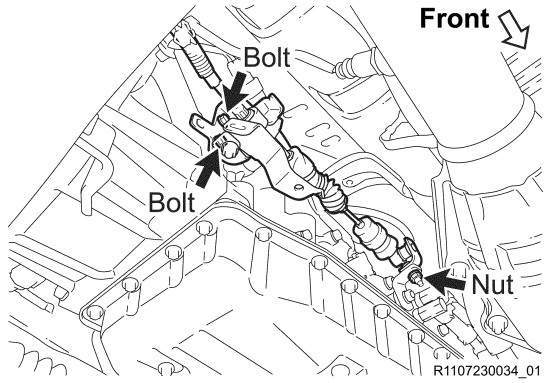
Torque Spec: 11 ft·lbf (15.2 N·m, 155 kgf·cm)



7. RECONNECT THE HEIGHT CONTROL HOSE (W/ AIR SUSPENSION)

NEW Replacement Parts

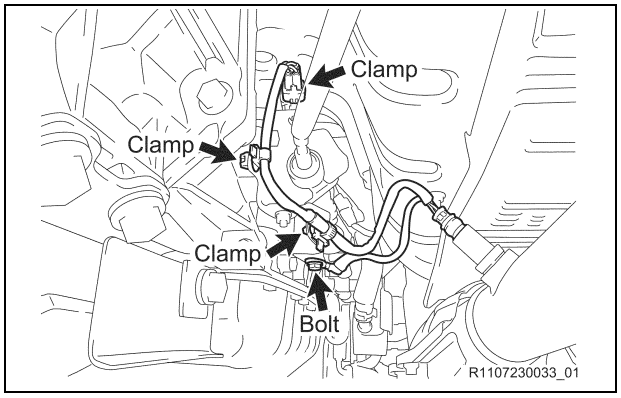
Part Number	Part Name	Kit #	Qty
90080-17229	Nut	2	1



8. RECONNECT THE TRANSMISSION CONTROL CABLE

a) Reconnect the shift cable with the 2 bolts and ***NEW*** nut, then torque to spec.

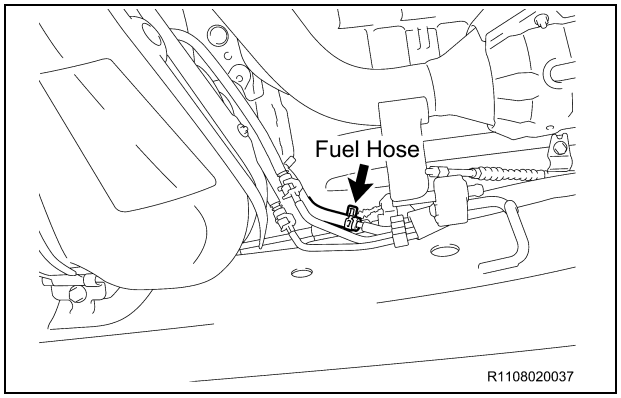
Torque Spec:
Bolt - 9 ft·lbf (12 N·m, 122 kgf·cm)
Nut - 10 ft·lbf (14 N·m, 143 kgf·cm)



b) Reconnect the ground wire with the bolt and torque to spec.

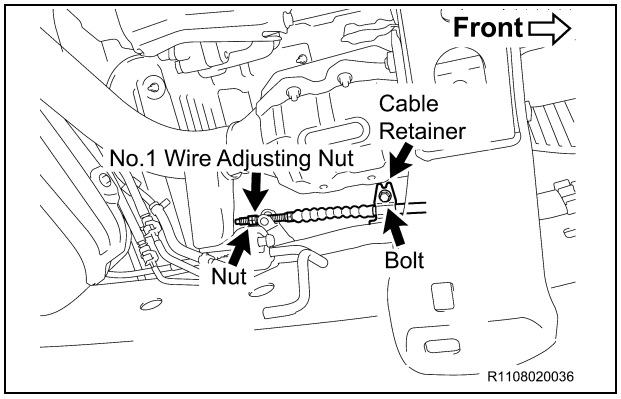
Torque Spec: 73 in·lbf (8.3 N·m, 85 kgf·cm)

c) Reconnect the 3 clamps.



9. RECONNECT THE FUEL HOSE

a) Reconnect the fuel hose.



10. RECONNECT THE No.1 PARKING BRAKE CABLE

a) Reconnect the No.1 parking brake cable.
b) Reinstall the cable retainer with the bolt and torque to spec.

Torque Spec: 9 ft·lbf (12.5 N·m, 127 kgf·cm)

c) Reinstall the No.1 wire adjusting nut and nut, then torque to spec.

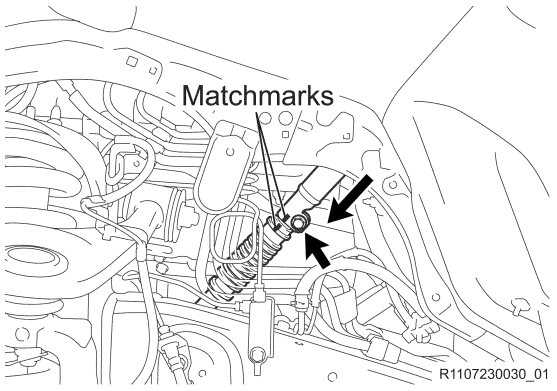
Torque Spec: 9 ft·lbf (12.5 N·m, 127 kgf·cm)

11. RECONNECT THE FOLLOWING PARTS

- Receiver Hitch Cap **(If Equipped)**
- Spare Wheel
- Rear Bumper Energy Absorber
- Rear Bumper Arm Brackets
  - Reinstall the 2 rear bumper arm brackets with 4 bolts and torque to spec.
  - **Torque Spec: 71 in·lbf (8.0 N·m, 82 kgf·cm)**
- Rear bumper Cover Assy
  - Reinstall the front bumper with 6 bolts for upper side and torque to spec.
  - **Torque Spec: 71 in·lbf (8.0 N·m, 82 kgf·cm)**
  - Reinstall the 2 bolts for lower side and torque to spec.
  - **Torque Spec: 80 in·lbf (9.0 N·m, 92 kgf·cm)**
  - Reinstall the 4 bolts for rear floor stay brackets and torque to spec.
  - **Torque Spec: 71 in·lbf (8.0 N·m, 82 kgf·cm)**
  - Reinstall the 2 screws.
  - Disconnect the ultrasonic connectors **(If Equipped)**.
- Rear Quarter Panel Mudguard LH/RH

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90080-11555	Bolt	2	1



12. RECONNECT THE No. 2 STEERING INTERMEDIATE SHAFT

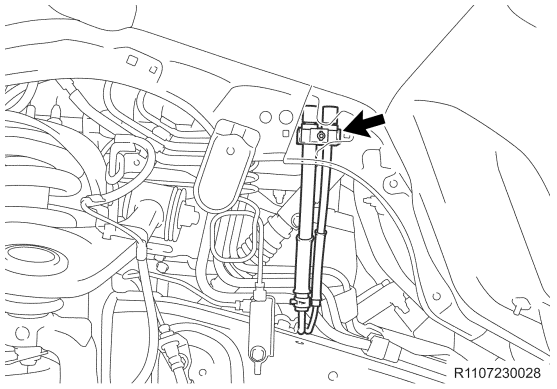
a) Make sure the front wheels are in a straight-ahead position and the steering wheel is centered.
b) Referencing the matchmarks, connect the No.2 intermediate shaft to the intermediate shaft with the ***NEW*** bolt.
c) Torque bolt to spec.

Torque Spec: 26 ft·lbf (35 N·m, 356 kgf·cm)

d) Disconnect the seat belt that is holding the steering wheel.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90464-00897	Clamp	4	1



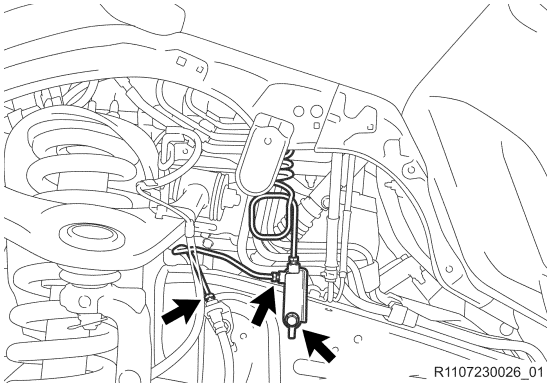
13. RECONNECT THE FRONT DIFFERENTIAL VACUUM HOSES (4WD ONLY)

a) Reconnect the ***NEW*** clamp and vacuum hoses.

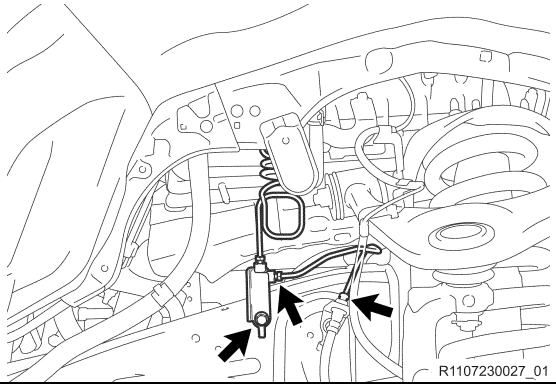
NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90412-10266	Way,No.1 (For Front Brake Tube)	1	1
90412-10267	Way,No.2 (For Front Brake Tube)	1	1
90119-A0222	Bolt	2	2
47314-0C020	Tube, Front Brake, No.4	2	1
47315-0C030	Tube, Front Brake, No.5	2	1

LH Side



RH Side



14. RECONNECT THE FRONT BRAKE TUBES

a) Reconnect the front brake tube with the ***NEW*** bolt and torque to spec.

Torque Spec: 23 ft·lbf (31 N·m, 316 kgf·cm)

b) Temporarily install the ***NEW*** front brake tube.

c) Torque the front brake tube to spec.

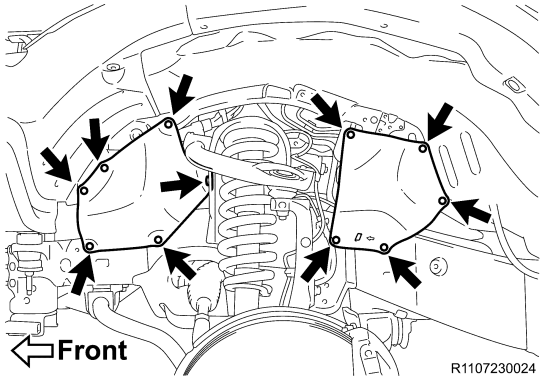
Torque Spec: 11 ft·lbf (15.2 N·m, 155 kgf·cm)

d) Repeat the procedure on the opposite side.

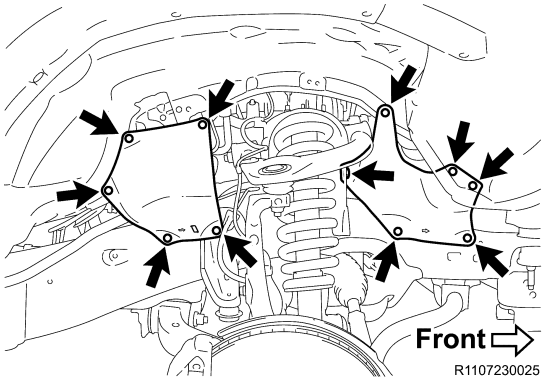
NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90080-46327	Clip (For Front Fender Apron Seal)	2	22

LH Side

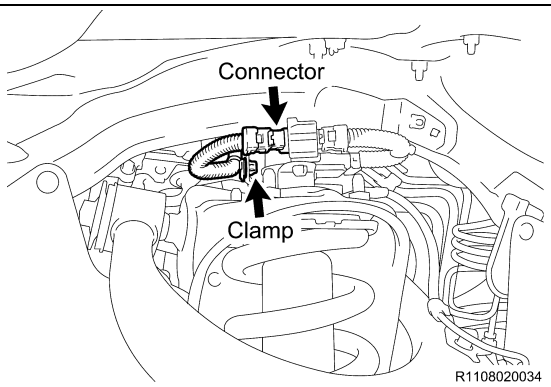


RH Side



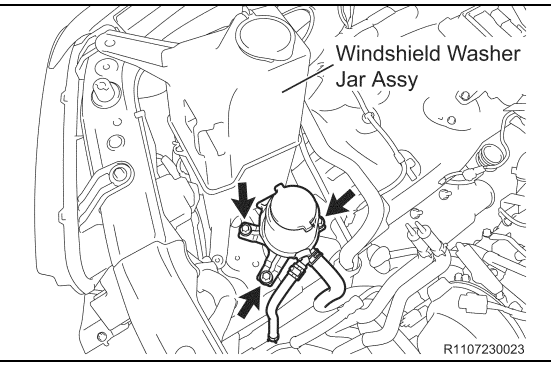
15. REINSTALL THE FRONT FENDER APRON SEALS

a) Reinstall the front fender apron seals rear LH / RH with the 11 ***NEW*** clips.
b) Reinstall the front fender apron seal LH / RH with the 11 ***NEW*** clips.



16. RECONNECT THE ABSORBER CONTROL ACTUATOR CONNECTOR (W/ AIR SUSPENSION)

a) Reconnect the connector and clamp.
b) Repeat the procedure on the opposite side.



17. RECONNECT THE VANE PUMP OIL RESERVOIR ASSY

a) Reconnect the vane pump oil reservoir assy with the 3 bolts and torque to spec.

Torque Spec: 71 in·lbf (8.0 N·m, 82 kgf·cm)

b) Reconnect the windshield washer jar assy with the 3 bolts and torque to spec.

Torque Spec: 31 in·lbf (3.5 N·m, 36 kgf·cm)

NEW Replacement Parts

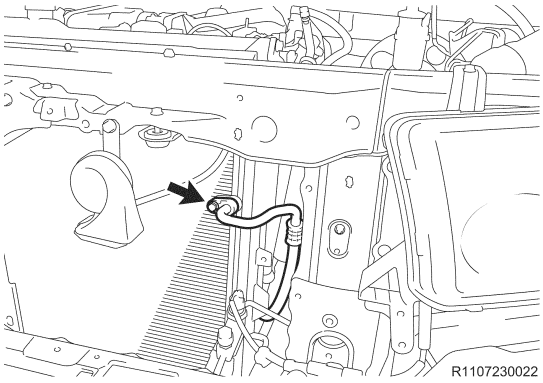
Part Number	Part Name	Kit #	Qty
16492-21050	Packing (For Radiator Drain Cock)	2	1

18. REINSTALL THE FOLLOWING PARTS

- Radiator Assy
  - Install the ***NEW*** radiator drain cock packing.
  - Reinstall the Radiator Assy with the 4 bolts and torque to spec.
  - **Torque Spec: 13 ft·lbf (18 N·m, 184 kgf·cm)**
  - Reconnect the 2 radiator seals with 2 clips.
- Fan Shroud
  - Reinstall the fan shroud with the 2 bolts and torque to spec.
  - **Torque Spec: 58 in·lbf (6.5 N·m, 66 kgf·cm)**
- Radiator Outlet Hose
- Radiator Inlet Hose

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90099-14120	O-Ring	1	1



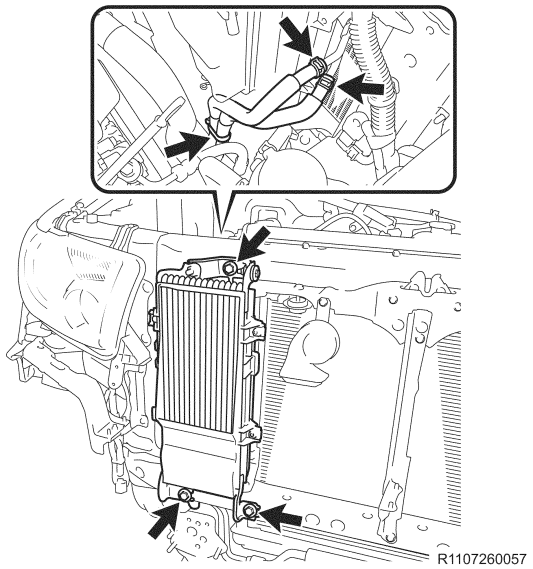
19. RECONNECT THE No.1 COOLER REFRIGERANT DISCHARGE HOSE

a) Install a ***NEW*** o-ring to the A/C discharge hose.
b) Reconnect the A/C discharge hose with the bolt and torque to spec.

Torque Spec: 87 in·lbf (9.8 N·m, 100 kgf·cm)

20. REINSTALL THE FOLLOWING PARTS

- Radiator Side Deflector RH ***(If Equipped)***
- Radiator Side Deflector LH



21. REINSTALL THE OIL COOLER ASSY (AIR OIL COOLER EQUIPPED VEHICLES ONLY)

a) Reinstall the oil cooler with the 3 bolts and torque to spec.

Torque Spec: 10 ft·lbf (14 N·m, 143 kgf·cm)

b) Reconnect the No.1 oil cooler inlet hose and No.1 oil cooler outlet hose.
c) Reconnect the clamp.

NEW Replacement Parts

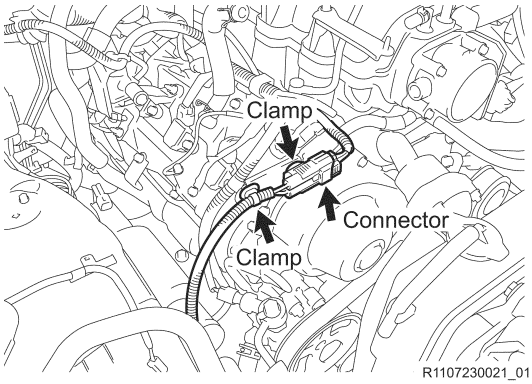
Part Number	Part Name	Kit #	Qty
90179-06178	Nut	1	6

22. REINSTALL THE FRONT BUMPER RETAINER UPPER CENTER (AIR OIL COOLER EQUIPPED VEHICLES ONLY)

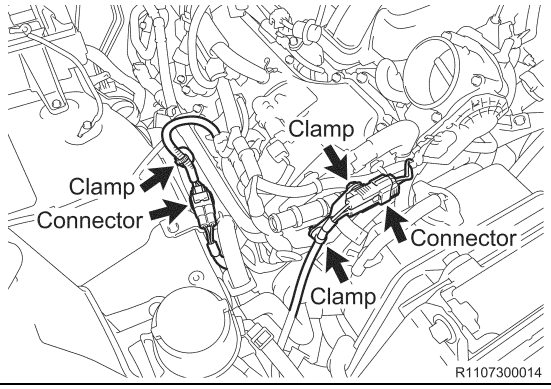
a) Reinstall the front upper center bumper retainer with the 6 ***NEW*** nuts and torque to spec.

Torque Spec: 48 in·lbf (5.4 N·m, 55 kgf·cm)

2UZ-FE



3UR-FE

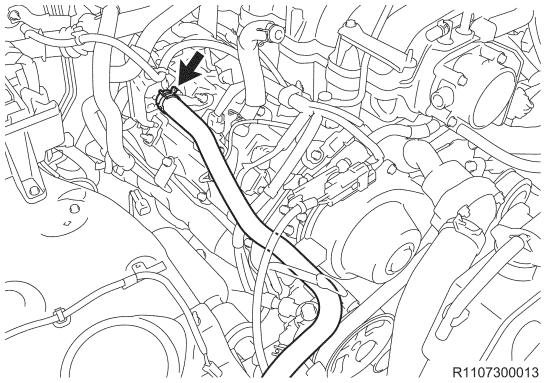


23. RECONNECT THE AIR PUMP HARNESS

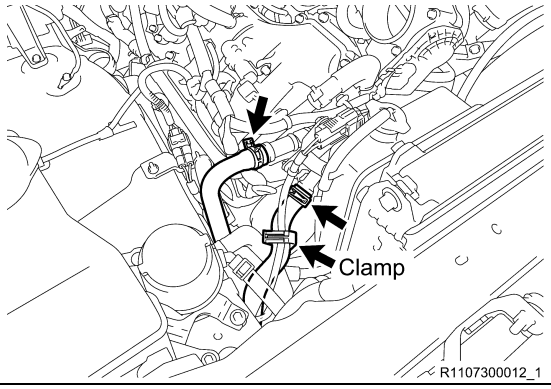
a) Reconnect the connector and 2 clamps. ***(2UZ-FE)***

b) Reconnect the 2 connectors and 3 clamps. ***(3UR-FE)***

2UZ-FE



3UR-FE

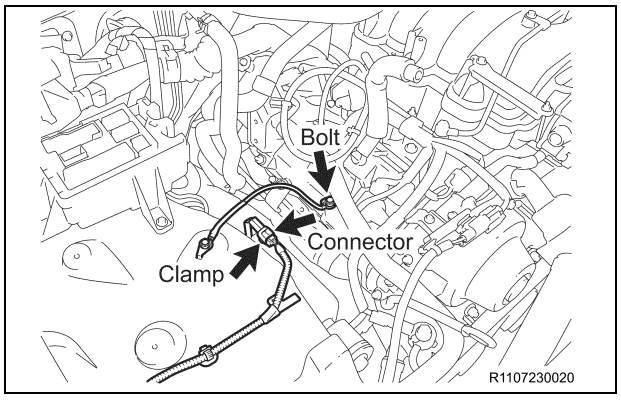


24. RECONNECT THE AIR INJECTION SYSTEM HOSES

a) Reconnect the No.2 hose. ***(2UZ-FE)***

b) Reconnect the No.2 hose and No.3 hose. ***(3UR-FE)***

25. RECONNECT THE INLET HEATER HOSE AND OUTLET HEATER HOSE, ENGINE SIDE

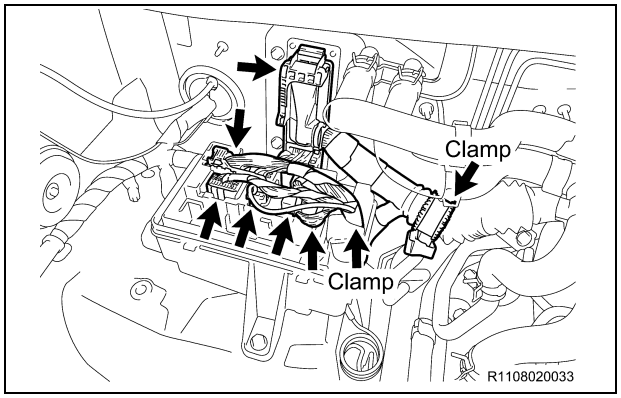


26. RECONNECT THE ENGINE WIRE HARNESS (RH SIDE)

a) Reconnect the ground wire with the bolt and torque to spec.

Torque Spec: 73 in·lbf (8.3 N·m, 85 kgf·cm)

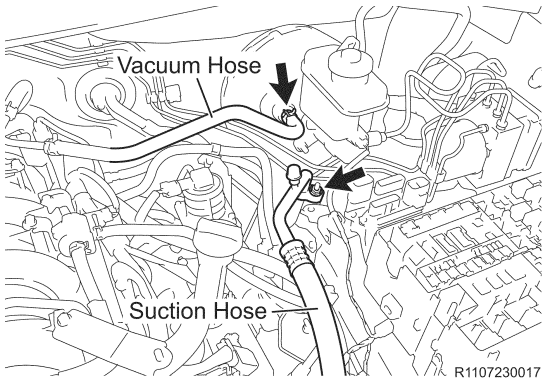
b) Reconnect the skid control sensor connector and clamp.



c) Reconnect the 6 connectors and 2 clamps.

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90069-08009	O-Ring	2	1



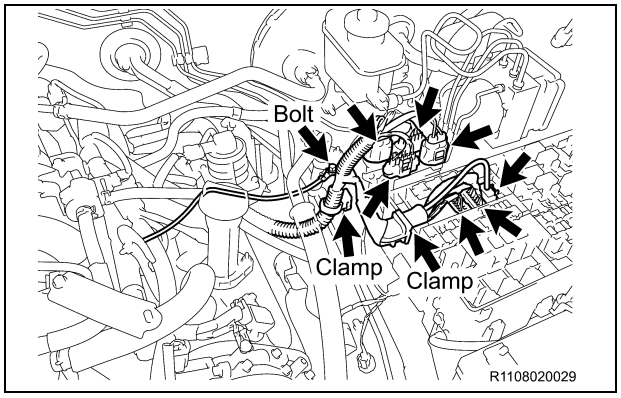
27. RECONNECT THE VACUUM HOSE ASSY

a) Reconnect the vacuum hose assy.

28. RECONNECT THE COOLER REFRIGERANT SUCTION HOSE ASSY

a) Install a ***NEW*** o-ring to the A/C suction hose.
b) Reconnect the A/C suction hose and torque to spec.

Torque Spec: 87 in·lbf (9.8 N·m, 100 kgf·cm)

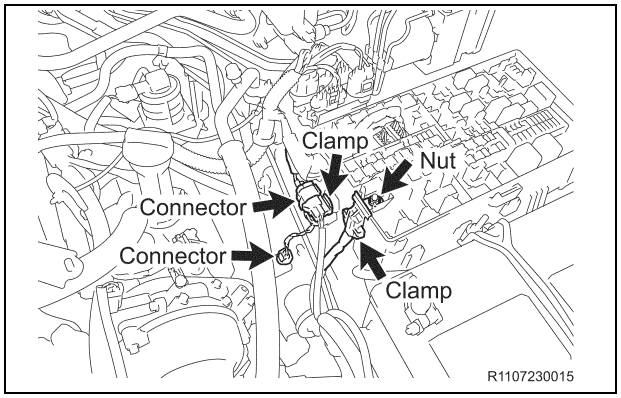


29. RECONNECT THE ENGINE WIRE HARNESS (LH SIDE)

a) Reconnect the ground wire with the bolt and torque to spec.

Torque Spec: 73 in·lbf (8.3 N·m, 85 kgf·cm)

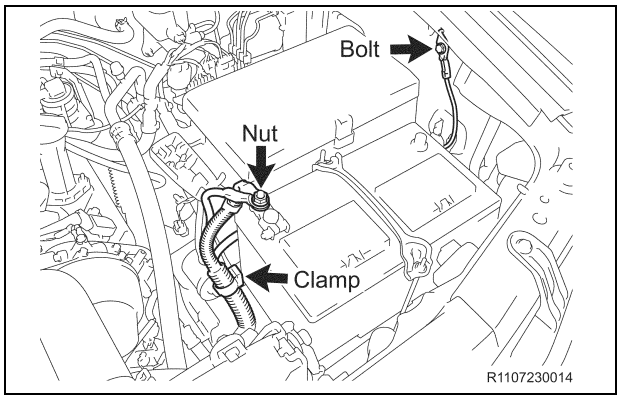
b) Reconnect the 2 clamps and 7 connectors.



c) Reconnect the (+) positive battery cable with the nut and torque to spec.

Torque Spec: 7 ft·lbf (10 N·m, 102 kgf·cm)

d) Reconnect the clamp and 2 connectors.
e) Reinstall the relay block cover.



f) Reconnect the clamp.

g) Reconnect the ground wire with the bolt and torque to spec.

Torque Spec: 73 in·lbf (8.3 N·m, 85 kgf·cm)

h) Reconnect the 2 positive (+) battery cables with the nut and torque to spec.

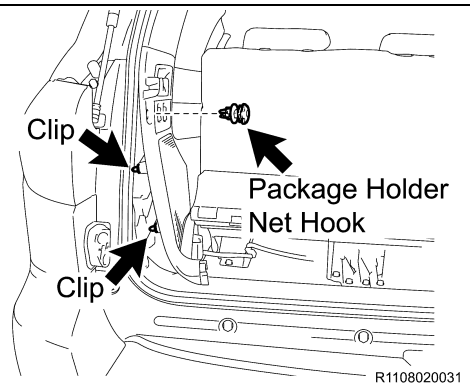
Torque Spec: 9 ft·lbf (12.7 N·m, 130 kgf·cm)

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90178-A0044	Nut	2	8
90178-A0067	Nut	2	6

30. REINSTALL THE FOLLOWING PARTS

- Air Cleaner Hose and Air Cleaner Assy
  - **Torque Spec: 44 in·lbf (5.0 N·m, 51 kgf·cm)**
- Throttle Body Cover Sub- Assy ***(2UZ-FE Only)***
  - **Torque Spec: 66 in·lbf (7.5 N·m, 76gf·cm)**
- V-Bank Cover Sub- Assy ***(3UR-FE Only)***
- Front Fender Mudguard LH/RH ***(If Equipped)***
- No.2 Front Bumper Extension Sub- Assy LH/RH
  - Reinstall with 8 ***NEW*** nuts.
  - **Torque Spec: 43 ft·lbf (58 N·m, 591 kgf·cm)**
- Front Bumper Reinforcement Sub-Assy
  - Reinstall with 6 ***NEW*** nuts.
  - **Torque Spec: 52 ft·lbf (71 N·m, 724 kgf·cm)**
- Front Bumper Cover Assy
  - Reinstall with the 2 screws and 8 clips.
  - Disconnect the ultrasonic sensor connectors and fog light connectors ***(If Equipped)*****.**
- Front Fender Splash Shield Sub-Assy LH/RH
- Front End Panel LH/RH
- Wheels



31. RECONNECT THE QUARTER TRIM PANEL ASSY

a) Reconnect the 2 clips and the quarter trim panel assy.
b) Reinstall the package holder net hook.
c) Repeat the procedure on the opposite side.

32. REINSTALL THE FOLLOWING PARTS

- Rear Floor Mat Support Plate
- Luggage Compartment Trim Box
- Rear Door Scuff Plate LH/RH
- No.3 Dash Panel Insulator Pad
- No.2 Dash Panel Insulator Pad
- Cowl Side Trim Board LH/RH
- Front Door Scuff Plate LH/RH

H. FINAL ASSEMBLY

1. REINSTALL THE NEGATIVE (-) BATTERY TERMINAL

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
12157-10010	Gasket, Front Differential Filler Plug	3	1
90430-24003	Gasket (For Front Differential Drain Plug)	3	1

2. REFILL THE FOLLOWING FLUIDS

- Brake Fluid
  - Remove the brake tubes from the master cylinder.
  - Refill with Toyota Dot 3 Brake Fluid.
  - Bleed the master cylinder.
  - Reinstall the brake tubes to the master cylinder and torque to spec.
  - **Torque Spec: 11 ft·lbf (15.2 N·m, 155 kgf·cm)**
  - Refill with Toyota Dot 3 Brake Fluid.
  - Bleed the brake system at each wheel and torque the bleeder screws to spec.
  - **Torque Spec: 8 ft·lbf (11 N·m, 112 kgf·cm)**
- Coolant
  - Refill with Toyota Long Life Coolant.
  - Bleed the cooling system.
- Front Differential
  - Install a ***NEW*** drain plug washer and torque to spec.
  - **Torque Spec: 29 ft·lbf (39.2 N·m, 400 kgf·cm)**
  - Refill with Hypoid Gear Oil API GL-5 75W-90.
  - Install a ***NEW*** filler plug washer and torque to spec.
  - **Torque Spec: 29 ft·lbf (39.2 N·m, 400 kgf·cm)**

3. START THE VEHICLE AND INSPECT THE FOLLOWING FOR LEAKS

- Fuel System
  - Start the engine and let it run for 5 seconds, then stop the engine and inspect for leaks.
  - If there are no leaks, restart the engine and re-inspect.
- Cooling System
- Brake System
- Front Differential System

4. RECHARGE THE A/C SYSTEM AND CHECK FOR PROPER OPERATION AND REFRIGERANT LEAKS

5. CHECK THE OPERATION OF THE FOLLOWING SYSTEMS AND ADJUST AS NEEDED

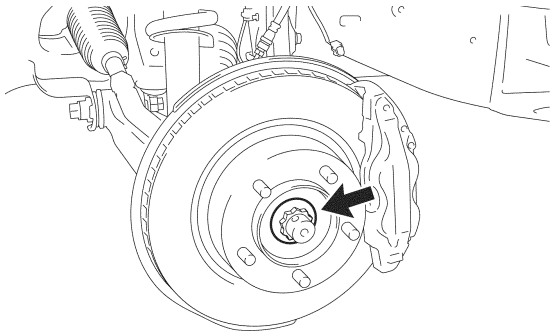
Make sure to follow the procedure outlined in the appropriate repair manual for the vehicle you are working on when checking, and if needed, adjusting the operation of the systems listed below. This is an important step, and must be performed thoroughly to ensure proper operation of these systems.

- Parking Brake Travel
- Shift Control Lever

6. CHECK ALL FLUID LEVELS AND ADJUST AS NEEDED

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
43514-34020	Cap, Front Axle Hub Grease, RH	3	1
43514-34020	Cap, Front Axle Hub Grease, LH	3	1
95381-04050	Cotter Pin	3	2



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7. TORQUE THE FRONT AXLE NUT (4WD ONLY)

a) Remove the front wheels.
b) Torque the front axle nut to spec.

Torque Spec: 249 ft·lbf (338 N·m, 3447 kgf·cm)

c) Reinstall the lock cap with the ***NEW*** cotter pin.
d) Reinstall the ***NEW*** grease cap.
e) Repeat the procedure on the opposite side.
f) Reinstall the front wheels and torque to spec.

Torque Spec:
Aluminum Wheel - 97 ft·lbf (131 N·m, 1336 kgf·cm)
Steel Wheel - 154 ft·lbf (209 N·m, 2131 kgf·cm)

NOTE:
If the holes for the cotter pin are not aligned, tighten the axle nut further, up to 60 degree.

8. PERFORM A WHEEL ALIGNMENT

9. CHECK THE HEADLIGHT AIM AND ADJUST AS NEEDED

NEW Replacement Parts

Part Number	Part Name	Kit #	Qty
90119-A0169	Bolt	2	5

10. REINSTALL THE ENGINE UNDER COVER No.1

a) Reinstall the engine under cover No.1 with 5 ***NEW*** bolts and 3 screws, then torque to spec.

Torque Spec: 21 ft·lbf (29 N·m, 296 kgf·cm)

11. REINSTALL THE SIDE STEP ASSY LH/RH (IF EQUIPPED)

12. CHECK FOR DTC'S AND REPAIR AS NEEDED

13. PERFORM INITIALIZATION

14. FINAL INSPECTION

a) Check the operation of the following systems:

- 4WD System **(*4WD Only*)**
- Interior Lights
- Exterior Lights
- HVAC System
- Audio System
- Power Windows
- Power Door Locks
- Power Back Door System
- All Gauges, Indicators and Warning Lights
- Cooling Fans
- Vehicle Height
- Etc.

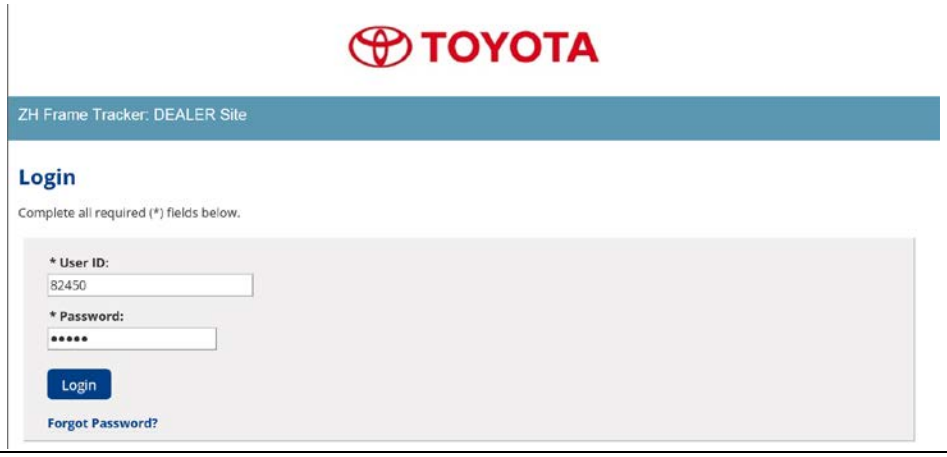
15. TEST DRIVE THE VEHICLE AND DOCUMENT FINAL REPAIR STATUS

a) Test drive the vehicle and perform final repair sign off with the **Frame Replacement Inspection Sheet.** This must be performed and signed off by an MDT, Shop Foreman or Service Manager and retained with Final R.O.

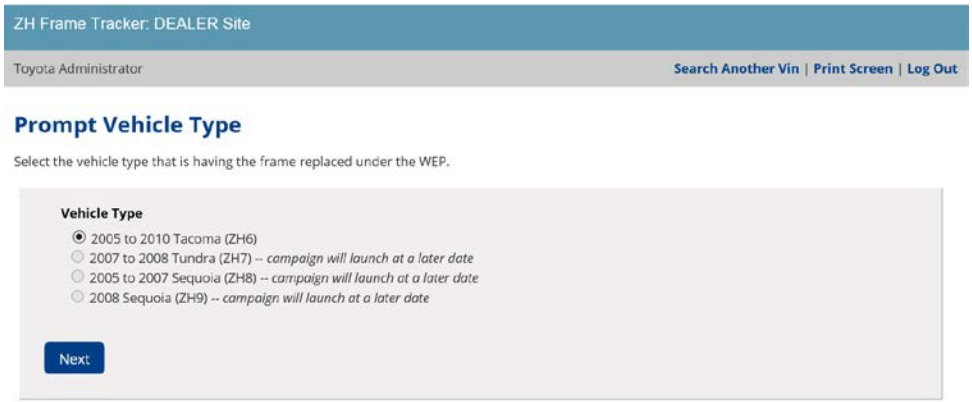
16. RECORD THE FRAME SERIAL NUMBER

a) Log into the frame tracker website using your dealer code and password.

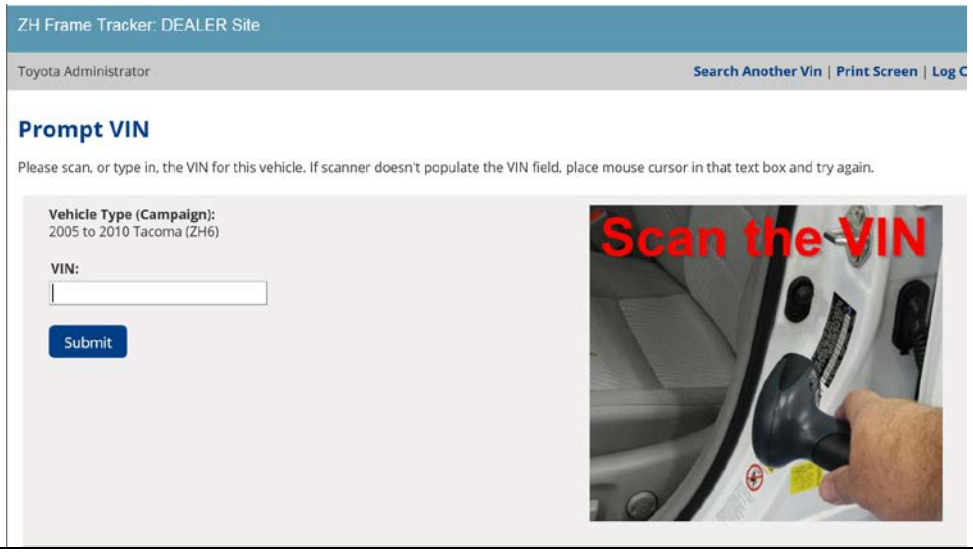
URL: https://zh-frame-tracker.imagespm.info/ Default password: xxxxx



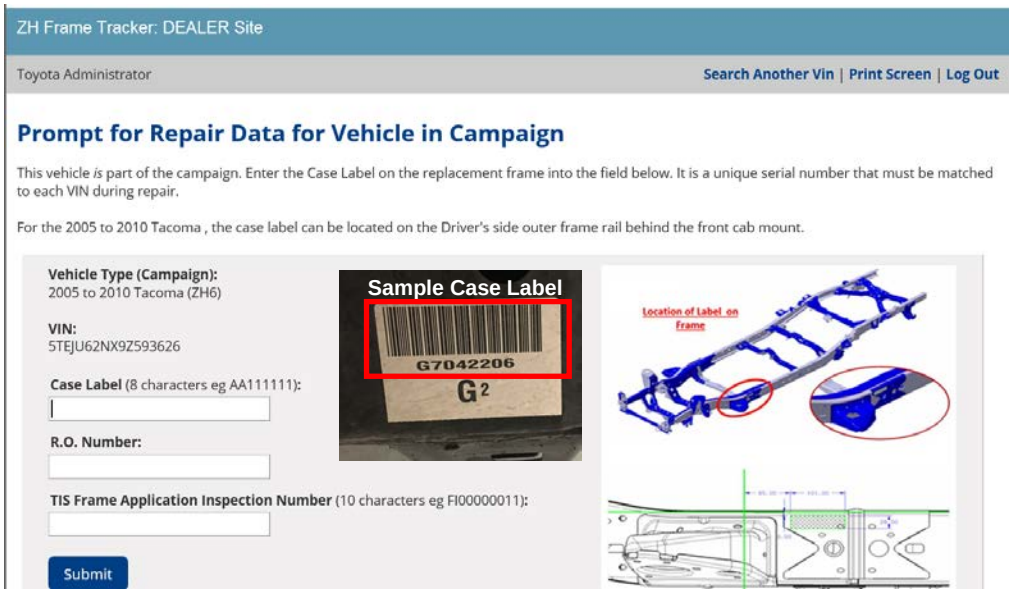
b) Select 2008 Sequoia ZH9 from the pick list.



c) Enter the VIN of the vehicle.



d) Enter the frame serial off of the case label along with the R.O. number and Approved Frame Inspection Case Number.



e) Press submit and print a copy of the serial number and file with the R.O.

I. APPENDIX

As required by Federal Regulations, 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. Adequate time has been provided in the repair time to cut up and dispose of the perforated frame.