

**TECHNICAL INSTRUCTIONS
FOR
WARRANTY ENHANCEMENT PROGRAM ZKA**

CERTAIN 2016 THROUGH 2017 MODEL YEAR TACOMA

FRAME REPLACEMENT

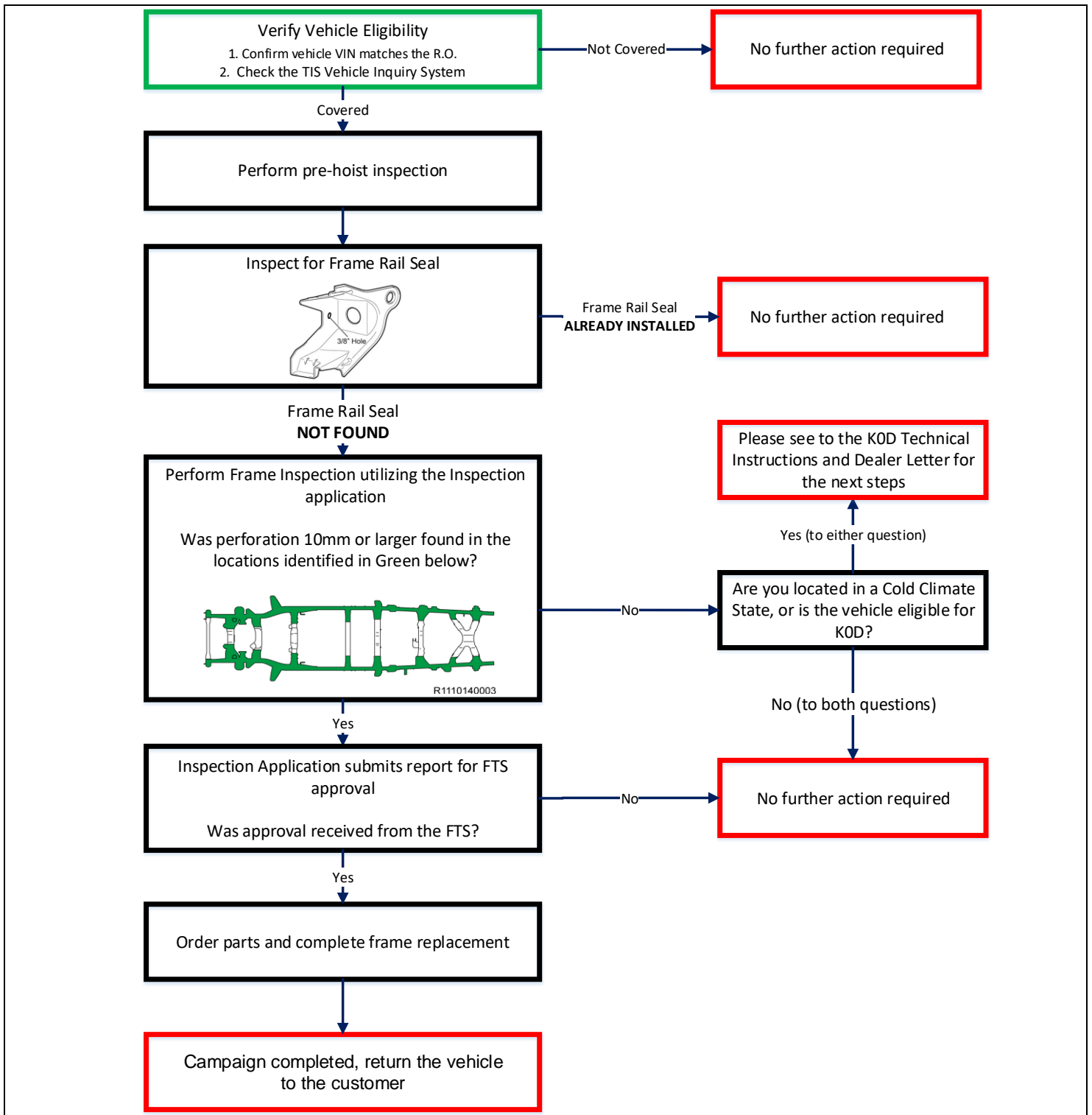
The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this CSP are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair 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 CSP 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



Cold Climate States Include - CT, DE, IL, IN, KY, MA, MD, ME, MI, MN, NH, NJ, NY, OH, PA, RI, VA, VT, WI, WV and District of Columbia

Background

Toyota has received a number of reports regarding vehicle frame corrosion perforation on certain 2011-2017 model year Tacoma vehicles. These reports have indicated that these vehicles, when operated in specific cold climate areas (Cold Climate States¹) with high road salt usage, or exposed to other environmental factors, may exhibit more-than-normal corrosion to the vehicle's frame.

II. PREPARATION

A. TOOLS & EQUIPMENT

- A/C service equipment
- Alignment rack
- Brake bleeder
- Engine hanger
 - 2GR-FKS Engine
 - 12281-31121 – Engine hanger no. 1 (Qty: 1)
 - 12282-31100 – Engine hanger no. 2 (Qty: 1)
 - 90119-A0117 – Bolt (Qty: 4)
 - 2TR-FE Engine
 - 12281-75050 – Engine hanger (Qty: 2)
 - 91672-81025 – Bolt (Qty: 2)
- Engine hoist (Qty: 2) or Hydraulic mini crane (Qty 2)
- Engine sling (Qty: 2)
- Protective eyewear
- Protective gloves
- Ratcheting tie down strap (2 in X 27 ft, minimum work load capacity: 3,000 lbs)
- Special Service Tools (SST)
 - 09325-40010 – Transmission oil plug (*2WD*)
 - 09628-62011 – Ball joint puller
 - 09520-32040 – A component of SST 09520-24010, Differential side gear shaft puller
 - 09520-01010 – Drive shaft remover attachment
 - 09628-00011 – Ball joint puller
 - 09922-10010-01 – Variable open wrench
 - 11816-00010 - Radar Sensor Calibration Kit
- Standard hand tools
- Techstream
- Torque wrench
- Torx® T55H socket
- Socket wrench 35mm
- Hexagon wrench 8, 10
- Deep socket wrench 10, 12, 14, 17, 19mm
- Union Nut Wrench 10mm
- Weights
- Heat Light

B. SUPPLIES

- Toyota Genuine ATF WS or DEXRON® III (DEXRON® II) – As needed
- Hypoid gear oil API GL-5 SAE 75W-90 – 1.5 liter (*4WD Only*)
- R1234yf refrigerant – As needed
- Toyota DOT 3 brake fluid – 3 pints
- Toyota long life coolant – 2 gallons
- Paint Marker
- MP Grease
- General Adhesive Remover

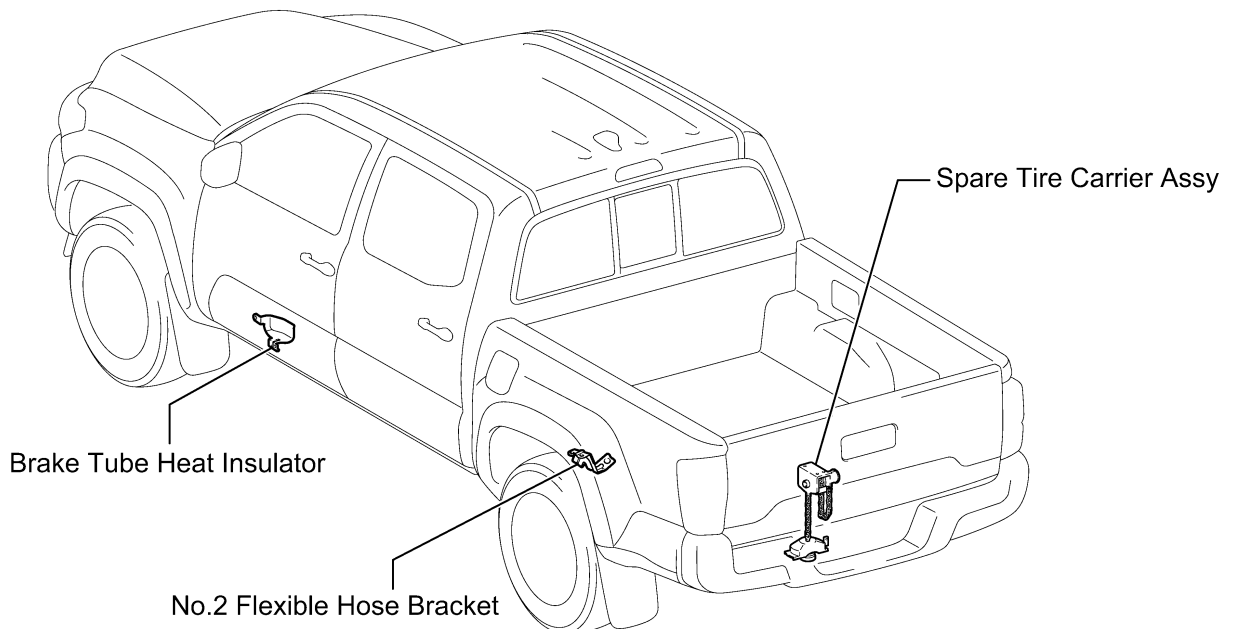
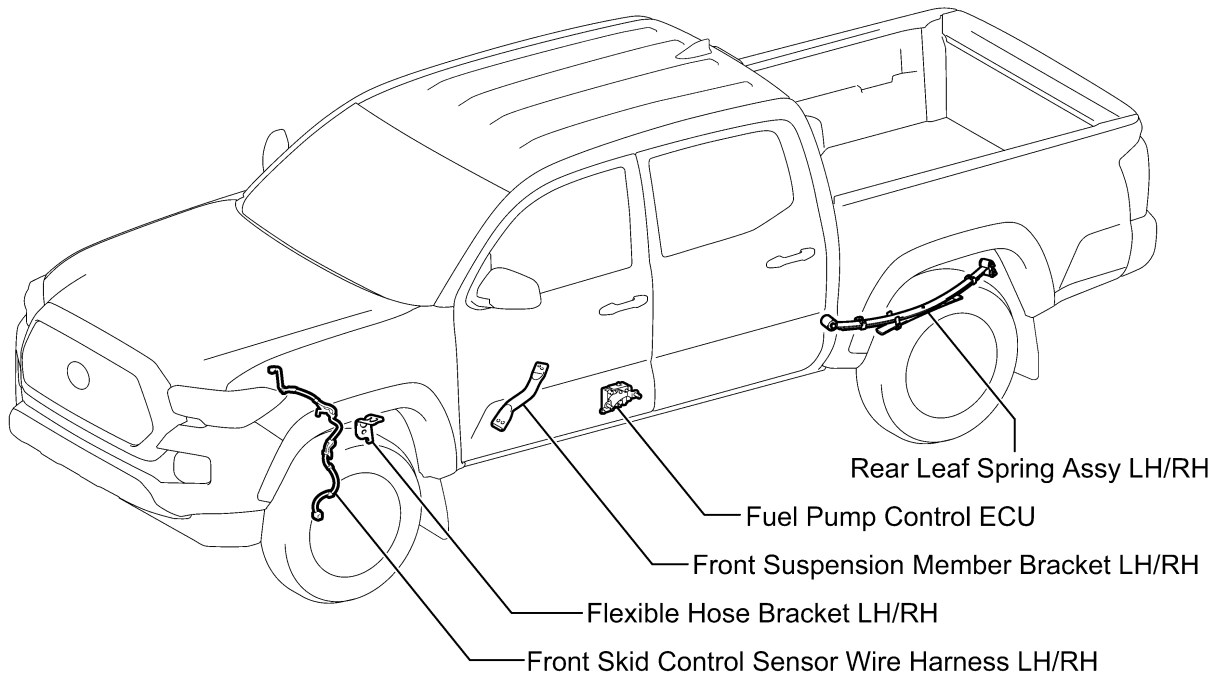
THE PARTS INCLUDED IN 2005-2010MY REPLACEMENT PARTS BUT NOT IN 2016-2017MY



- 2005-2010MY replacement parts were considered to determine 2016-2017MY replacement parts.
- The parts of low breakage possibility in 2016-2017MY are not listed as the replacement parts. (2005-2010MY replacement parts are not changed.)
- When removing the reusable parts, be careful to NOT damage and make them non-reusable.

Judge if the following parts are reusable or not on the actual vehicle, and order the part individually as needed.

Reusable Parts for 2016-2017MY



R1806210016

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 <https://tacoma-2011-2017-frames.imagespm.info/> select the appropriate campaign/vehicle, enter the VIN, and the correct part numbers to order will be displayed. **The website is for part(s) application reference only and won't order the parts, confirm campaign completion status, or confirm campaign applicability.**

- 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.

An illustration of the parts replaced and their location(s) have been provided. Please reference the **"Illustration Name"** and **"Page"** columns in the parts tables below.

Individual Parts:

Part Number	Part Description	Quantity	Illustration Name	Page
04008-20104	(GRN305 DCB)	1	Frame	11
04008-20204	(GRN305 LCB)	1	Frame	11
04008-20304	(GRN310)	1	Frame	11
04008-20404	(GRN325 DCB)	1	Frame	11
04008-20504	(GRN325 LCB)	1	Frame	11
04008-20604	(GRN330)	1	Frame	11
04008-17704	(TRN245 5F)	1	Frame	11
04008-20704	(TRN245 6FC)	1	Frame	11
04008-20804	(TRN265 DCB)	1	Frame	11
04008-20904	(TRN265 LCB)	1	Frame	11

Individual Parts (Continued):

Part Number	Part Description	Quantity	Illustration Name	Page
31461-35030	Insulator, Release Cylinder Heat	1	Release Cylinder Heat Insulator	20
43425-04040	Ring, Shaft Snap (For Front Drive Inner Shaft Outer)	2	Front Suspension	12
47313-04250	Tube, Front Brake, No.3	1	Brake Tubes	14,15
47315-04200	Tube, Front Brake, No.5	1	Brake Tubes	14,15
47323-04200	Tube, Rear Brake, No.3	1	Brake Tubes	14,15
47324-04160	Tube, Rear Brake, No.4	1	Brake Tubes	14,15
47325-04220	Tube, Rear Brake, No.5	1	Brake Tubes	14,16
47325-04230	Tube, Rear Brake, No.5	1	Brake Tubes	15,17
47326-04190	Tube, Rear Brake, No.6	1	Brake Tubes	14,16
47326-04200	Tube, Rear Brake, No.6	1	Brake Tubes	15,17
48068-04060	Arm Sub-Assy, Front Suspension, Lower No.1 RH	1	Front Suspension	12
48069-04060	Arm Sub-Assy, Front Suspension, Lower No.1 LH	1	Front Suspension	12
77285-04100	Clamp, Fuel Tube, No.1	1	Fuel Tubes	18
82711-78010	Clamp (For Rear Differential Lock)	1	Wire Harness Brackets	19
82715-04200	Bracket (For 2TR-FE A/F Sensor Wiring)	1	2TR-FE Exhaust System	21
82715-04200	Bracket (For Frame Wire No.2)	1	Wire Harness Brackets	19
82715-04230	Bracket (For Frame Wire)	1	Wire Harness Brackets	19
82715-04250	Bracket (For Rear Differential Lock)	1	Wire Harness Brackets	19
82715-04260	Bracket (For Rear Differential Lock)	1	Wire Harness Brackets	19
82715-04350	Bracket (For Frame Wire No.2)	1	Wire Harness Brackets	19
82715-04730	Bracket (For 4WD Front Differential Wire)	1	Wire Harness Brackets	19
82715-04740	Bracket (For Frame Wire)	1	Wire Harness Brackets	19
82715-04750	Bracket (For Frame Wire)	1	Wire Harness Brackets	19
82715-04770	Bracket (For Frame Wire No.2)	1	Wire Harness Brackets	19
82715-04820	Bracket (For 2TR-FE A/F Sensor Wiring)	1	2TR-FE Exhaust System	21
90105-A0066	Bolt (For Rear Differential Lock)	2	Wire Harness Brackets	19
90119-A0141	Bolt (For Front Differential Wire Bracket)	1	Wire Harness Brackets	19
90119-A0148	Bolt (For W/ Frame Wire No.2)	2	Wire Harness Brackets	19
90119-A0151	Bolt (For Heat Insulator of Propeller Shaft)	2	Propeller Shaft	21
90119-A0165	Bolt (For Insulator, Release Cylinder Heat)	4	Release Cylinder Heat Insulator	20
90119-A0169	Bolt (For 2TR-FE A/F Sensor Wiring)	2	2TR-FE Exhaust System	21
90119-A0169	Bolt (For 2GR-FKS W/O Frame Wire No.2)	2	Wire Harness Brackets	19
90119-A0169	Bolt (For 2TR-FE Frame Wire)	2	Wire Harness Brackets	19
90119-A0169	Bolt (For 2GR-FKS W/ Frame Wire No.2)	6	Wire Harness Brackets	19
90119-A0192	Bolt (For W/ Towing Hitch)	4	Rear Bumper	22
90119-A0193	Bolt (For Front Hook, No.1 W/ Fuel Tank Protector)	2	Under Cover	11
90119-A0238	Bolt (For Frame Wire)	2	Wire Harness Brackets	19
90178-16007	Nut (For Front Axle Arm)	2	Front Suspension	12
90178-A0048	Nut (For 2GR-FKS Fuel Pump Control Computer)	2	Fuel Pump Control Computer	22
90178-A0112	Nut (For Frame Wire)	1	Wire Harness Brackets	19
90179-08241	Nut (For W/ Fuel Tank Protector)	4	Fuel Tank	18
90917-06083	Gasket, Exhaust Pipe, No.2	1	2GR-FKS Exhaust System	21
90949-T1006	Clamp, Brake Tube, No.11	3	Brake Tubes	14,16
90949-T1006	Clamp, Brake Tube, No.11	4	Brake Tubes	15,17
91674-80830	Bolt (For W/ Front Suspension Member Bracket)	8	Under Cover	11

Parts Kits:

Part Number	Part Description	Quantity
04008-07335	Parts Kit No.1 - Common Replacement Kit F	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name	Page
90910-03001	Bolt (For Front Engine Mount)	4	Engine Mounting	20
90119-16005	Bolt (For Front Suspension Toe Adjust Cam)	2	Front Suspension	12
94151-21001	Nut (For Front Engine Mount)	4	Engine Mounting	20
90412-10289	WAY (For Front Brake Tube)	2	Brake Tubes	14-17

Part Number	Part Description	Quantity
04008-22204	Parts Kit No.2 - Common Replacement Kit G	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name	Page
16442-0C420	Packing (For Radiator Drain Cock)	1	Radiator	22
90080-11555	Bolt (For Steering Intermediate Shaft)	2	Power Steering	20
90412-10276	Way, 2 (For Rear Brake Tube)	1	Brake Tubes	14-17
90468-A0007	Clip (For Brake Tube)	4	Brake Tubes	13-17
90171-A0005	Nut, Castle (For Front Lower Ball Joint RH)	1	Front Suspension	12
90171-A0005	Nut, Castle (For Front Lower Ball Joint LH)	1	Front Suspension	12
90080-17215	Nut (For Front Suspension Support)	6	Front Suspension	12
90177-A0010	Nut (For Rear Shock Absorber)	2	Rear Suspension	13
90119-A0169	Bolt (For Spare Tire Carrier)	4	Spare Tire Carrier	11
51719-04010	Holder, Body Support Bracket	2	Cab Mounting	11
90178-A0044	Nut (For Front Bumper Extension)	6	Front Bumper	22
90119-A0192	Bolt (For Rear Bumper)	6	Rear Bumper	22
90119-A0249	Bolt (For Fuel Tank Band)	2	Fuel Tank	18
90210-A0002	O Ring (For Discharge Hose Sub-Assy)	1	Air Conditioning	22
90301-A0006	O Ring (For Suction Hose Sub-Assy)	2	Air Conditioning	22

Part Number	Part Description	Quantity
04006-46104	Parts Kit No.3 – JPN Source Parts Kit 4	1

The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration Name	Page
12157-10010	Gasket, Front Differential Filler Plug	1	Front Differential	20
90430-24003	Gasket, Front Differential Drain Plug	1	Front Differential	20
90311-47027	Seal, Oil (For Differential Side Gear Shaft)	1	Front Differential	20
90311-47026	Seal, Oil (For Differential Side Gear Shaft)	1	Front Differential	20
43514-28010	Cap, Front Axle Hub Grease, RH	1	Front Suspension	12
43514-28010	Cap, Front Axle Hub Grease, LH	1	Front Suspension	12
95381-04045	Cotter Pin (For Front Drive Shaft)	2	Front Suspension	12

Part Number	Part Description	Quantity		
04008-07435	Parts Kit No.4 – JPN Source Parts Kit 5	1		
The kit listed above includes the following parts:				
Part Number	Part Description	Qty	Illustration Name	Page
95381-03225	Cotter Pin (For Tie Rod End)	2	Power Steering	20
48190-60040	Cam, Front Suspension Camber Adjust, No.1 RH	1	Front Suspension	12
48190-60040	Cam, Front Suspension Camber Adjust, No.1 LH	1	Front Suspension	12
48198-60020	Cam, Front Suspension Camber Adjust, No.2 RH	1	Front Suspension	12
48198-60020	Cam, Front Suspension Camber Adjust, No.2 LH	1	Front Suspension	12
48409-60040	Cam Sub-Assy, Front Suspension Toe Adjust	2	Front Suspension	12
48452-60020	Plate, Front Suspension Toe Adjust, No.2	2	Front Suspension	12
95381-03230	Cotter Pin (For Front Suspension Lower Arm)	2	Front Suspension	12

Part Number	Part Description	Quantity		
04008-22404	Parts Kit No.5 – USA Source Parts Kit 6	1		
The kit listed above includes the following parts:				
Part Number	Part Description	Qty	Illustration Name	Page
17176-31130	Gasket, Air Surge Tank to Intake Manifold	1	2GR-FKS Exhaust System	21
90501-A0031	Spring (For Exhaust Pipe)	2	2GR-FKS Exhaust System	21
90080-10291	Bolt (For Exhaust Pipe)	2	2GR-FKS Exhaust System	21
17451-0D060	Gasket, Exhaust Pipe	1	2GR-FKS Exhaust System	21
90080-10064	Bolt (For Exhaust Pipe)	2	2GR-FKS Exhaust System	21
90080-11180	Bolt (For Exhaust Pipe Stopper Bracket)	2	2GR-FKS Exhaust System	21

Part Number	Part Description	Quantity		
04008-22504	Parts Kit No.6 – USA Source Parts Kit 7	1		
The kit listed above includes the following parts:				
Part Number	Part Description	Qty	Illustration Name	Page
90080-43033	Gasket (Exhaust Pipe)	1	2TR-FE Exhaust System	21
90080-10064	Bolt (Exhaust Pipe)	2	2TR-FE Exhaust System	21
90177-A0004	Nut (Exhaust Pipe)	2	2TR-FE Exhaust System	21

Part Number	Part Description	Quantity		
04008-22604	Parts Kit No.7 – USA Source Parts Kit 8	1		
The kit listed above includes the following parts:				
Part Number	Part Description	Qty	Illustration Name	Page
77285-04110	Clamp, Fuel Tube, No.1	3	Brake Tubes	14-17
90119-A0210	Bolt (For Rear Engine Mount)	4	Engine Mounting	20
48304-04100	Bumper, Front Spring, RH	1	Front Suspension	12
48304-04100	Bumper, Front Spring, LH	1	Front Suspension	12
90119-A0192	Bolt (For Hook No.1)	2	Under Cover	11
90080-11373	Bolt (For Engine Under Cover Sub-assy No.1)	4	Under Cover	11
90080-11373	Bolt (For Engine Under Cover Sub-assy No.2)	4	Under Cover	11
90189-A0002	Clip (For Left Rear Wheel Well Liner)	6	Moulding	22
75395-35070	Clip, Outside Moulding, No.1	9	Moulding	22
75396-35020	Clip, Outside Moulding, No.2	19	Moulding	22
53851-04100	Pad, Front Wheel Opening Extension	2	Moulding	22
53853-04070	Pad, Front Wheel Opening Extension, No.1	2	Moulding	22
53855-04010	Pad, Front Wheel Opening Extension, No.2	2	Moulding	22
75696-04050	Pad, Body Outside Moulding, No.1	1	Moulding	22
75697-04050	Pad, Body Outside Moulding, No.2	1	Moulding	22
75698-04030	Pad, Body Outside Moulding, No.3	1	Moulding	22

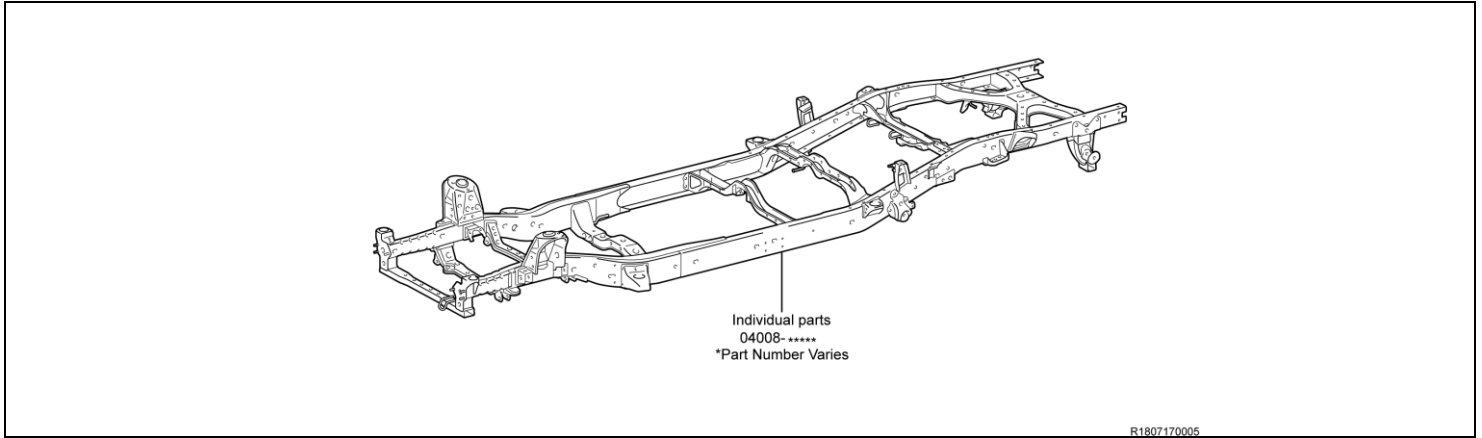
Part Number	Part Description	Quantity		
04008-22804	Parts Kit No.8 – Brake Tube Kit 8	1		
The kit listed above includes the following parts:				
Part Number	Part Description	Qty	Illustration Name	Page
47313-04260	Tube, Front Brake, No.3	1	Brake Tubes	16,17
47315-04171	Tube, Front Brake, No.5	1	Brake Tubes	16,17
47323-04210	Tube, Rear Brake, No.3	1	Brake Tubes	16,17
47324-04170	Tube, Rear Brake, No.4	1	Brake Tubes	16,17

Part Number	Part Description	Quantity		
04008-23404	Parts Kit No.9 – Brake Tube Kit 9	1		
The kit listed above includes the following parts:				
Part Number	Part Description	Qty	Illustration Name	Page
47314-04160	Tube, Front Brake, No.4	1	Brake Tubes	14-17
47316-04160	Tube, Front Brake, No.6	1	Brake Tubes	14-17
90119-A0169	Bolt (For Brake Tube Bracket)	9	Brake Tubes	13-17

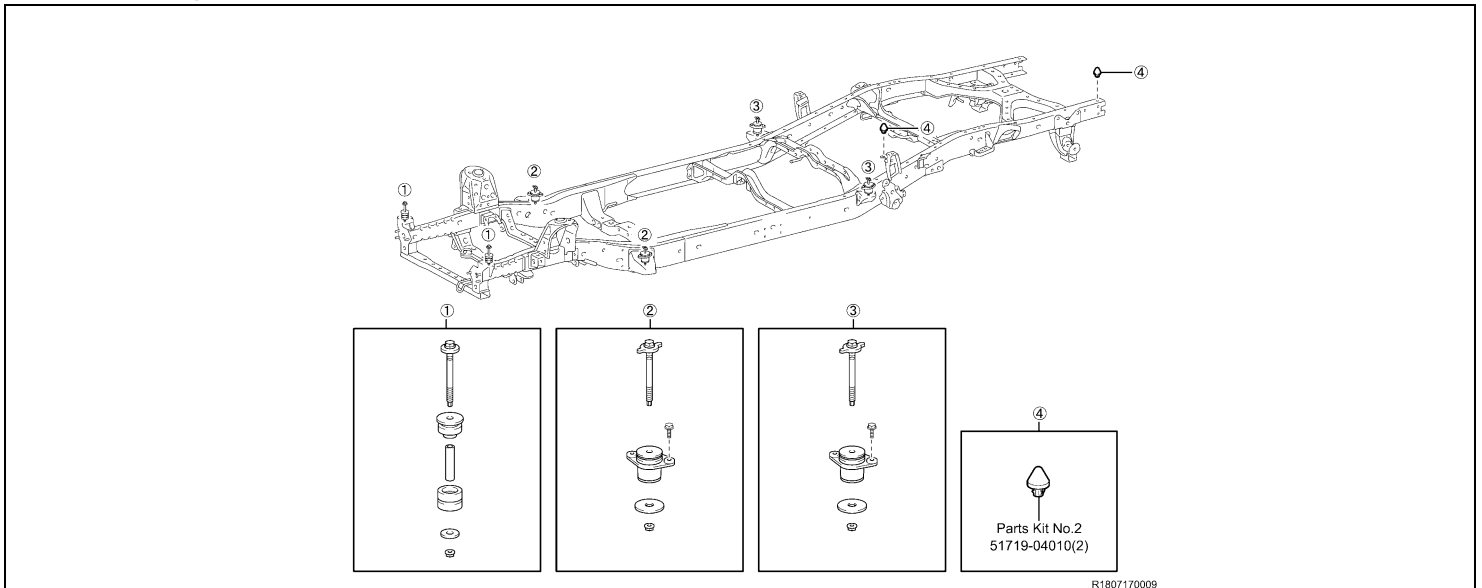
Part Number	Part Description	Quantity		
04008-07635	Plug Hole Kit Frame Replacement 2	1		
The kit listed above includes the following parts:				
Part Number	Part Description	Qty	Illustration Name	Page
90333-30002	PLUG, PLATE	14	N/A	N/A
90950-01983	PLUG, HOLE	4	N/A	N/A
90950-01987	PLUG, HOLE	8	N/A	N/A
90950-01989	PLUG, HOLE	4	N/A	N/A
90950-01990	PLUG, HOLE	2	N/A	N/A
90950-01991	PLUG, HOLE	4	N/A	N/A
90950-01992	PLUG, HOLE	2	N/A	N/A
90950-01A24	PLUG, HOLE	2	N/A	N/A

D. PARTS ILLUSTRATION

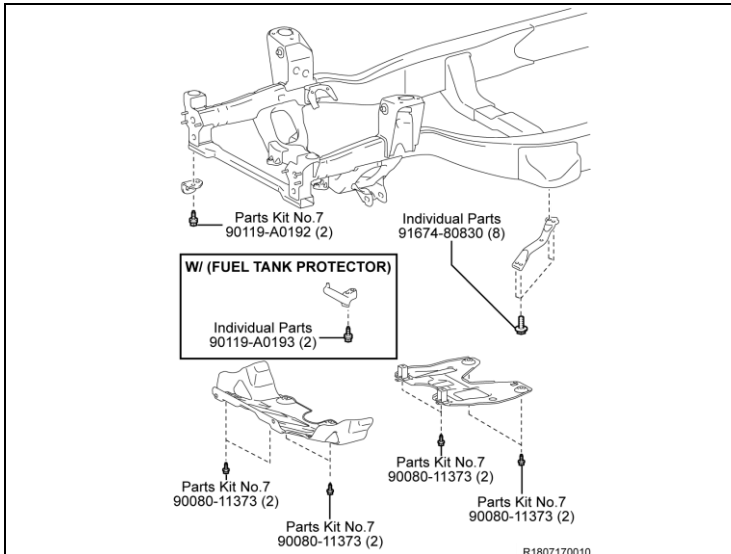
Frame



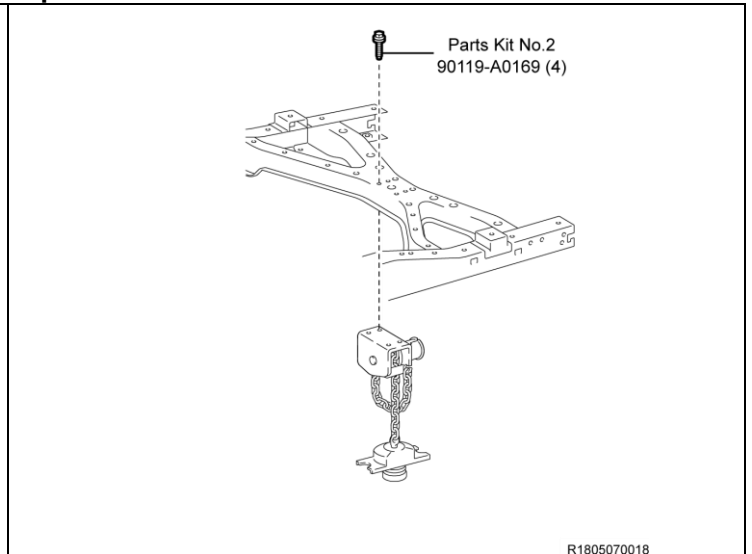
Cab Mounting



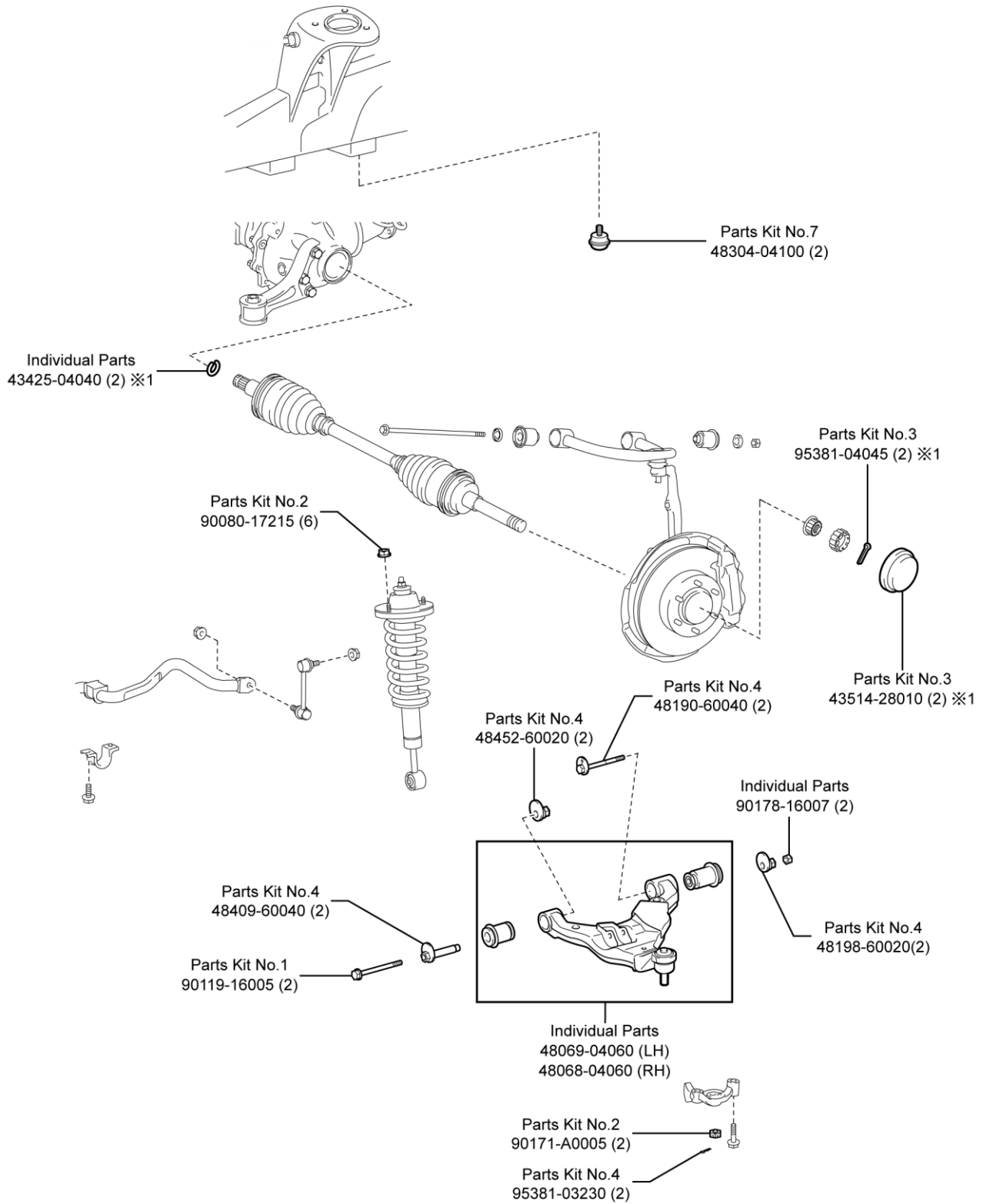
Under Cover



Spare Tire Carrier



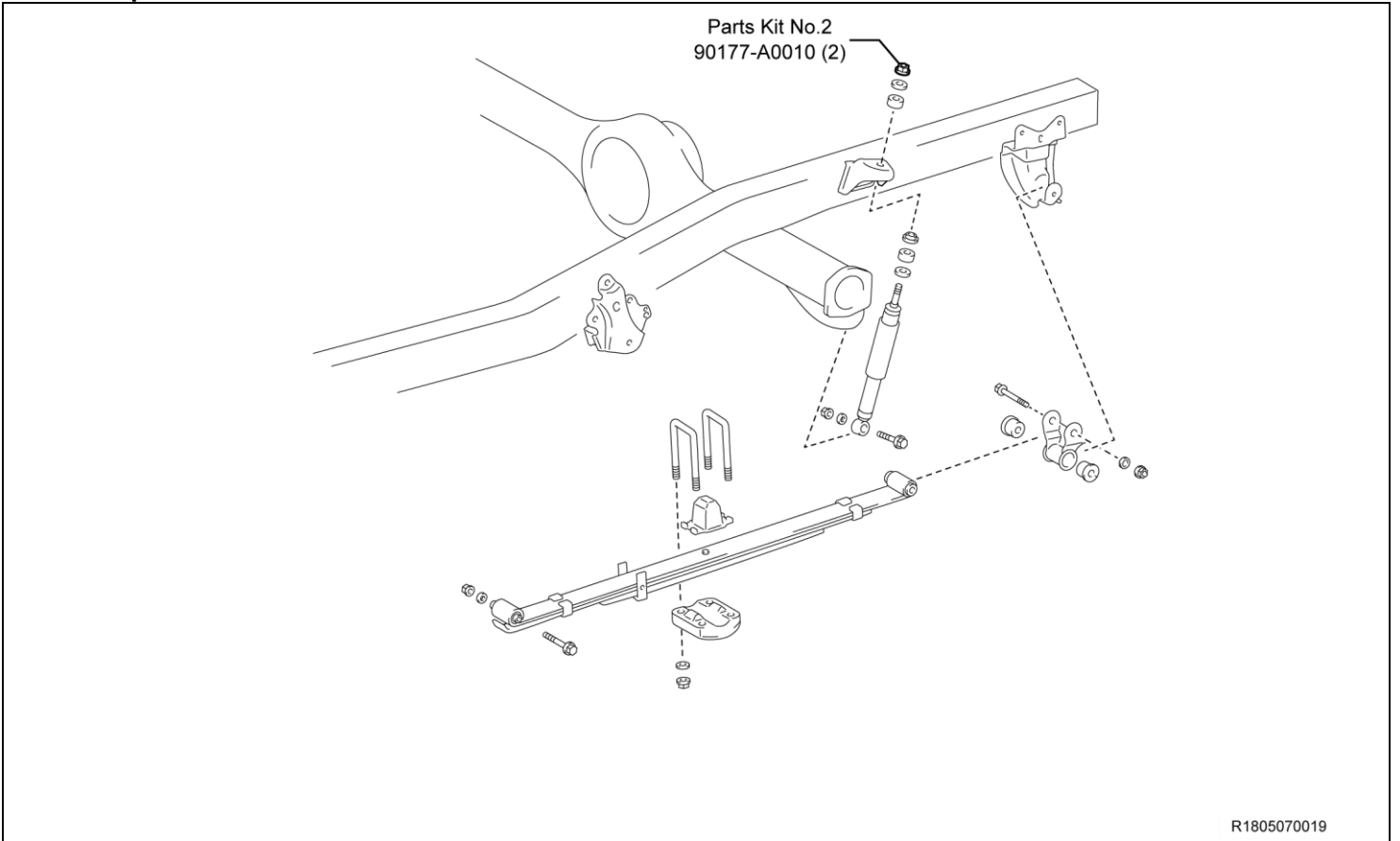
Front Suspension



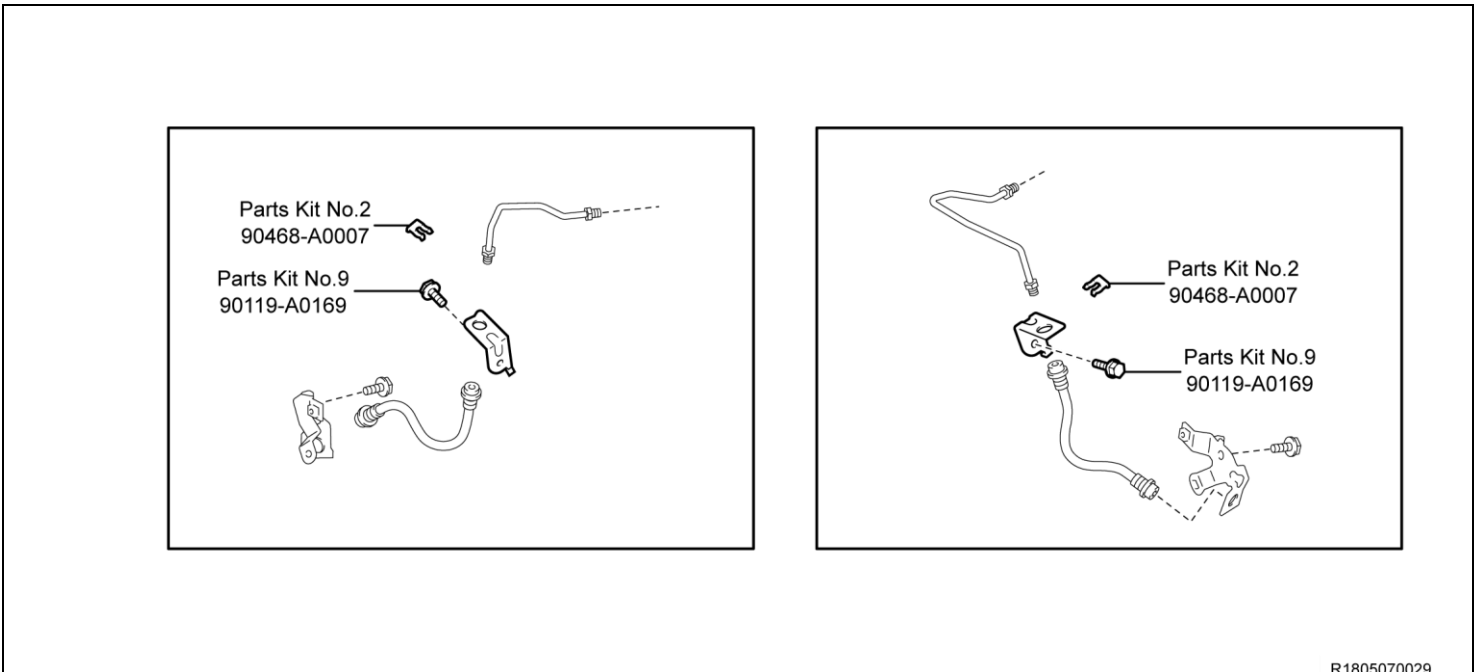
※1 4WD ONLY

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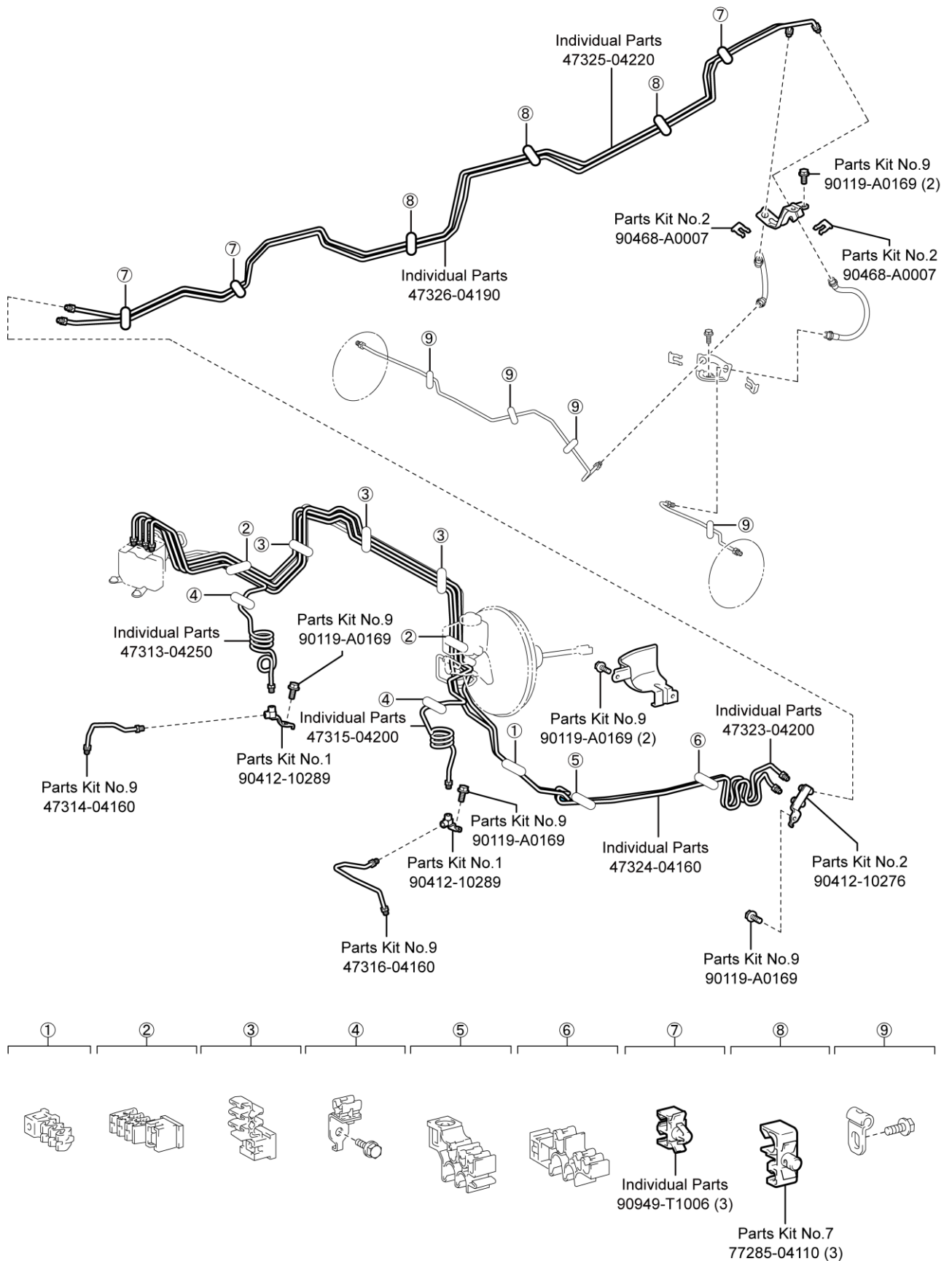
Rear Suspension



Brake Tubes

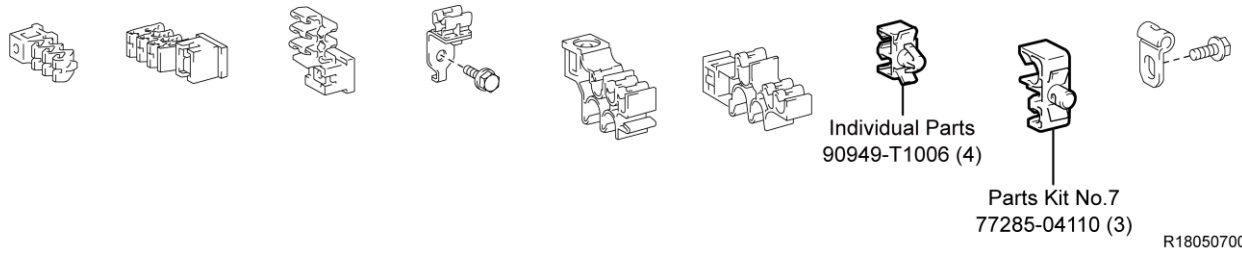
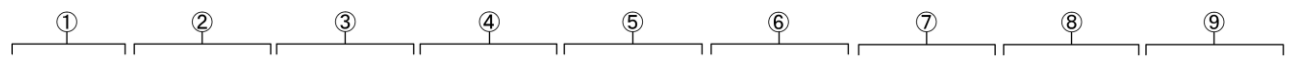
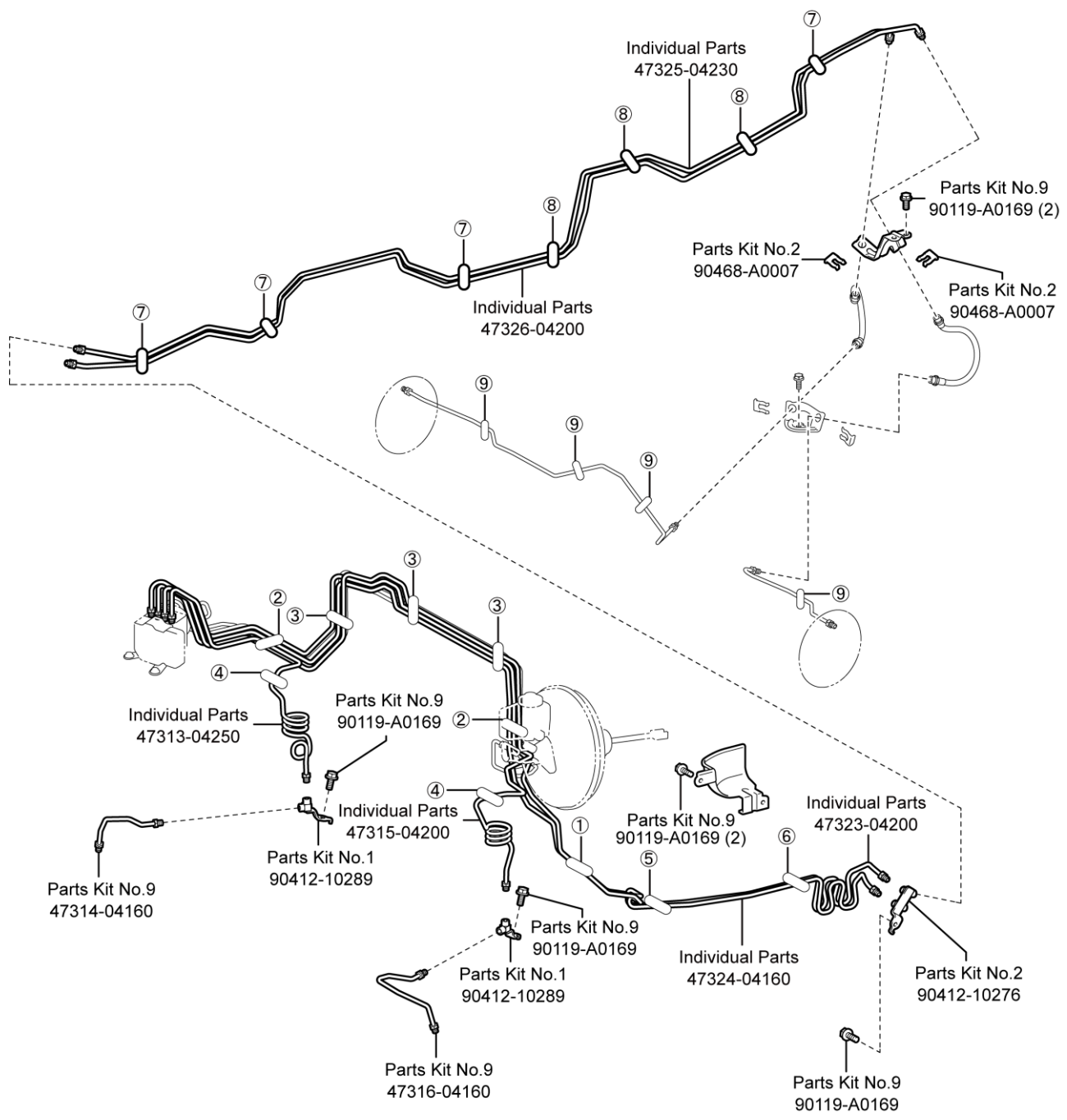


Brake Tubes Continued...



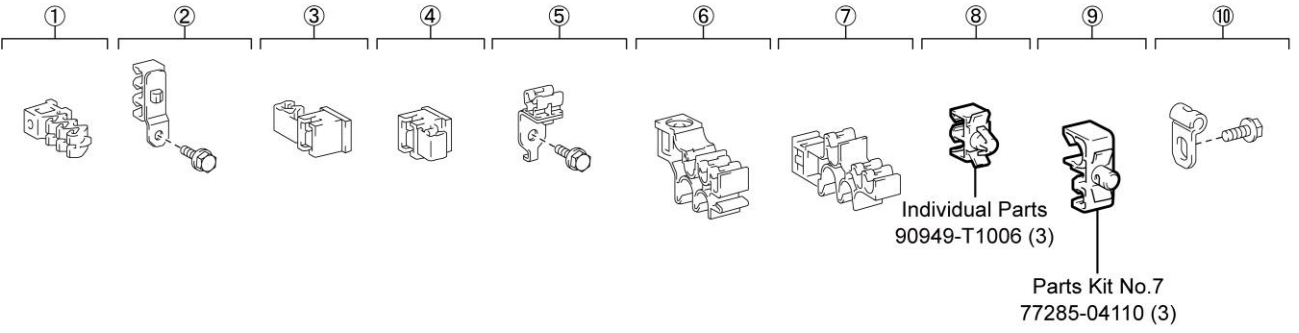
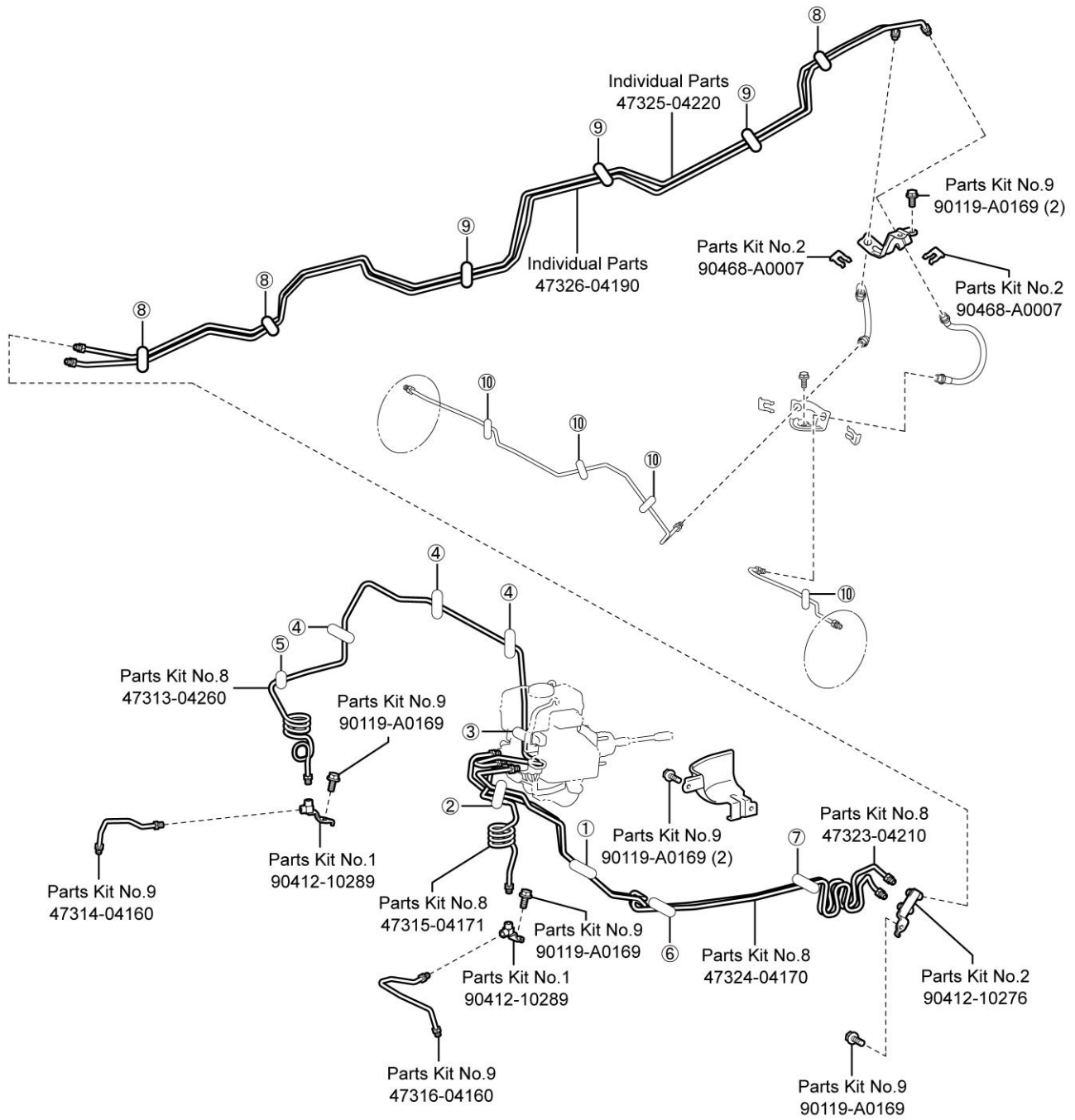
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Brake Tubes Continued...



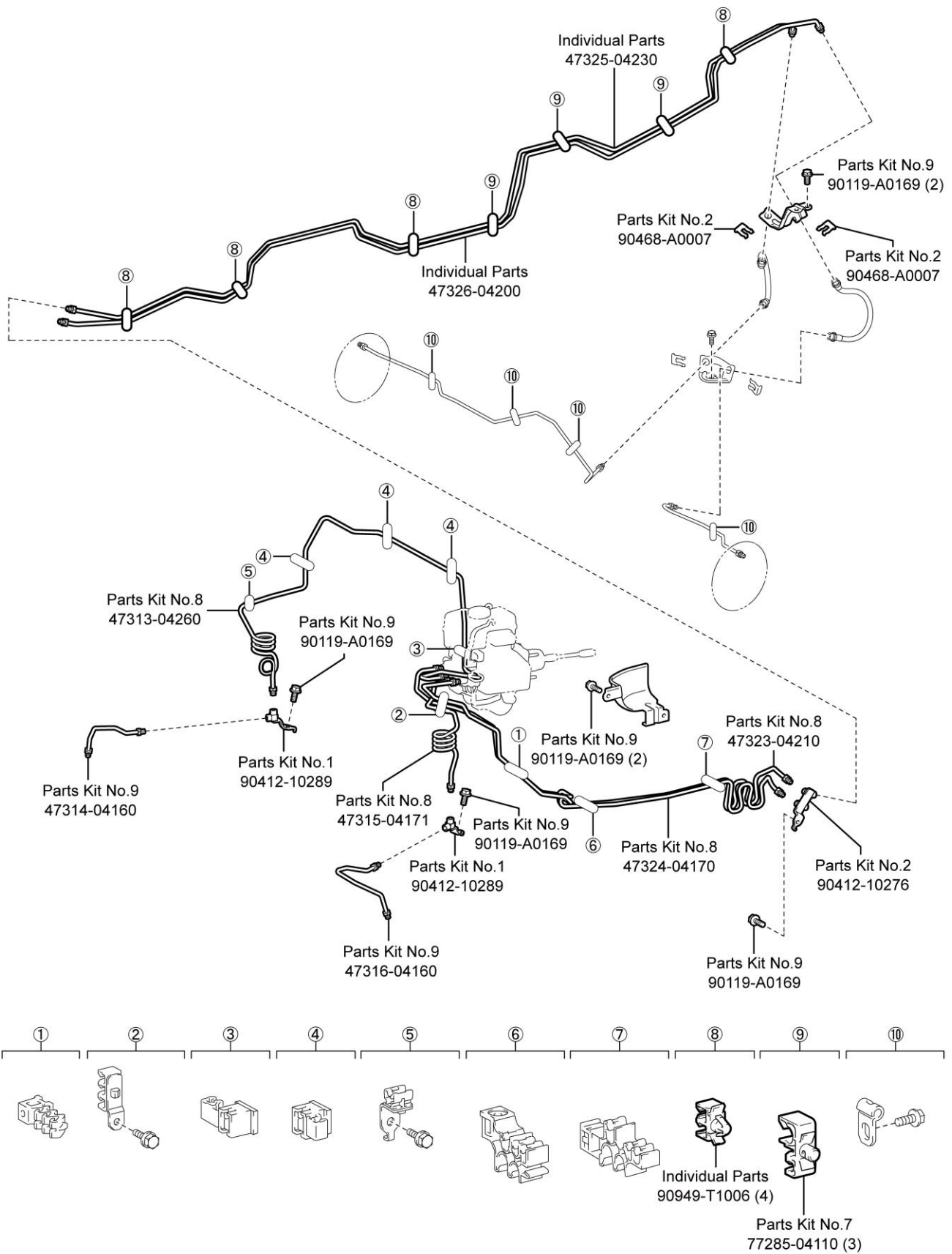
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Brake Tubes Continued...



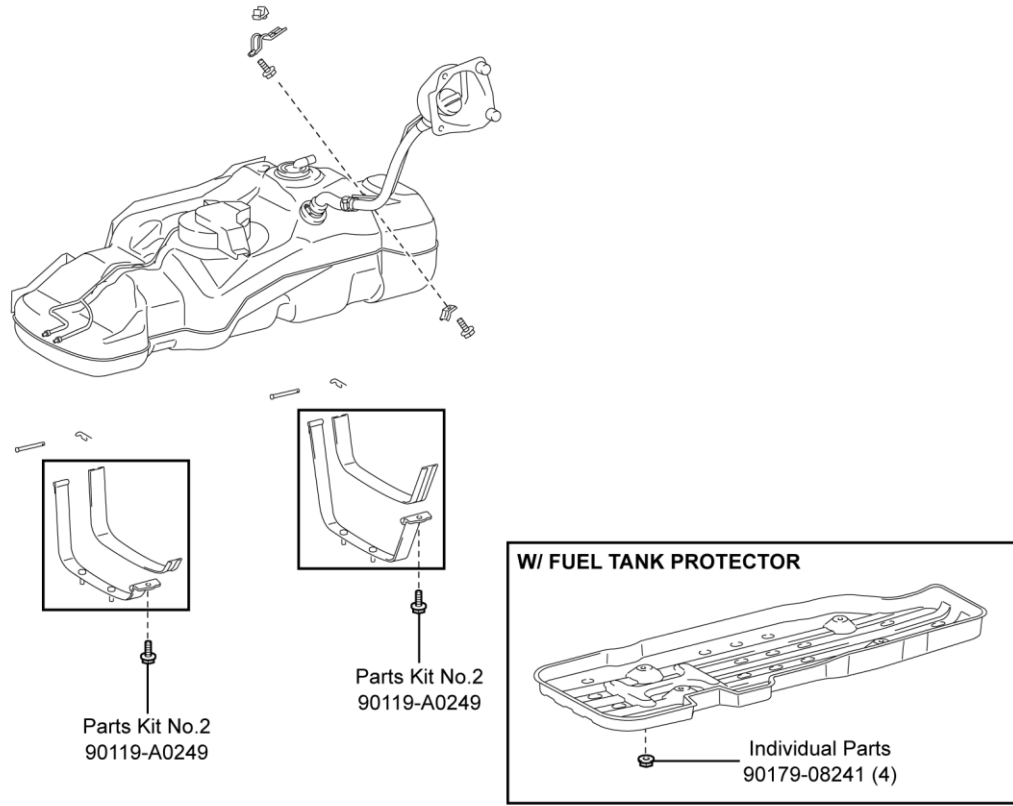
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Brake Tubes Continued...

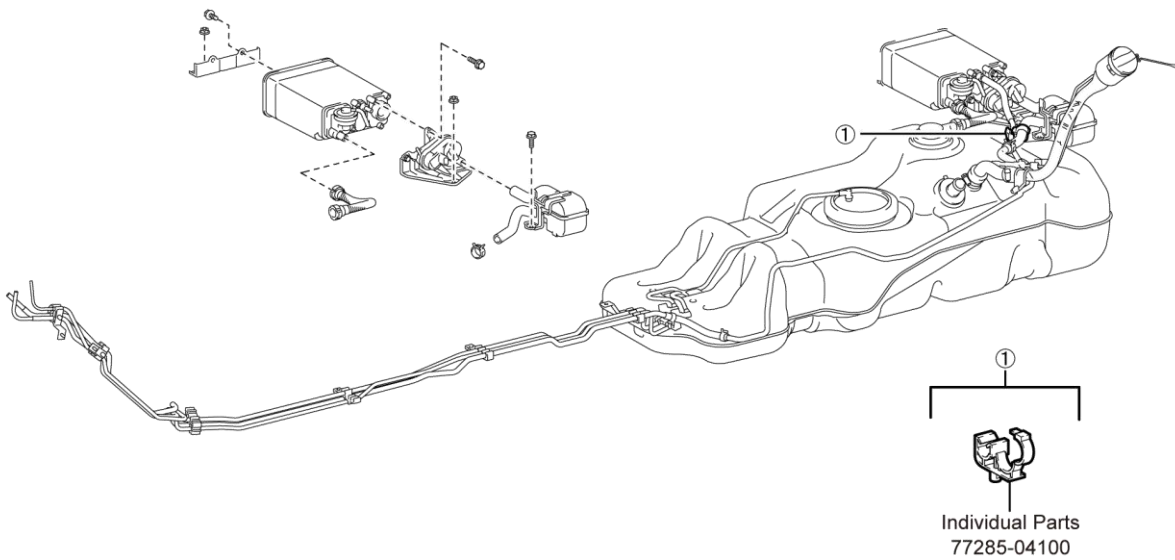


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Fuel Tank



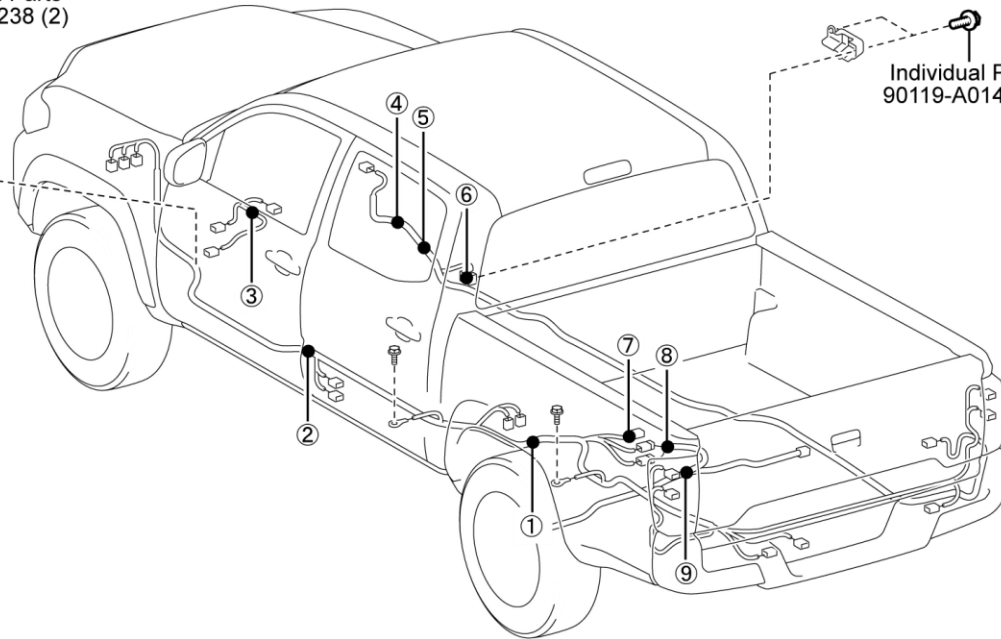
Fuel Tubes



Wire Harness Brackets

Individual Parts
90119-A0238 (2)

Individual Parts
90119-A0148 (2)



<p>①</p> <p>Individual Parts 82715-04750</p> <p>Individual Parts 90119-A0169</p>	<p>②</p> <p>Individual Parts 82715-04230</p> <p>Individual Parts 90119-A0169</p>	<p>③</p> <p>Individual Parts 82715-04730</p> <p>Individual Parts 90119-A0141</p>	<p>④</p> <p>Individual Parts 82715-04770</p> <p>Individual Parts 90119-A0169</p>	<p>⑤</p> <p>Individual Parts 82715-04200</p> <p>Individual Parts 90119-A0169</p>
<p>⑥</p> <p>Individual Parts 82715-04350</p> <p>Individual Parts 90119-A0169 (2)</p>	<p>⑦</p> <p>Individual Parts 82715-04740</p> <p>Individual Parts 90178-A0112</p>	<p>⑧</p> <p>Individual Parts 82715-04250</p> <p>Individual Parts 90105-A0066</p>	<p>⑨</p> <p>Individual Parts 82715-04260</p> <p>Individual Parts 82711-78010</p> <p>Individual Parts 90105-A0066</p>	

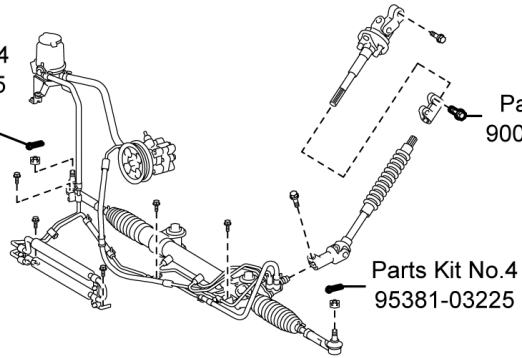
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Power Steering

2GR-FKS

2TR-FE

Parts Kit No.4
95381-03225

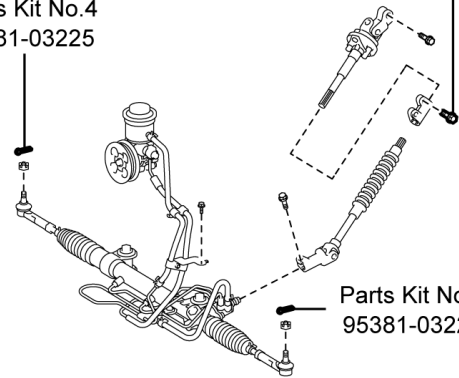


Parts Kit No.2
90080-11555 (2)

Parts Kit No.4
95381-03225

Parts Kit No.4
95381-03225

Parts Kit No.2
90080-11555 (2)

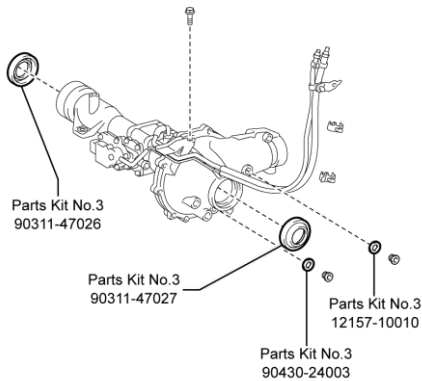


Parts Kit No.4
95381-03225

R180570021

Front Differential

4WD ONLY



Parts Kit No.3
90311-47026

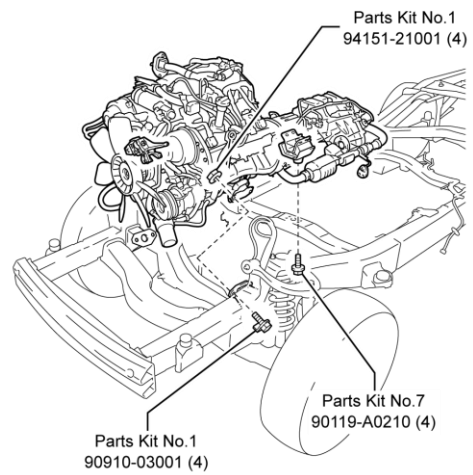
Parts Kit No.3
90311-47027

Parts Kit No.3
12157-10010

Parts Kit No.3
90430-24003

R1807170011

Engine Mounting



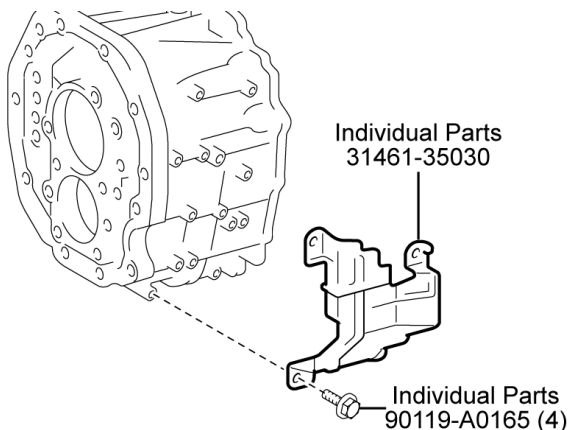
Parts Kit No.1
94151-21001 (4)

Parts Kit No.1
90910-03001 (4)

Parts Kit No.7
90119-A0210 (4)

R1807170012

Release Cylinder Heat Insulator

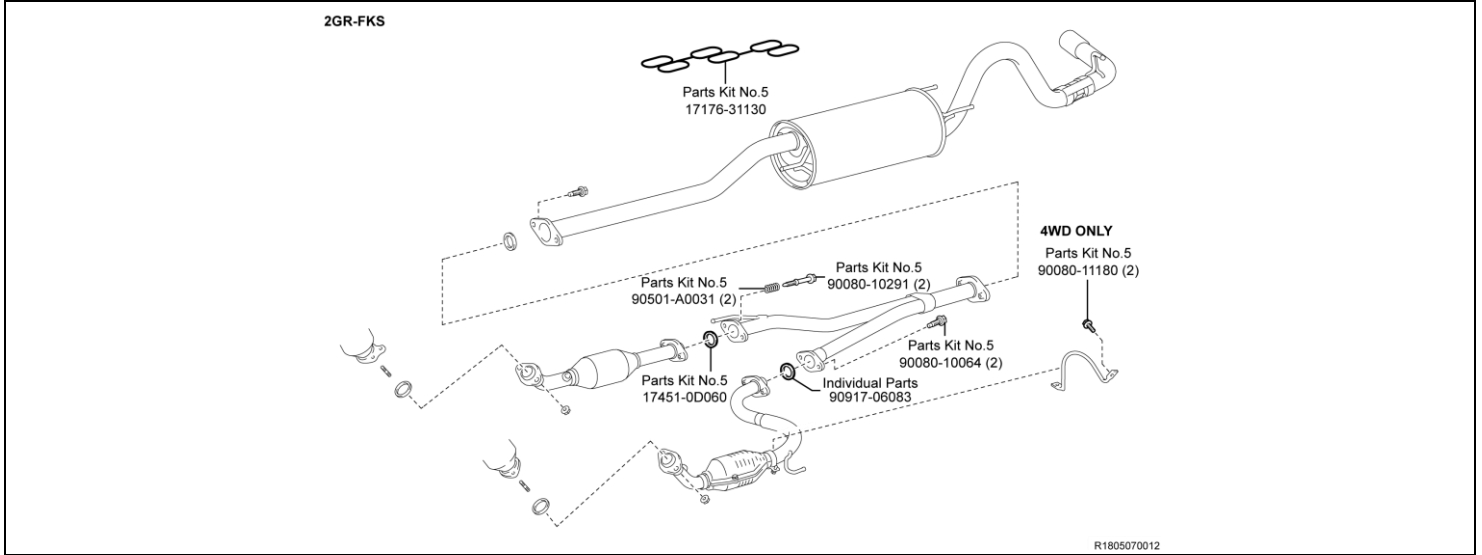


Individual Parts
31461-35030

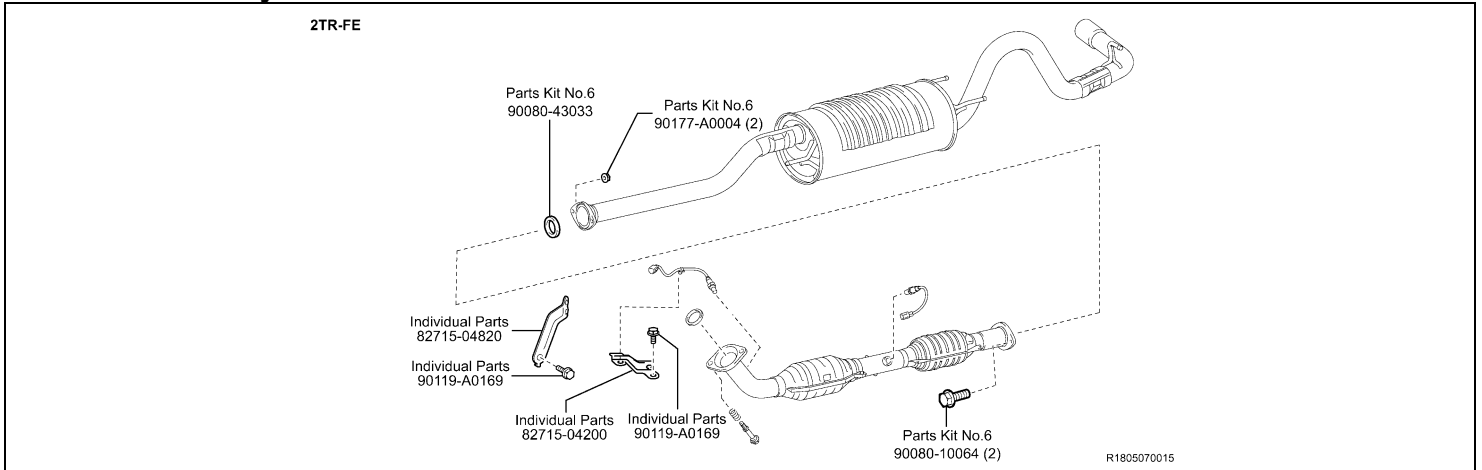
Individual Parts
90119-A0165 (4)

R1808310015

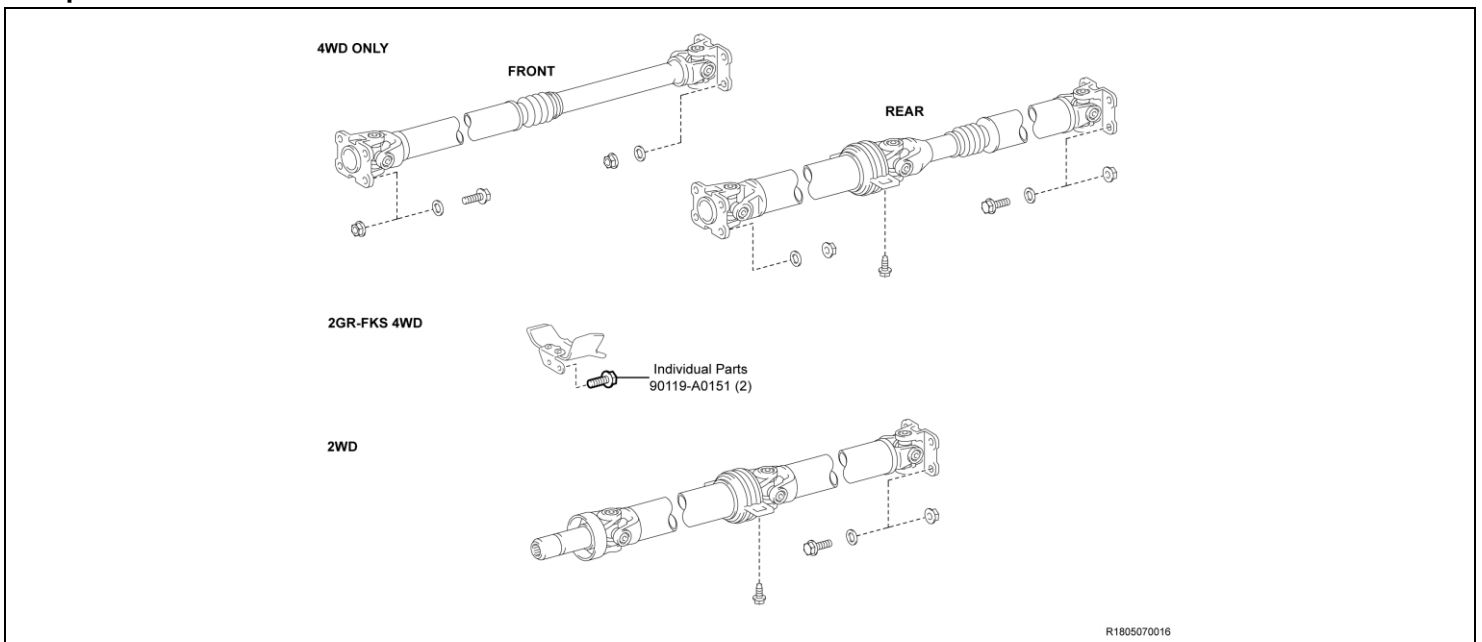
2GR-FKS Exhaust System



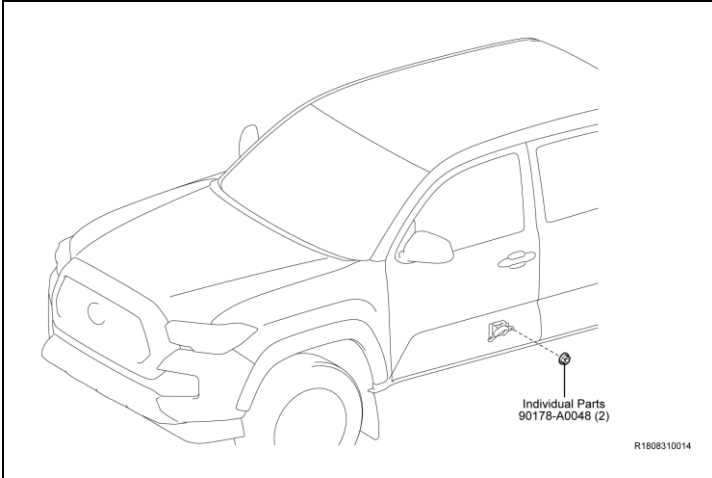
2TR-FE Exhaust System



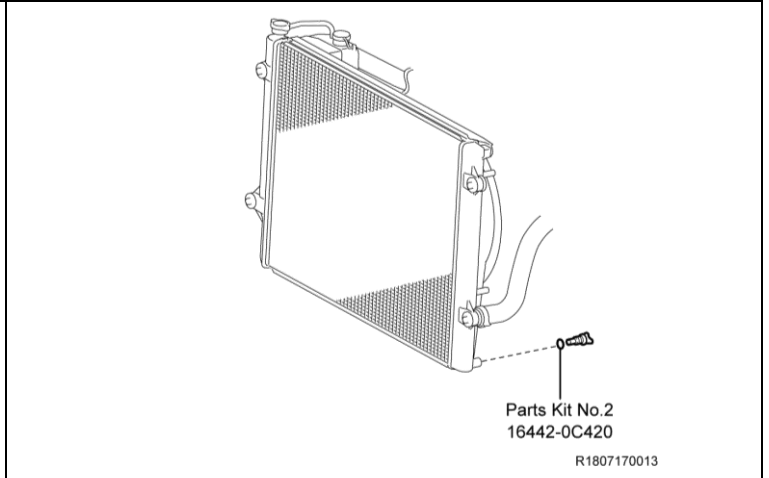
Propeller Shaft



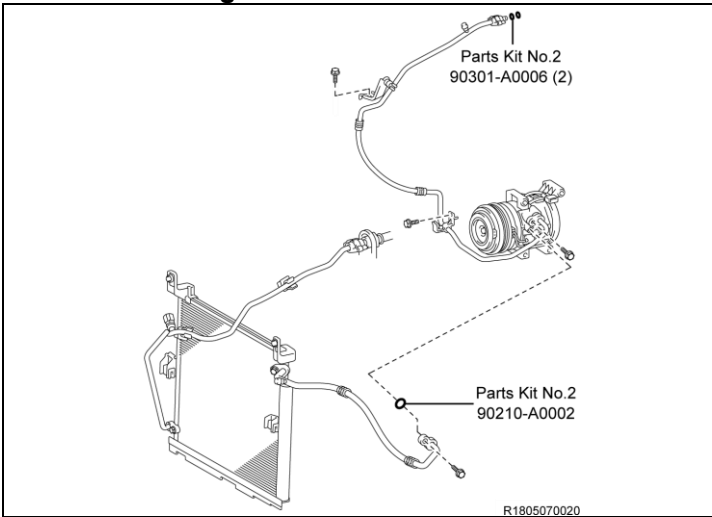
Fuel Pump Control Computer



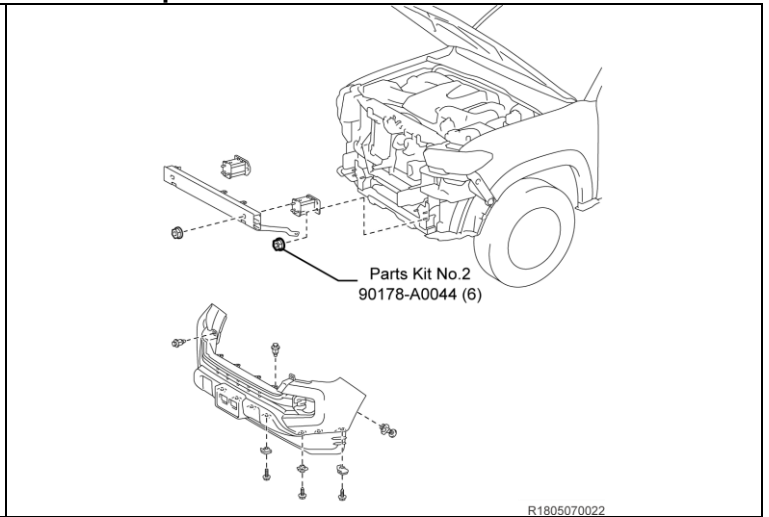
Radiator



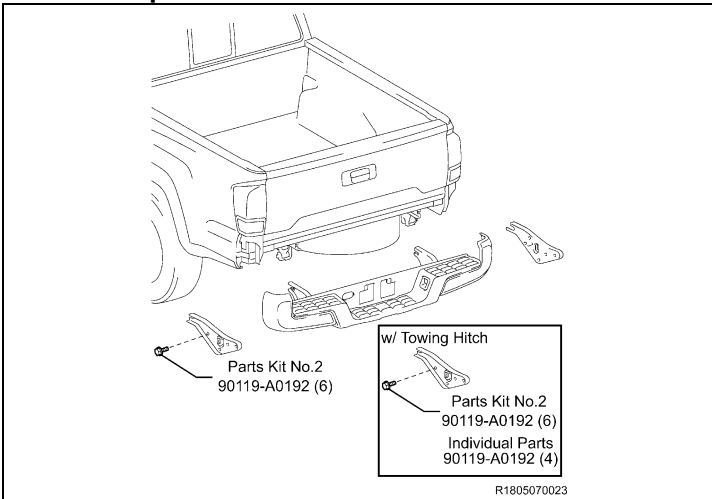
Air Conditioning



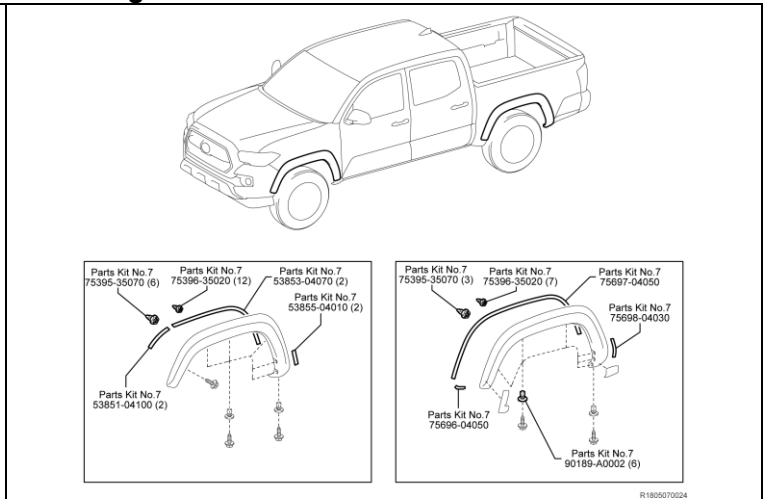
Front Bumper



Rear Bumper



Moulding



III. FRAME INSPECTION

PERFORM INITIAL PRE-HOIST INSPECTION

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

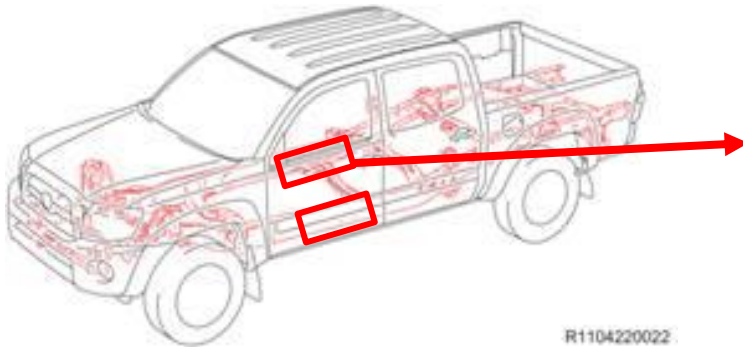
FRAME INSPECTION



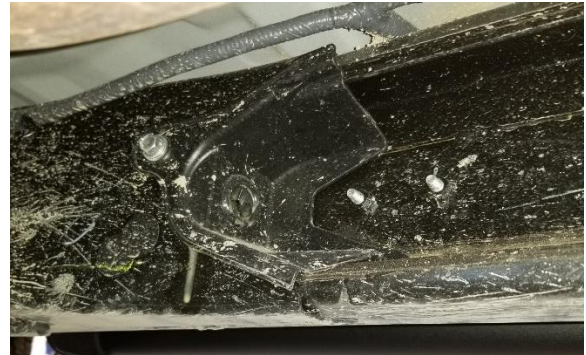
All frame inspection must be performed using the frame inspection application on TIS. Ensure you inspect the frame and properly document the inspection. Failure to perform this will result in denial of the claim.

1. INSPECT FOR FRAME RAIL SEAL

- a. Inspect if the frame already has a frame rail seal installed as shown in the image below



R1104220022



Is the frame rail seal already installed?

YES

NO

No further action required. Campaign is complete

Proceed to the next step in the frame inspection

2. ACCESS INSPECTION APPLICATION

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

Vehicle Identification Number Search

Enter a 17 Digit VIN below to search for applicable information:
 VIN:

Vehicle Information

Division: TOYOTA Model: Tacoma Grade: DLX Model Year: 2010
 Drive Type: 4WD Body Type: Double Cab Engine Family: V6 - 1GR Engine No: 1GR 8543795
 Date of First Use: Production Date: 11/20/2009 Plant Code: 4 - FREMONT - NUMMI Transmission:
 VIN: 8TELU48N0AZ710188 Desc: Unknown [Maintenance Parts Catalog](#) [Fluids](#) [Flat Rate Manual](#) [Standard Equipment \(+\)](#)

Exterior Color: 03R3, BARCELONA RED METALL Interior Color: P113, P113 Interior Trim Color: P1, *

Vehicle accessories are not currently available. Try your query again later.

Navigation: [Home](#) [Library](#) [Diagnosics](#) [Tech Assistance](#) [Vehicle Inquiry](#) **Warranty** [Service Center](#) [ToyotaCare](#) [TIS Status](#) [Diagnostic Report](#)

Vehicle Warranty Information

WARRANTY APPLICABILITY QUICK REFERENCE CHART

2010 Tacoma VIN: 8TELU48N0AZ710188 Retailer State: Info Not Found

Current Months in service: Last Known Mileage: State:

Category	Months	Mileage	Eligible
Seal	36	36,000	NO
DEH 12V Auxiliary Battery	36	36,000	NO
Wheel Alignment and Balancing	12	19,000	NO
California Emission Warranty			
Short Term	36	50,000	NO
Long Term	96	70,000	NO
Specific Components	96	80,000	YES
Performance Emission Control Warranty			
All Parts to pass I/M programs	36	50,000	NO
Specific Components	96	80,000	YES
Powertrain & Restraint Systems	60	60,000	NO
Corrosion Perforation	60	Unlimited	YES
Accessories installed at Vehicle Purchase	36	36,000	NO

Warranty Policy and Procedures

Warranty coverage is dependent on both the number of months in service and vehicle mileage. If either "Current Months in Service" or "Last Known Mileage" is beyond the applicable warranty coverage, then the vehicle is no longer covered under that warranty category.

Please note the information shown above may be subject to change without notice.

Customer Support Program (CSP)

A CSP enhances portions of the vehicle's warranty coverage for specific conditions. Please see the CSP information for enhancement details.

CSP Description: Economic Loss Class Action Settlement - Customer Support Program (CSP)
Status: Potentially Eligible
Name: This vehicle is included in the model year and range for the Economic Loss Class Action Settlement - Customer Support Program. Please refer to Warranty Policy Bulletin PDL13-02 for additional details.

[\[Show Documents\]](#)

CSP Description: Warranty Enhancement Program 2H8 Certain 2005 - 2010 Tacoma Extension of Warranty Coverage for Frame Corrosion
Status: Potentially Eligible
Name: This Warranty Enhancement Program provides enhanced coverage to the vehicle's "New Vehicle Limited Warranty" as it applies to frame corrosion. The specific condition covered by this program is significant rust perforation (according to Toyota's inspection criteria).

[\[Show Documents\]](#) [Frame Inspection](#)

3. LOG INTO THE INSPECTION APPLICATION

- a. Reenter your TIS password

Frame Inspection

Frame Inspection

Language: English French Spanish

Re-enter your TIS Password to proceed with the Frame Inspection

Verify the User ID currently logged into TIS matches the technician's User ID performing the Frame Inspection

TIS Password

4. ENTER VEHICLE INFORMATION

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

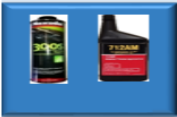
Note: Do NOT select the state the dealership is located.

- c. Select **NO CRC Previously Applied**: Select Frame Button


Frame Inspection Home

<p>User ID : JOHNSOJ459</p> <p>Dealer Code : 54012</p> <p>Date/Time : 07/08/2017 2:12 PM PDT</p> <p>Vehicle Mileage : * <input type="text" value="120568"/> Miles</p>	<p>Technician Name : James Johnson</p> <p>Dealer Name : CYPRESS COLLEGE</p> <p>VIN : 5TBRT38101S125908</p> <p>DMY : TOYOTA Tundra 2001</p> <p>Vehicle Registered State : * VT <input type="button" value="v"/></p>
---	---

Has the vehicle had CRC previously applied to the Frame?
Click on the appropriate icon below to start the Frame inspection process.



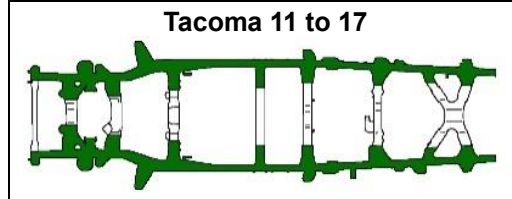
CRC Previously Applied



No CRC Applied

5. INSPECT THE FRAME SECTIONS

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



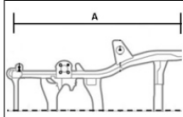
- b. Select Section A

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


Select Frame Section - NO CRC Applied

<p>User ID : JOHNSOJ459</p> <p>Dealer Code : 54012</p> <p>Date/Time : 07/08/2017 2:12 PM PDT</p> <p>Vehicle Mileage : * 120568 Miles</p>	<p>Technician Name : James Johnson</p> <p>Dealer Name : CYPRESS COLLEGE</p> <p>VIN : 5TBRT38101S125908</p> <p>DMY : TOYOTA Tundra 2001</p> <p>Vehicle Registered State : * VT <input type="button" value="v"/></p>
--	---

Click on the highlighted section of the frame diagram below to start the inspection process.
Each section of the frame must be inspected as instructed by the Technical Instructions.
You must start in Section A (Front Passenger Side of the vehicle) and proceed to each section in alphabetical order.



Front



Rear

- 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 "Perforation of the Frame".

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

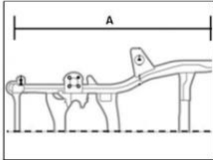
Frame Inspection


Select Frame Condition - NO CRC Applied


Inspect the frame condition as described in the technical instructions. Ensure to inspect the exterior and interior facing surfaces of the frame rail, along with the crossmembers of the frame. Identify the overall condition of the frame by selecting the appropriate image that best represents the condition of the frame section.


You must click on the bubble next to the image to make your selection.


Note: If there is perforation in any part of the identified frame section always select perforation.




E-Coat Intact


Light to Moderate Surface Rust


Complete Surface Rust with Rust Scales


Perforation of the Frame

[Back](#) [Clear](#) [Next](#)

- 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 reset section.**

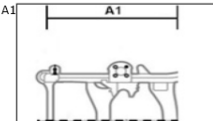
- h. Select Next to move onto the next section.

Frame Inspection

Select Perforation Identification - NO CRC Applied

The frame section has been split into two smaller sections to help clarify to the technical staff where the perforation is located. Please select the location and size of the perforation and upload an image of the perforation.

Note: If perforation is found in both areas please identify both perforation locations below.



A1 Check the appropriate perforation size*


Perforation Found during Frame Clearing for CRC-10mm and above

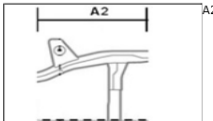
16mm or above

10 to 15mm

None

Comments: (500 Chars)

IMG_1302.JPG 



A2 Check the appropriate perforation size*

Perforation Found during Frame Clearing for CRC-10mm and above

16mm or above

10 to 15mm

None

Comments: (500 Chars)

[Back](#) [Clear](#) [Next](#)



Each image attached has a size limit of 3 MB and all images cannot exceed 15 MB total. If 3MB is uploaded the system will display the error shown below.

User using Chrome browser may receive intermittent errors when uploading several high-quality images, IE is recommended.

Frame Inspection

Select Perforation Identification - NO CRC Applied

Please Upload file less than 3MB
The frame section has been split into two smaller sections to help clarify to the technical staff where the perforation is located. Please select the location and size of the perforation and upload an image of the perforation.

Note: If perforation is found in both areas please identify both perforation locations below.

B1

B1 Check the appropriate perforation size*

Perforation Found during Frame Clearing for CRC-10mm and above

16mm or above

10 to 15mm

None

Comments: (500 Chars)

IMG_0600.JPG

B2

B2 Check the appropriate perforation size*

Perforation Found during Frame Clearing for CRC-10mm and above

16mm or above

10 to 15mm

None

Comments: (500 Chars)

Upload Images * No file chosen

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

Note: When completed it will be indicated by all sections being grayed out and the submit button will appear.

Frame Inspection

Frame Inspection - NO CRC Applied

User ID	: JOHNSOJ459	Technician Name	: James Johnson
Dealer Code	: 54012	Dealer Name	: CYPRESS COLLEGE
Date/Time	: 07/08/2017 2:12 PM PDT	VIN	: 5TBR38101S125908
		DMY	: TOYOTA Tundra 2001
Vehicle Mileage	: 120568 Miles	Vehicle Registered State	: VT

Front

A B C

Rear

D E F

NO Perforation Found

- j. If no perforation was found, follow the directions as provided.

Frame Inspection

Frame Inspection - NO CRC Applied

User ID	: JOHNSOJ459	Technician Name	: James Johnson
Dealer Code	: 54012	Dealer Name	: CYPRESS COLLEGE
Date/Time	: 07/08/2017 2:12 PM PDT	VIN	: 5TBRT38101S125908
Vehicle Mileage	:* 120568 Miles	DMY	: TOYOTA Tundra 2001
		Vehicle Registered State	:* VT <input type="checkbox"/>

Frame Inspection Case: FI000000881
Inspection Summary: **No** Perforation

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 inspection technician's TIS inbox and Service and Parts Manager email.

Frame Inspection

Frame Inspection - NO CRC Applied

User ID	: JOHNSOJ459	Technician Name	: James Johnson
Dealer Code	: 54012	Dealer Name	: CYPRESS COLLEGE
Date/Time	: 07/08/2017 2:12 PM PDT	VIN	: 5TBRT38101S125908
Vehicle Mileage	:* 120568 Miles	DMY	: TOYOTA Tundra 2001
		Vehicle Registered State	:* VT <input type="checkbox"/>

Frame Inspection Case: FI000000881
Inspection Summary: Perforation has been found in Sections A1,C1,C2.
Toyota Technical Staff will review and provide feedback or authorization for repair.
Feedback and authorization will be sent to your TIS Inbox when the review has been completed.

[Close](#)

IV. 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
 - 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

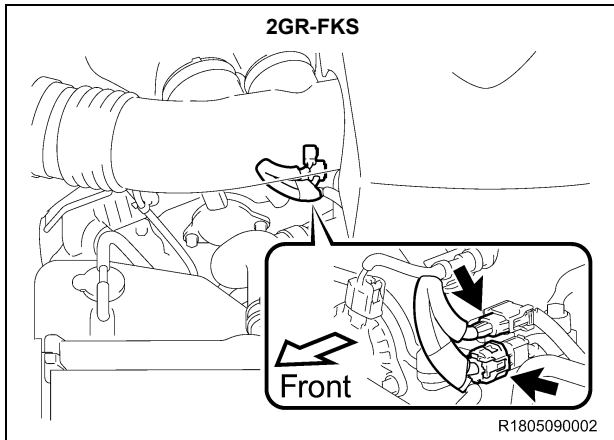
C. DISCHARGE THE FUEL SYSTEM PRESSURE



- **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 the appropriate repair manual in TIS for the vehicle you are working on.

1. CHECK FOR DTCs

2. RECORD THE RADIO STATION PRESETS



3. DISCHARGE THE FUEL SYSTEM PRESSURE

- Remove the No.1 upper relay block cover.
- Remove the circuit opening relay from the engine room relay block. *(2TR-FE Only)*
- Remove the EFI MAIN No.2 relay from the engine room relay block. *(2GR-FKS Only)*
- Disconnect the 2 connectors. *(2GR-FKS Only)*
- Start the engine. After the engine stops, turn the ignition switch off.

NOTE: DTC P0171 (system too lean) may be stored.

- Check that the engine does not start.
- Remove the fuel tank cap and let the air out of the fuel tank.
- Disconnect the negative (-) battery terminal.

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.).

- Connect the 2 connectors. *(2GR-FKS Only)*
- Reinstall the EFI MAIN No.2 relay. *(2GR-FKS Only)*
- Reinstall the circuit opening relay. *(2TR-FE Only)*
- Reinstall the No. 1 upper relay block cover.

NOTE: Reinstall the No.1 upper relay block cover to not let foreign objects enter.

D. REMOVE THE BED ASSY



- 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 bed assy removal.
- The actual vehicle specs, equipment and parts required may differ than what is shown. Please use the correct specifications and parts for the model you are working on.
- For additional repair information, please reference the appropriate repair manual found on TIS for the vehicle you are working on.

1. CENTER THE VEHICLE BETWEEN THE LIFT ARMS

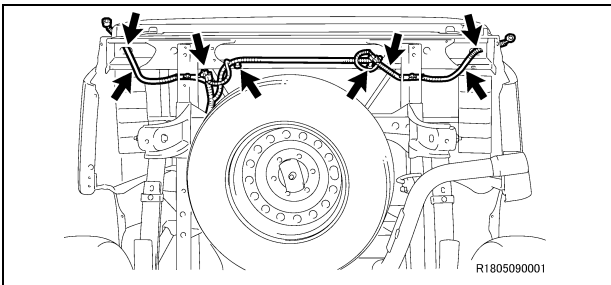
- a) Verify the vehicle is aligned with the center point of the lift to prevent interference and damage to the frame and/or lift.

2. REMOVE THE FOLLOWING PARTS

- Rear Tail/Combination Light LH/RH
- Rear Bumper Assy
- Rear Mudguard LH/RH *(If Equipped)*
- Side Step Assy LH/RH *(If Equipped)*
- Quarter Panel Wheel Opening Moulding LH *(If Equipped)*
- Power Outlet Socket Assy *(If Equipped)*



- When removing the parts, be careful not to damage them and surrounding components.
- Be cautious when removing the Quarter Panel Wheel Opening Moulding LH to **NOT** damage or deform, since it will be reused after replacing the clips and double-sided tape attached to the moulding.

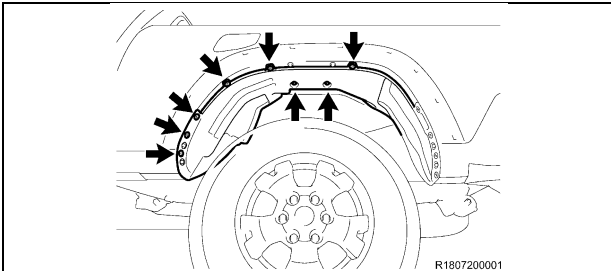


3. REMOVE THE FRAME WIRE HARNESS

- a) Disconnect the clamps, connectors and the frame wire harness from the bed assy.

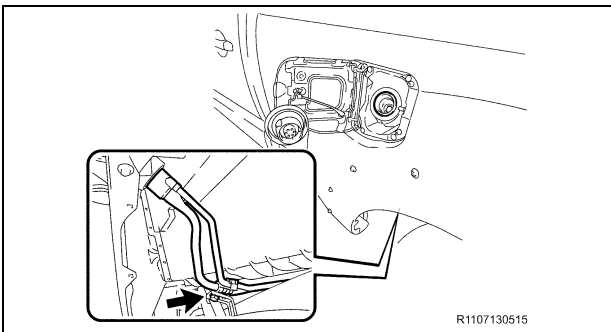
NOTE:

- The number of connectors may differ depending on the vehicle specification.
- Be careful not to damage the wire harness clamps when removing them.



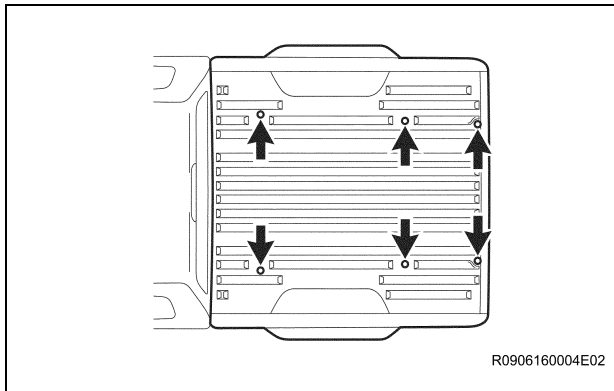
4. DISCONNECT LEFT REAR WHEEL WELL LINER

- a) Remove the 8 clips and then disconnect the front side of the left rear wheel well liner.



5. DISCONNECT THE FUEL INLET PIPE SUB-ASSY

- a) Remove the bolt and disconnect the fuel inlet pipe sub-assy.



6. REMOVE THE BED ASSY

- a) Using a Torx® T55H Socket, remove the 6 Torx ® bolts from the bed assy.

NOTE:

- Use 4 or more people to remove the bed assy from the frame.
- Evenly support the bed assy when removing it.
- Be careful not to damage the filler tubes when removing the bed.
- Protect the front side of the bed assy to not damage the cab assy.

E. REMOVE THE CAB BODY ASSY



- 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 vehicle when performing cab assy 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 the appropriate repair manual in TIS for the vehicle you are working on.

1. REMOVE THE FRONT NO.1 WHEEL OPENING EXTENSION PAD (IF EQUIPPED)

2. REMOVE THE ENGINE UNDER COVERS

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

3. EVACUATE THE REFRIGERANT FROM THE AIR CONDITIONING SYSTEM

4. REMOVE THE RELEASE CYLINDER HEAT INSULATOR (2GR-FKS MANUAL TRANS ONLY)

5. DRAIN THE FOLLOWING FLUIDS

- Coolant
- Brake Fluid
- Clutch Fluid (*2GR-FKS Manual Trans Only*)
- Front Differential Fluid (*4WD Only*)

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.

6. REMOVE THE FOLLOWING BODY COMPONENTS

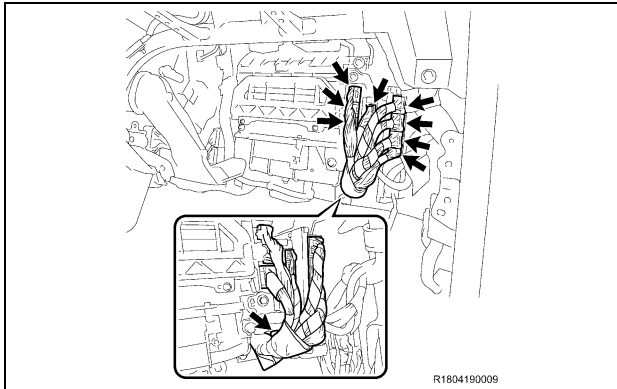
- Radiator Grille
- Front Fender Mudguard LH/RH (*If Equipped*)
- Front Fender Wheel Opening Moulding LH/RH (*If Equipped*)
- Front Bumper Assy
- Front Bumper Reinforcement
- Front No.2 Bumper Extension Sub-assy LH/RH



- Be cautious when removing the Front Fender Wheel Opening Moulding LH/RH to **NOT** damage or deform, since they will be reused after replacing the clips and double-sided tape attached to the moulding.

7. REMOVE THE FOLLOWING INTERIOR COMPONENTS

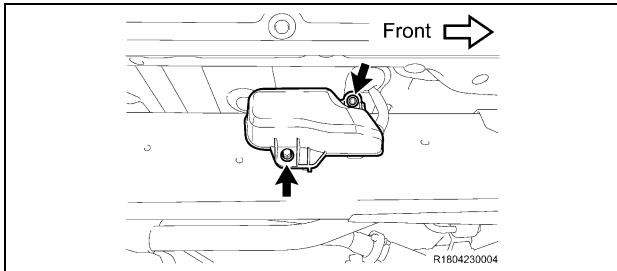
- Front Door Scuff Plate LH/RH
- Cowl Side Trim Board LH/RH
- Front Floor Footrest
- Instrument Side Panel RH
- Glove Compartment Plate
- Lower No.2 Instrument Panel Airbag Assy
- Instrument Lower Panel Assy



8. DISCONNECT THE ENGINE WIRE HARNESS

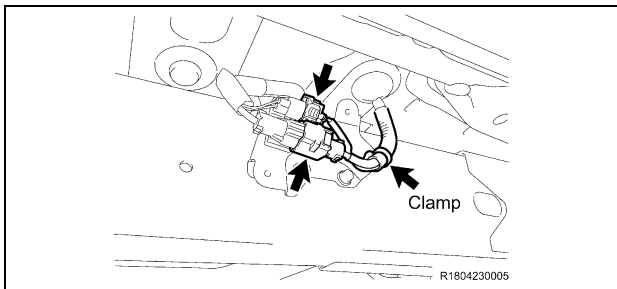
- a) Disconnect each connector and clamp from the ECM and remove the engine wire harness.

NOTE: The number of connectors may differ depending on the model.



9. DISCONNECT THE NO.2 FRAME WIRE HARNESS (IF EQUIPPED)

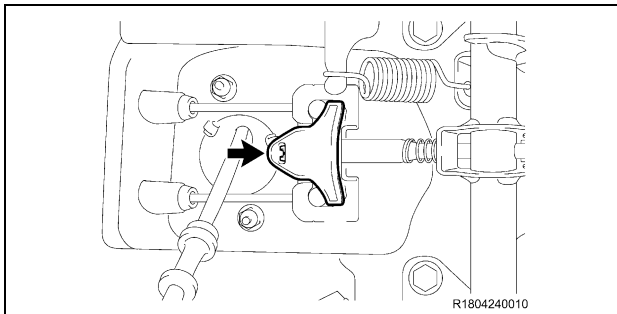
- a) Remove the 2 bolts and cover.



- b) Disconnect the 2 connectors and clamp.

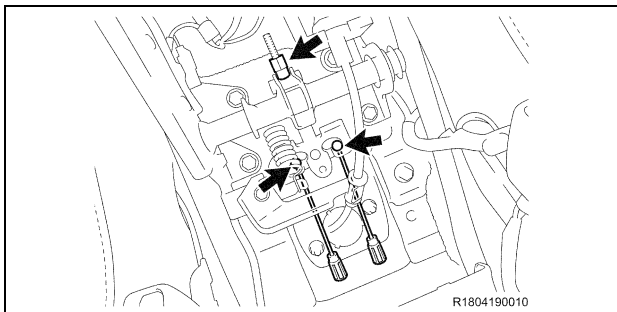
10. REMOVE THE FOLLOWING PARTS

- Rear Console Box
- Manual Transmission Shift Lever Assy (*Manual Trans Only*)
- Voltage Inverter Assy (*If Equipped*)



11. DISCONNECT THE PARKING BRAKE CABLES

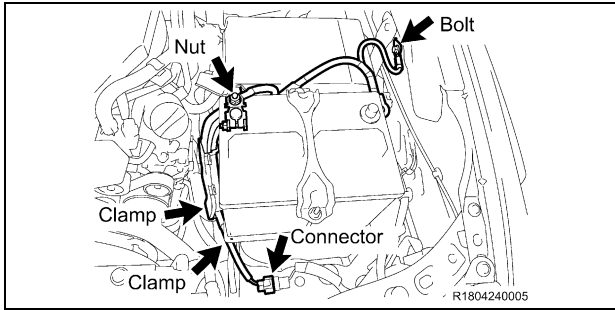
- a) Remove the parking cable end stopper.



- b) Loosen the adjusting nut.
- c) Disconnect the 2 parking cables from the parking brake pull rod.
- d) Push the 2 parking brake cables out of the vehicle.

12. REMOVE THE FOLLOWING PARTS

- V-Bank Cover (*2GR-FKS Only*)
- Air Cleaner Hose and Air Cleaner Assy

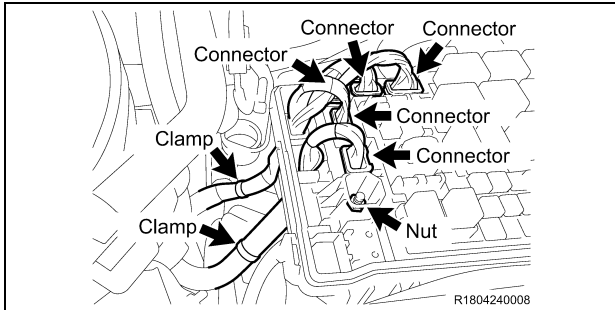


13. DISCONNECT THE NO.2 ENGINE WIRE HARNESS

- a) Remove the nut and disconnect the (+) positive battery cable.
- b) Remove the bolt and disconnect the ground wire.
- c) Disconnect the 2 clamps.

NOTE: The number of clamps may differ depending on the model.

- d) Disconnect the connector.



- e) Remove the No.1 upper relay block cover.

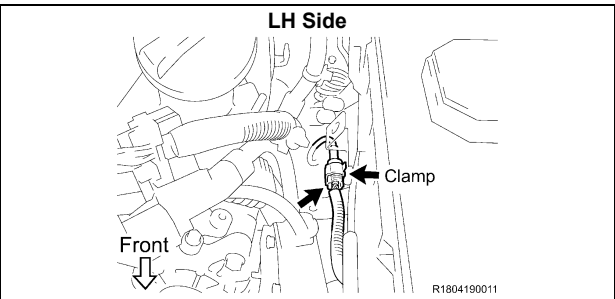
- f) Disconnect the 5 connectors.

NOTE: The number of connectors may differ depending on the model.

- g) Disconnect the 2 clamps.

- h) Remove the nut and disconnect the fuse box wire harness.

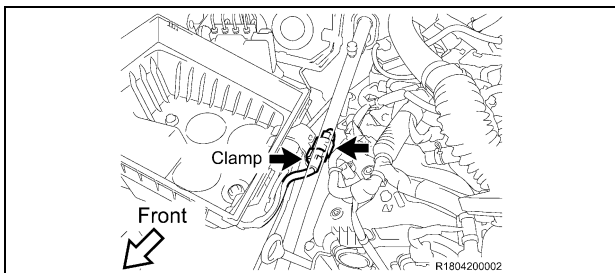
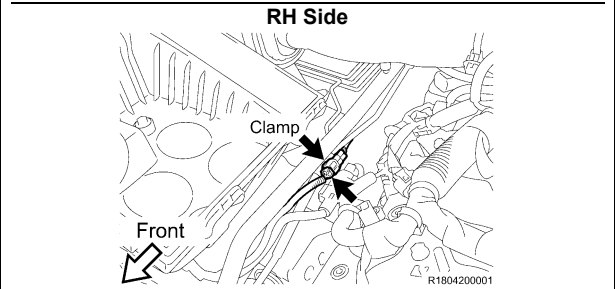
- i) Reinstall the No.1 upper relay block cover.



14. DISCONNECT THE SKID CONTROL SENSOR WIRE HARNESS

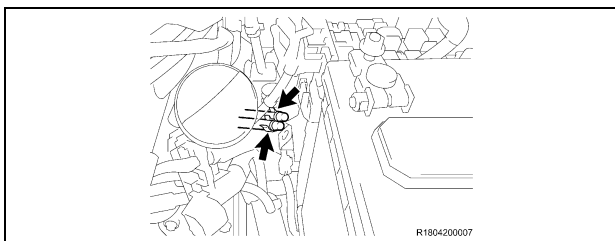
- a) Disconnect the harness clamp and front skid control sensor connector.

- b) Repeat the procedure on the opposite side.



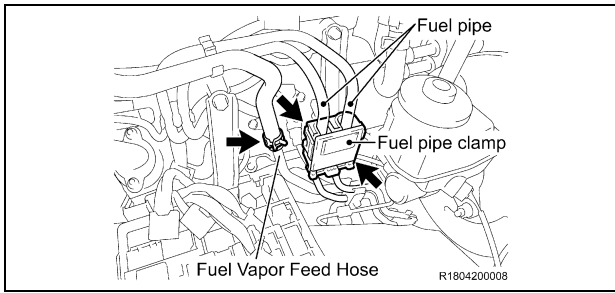
15. DISCONNECT THE NO.2 FRAME WIRE HARNESS (IF EQUIPPED)

- a) Disconnect the harness clamp and connector.



16. DISCONNECT THE FRONT DIFFERENTIAL BREATHER TUBES (4WD ONLY)

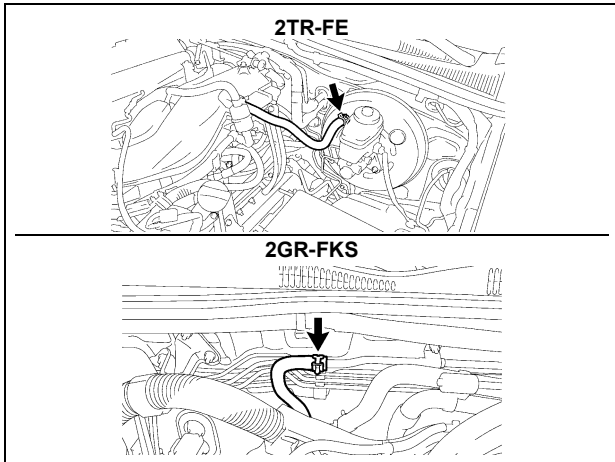
- a) Disconnect the front differential breather tubes.



17. DISCONNECT THE FUEL PIPES AND VAPOR FEED HOSE

- a) Remove the fuel pipe clamps.
- b) Disconnect the 2 fuel pipes.
- c) Remove the clip and disconnect the fuel vapor feed hose.

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



18. DISCONNECT THE VACUUM HOSE

- a) Disconnect the vacuum hose.

19. DISCONNECT THE RADIATOR HOSES


- a) Disconnect the inlet and outlet radiator hoses from engine.



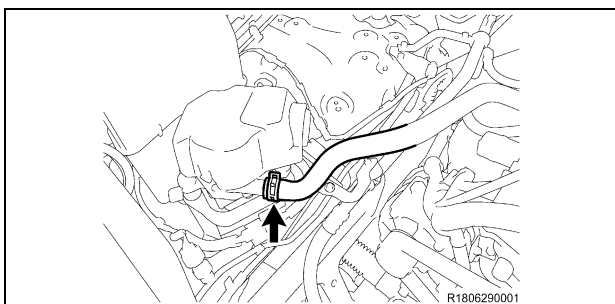
Be careful not to damage the radiator hoses.

20. REMOVE THE FOLLOWING PARTS

- Radiator Support to Frame Seal
- Radiator Assy
- Fan Shroud

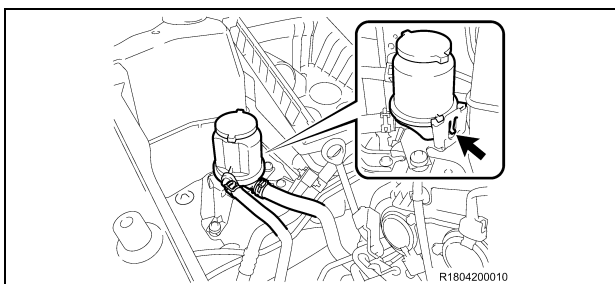


- Do not remove the radiator side deflectors.
- Be careful not to over-flex the deflectors when removing the radiator assy.



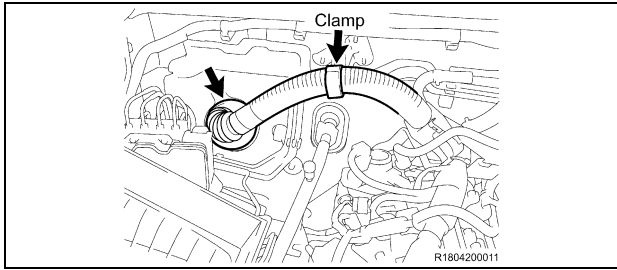
21. DISCONNECT THE NO.1 HOSE (2TR-FE ONLY)

- a) Disconnect the No.1 hose from the air pump assy.



22. DISCONNECT THE POWER STEERING PUMP OIL RESERVOIR ASSY (2GR-FKS ONLY)

- a) Disconnect power steering pump oil reservoir assy.

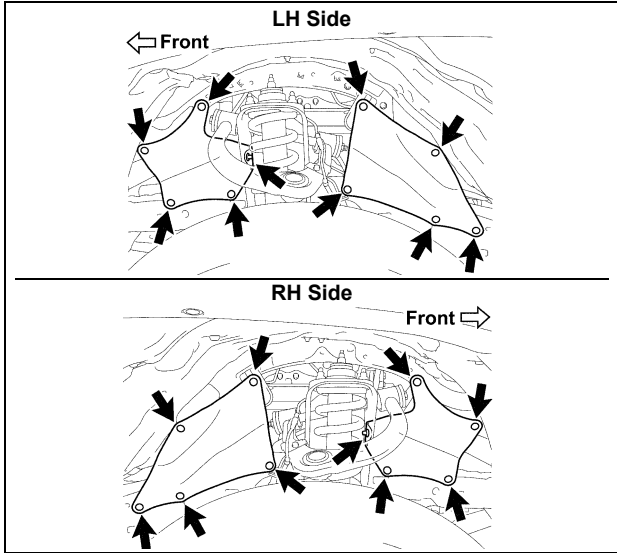


23. DISCONNECT THE ENGINE WIRE HARNESS

- a) Disconnect the clamp.
- b) Remove the engine wire harness container from the cowl panel.

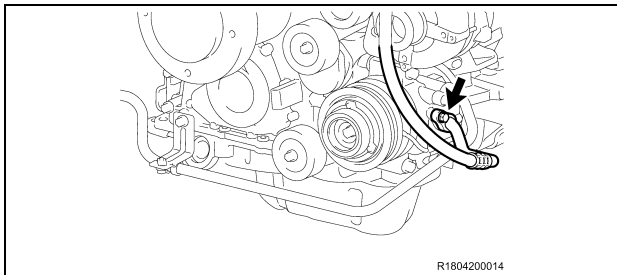
24. DISCONNECT THE WATER / HEATER HOSES, ENGINE SIDE (2GR-FKS ONLY)

25. DISCONNECT THE WATER / HEATER HOSES, HEATER RADIATOR SIDE (2TR-FE ONLY)

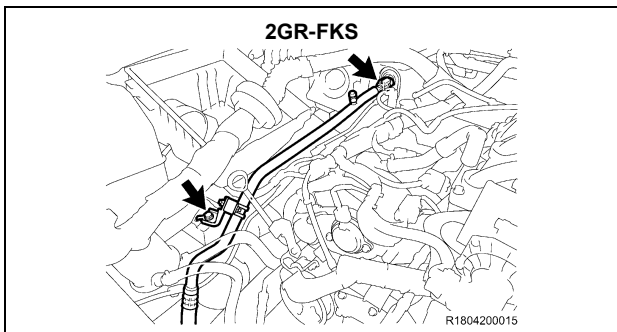


26. REMOVE THE FRONT FENDER APRON SEALS

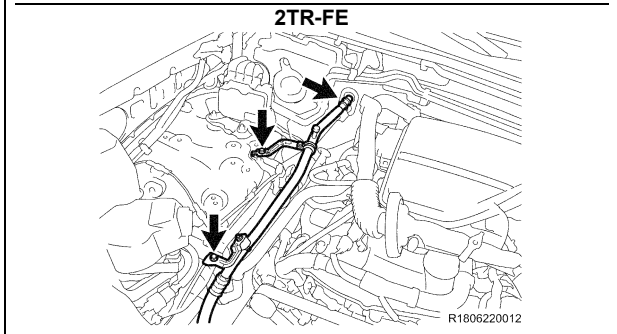
- a) Remove the 20 clips and 4 front fender apron seals.

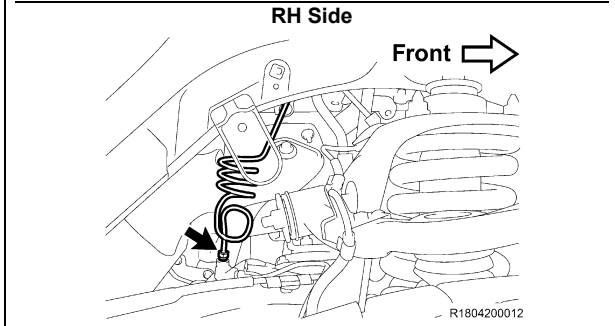
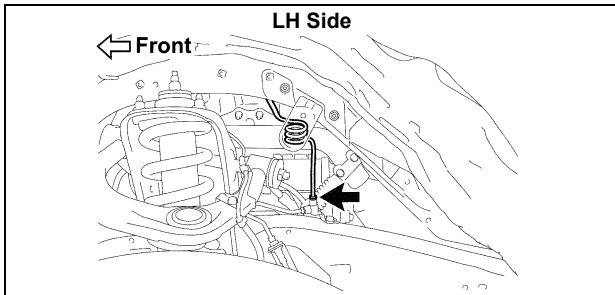


27. DISCONNECT THE AIR CONDITIONING DISCHARGE HOSE FROM THE COMPRESSOR



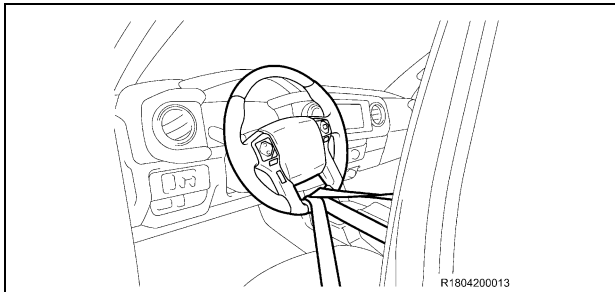
28. DISCONNECT THE SUCTION HOSE FROM THE AIR CONDITIONING UNIT ASSY





29. DISCONNECT THE FRONT BRAKE TUBES

- a) Disconnect the front brake tube.
- b) Repeat the procedure on the opposite side.

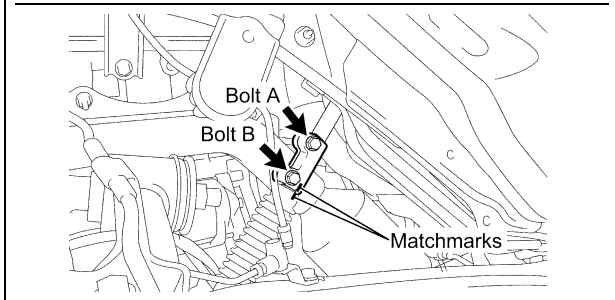


30. DISCONNECT THE STEERING SLIDING YOKE

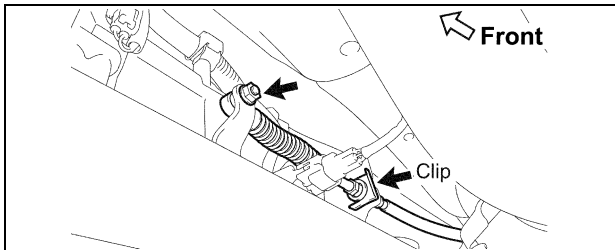
NOTE: Use precaution when performing this step, as you will need to work underneath the vehicle.

- 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, to prevent damage to the spiral cable.
- c) Place matchmarks on the steering sliding yoke and No.2 intermediate shaft.
- d) Loosen bolt (A) and remove bolt (B).
- e) Disconnect the steering sliding yoke from the No.2 intermediate shaft.

NOTE: If the steering sliding yoke is stuck, tap it from below with a brass hammer to disconnect it.



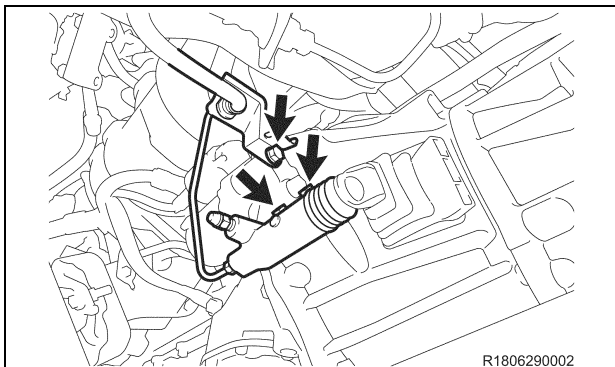
31. DISCONNECT THE SHIFT CABLE (AUTO TRANS ONLY)



- a) Remove the clip.
- b) Remove the nut and disconnect the shift cable.

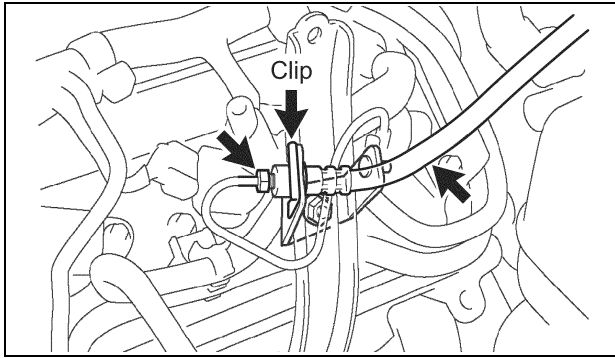
NOTE: Use precaution when performing this step, as you will need to work underneath the vehicle.

32. DISCONNECT THE CLUTCH RELEASE CYLINDER ASSY (2TR-FE MANUAL TRANS ONLY)



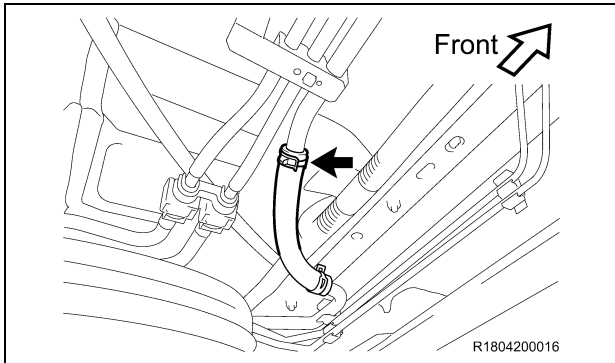
- a) Remove the bolt and disconnect the clutch hose.
- b) Remove the 2 bolts and disconnect the clutch release cylinder.

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



33. DISCONNECT THE NO.1 CLUTCH HOSE
(2GR-FKS MANUAL TRANS ONLY)

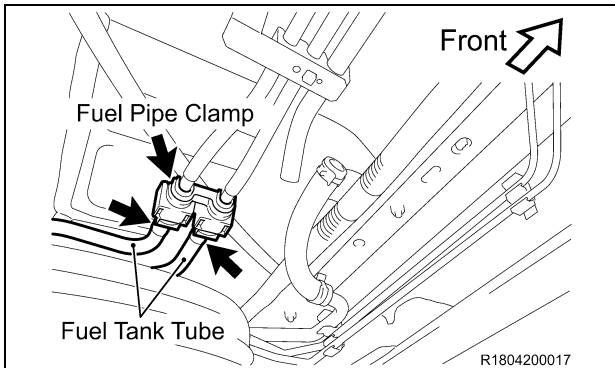
- a) Disconnect the clutch release cylinder tube from the clutch hose.
- b) Remove the clip and disconnect the clutch hose.



34. DISCONNECT THE NO.2 FUEL HOSE

- a) Remove the clip and disconnect the No.2 fuel hose.

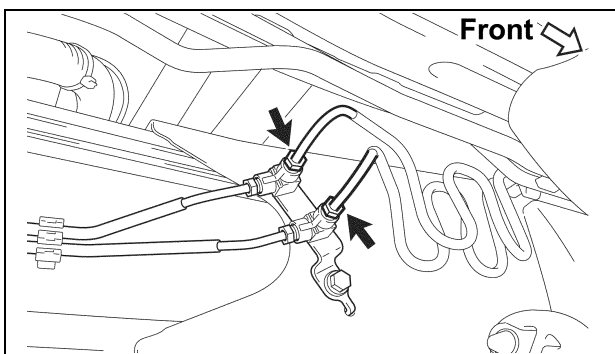
NOTE: Use precaution when performing this step, as you will need to work underneath the vehicle.



35. DISCONNECT THE FUEL TANK TUBES

- a) Remove the fuel pipe clamp.
- b) Disconnect the 2 fuel tank tubes.

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



36. DISCONNECT THE REAR BRAKE TUBES

- a) Disconnect the 2 rear brake tubes.

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

37. REMOVE THE FOLLOWING PARTS (ACCESS CAB ONLY)

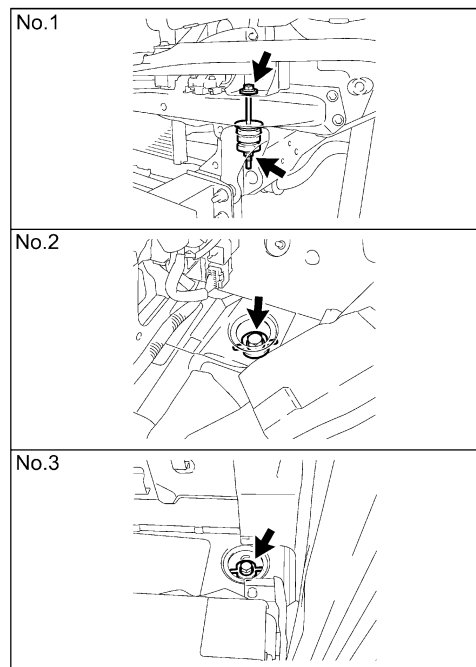
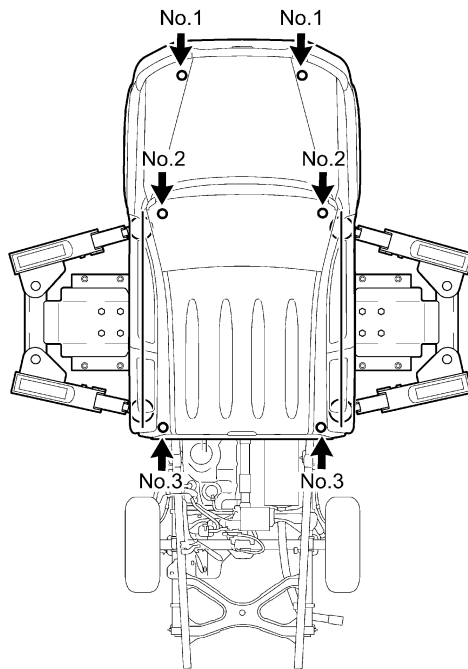
- Floor Board No.1/No.2
- Seat Floor Box
- Rear Floor Side Service Hole Cover LH/RH
- Rear Lower Console Box
- Rear Seat Cushion Assy

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

- Remove the 4 hole plugs.
- Remove the 6 nuts, 6 washers and 6 bolts.
- Set the lift arms under the cab body assy so they **DO NOT** interfere with the frame or cab mounts.
- Check that all wire harnesses, hoses, cables and the steering shaft are disconnected.
- Mark the location of the tires so it will be easier to install the cab onto the new frame.
- Lift the cab assy up slowly, making sure it does not interfere with anything while being raised.
- Raise the cab assy high enough so that the top of the engine clears the lowest point of the cab assy.
- Pull the frame assy out from under the vehicle.
- Lower the cab assy all the way down and leave it on the lift.
- Reinstall the 6 bolts, they will be used as guides during cab assy reinstallation.

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 of the cab body may become nose heavy depending on placement of the lift arm which could cause the cab to fall when lifted. To prevent this, use weights to establish a 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.



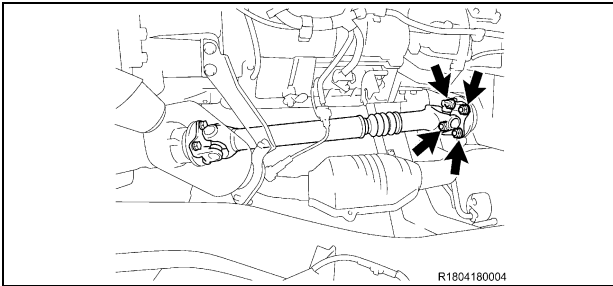
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F. DISASSEMBLE THE FRAME

1. PLACE THE FRAME ON A 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 Downs: Qty 1 (Length: 2 in X 27 ft and Min. Work Load Capacity: 3,000 lbs)



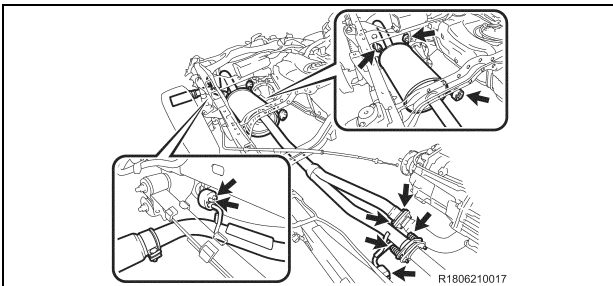
2. DISCONNECT THE FRONT PROPELLER SHAFT ASSY (4WD ONLY)

- a) Remove the 4 nuts from transfer case side of the front propeller shaft assy.

3. REMOVE THE FOLLOWING PARTS

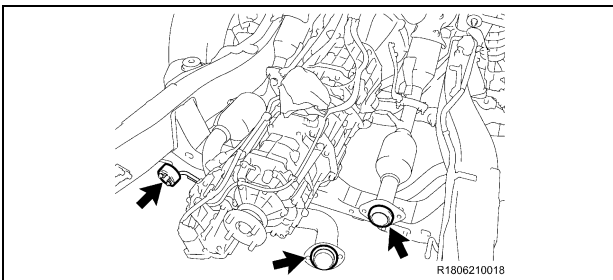
- Wheels
- Rear Propeller Shaft Assy
- Brake Tube Heat Insulator (If Equipped)
 - Insert **SST 09325-40010** into trans after the Rear Prop Shaft is removed to prevent oil leakage (2WD Only)
- Propeller Shaft Heat Insulator (If Equipped)
- Exhaust Pipe Stopper Bracket (If Equipped)

NOTE: Place matchmarks on the front (if equipped) and rear propeller shafts prior to removal.



4. REMOVE THE EXHAUST SYSTEM (2GR-FKS ONLY)

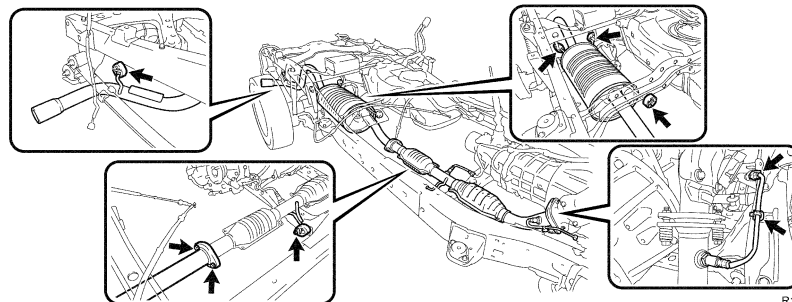
- a) Remove the 4 bolts and 2 springs.
b) Disconnect the 5 exhaust pipe supports from the frame and remove the center exhaust pipe assy.



- c) Remove the 2 exhaust pipe gaskets.
d) Disconnect the exhaust pipe support from the frame.

5. REMOVE THE EXHAUST SYSTEM (2TR-FE ONLY)

- a) Remove the 2 bolts and 2 nuts.
b) Disconnect the 4 exhaust pipe supports from the frame and remove the center exhaust pipe assy.
c) Remove the exhaust pipe gasket.
d) Disconnect the 2 oxygen sensor wire harness clamps.
e) Disconnect the exhaust pipe support from the frame.



6. REMOVE THE FOLLOWING PARTS

- No.1 Fuel Tank Protector Assy (If Equipped)
- No.2 Fuel Tank Protector (If Equipped)
- Fuel Tank Strap
- Fuel Tank
- Charcoal Canister Assy
- V-belt

7. REMOVE AND SET ASIDE THE POWER STEERING PUMP ASSY

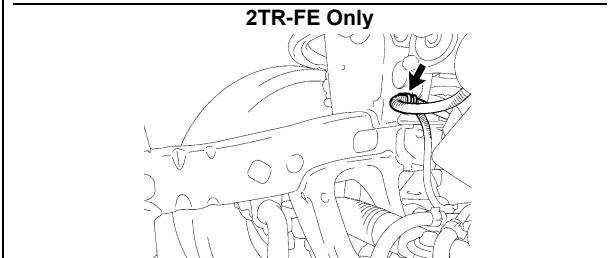
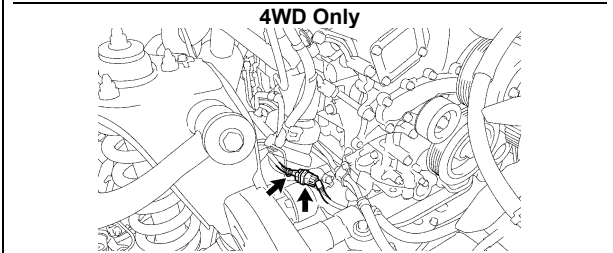
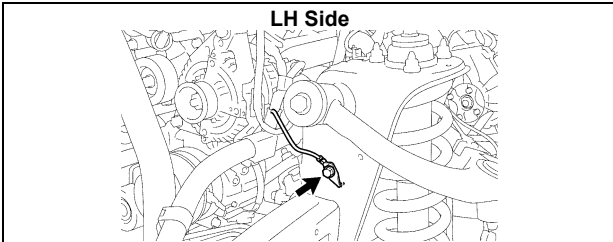
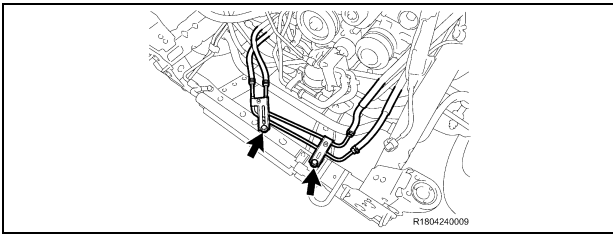
- Disconnect the connector.
- Remove the bolt and disconnect the ground wire. (2GR-FKS Only)
- Remove the 2 bolts and the power steering vane pump.

NOTE:

- DO NOT disconnect the power steering pump hoses or tubes.
- Keep the power steering pump reservoir upright to prevent the fluid from leaking out.

8. REMOVE THE FOLLOWING PARTS

- Intake Air Surge Tank (2GR-FKS Only)
- Intake Air Connector (2TR-FE Only)



9. DISCONNECT THE OIL COOLER TUBE (AUTO TRANS ONLY)

- Remove the bolts and disconnect the oil cooler tube.

10. REMOVE THE ENGINE AND TRANSMISSION ASSY

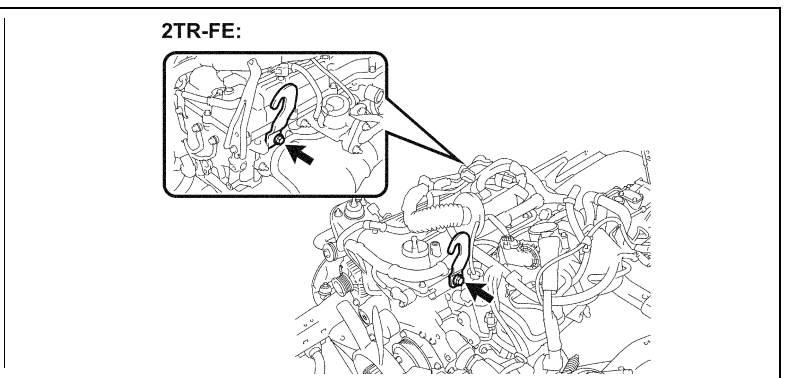
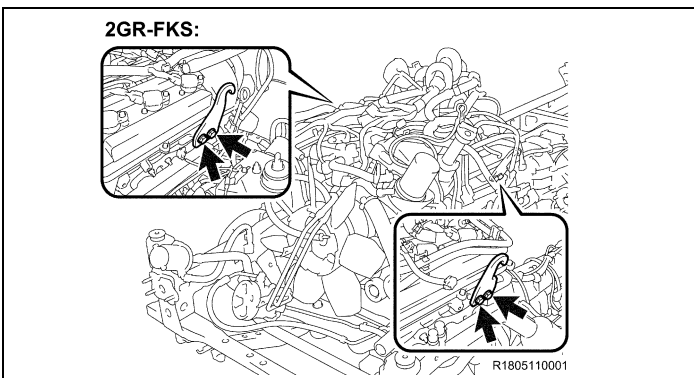
- Remove the bolt and disconnect the ground wire. (LH Side)
- Disconnect the connector and clamp. (4WD Only)
- Disconnect the clamp. (2TR-FE Only)
- Disconnect and remove the necessary items/parts to prepare the engine and transmission assy for removal.
- Install the engine hanger.

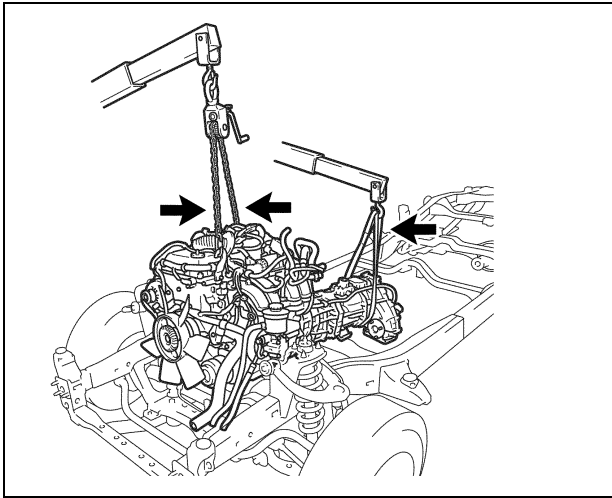
For 2GR-FKS:

- 12281-31121 = No.1 Engine Hanger
- 12282-31100 = No.2 Engine Hanger
- 90119-A0117 = 4 Bolts

For 2TR-FE:

- 12281-75050 = 2 Engine Hangers
- 91672-81025 = 2 Bolts





f) Remove the engine and transmission assy.

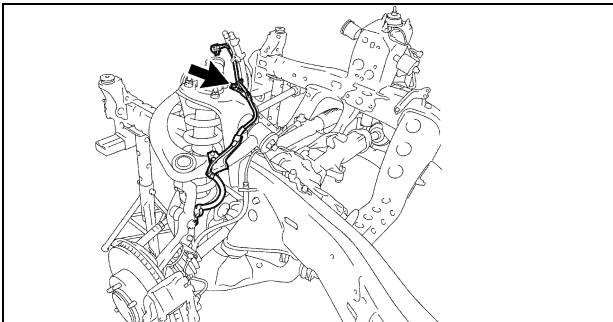
NOTE:

- Hang up the front exhaust pipe with string to avoid applying pressure at the joint part. (2TR-FE Only)
- ALWAYS use 2 engine hoists/cranes to lift it.
- DO NOT use 1 engine hoist/crane to lift the engine & transmission assy, as the unbalanced weight may lead to an accident or injury.
- ONLY use engine hoists/cranes that can properly support the weight of the engine and transmission assy.
- Carefully adjust the 2 engine hoists/cranes used so that the engine and transmission assy is properly balanced.



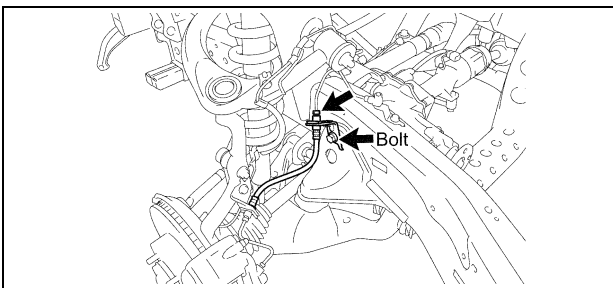
Be careful not to damage exhaust system while removing the engine and transmission assy.

11. REMOVE THE FRONT PROPELLER SHAFT (4WD ONLY)



12. DISCONNECT THE FRONT SKID CONTROL SENSOR WIRE HARNESS

- a) Remove the bolt and disconnect the skid control sensor wire harness.
- b) Repeat the procedure on the opposite side.

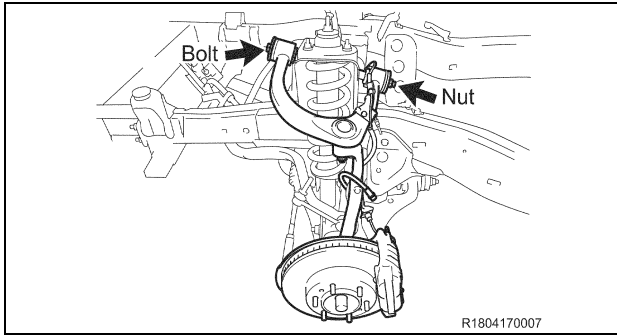


13. DISCONNECT THE FRONT BRAKE HOSE

- a) Disconnect the front brake tube from the brake hose.
- b) Remove the bolt and disconnect the front brake hose and flexible hose bracket.
- c) Repeat the procedure on the opposite side.

14. REMOVE THE FOLLOWING PARTS

- Front Axle Hub Grease Cap (4WD Only)
- Front Axle Shaft Nut (4WD Only)
- Tie Rod End*
 - * **SST 09628-62011** disconnect the tie rod end.
 - ****SST 09628-00011**
- Front Stabilizer Link Assy
- Lower Ball Joint Attachment**



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

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

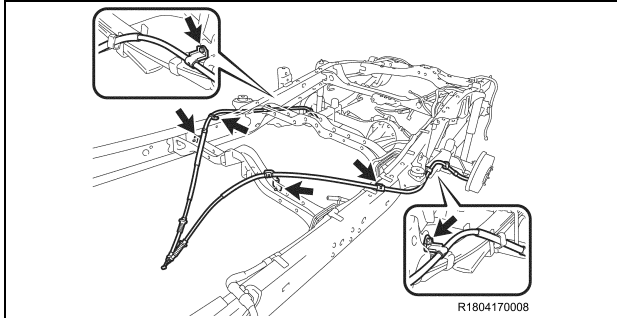
NOTE: If the drive shaft is difficult to disconnect, tap the drive shaft loose with a plastic hammer.

16. REMOVE THE FOLLOWING PARTS

- Front Drive Shaft Assy (4WD Only) *
- Front Suspension Member Brace Sub-Assy
- Front Suspension Member Bracket
- Front Stabilizer Bar
 - *SST 09520-24010 (09520-32040), 09520-01010
- Front Shock Absorber Assy
- Power Steering Link Assy w/ Pump
- Front Differential Carrier (4WD Only)

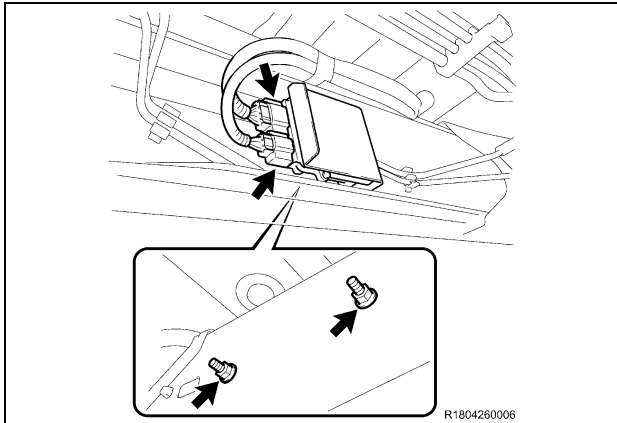
NOTE:

- When removing the power steering link with the pump, have one person support the power steering link and the other support the pump and keep it upright to avoid fluid leakage.
- If the drive shaft is difficult to remove tap it with a plastic hammer.
- Be careful not to damage the dust cover and oil seal.



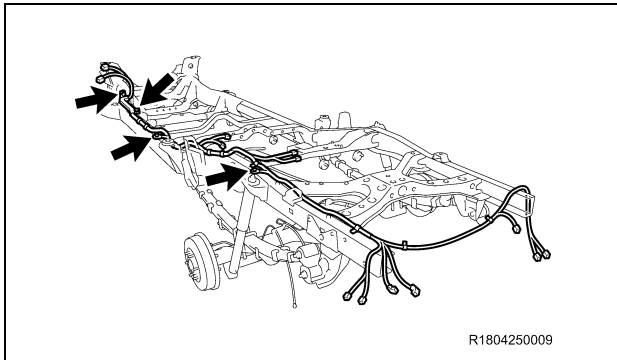
17. DISCONNECT THE PARKING BRAKE CABLES

- a) Remove the 6 bolts and disconnect the parking brake cables.



18. REMOVE THE FUEL PUMP CONTROL ECU (2GR-FKS ONLY)

- a) Disconnect the 2 connectors.
- b) Remove the 2 nuts and fuel pump control ECU.

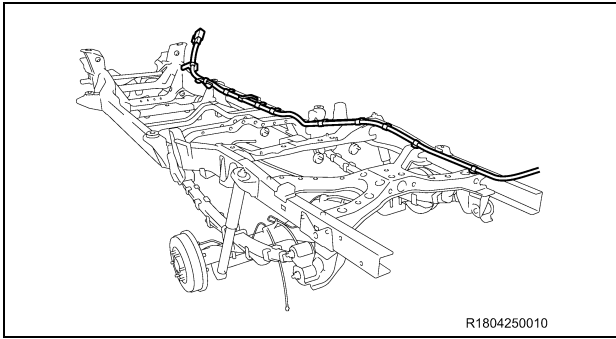


19. REMOVE THE FRAME WIRE HARNESS

- a) Remove the 2 bolts and disconnect the ground wire.
- b) Remove the 2 bolts and disconnect the frame wire harness.
- c) Disconnect the clamps 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.

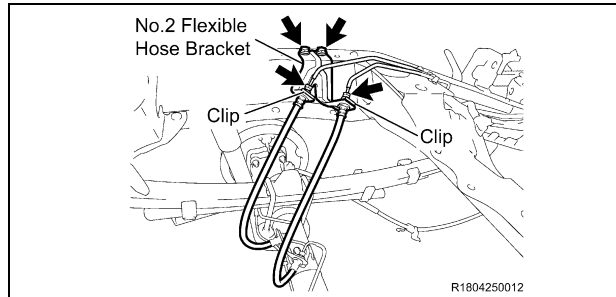


20. REMOVE THE NO.2 FRAME WIRE HARNESS (IF EQUIPPED)

- a) Disconnect the clamps and remove the frame wire harness.

NOTE:

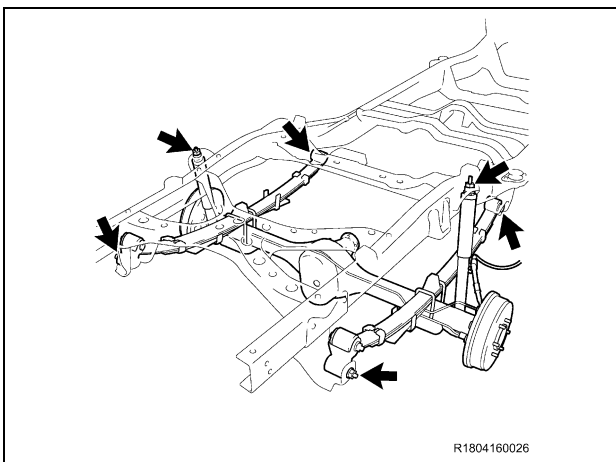
- The number of wire harness clamps will differ depending on the vehicle specification.
- Take care not to damage or break the wire harness clamps during removal.



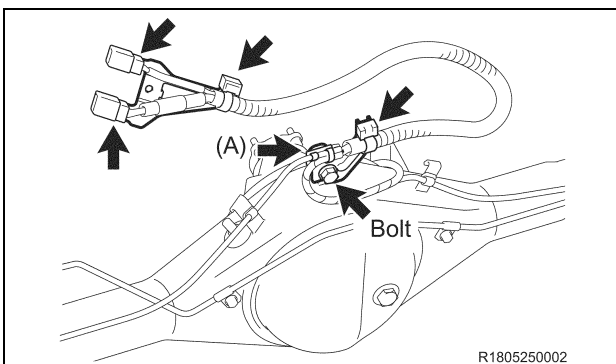
21. REMOVE THE NO.2 FLEXIBLE HOSE BRACKET

- a) Disconnect the No.5 rear brake tube.
- b) Disconnect the No.6 rear brake tube.
- c) Remove the 2 clips and disconnect the 2 brake hoses.
- d) Remove the 2 bolts and No.2 flexible hose bracket.

22. REMOVE THE SPARE TIRE CARRIER ASSY

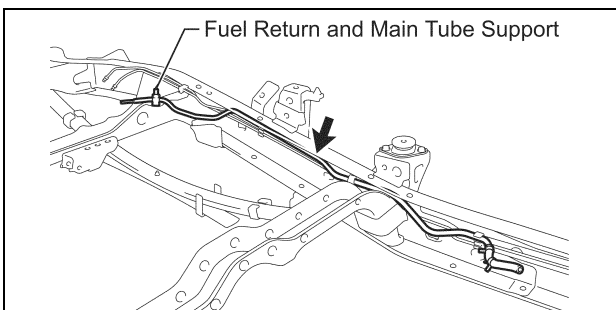


23. DISCONNECT THE LEAF SPRING AND SHOCK ABSORBER ASSY



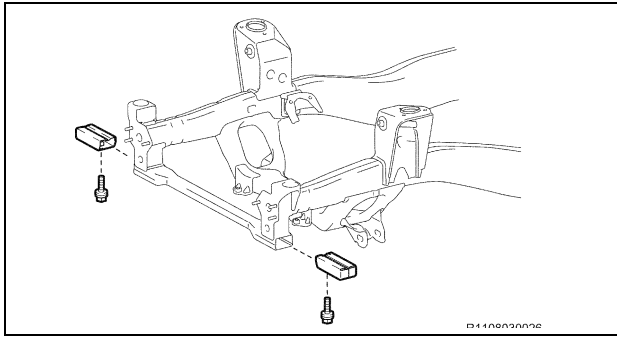
24. REMOVE THE SKID CONTROL SENSOR WIRE BRACKET (W/ REAR DIFFERENTIAL LOCK ONLY)

- a) Remove the bolt.
- b) Cut the clamp (A) using nippers.
- c) Disconnect the 2 clamps and 2 connectors to remove the 2 brackets.
- d) Remove the clamp (A) from the bracket.



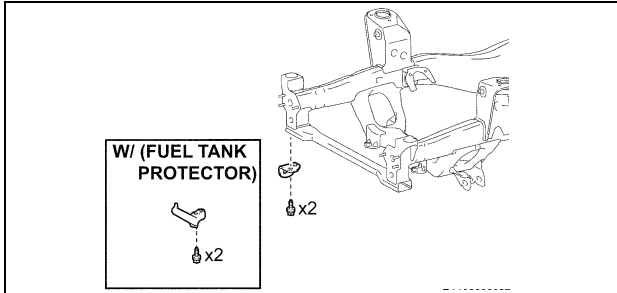
25. REMOVE THE NO.2 CHARCOAL CANISTER PIPE

- a) Disconnect the clamps and remove the No.2 charcoal canister pipe.



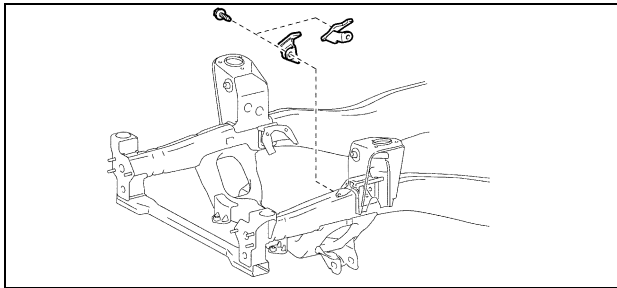
26. REMOVE THE FRAME AUXILIARY CROSSMEMBER EXTENSIONS (IF EQUIPPED)

- a) Remove the 2 bolts and frame auxiliary crossmember extensions.



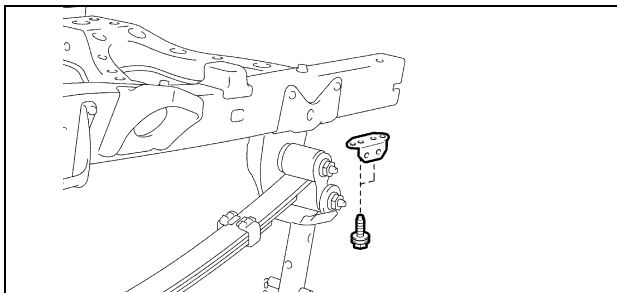
27. REMOVE THE HOOK

- a) Remove the 2 bolts and hook.



28. REMOVE THE REAR ENGINE MOUNTING REINFORCES (2GR-FKS ONLY)

- a) Remove the 2 bolts and 2 rear engine mounting reinforces.



29. REMOVE THE NO.1 RECEIVER HITCH ATTACHMENT REINFORCEMENT (IF EQUIPPED)

- a) Remove the 2 bolts and No.1 receiver hitch attachment reinforcement.

30. REMOVE THE CAB MOUNTS

31. REMOVE THE FRAME FROM THE LIFT

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

G. PLUG HOLES IN REPLACEMENT FRAME

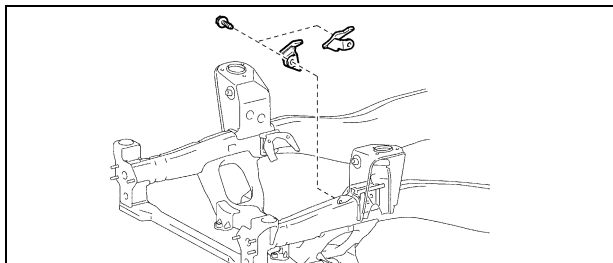
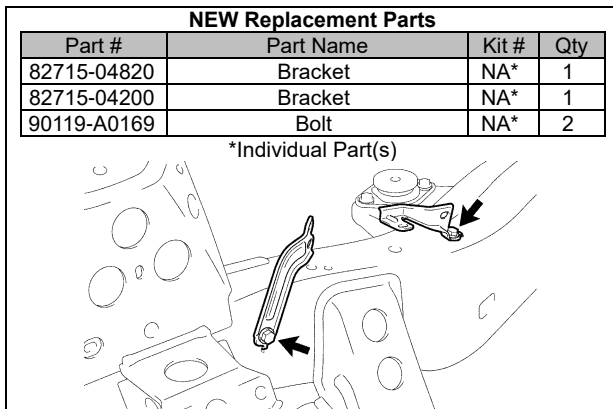
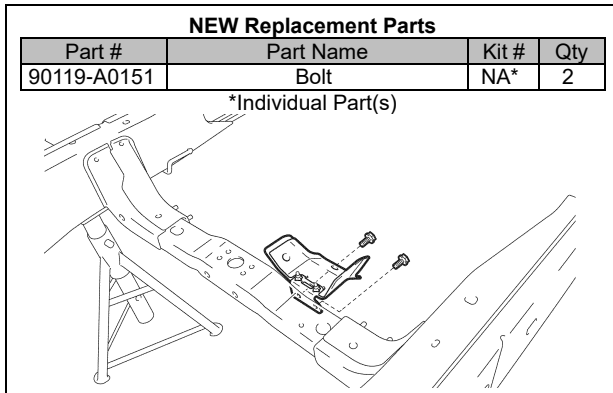
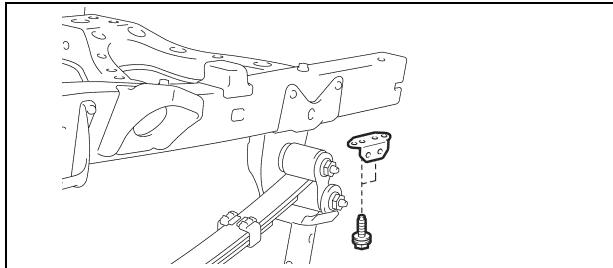
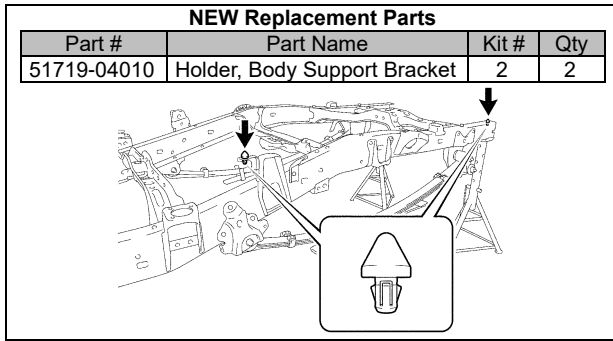
1. PLACE THE NEW FRAME ON THE LIFT

- a) Place the **NEW** frame on the lift, and secure it with a ratcheting tie down strap.
 - Ratcheting Tie Downs: Qty 1 (Length: 2 in X 27 ft and Min. Work Load Capacity: 3,000 lbs)
- b) Install all plugs. Use the picture found in appendix to reference the plug installation.

NOTE:

- You may have to remove certain stickers to install optional equipment.
- You may NOT install all the plugs in plug kit.
- Make sure all the plugs are flush with the frame.
- Make sure the surface of the frame is clean before you apply stickers.

H. ASSEMBLE THE FRAME



1. INSTALL THE *NEW* CLIPS

2. INSTALL THE NO.1 RECEIVER HITCH ATTACHMENT REINFORCEMENT (IF EQUIPPED)

- a) Install the No.1 receiver hitch attachment reinforcement with the 2 bolts and torque to spec.

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

- b) Repeat the procedure on the opposite side.

3. REINSTALL THE PROPELLER SHAFT HEAT INSULATOR (IF EQUIPPED)

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

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

4. INSTALL THE *NEW* OXYGEN SENSOR BRACKETS (2TR-FE ONLY)

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

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

5. REINSTALL THE REAR ENGINE MOUNTING REINFORCES (2GR-FKS ONLY)

- a) Reinstall the rear engine mounting reinforces with the 2 bolts and torque to spec.

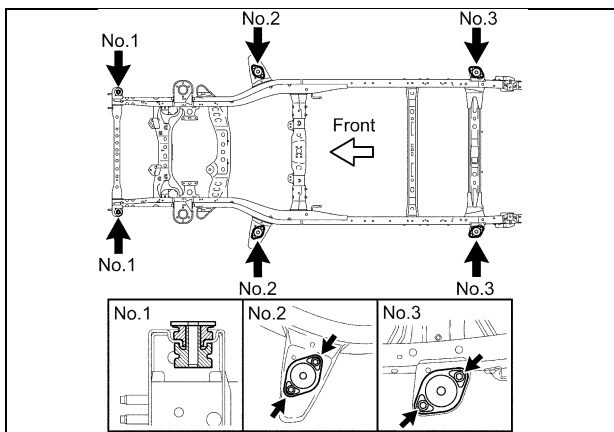
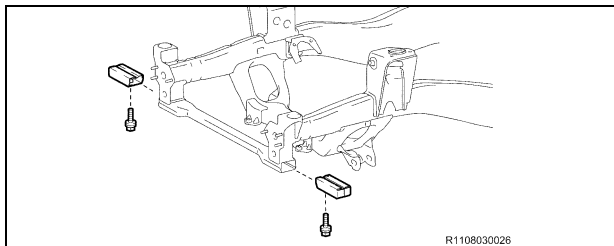
Torque Spec: 31 N·m (316 kgf·cm, 23 ft·lbf)

NEW Replacement Parts			
Part #	Part Name	Kit #	Qty
90119-A0192	Bolt	7	2
90119-A0193	Bolt	NA*	2

*Individual Part(s)

W/ (FUEL TANK PROTECTOR)

x2



6. REINSTALL THE HOOK

- a) Reinstall the hook with the 2 **NEW** bolts and torque to spec.

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

7. REINSTALL THE FRAME AUXILIARY CROSSMEMBER EXTENSION (IF EQUIPPED)

- a) Reinstall the 2 frame auxiliary crossmember extensions with the 2 bolts and torque to spec.

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

8. REINSTALL THE CAB MOUNTS

- a) Reinstall cab mounts No.1
b) Reinstall cab mounts No.2 and No.3 with the 8 bolts and torque to spec.

Torque Spec: 61 N·m (622 kgf·cm, 45 ft·lbf)

9. INSTALL THE NEW FRONT SUSPENSION LOWER ARM

- a) Install the **NEW** front suspension lower arm with the **NEW** bolt, **NEW** nut, **NEW** toe adjust cam, **NEW** No.2 toe adjust cam, **NEW** No.1 camber adjust cam and **NEW** No.2 camber adjust cam, then torque to spec.

Torque Spec:

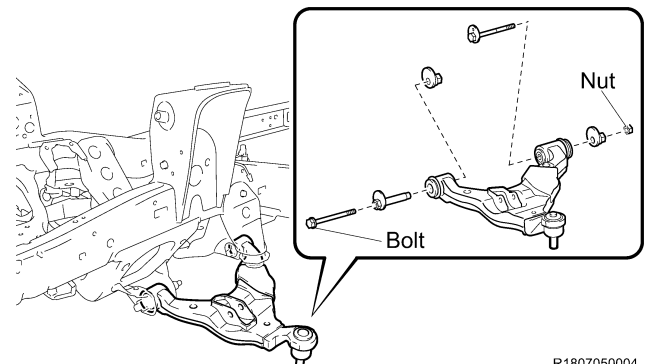
Bolt - 183 N·m (1866 kgf·cm, 135 ft·lbf)

Nut - 188 N·m (1917 kgf·cm, 137 ft·lbf)

- b) Repeat the procedure on the opposite side.

NEW Replacement Parts			
Part #	Part Name	Kit #	Qty
48068-04060	Arm Sub-Assy, Front Suspension, Lower No.1 RH	NA*	1
48069-04060	Arm Sub-Assy, Front Suspension, Lower No.1 LH	NA*	1
48190-60040	Cam, Front Suspension Camber Adjust, No.1 LH/RH	4	2
48198-60020	Cam, Front Suspension Camber Adjust, No.2 LH/RH	4	2
48409-60040	Cam Sub-Assy, Front Suspension Toe Adjust	4	2
48452-60020	Plate, Front Suspension Toe Adjust, No.2	4	2
90119-16005	Bolt	1	2
90178-16007	Nut	NA*	2

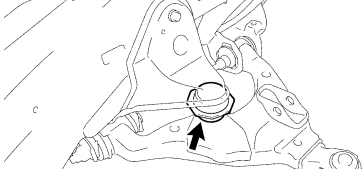
*Individual Part(s)



R1807050004

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
48304-04100	Bumper, Front Spring, LH/RH	7	2



10. INSTALL THE NEW FRONT SPRING BUMPER

- a) Using the SST **09922-10010-01**, install the **NEW** front spring bumpers and torque to spec.

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

- b) Repeat the procedure on the opposite side.

11. INSTALL THE NEW REAR BRAKE TUBES

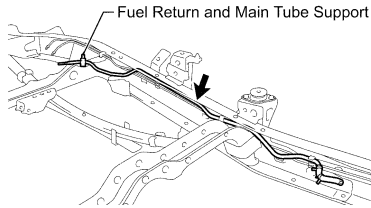
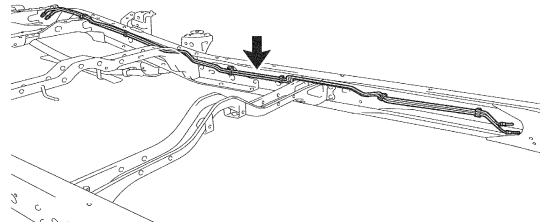
- a) Install the **NEW** rear brake tubes with the **NEW** clamp(s).

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
47325-04220	Tube, Rear Brake, No.5**	NA*	1
47325-04230	Tube, Rear Brake, No.6**	NA*	1
47326-04190	Tube, Rear Brake, No.6**	NA*	1
47326-04200	Tube, Rear Brake, No.6**	NA*	1
77285-04110	Clamp, Fuel Tube, No.1	7	3
90949-T1006	Clamp, Brake Tube, No.11	NA*	3
90949-T1006	Clamp, Brake Tube, No.11	NA*	4

*Individual Part(s)

** Only 1 part used, part number varies by vehicle type.

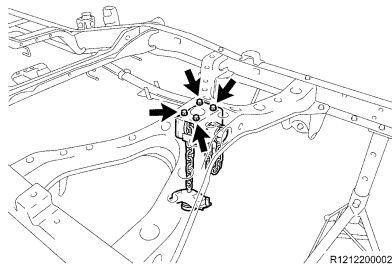


12. REINSTALL THE NO. 2 CHARCOAL CANISTER PIPE

- a) Install the fuel return and main tube support.
- b) Reinstall the No.2 charcoal canister pipe.

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90119-A0169	Bolt	2	4



13. REINSTALL THE SPARE TIRE CARRIER ASSY

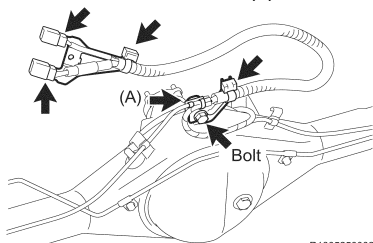
- a) Reinstall the spare tire carrier assy with the 4 **NEW** bolts and torque to spec.

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
82711-78010	Clamp	NA*	1
82715-04250	Bracket	NA*	1
82715-04260	Bracket	NA*	1
90105-A0066	Bolt	NA*	1

*Individual Part(s)



14. INSTALL THE NEW SKID CONTROL SENSOR WIRE BRACKET (W/ REAR DIFFERENTIAL LOCK ONLY)

- a) Install the **NEW** clamp (A).
- b) Install the 2 **NEW** brackets with the 2 clamps and 2 connectors.
- c) Install the **NEW** bolt.

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90177-A0010	Nut	2	2

15. REINSTALL THE LEAF SPRINGS AND SHOCK ABSORBER ASSY

- a) Reinstall the leaf springs with the 4 bolts, 4 washers and 4 nuts, then torque to spec.

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

- b) Reinstall the shock absorber assy with the 2 **NEW** nuts, 2 retainers and 2 cushions, then torque to spec.

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90119-A0169	Bolt	9	2
90468-A0007	Clip	2	2

No.2 Flexible Hose Bracket

Clip

Clip

R1804250012

16. REINSTALL THE NO.2 FLEXIBLE HOSE BRACKET

- a) Reinstall the No.2 flexible hose bracket with the 2 **NEW** bolts.
- b) Reconnect the 2 brake hoses with the 2 **NEW** clips.
- c) Reconnect the No.5 and No.6 rear brake tubes, then torque to spec.

Torque Spec:

Flexible hose bracket - 29 N·m (296 kgf·cm, 21 ft·lbf)

Rear brake tube - 15.2 N·m (155 kgf·cm, 11 ft·lbf)

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
82715-04200	Bracket	NA*	1
82715-04350	Bracket	NA*	1
82715-04770	Bracket	NA*	1
90119-A0169	Bolt	NA*	4

*Individual Part(s)

Front Side

Bolt

Bolt

R1804250014

Rear Side

Bolt

Bolt

R1804250013

17. INSTALL THE NEW NO.2 FRAME WIRE HARNESS BRACKETS (IF EQUIPPED)

- a) Install the 3 **NEW** brackets with the 4 **NEW** bolts and torque to spec.

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

R1804250010

18. REINSTALL THE NO.2 FRAME WIRE HARNESS (IF EQUIPPED)

- a) Reconnect the clamps to install the No.2 frame wire harness.

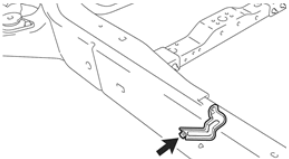
NOTE: The number of wire harness clamp will differ depending on the vehicle spec.

NEW Replacement Parts

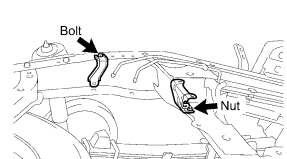
Part #	Part Name	Kit #	Qty
82715-04230	Bracket	NA*	1
82715-04740	Bracket	NA*	1
82715-04750	Bracket	NA*	1
90119-A0169	Bolt	NA*	2
90178-A0112	Nut	NA*	1

*Individual Part(s)

Front Side



Rear Side



R180420015

19. INSTALL THE NEW FRAME WIRE HARNESS BRACKETS

- a) Install the 3 **NEW** brackets with the 2 **NEW** bolts and **NEW** nut, then torque to spec.

Torque Spec:

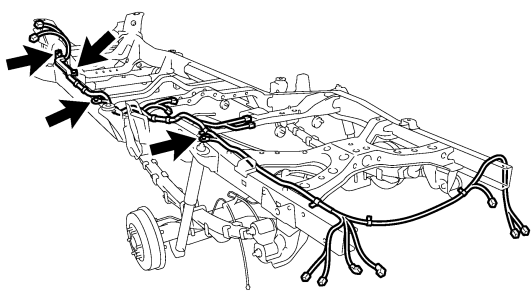
Bolt - 14 N·m (143 kgf·cm, 10 ft·lbf)

Nut - 20 N·m (204 kgf·cm, 15 ft·lbf)

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90119-A0238	Bolt	NA*	2

*Individual Part(s)



R1804250009

20. REINSTALL THE FRAME WIRE HARNESS

- a) Reconnect the clamps to install the frame wire harness.
- b) Reconnect the frame wire harness with the 2 **NEW** bolts and torque to spec.

Torque Spec: 19.5 N·m (199 kgf·cm, 14 ft·lbf)

- c) Reconnect the ground wire with the 2 bolts and torque to spec.

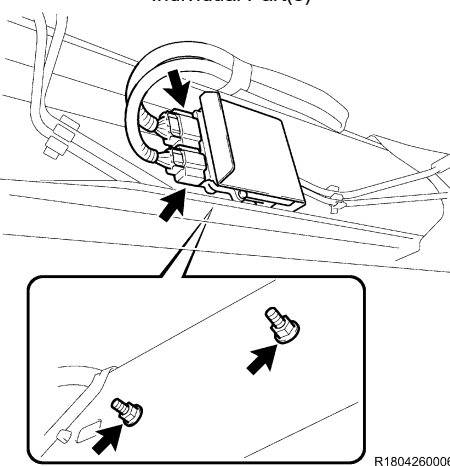
Torque Spec: 19 N·m (194 kgf·cm, 14 ft·lbf)

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90178-A0048	Nut	NA*	2

*Individual Part(s)



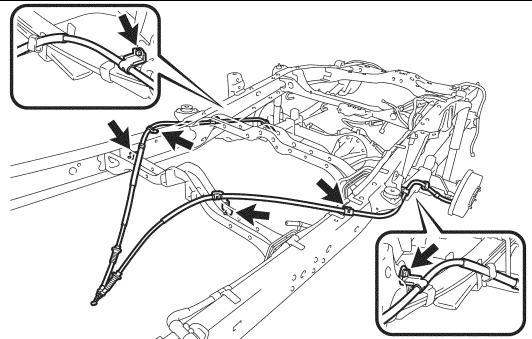
R1804260006

21. REINSTALL THE FUEL PUMP CONTROL ECU (2GR-FKS ONLY)

- a) Reinstall the fuel pump control ECU with the 2 **NEW** nuts and torque to spec.

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

- b) Reconnect the connector.



R1804170008

22. RECONNECT THE PARKING BRAKE CABLES

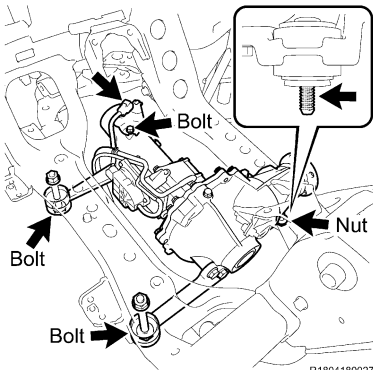
- a) Reinstall the 2 parking brake cables with the 6 bolts, then torque to spec.

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

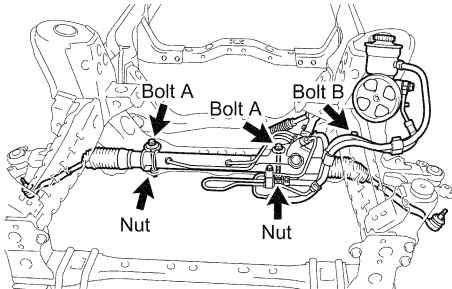
NEW Replacement Parts

Part #	Part Name	Kit #	Qty
82715-04730	Bracket	NA*	1
90119-A0141	Bolt	NA*	1

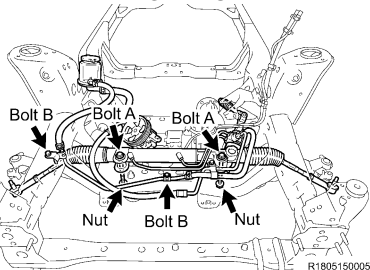
*Individual Part(s)



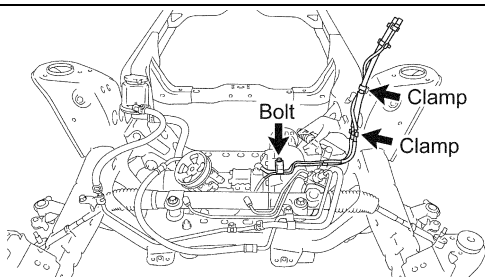
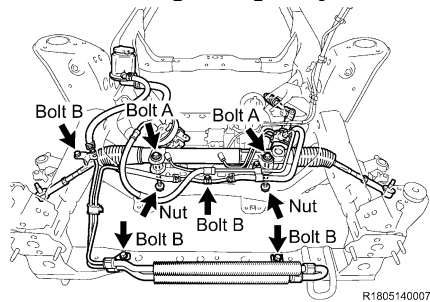
2TR-FE



2GR-FKS



Towing Package Only



23. REINSTALL THE FRONT DIFFERENTIAL CARRIER (4WD ONLY)

- Apply adhesive to the serration bolt.
- Reinstall the front differential carrier with the 2 bolts, 4 stoppers and 3 nuts, then torque to spec.

Torque Spec: Except TMMTX Made
Bolt - 137.3 N·m (1400 kgf·cm, 101 ft·lbf)
Nut - 87.2 N·m (889 kgf·cm, 64 ft·lbf)

Torque Spec: TMMTX Made
Bolt - 128.5 N·m (1310 kgf·cm, 95 ft·lbf)
Nut - 81.5 N·m (831 kgf·cm, 60 ft·lbf)

- Disconnect the connector from the bracket.
- Remove the bolt and bracket.
- Install the **NEW** bracket with the **NEW** bolt and torque to spec.

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

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

- Reinstall the power steering link assy w/ power steering vane pump with the bolts and nuts, then torque to spec.

Bolt A - 95 N·m (969 kgf·cm, 70 ft·lbf)
Bolt B - 28 N·m (286 kgf·cm, 21 ft·lbf)

NOTE:

- When reinstalling the power steering link with the pump, have one person support the power steering link and the other support the pump.
- Keep the power steering pump reservoir upright to prevent the fluid from leaking out.

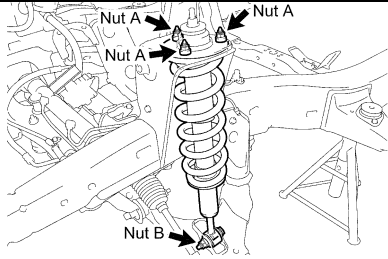
25. RECONNECT THE FRONT DIFFERENTIAL BREATHER TUBE (4WD ONLY)

- Reconnect the front differential breather tube with the bolt and 2 clamps, then torque to spec.

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90080-17215	Nut	2	6



26. REINSTALL THE FRONT SHOCK ABSORBER ASSY

- Install the 3 **NEW** nuts (A) and torque to spec.
- Reinstall the front shock absorber assy with the bolt and nut (B), then torque to spec.

Torque Spec:

Nut A - 64 N·m (653 kgf·cm, 47 ft·lbf)

Nut B - 83 N·m (846 kgf·cm, 61 ft·lbf)

- Repeat the procedure on the opposite side.

27. REINSTALL THE FRONT STABILIZER BAR

- Reinstall the stabilizer bar with 2 brackets and 4 bolts, then torque to spec.

Torque Spec: 50 N·m (510 kgf·cm, 37 ft·lbf)

28. REINSTALL THE FRONT SUSPENSION MEMBER BRACKET

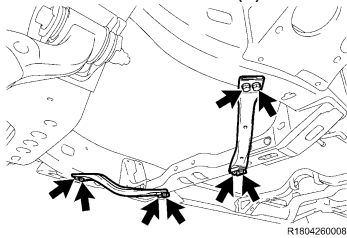
- Reinstall the front suspension member bracket with **NEW** 8 bolts and torque to spec.

Torque Spec: 33 N·m (337 kgf·cm, 24 ft·lbf)

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
91674-80830	Bolt	NA*	8

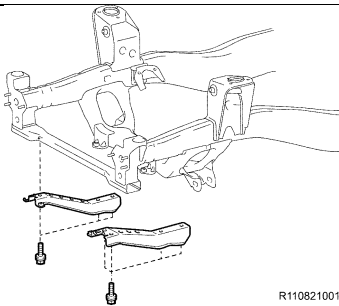
*Individual Part(s)



29. REINSTALL THE FRONT SUSPENSION MEMBER BRACE SUB-ASSY

- Reinstall the front suspension member brace sub-assy with 7 bolts and torque to spec.

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



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

- Remove the oil seal.
- Install the **NEW** oil seal.
- Install a **NEW** snap ring.
- Reinstall the front drive shaft assy.
- Repeat the procedure on the opposite side.

NOTE:

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
43425-04040	Ring, Shaft Snap (For Front Drive Inner Shaft Outer)	NA*	2
90311-47026	Seal, Oil (For Differential Side Gear Shaft)	3	1
90311-47027			

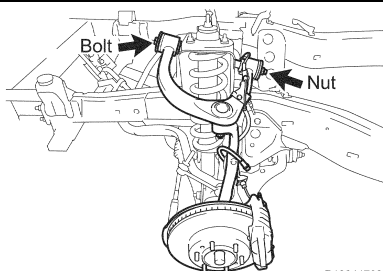
*Individual Part(s)

31. REINSTALL THE FRONT SUSPENSION UPPER ARM AND STEERING KNUCKLE ASSY

- Reinstall the front suspension upper arm w/ steering knuckle with the bolt, nut and 2 washers, then torque to spec.

Torque Spec: Nut - 115 N·m (1173 kgf·cm, 85 ft·lbf)

- Repeat the procedure on the opposite side.



NEW Replacement Parts

Tie Rod End

Part #	Part Name	Kit #	Qty
95381-03225	Cotter Pin	4	2

Lower Ball Joint Attachment

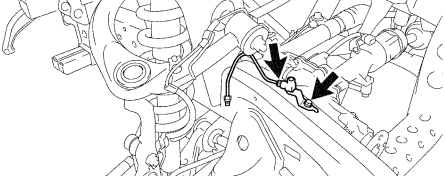
Part #	Part Name	Kit #	Qty
90171-A0005	Nut, Castle (For Front Lower Ball Joint)	2	2
95381-03230	Cotter Pin	4	2

32. REINSTALL THE FOLLOWING PARTS

- Lower Ball Joint Attachment
 - Reinstall the lower ball joint attachment with the **NEW** nut and 2 bolts, then torque to spec.
 - **Torque Spec:**
Nut - 140 N·m (1428 kgf·cm, 103 ft·lbf)
Bolt - 160 N·m (1632 kgf·cm, 118 ft·lbf)
 - Install the **NEW** cotter pin.
 - Repeat the procedure on the opposite side.
- Front Stabilizer Link Assy
 - Reinstall front stabilizer link with 2 nuts, then torque to spec.
 - **Torque Spec: 70 N·m (714 kgf·cm, 52 ft·lbf)**
 - Repeat the procedure on the opposite side.
- Tie Rod End
 - Reinstall tie rod end with nut and torque to spec.
Torque Spec: 91 N·m (928 kgf·cm, 67 ft·lbf)
 - Install the **NEW** cotter pin.
 - Repeat the procedure on the opposite side.
- Front Axle Shaft Nut (*4WD Only*)
 - Temporarily reinstall the front axle nut.
 - Nut will be tightened when the vehicle is completed.
 - Repeat the procedure on the opposite side.

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
47314-04160	Tube, Front Brake, No.4	9	1
47316-04160	Tube, Front Brake, No.6	9	1
90119-A0169	Bolt	9	2
90412-10289	Way (For Front Brake Tube)	1	2

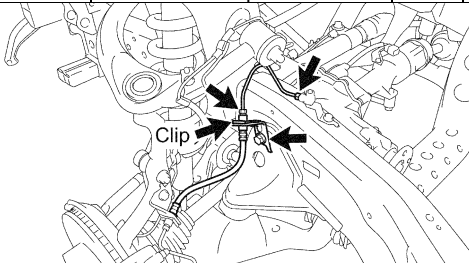


33. INSTALL THE NEW FRONT BRAKE TUBE AND NEW 2 WAY

- a) Temporarily install the **NEW** front brake tube and **NEW** 2 way.
- b) Install the **NEW** bolt to the 2 way and torque to spec.
Torque Spec: 32 N·m (326 kgf·cm, 24 ft·lbf)
- c) Repeat the procedure on the opposite side.

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90119-A0169	Bolt	9	2
90468-A0007	Clip	2	2

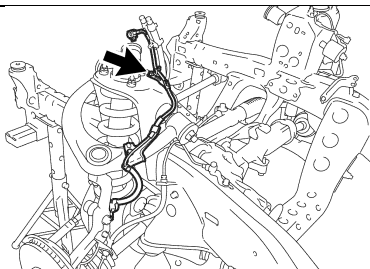


34. REINSTALL THE FRONT BRAKE HOSE

- a) Reinstall the flexible hose bracket with the **NEW** bolt and torque to spec.
Torque Spec: 32 N·m (326 kgf·cm, 24 ft·lbf)
- b) Reconnect the front brake hose with a **NEW** clip.
- c) Reconnect the front brake tube and torque to spec.
Torque Spec: 15. 2 N·m (155 kgf·cm, 11 ft·lbf)
- d) Repeat the procedure on the opposite side.

35. RECONNECT THE FRONT SKID CONTROL SENSOR WIRE HARNESS

- a) Reinstall the front skid control sensor wire harness with bolt and torque to spec.
Torque Spec: 12.5 N·m (127 kgf·cm, 9 ft·lbf)
- b) Repeat the procedure on the opposite side.



36. REINSTALL THE WHEELS

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

- Referencing the matchmarks, reinstall the propeller shaft assy to the front differential.
- Reinstall the 4 bolts, 4 washers and 4 nuts, then torque to spec.

Torque Spec: 88.2 N·m (899 kgf·cm, 65 ft·lbf)

38. REINSTALL THE ENGINE AND TRANSMISSION ASSY

- Reinstall engine and transmission assy.

NOTE:

- Hang up the front exhaust pipe with string to avoid applying pressure at the joint part. *(2TR-FE Only)*
- Use 2 engine hoists/cranes to lift engine & trans assy.
- **DO NOT** use 1 engine hoist/crane to lift the engine & trans assy, the unbalanced weight may lead to an accident or injury.
- **ONLY** use engine hoists/cranes that can properly support the weight of the engine & trans.
- Carefully adjust the 2 engine hoists/cranes used so that the engine & trans assy is balanced.

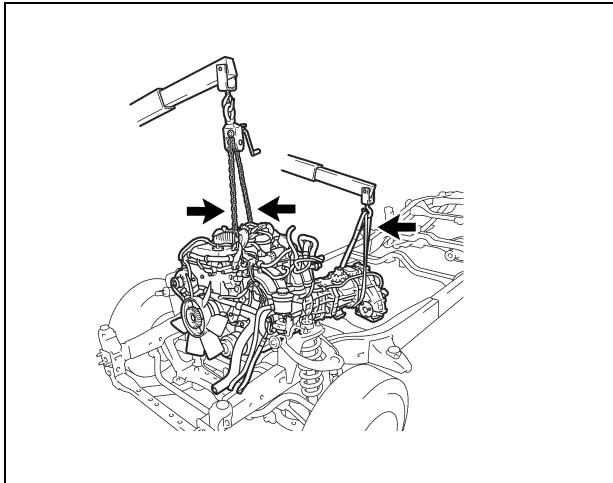
- Attach the engine mounts with the 4 **NEW** bolts and 4 **NEW** nuts, then torque to spec.

Torque Spec: 50 N·m (510 kgf·cm, 37 ft·lbf)

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

Torque Spec: 21 N·m (214 kgf·cm, 15 ft·lbf)

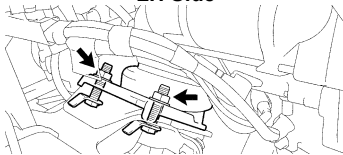
- Remove the bolt(s) and the engine hangers.
- Reinstall the items/parts that were removed during the engine and transmission assy removal.



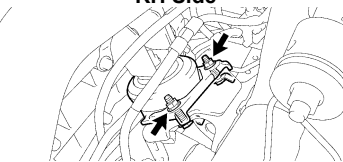
NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90910-03001	Bolt	1	4
94151-21001	Nut	1	4

LH Side

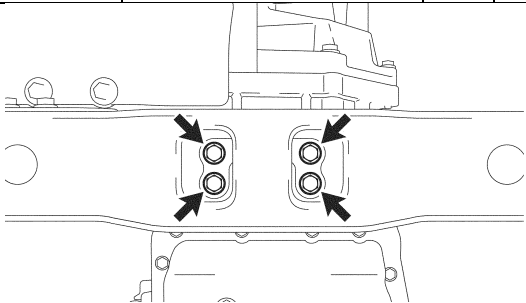


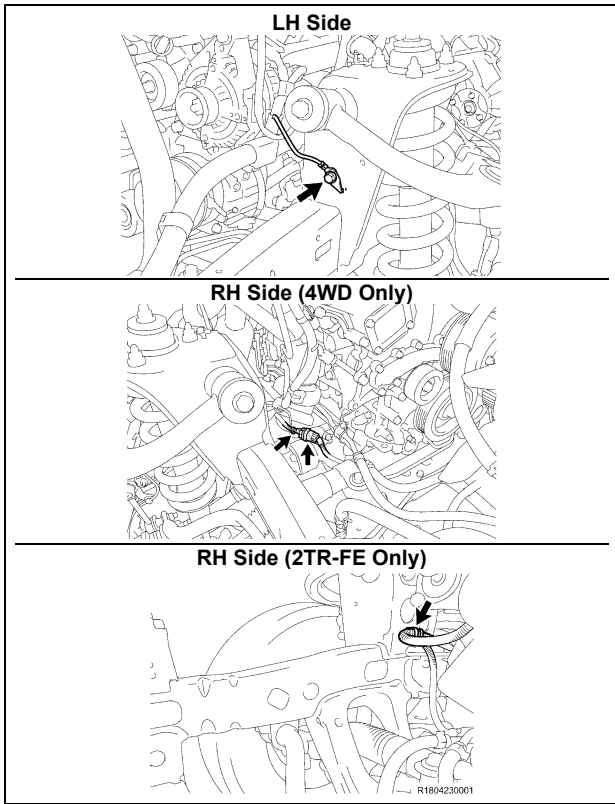
RH Side



NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90119-A0210	Bolt	7	4



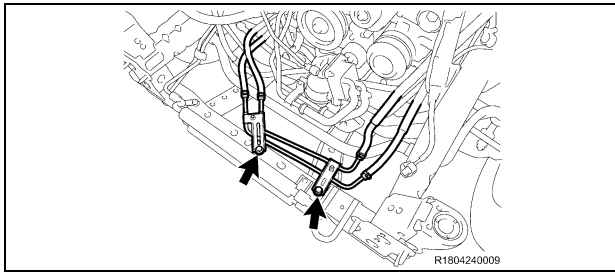


f) Reinstall the bolt and reconnect the ground wire. *(LH Side)*

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

g) Reconnect the connector and clamp. *(4WD Only)*

h) Reconnect the clamp. *(2TR-FE Only)*



39. RECONNECT THE OIL COOLER TUBE (AUTO TRANS ONLY)

a) Reconnect the oil cooler tube with the 2 bolts and torque to spec.

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
17176-31130	Gasket, Air Surge Tank to Intake Manifold	5	1

40. REINSTALL THE INTAKE AIR SURGE TANK (2GR-FKS ONLY)

a) Install a **NEW** gasket onto the intake air surge tank.
 b) Reinstall the intake air surge tank with the 5 bolts and torque to spec.

Torque Spec: 21 N·m (214 kgf·cm, 15 ft·lbf)

c) Reinstall the 2 intake air surge tank nuts and torque to spec.

Torque Spec: 21 N·m (214 kgf·cm, 15 ft·lbf)

d) Reinstall the 2 surge tank stays with the 4 bolts, then torque to spec.

Torque Spec: 21 N·m (214 kgf·cm, 15 ft·lbf)

e) Reinstall the throttle body bracket with the 2 bolts, then torque to spec.

Torque Spec: 21 N·m (214 kgf·cm, 15 ft·lbf)

f) Reconnect the 2 wire harness clamps and hose clamp.
 g) Reconnect the throttle body w/ motor connector.
 h) Reconnect the 2 water by-pass hoses.
 i) Reconnect the PCV hose.
 j) Reconnect the intake air control valve connector.

41. REINSTALL THE INTAKE AIR CONNECTOR (2TR-FE ONLY)

- a) Reinstall the intake air connector with the 3 bolts, then torque to spec.

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

- b) Tighten the hose clamp bolts.

Torque Spec: 5.0 N·m (51 kgf·cm, 44 in·lbf)

- c) Reconnect the vacuum hose.
- d) Reconnect the No.2 ventilation hose.
- e) Reconnect the vacuum hose.
- f) Reconnect the wire harness clamp.
- g) Reconnect the pressure sensor connector.

42. REINSTALL THE POWER STEERING PUMP ASSY

- a) Reinstall the bolt and reconnect the ground wire and torque to spec. *(2GR-FKS Only)*

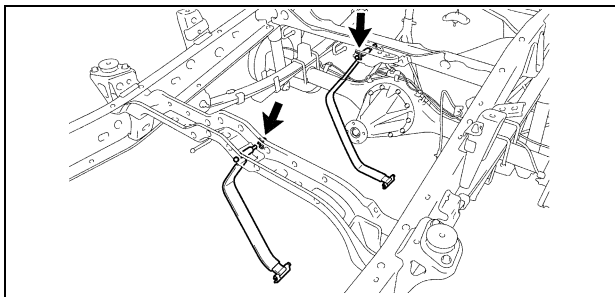
Torque Spec: 8.5 N·m (87 kgf·cm, 75 in·lbf)

- b) Reinstall the power steering vane pump with the 2 bolts, then torque to spec.

Torque Spec: 21 N·m (214 kgf·cm, 15 ft·lbf)

- c) Reconnect the connector.

43. REINSTALL THE V-BELT



44. REINSTALL THE FUEL TANK STRAPS

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

NEW Replacement Parts

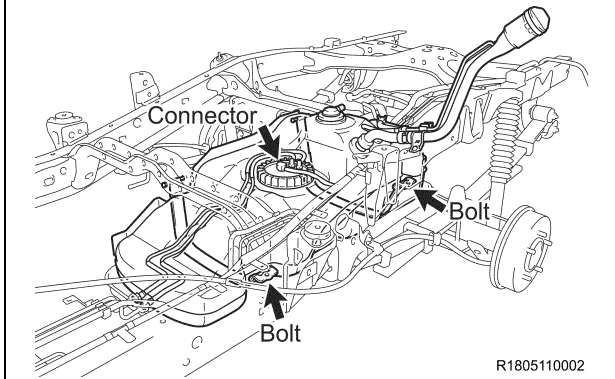
Part #	Part Name	Kit #	Qty
90119-A0249	Bolt	2	2

45. REINSTALL THE FUEL TANK

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

Torque Spec: 62 N·m (632 kgf·cm, 46 ft·lbf)

- b) Reconnect the connector.



46. REINSTALL THE NO.2 FUEL TANK PROTECTOR (IF EQUIPPED)

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90179-08241	Nut	NA*	4

*Individual Part(s)

47. REINSTALL THE NO.1 FUEL TANK PROTECTOR ASSY (IF EQUIPPED)

- a) Reinstall the No.1 fuel tank protector assy with the 4 **NEW** nuts and torque to spec.

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
77285-04100	Clamp, Fuel Tube, No.1	NA*	1
90105-A0066	Bolt	NA*	1

*Individual Part(s)

R1804270010

48. REINSTALL THE CHARCOAL CANISTER ASSY

- Reinstall the charcoal canister assy with the bolt and 2 nuts, then torque to spec.

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

- Reconnect the 2 fuel tank vent hoses.
- Reconnect the fuel hose.
- Install the **NEW** clamp.
- Reconnect the connector.
- w/ Rear Differential Lock:
Install the **NEW** bolt and connect the skid control sensor wire bracket and torque to spec.
w/o Rear Differential Lock:
Install the bolt and reconnect the skid control sensor wire bracket and torque to spec.

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

49. REINSTALL THE EXHAUST SYSTEM (2GR-FKS ONLY)

- Reconnect the exhaust pipe support to the frame.
- Install the 2 **NEW** exhaust pipe gaskets.

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
17451-0D060	Gasket, Exhaust Pipe	5	1
90917-06083	Gasket, Exhaust Pipe, No.2	NA*	1

*Individual Part(s)

R1806210018

- Reconnect the 5 exhaust pipe supports to the frame and reinstall the center exhaust pipe assy.
- Install the 2 **NEW** bolts and 2 **NEW** springs, then torque to spec.

Torque Spec: 43 N·m (438 kgf·cm, 32 ft·lbf)

- Install the 2 **NEW** bolts and 2 nuts, then torque to spec.

Torque Spec: 48 N·m (489 kgf·cm, 35 ft·lbf)

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90080-10064	Bolt	5	2
90080-10291	Bolt	5	2
90501-A0031	Spring	5	2

R1806210017

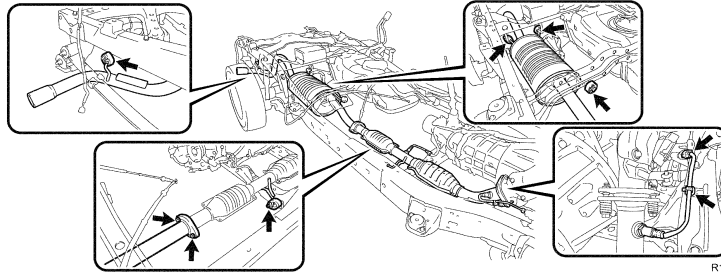
50. REINSTALL THE EXHAUST SYSTEM (2TR-FE ONLY)

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90080-10064	Bolt	6	2
90080-43033	Gasket	6	1
90177-A0004	Nut	6	2

- Reconnect the exhaust pipe support to the frame.
- Reconnect the 2 oxygen sensor wire harness clamps.
- Install the **NEW** exhaust pipe gasket.
- Reconnect the 4 exhaust pipe supports to the frame and reinstall the center exhaust pipe assy.
- Install the 2 **NEW** bolts and 2 **NEW** nuts, then torque to spec.

Torque Spec: 48 N·m (489 kgf·cm, 35 ft·lbf)



R1804170005

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90080-11180	Bolt	5	2

51. REINSTALL THE EXHAUST PIPE STOPPER BRACKET (IF EQUIPPED)

- Reinstall the exhaust pipe stopper bracket with the 2 **NEW** bolts and torque to spec.

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

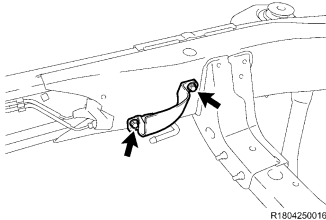
NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90119-A0169	Bolt	9	2

52. REINSTALL THE BRAKE TUBE HEAT INSULATOR (IF EQUIPPED)

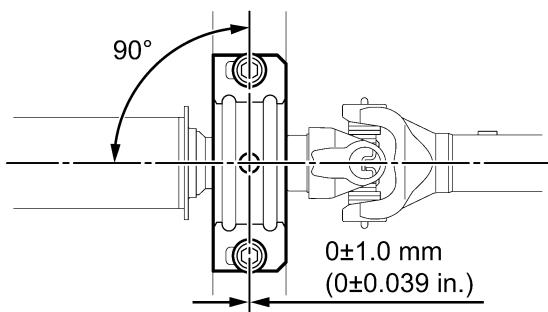
- Reinstall the brake tube heat insulator with the 2 **NEW** bolts and torque to spec.

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



R1804250016

Center Bearing Center Line



Center Bearing Housing Center Line R1805080001

53. REINSTALL THE REAR PROPELLER SHAFT ASSY

- Referencing the matchmarks, reinstall the propeller shaft assy to the transmission / transfer case.
- Reinstall the 4 washers and 4 nuts, then torque to spec.
- Reinstall the center support bearing to the frame as shown in the illustration with 2 washer and 2 bolts, then torque to spec. **(3-Joint Type Only)**

Torque Spec: 88.2 N·m (899 kgf·cm, 65 ft·lbf)

- Referencing the matchmarks, reinstall the propeller shaft assy to the rear differential with 4 bolts, 4 washers and 4 nuts, then torque to spec.

Torque Spec: 88.2 N·m (899 kgf·cm, 65 ft·lbf)

54. RECONNECT THE FRONT PROPELLER SHAFT ASSY (4WD ONLY)

- Referencing the matchmarks, reconnect the front propeller shaft assy to the transfer case and the front differential with 4 bolts, 4 washers and 4 nuts, then torque to spec.

Torque Spec: 88.2 N·m (899 kgf·cm, 65 ft·lbf)

55. REMOVE THE FRAME FROM THE LIFT

- Remove the ratcheting tie down strap from the frame.
- Lower the frame to the ground.

I. REINSTALL THE CAB BODY ASSY



Before lowering the cab assembly ensure that you install the *NEW* brakelines onto the bulk head.

NEW Replacement Parts			
Part #	Part Name	Kit #	Qty
47313-04250	Tube, Front Brake, No.3**	NA*	1
47313-04260		8	1
47315-04171	Tube, Front Brake, No.5**	8	1
47315-04200		NA*	1
47323-04200	Tube, Rear Brake, No.3**	NA*	1
47323-04210		8	1
47324-04160	Tube, Rear Brake, No.4**	NA*	1
47324-04170		8	1

*Individual Part(s)
**Only 1 part used, part number varies by vehicle type.

1. INSTALL THE *NEW* ENGINE COMPARTMENT BRAKE TUBES

- Install the *NEW* No.3 and *NEW* No.5 front brake tubes.
- Install the *NEW* No.3 and *NEW* No.4 rear brake tubes.
- Torque all brake tubes to spec.

Torque Spec:

Flare Nut (M10) - 15.2 N·m (155 kgf·cm, 11 ft·lbf)

Flare Nut (M12) - 19.5 N·m (199 kgf·cm, 14 ft·lbf)

2. REINSTALL THE CAB BODY ASSEMBLY

- Raise the cab assy high enough so that the top of the engine clears the lowest point of the cab.
- Push the frame under the cab assy and line the tires up with the alignment marks.
- Lower the cab assy slowly, making sure it does not interfere with anything.
- Adjust the vehicle's frame as needed to align the cab mounts with the cab assy bolts.
- Once the cab assy is set on the mounts, secure it to the frame with 6 bolts, 6 nuts, 6 washers and torque to spec.

Torque Spec:

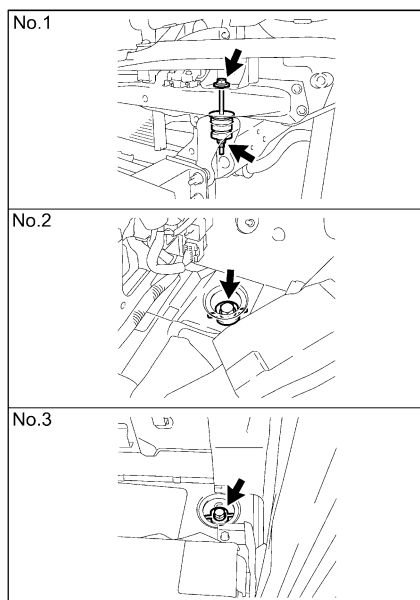
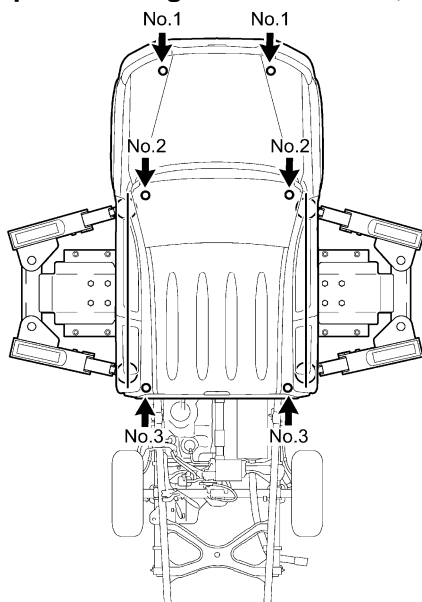
No.1 - 37.5 N·m (382 kgf·cm, 28 ft·lbf)

No.2, No.3 - 45 N·m (459 kgf·cm, 33 ft·lbf)

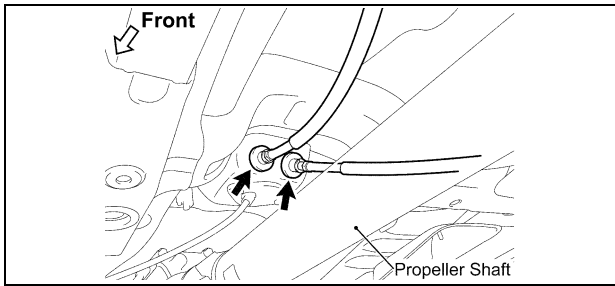
- Reinstall the 4 hole plugs.

NOTE:

- DO NOT work directly underneath the vehicle when pushing the frame under the cab assy.
- Slowly lower the cab assy making sure the wire harness, steering shaft & hoses don't interfere.
- With 2 to 3 people checking for interference, slowly lower the cab body assembly to the frame.



R1807050003



3. RECONNECT THE PARKING BRAKE CABLE

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90119-A0169	Bolt	9	1
90412-10276	Way, No.2 (For Rear Brake Tube)	2	1

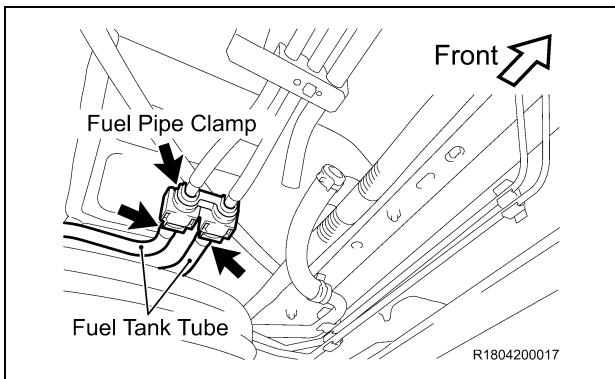
4. CONNECT THE REAR BRAKE TUBES

- Temporarily install the **NEW** 2 way with the **NEW** bolt.
- Temporarily install the 4 rear brake tubes.
- Torque the bolt to spec.

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

- Torque the 4 rear brake tubes to spec.

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

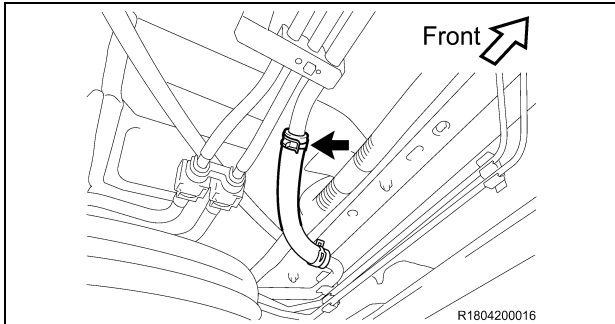


5. RECONNECT THE FUEL TANK TUBES

- Reconnect the 2 fuel tank tubes.
- Reinstall the fuel pipe clamp.

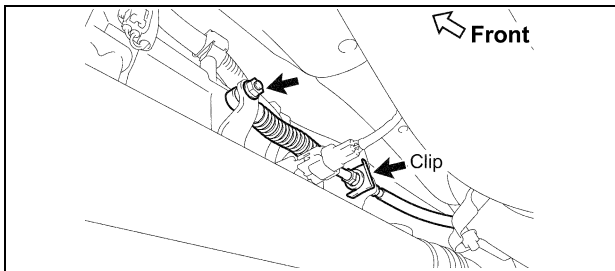
NOTE:

- Align the connector with the pipe, and push into the connector until the connector makes a "click" sound. If the connection is tight, apply a little amount of fresh engine oil on the tip of the pipe.
- Ensure the pipe and the connector are securely connected by pulling them.



6. RECONNECT THE NO.2 FUEL HOSE

- Reconnect the No.2 fuel hose with the clip.

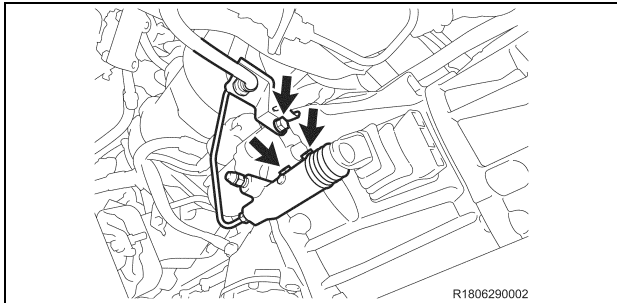


7. RECONNECT THE SHIFT CABLE (AUTO TRANS ONLY)

- Reconnect the shift cable with the nut and torque to spec.

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

- Reinstall the clip.



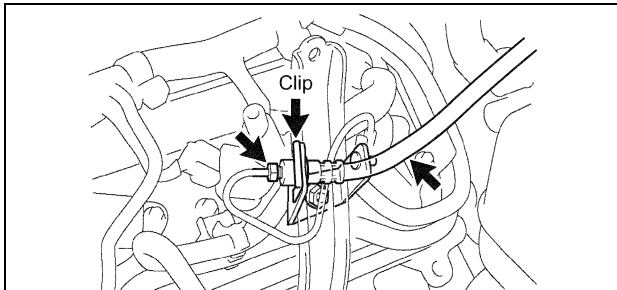
**8. CONNECT THE CLUTCH RELEASE CYLINDER ASSY
(2TR-FE MANUAL TRANS ONLY)**

- a) Reconnect the clutch release cylinder with the 2 bolts and torque to spec.

Torque Spec: 11.8 N·m (120 kgf·cm, 9 ft·lbf)

- b) Reconnect the clutch hose with the bolt and torque to spec.

Torque Spec: 37 N·m (377 kgf·cm, 27 ft·lbf)



**9. RECONNECT THE NO.1 CLUTCH HOSE
(2GR-FKS MANUAL TRANS ONLY)**

- a) Reconnect the clutch hose with the clip.
- b) Reconnect the clutch release cylinder tube to the clutch hose.

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

NEW Replacement Parts

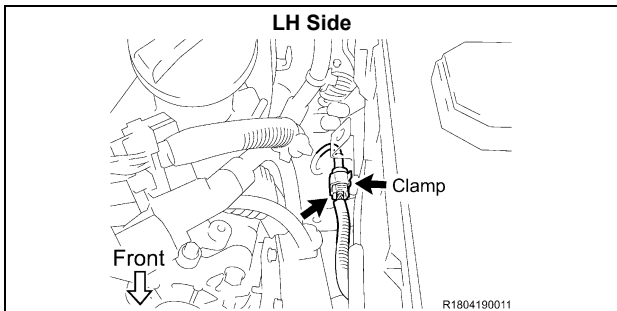
Part #	Part Name	Kit #	Qty
90080-11555	Bolt	2	2

10. RECONNECT THE STEERING SLIDING YOKE

- a) Make sure the front wheels are in a straight-ahead position and the steering wheel is centered.
- b) Referencing the matchmarks, connect the steering sliding yoke to the control valve shaft with the **NEW** bolt (B).
- c) Remove bolt (A) and install the **NEW** bolt (A).
- d) Torque all bolts to spec.

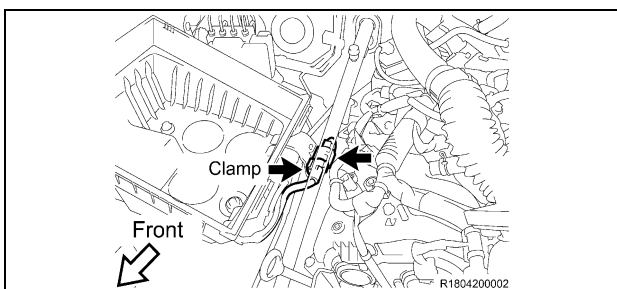
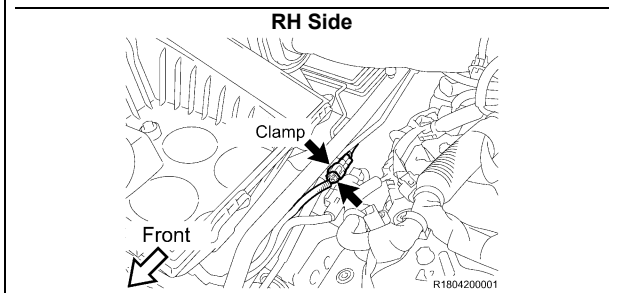
Torque Spec: 35 N·m (357 kgf·cm, 26 ft·lbf)

- e) Disconnect the seat belt that is holding the steering wheel.



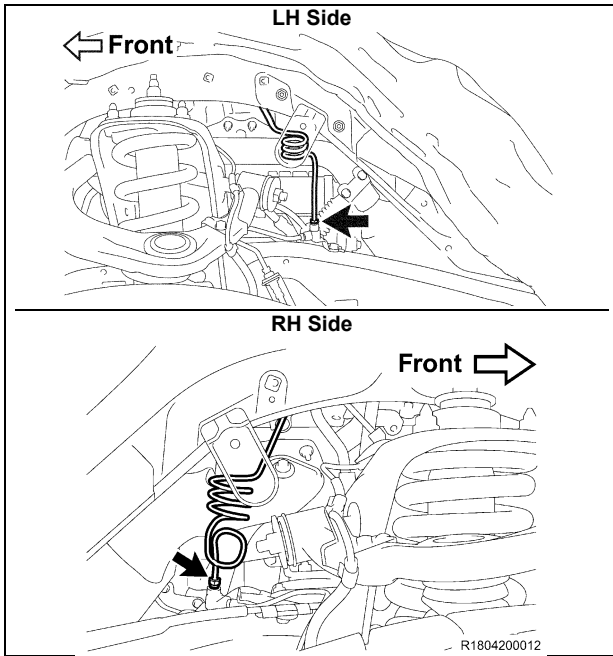
11. RECONNECT THE FRONT SKID CONTROL SENSOR WIRE HARNESS

- a) Reconnect the harness clamp and front skid control sensor connector.
- b) Repeat the procedure on the opposite side.



**12. RECONNECT THE NO.2 FRAME WIRE HARNESS
(IF EQUIPPED)**

- a) Reconnect the harness clamp and connector.



13. RECONNECT THE FRONT BRAKE TUBES

- a) Reconnect the front brake tube and torque to spec.
Torque Spec: 15.2 N·m (155 kgf·cm, 11 ft·lbf)
- b) Repeat the procedure on the opposite side.

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90210-A0002	O Ring	2	1

R1804200012

14. RECONNECT THE AIR CONDITIONING DISCHARGE HOSE TO THE COMPRESSOR

- a) Install a **NEW** o-ring to the A/C discharge hose.
- b) Reconnect the A/C discharge hose to the compressor, then torque to spec.

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90301-A0006	O Ring	2	2

2TR-FE

R1806220012

2GR-FKS

R1804200015

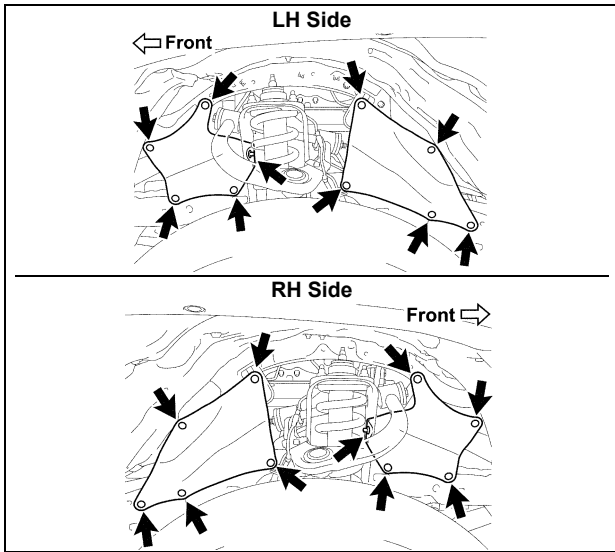
15. RECONNECT THE SUCTION HOSE TO THE AIR CONDITIONING UNIT ASSY

- a) Install the 2 **NEW** o-rings to the suction hose.
- b) Reconnect the cooler bracket with the bolts and torque to spec.

Torque Spec: 7.5 N·m (76 kgf·cm, 66 in·lbf)

- c) Reconnect the suction hose and piping clamp.

NOTE: Check that the claw of the piping clamp is correctly fitted.

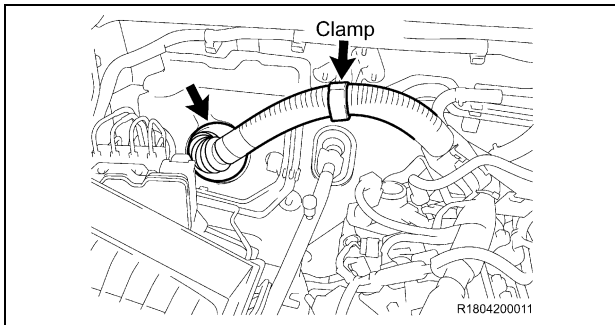


16. REINSTALL THE FRONT FENDER APRON SEAL

- a) Reinstall the 4 front fender apron seals with the 20 clips.

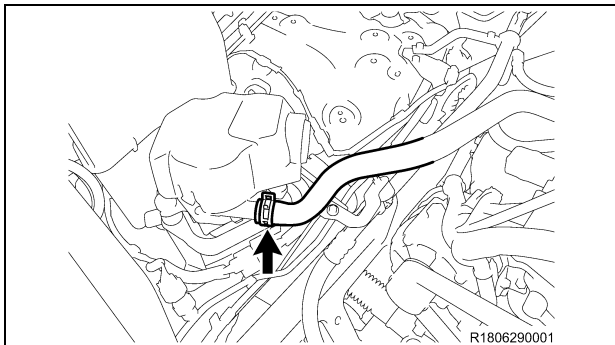
17. RECONNECT THE WATER / HEATER HOSES, ENGINE SIDE (2GR-FKS ONLY)

18. RECONNECT THE WATER / HEATER HOSES, HEATER RADIATOR SIDE (2TR-FE ONLY)



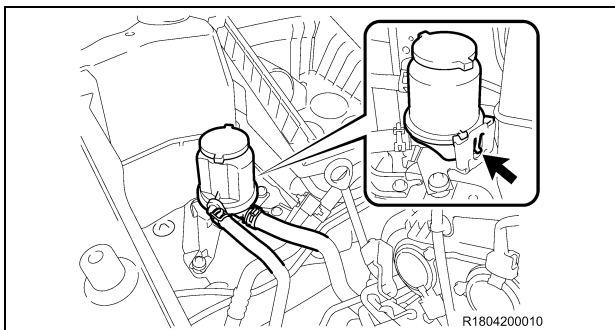
19. RECONNECT THE ENGINE WIRE HARNESS

- a) Reinstall the engine wire harness container to the cowl panel.
- b) Reconnect the clamp.



20. RECONNECT THE NO.1 HOSE (2TR-FE ONLY)

- a) Reconnect the No.1 hose.



21. RECONNECT THE POWER STEERING PUMP OIL RESERVOIR ASSY (2GR-FKS ONLY)

- a) Reconnect the power steering pump oil reservoir assy.

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
16442-0C420	Packing	2	1

22. REINSTALL THE FAN SHROUD

23. REINSTALL THE RADIATOR ASSY

- a) Install the **NEW** o-ring to the drain plug.
- b) Tighten the radiator drain plug.
- c) Reinstall the radiator with 4 bolts and torque to spec.

Torque Spec: 18 N·m (184 kgf·cm, 13 ft·lbf)

- d) Reinstall the automatic transmission cooler lines (*Auto Trans Only*).
- e) Reinstall the fan shroud with the 2 bolts.

Torque Spec: 6.0 N·m (61 kgf·cm, 53 in·lbf)



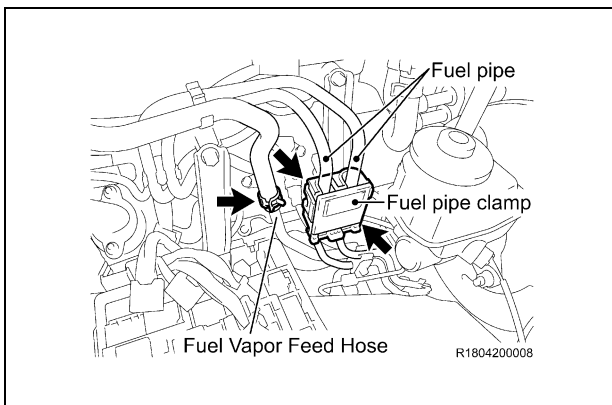
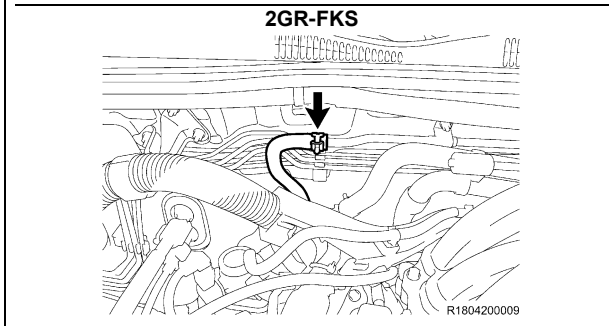
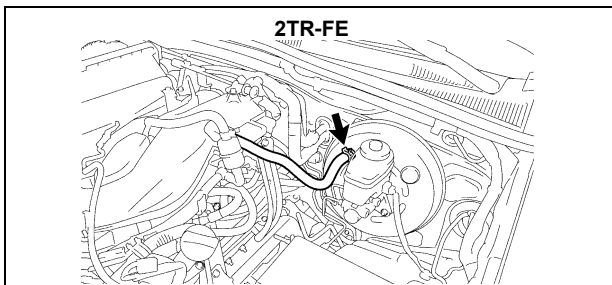
- Do not remove the radiator side deflectors.
- Be careful not to over-flex the deflectors when reinstalling the radiator assy.

24. RECONNECT THE RADIATOR HOSES

25. REINSTALL THE RADIATOR SUPPORT TO FRAME SEAL

26. RECONNECT THE VACUUM HOSE

- a) Reconnect the vacuum hose.



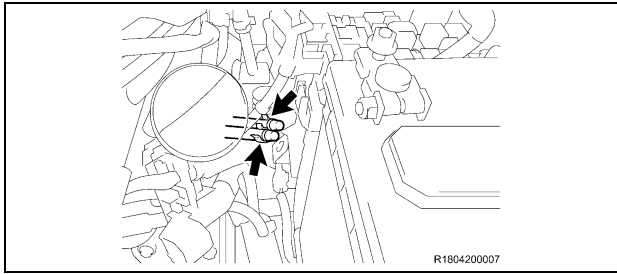
27. RECONNECT THE FUEL PIPES

- a) Reconnect the 2 fuel pipes.
- b) Reinstall the fuel pipe clamps.

NOTE:

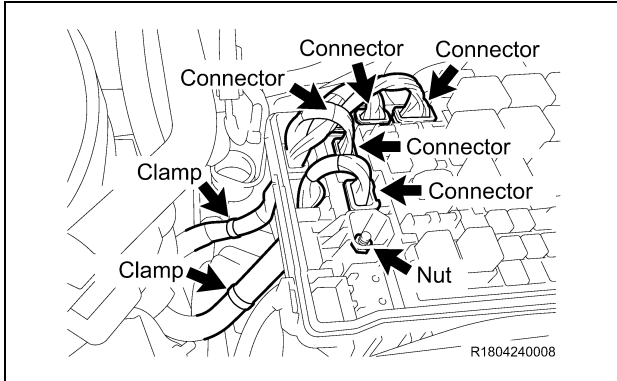
- Align the connector with the pipe, and push into the connector until the connector makes a "click" sound. If the connection is tight, apply a little amount of fresh engine oil on the tip of the pipe.
- Ensure the pipe and the connector are securely connected by pulling them.

28. RECONNECT THE FUEL VAPOR FEED HOSE



29. RECONNECT THE FRONT DIFFERENTIAL BREATHER TUBES (4WD ONLY)

- a) Reconnect the front differential breather tubes.



30. RECONNECT THE NO.2 ENGINE WIRE HARNESS

- a) Remove the No.1 upper relay block cover.
- b) Reconnect the 5 connectors.
NOTE: The number of connectors may differ depending on the model.
- c) Reinstall fuse box wire harness with the nut and torque to spec.

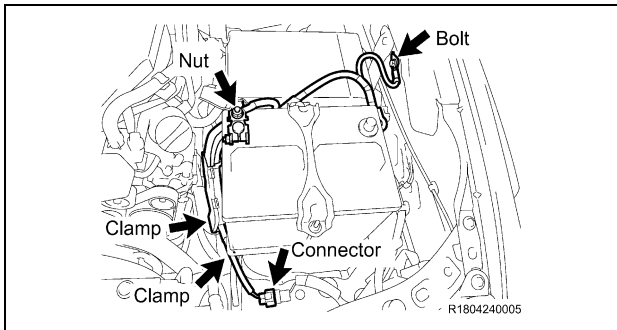
Torque Spec: 8.5 N·m (87 kgf·cm, 75 ft·lbf)

- d) Reinstall the 2 clamps.
- e) Reinstall the No.1 upper relay block cover.
- f) Reconnect the connector.
- g) Reconnect the No.2 engine wire harness to the clamp.
NOTE: The number of clamps may differ depending on the model.
- h) Reinstall the (+) positive battery cable with the nut and torque to spec.

Torque Spec: 7.6 N·m (77 kgf·cm, 67 in·lbf)

- i) Reinstall the ground wire with the bolt and torque to spec.

Torque Spec: 8.5 N·m (87 kgf·cm, 75 in·lbf)

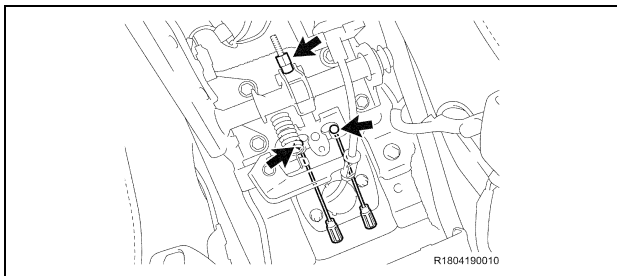


31. REINSTALL THE FOLLOWING PARTS

- Air Cleaner Hose and Air Cleaner Assy
 - **Torque Spec: 12 N·m (122 kgf·cm, 9 ft·lbf)**
- V-Bank Cover

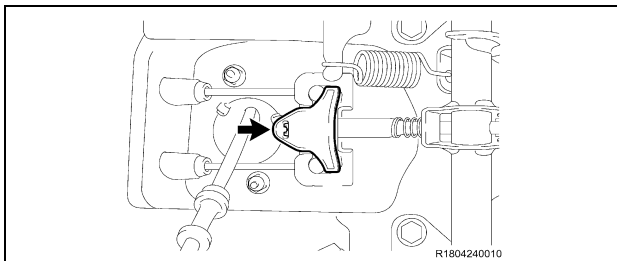
32. REINSTALL THE FOLLOWING PARTS (ACCESS CAB ONLY)

- Rear Floor Side Service Hole Cover LH/RH
- Seat Floor Box
- Floor Board No.1/No.2
- Rear Seat Cushion Assy
- Rear Lower Console Box



33. RECONNECT THE PARKING BRAKE CABLES

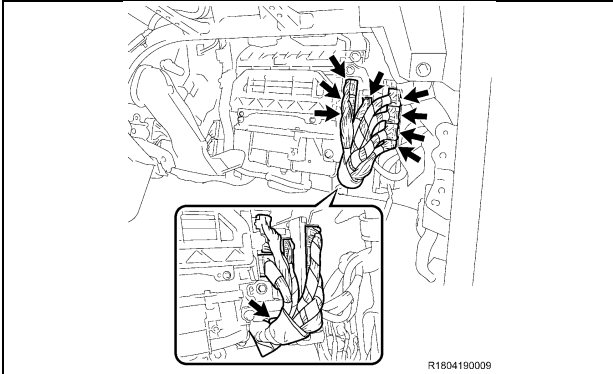
- a) Reconnect the 2 parking brake cables.
- b) Adjust parking brake lever travel.



- c) Reinstall the parking cable end stopper.

34. REINSTALL THE FOLLOWING PARTS

- Manual Transmission Shift Lever (*Manual Trans Only*)
- Voltage Inverter Assy (*If Equipped*)
- Rear Console Box



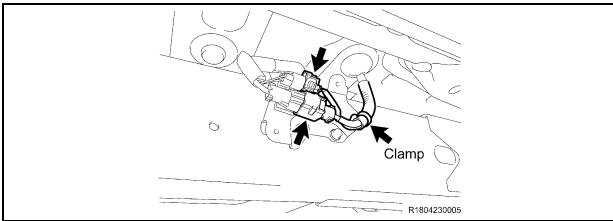
35. RECONNECT THE ENGINE WIRE HARNESS

- Reconnect each connector and clamp to the ECM and engine wire harness.

NOTE: The number of connectors may differ depending on the model.

36. REINSTALL THE FOLLOWING PARTS

- Instrument Lower Panel Assy
- Lower No.2 Instrument Panel Airbag Assy
 - **Torque: 10 N·m (102 kgf·cm, 7 ft·lbf)**
- Glove Compartment Plate
- Instrument Side Panel LH
- Front Floor Footrest
- Cowl Side Trim Board LH/RH
- Front Door Scuff Plate LH/RH



37. RECONNECT THE NO.2 FRAME WIRE HARNESS (IF EQUIPPED)

- Reconnect the 2 connectors and clamp.
- Reinstall the wiring harness protector cover with the 2 **NEW** bolts and torque to spec.

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

NEW Replacement Parts

Part #	Part Name	Kit #	Qty
90119-A0148	Bolt	NA*	2

*Individual Part(s)

38. REINSTALL THE FOLLOWING PARTS

- Front No.2 Bumper Extension Sub-Assy LH/RH
 - Reinstall the No.2 front bumper extension with 6 **NEW** nuts and torque to spec.
 - **Torque Spec: 58 N·m (591 kgf·cm, 43 ft·lbf)**
- Front Bumper Reinforcement
 - Reinstall the front bumper reinforcement with 6 nuts and torque to spec.
 - **Torque Spec: 58 N·m (591 kgf·cm, 43 ft·lbf)**
- Front Bumper Assy
 - Reinstall the 8 clips.
 - Reinstall with the 2 bolts, 4 screws and torque to spec.
 - **Torque Spec:**
 - Bolt - 5.0 N·m (51 kgf·cm, 44 in·lbf)**
 - Screw - 2.8 N·m (29 kgf·cm, 25 in·lbf)**
 - Reinstall the 2 screws. (*Over Fender Only*)
- Radiator Grille

NEW Replacement Parts

Front No.2 Bumper Extension Sub-Assy LH/RH

Part #	Part Name	Kit #	Qty
90178-A0044	Nut	2	6

NEW Replacement Parts

Moulding

Part #	Part Name	Kit #	Qty
53851-04100	Pad, Front Wheel Opening Extension	7	2
53853-04070	Pad, Front Wheel Opening Extension, No.1	7	2
53855-04010	Pad, Front Wheel Opening Extension, No.2	7	2
75395-35070	Clip, Outside Moulding, No.1	7	6
75396-35020	Clip, Outside Moulding, No.2	7	12

39. REINSTALL THE FRONT FENDER WHEEL OPENING MOULDING LH/RH (IF EQUIPPED)

a) Click the link below to access TIS for instructions

a) [2016 - 2017](#)

b) When the clip installation part of the moulding is broken you should...

- (1) Clean and degrease the clip installation part.
- (2) Fill the clip installation part with adhesive.
- (3) Install the **NEW** clip.
- (4) Remove the extra adhesive.

NOTE: If the extra adhesive is not removed, the moulding may not fit the vehicle body.

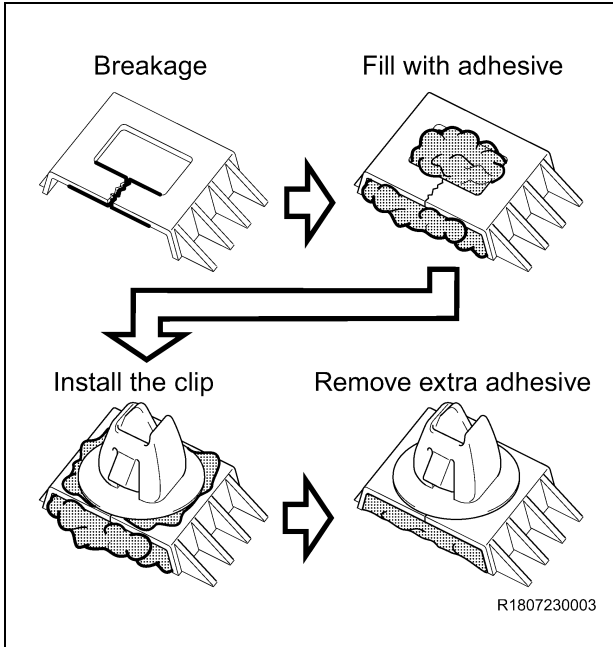
(5) Install the moulding to vehicle body before the adhesive becomes solid.

NOTE: If the moulding is installed after the adhesive became solid, clips may not engage the holes of the body.

c) Engage the 3 claws and 9 clips to install the front fender wheel opening moulding.

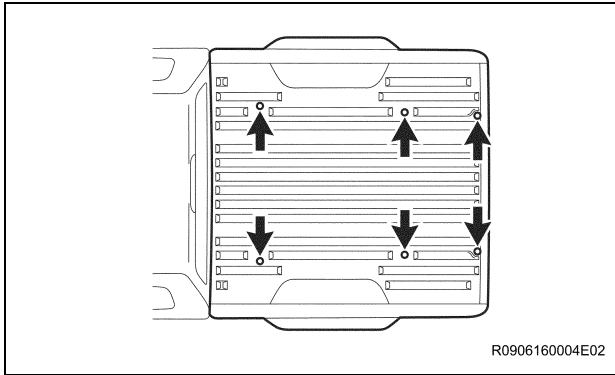
d) Install the 7 screws.

NOTE: The number of screws may differ depending on the model.



40. REINSTALL THE FRONT FENDER MUDGUARD LH/RH (IF EQUIPPED)

J. REINSTALL THE BED ASSY



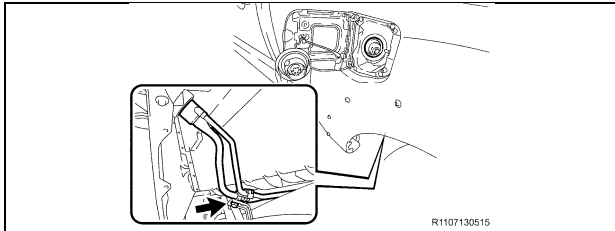
1. REINSTALL THE BED ASSY

- Using a Torx® T55H Socket, reinstall the bed assy Torx ® bolts and torque to spec.

Torque Spec: 60 N·m (612 kgf·cm, 44 ft·lbf)

NOTE:

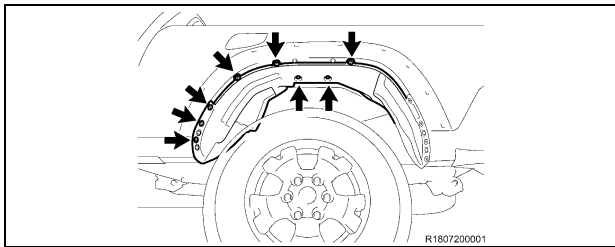
- Use 4 or more people to lift the bed assy.
- Evenly support the bed assy when reinstalling it.
- Be careful not to damage or hit the fuel inlet pipe when reinstalling the bed assy.
- Protect the front side of the bed assy to not damage the cab assy.



2. REINSTALL THE FUEL INLET PIPE SUB-ASSY

- Reinstall the fuel inlet pipe sub-assy with the bolt and torque to spec.

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



3. RECONNECT THE LEFT REAR WHEEL WELL LINER

- Install the left rear wheel well liner with the 8 clips and 3 screws.

NEW Replacement Parts			
Moulding			
Part #	Part Name	Kit #	Qty
75395-35070	Clip, Outside Moulding, No.1	7	3
75396-35020	Clip, Outside Moulding, No.2	7	7
75696-04050	Pad, Body Outside Moulding, No.1	7	1
75697-04050	Pad, Body Outside Moulding, No.2	7	1
75698-04030	Pad, Body Outside Moulding, No.3	7	1
90189-A0002	Clip	7	6

4. REINSTALL THE QUARTER PANEL WHEEL OPENING MOULDING LH(IF EQUIPPED)

- Click the link below to access TIS for instructions

[2016 - 2017](#)

- When the clip installation part of the moulding is broken you should...

- Clean and degrease the clip installation part.
- Fill the clip installation part with adhesive.
- Install the **NEW** clip.
- Remove the extra adhesive.

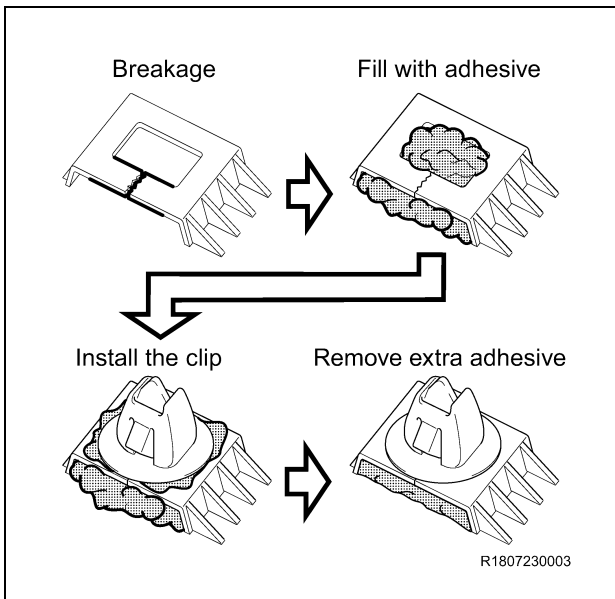
NOTE: If the extra adhesive is not removed, the moulding may not fit the vehicle body.

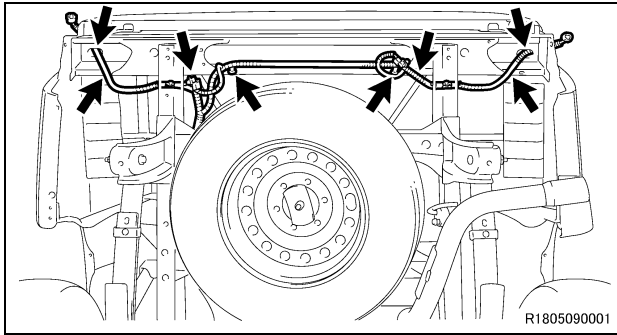
- Install the moulding to vehicle body before the adhesive becomes solid.

NOTE: If the moulding is installed after the adhesive became solid, clips may not engage the holes of the body.

- Engage the 10 clips to install the quarter panel wheel opening moulding.
- Install the 7 screws.

NOTE: The number of screws may differ depending on the model.





5. RECONNECT THE FRAME WIRE HARNESS

- a) Reconnect the 6 wire harness clamps to the bed assy.

NOTE:

- The number of connectors will differ depending on the vehicle spec.
- Use new clamps if the original ones are damaged.

6. REINSTALL THE FOLLOWING PARTS

- Power Outlet Socket Assy *(If Equipped)*
- Side Step Assy LH/RH *(If Equipped)*
- Rear Mudguard LH/RH *(If Equipped)*
- Rear Bumper Assy
 - Reinstall the rear bumper assy with the 10 **NEW** bolts and torque to spec. *(Trailer Hitch Equipped Only)*
 - Reinstall the rear bumper assy with the 6 **NEW** bolts and torque to spec.
 - **Torque Spec: 90 N·m (918 kgf·cm, 66 ft·lbf)**
- Rear Tail/Combination Light LH/RH

NEW Replacement Parts

Rear Bumper Assy

Part #	Part Name	Kit #	Qty
90119-A0192	Bolt	2	6
		NA*	4

*Individual Part(s)

K. FINAL ASSEMBLY

1. REINSTALL THE NEGATIVE (-) BATTERY TERMINAL

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: 19.5 N·m (199 kgf·cm, 14 ft·lbf)**
 - Refill with Toyota Dot 3 Brake Fluid.
 - Bleed the brake system at each wheel and torque the bleeder screws to spec.
 - **Torque Spec: 10.8 N·m (110 kgf·cm, 8 ft·lbf)**
 - Clutch Fluid (*2GR-FKS Manual Trans Only*)
 - Refill with Toyota Dot 3 Brake Fluid.
 - Bleed the clutch system and torque the bleeder screws to spec.
 - **Torque Spec: 11 N·m (112 kgf·cm, 8 ft·lbf)**
 - Release cylinder heat insulator (*2GR-FKS Manual Trans Only*)
 - Install the **NEW** release cylinder heat insulator to the manual transmission assembly with the 4 **NEW** bolts.
 - **Torque Spec: 11.8 N·m (120 kgf·cm, 9 ft·lbf)**
- NOTE: 2TR Manual Transmission uses master cylinder reservoir for clutch.**
- Coolant
 - Refill with Toyota Long Life Coolant.
 - Bleed the cooling system.
 - Front Differential Fluid
 - Install the **NEW** drain plug washer and torque to spec.
 - **Torque Spec: 64.7 N·m (660 kgf·cm, 48 ft·lbf)**
 - Refill with Hypoid Gear Oil API GL-5 75W-90.
 - Install the **NEW** filler plug washer and torque to spec.
 - **Torque Spec: 39.2 N·m (400 kgf·cm, 29 ft·lbf)**

NEW Replacement Parts

Front Differential

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

Release Cylinder Heat Insulator

Part #	Part Name	Kit #	Qty
31461-35030	Insulator, Release Cylinder Heat	NA*	1
90119-A0165	Bolt	NA*	4

*Individual Part(s)

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
- Clutch System (*2GR-FKS Manual Trans Only*)
- 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

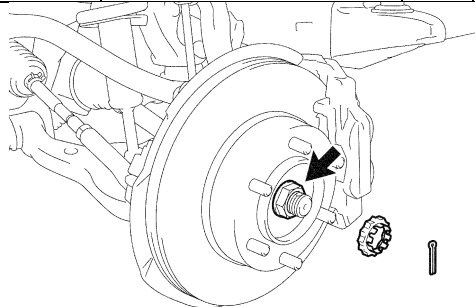


Make sure to follow the procedure outlined in the appropriate repair manual for the vehicle you are working on when checking, and if needed, adjusting the operation of the systems listed below. This is an important step, and must be performed thoroughly to ensure proper operation of these systems.

- Parking Brake Travel
- Shift Control Lever (*Automatic Trans Only*)
- Clutch Pedal (*Manual Trans Only*)

6. CHECK ALL FLUID LEVELS AND ADJUST AS NEEDED

NEW Replacement Parts			
Part #	Part Name	Kit #	Qty
43514-28010	Cap, Front Axle Hub Grease, LH/RH	3	2
95381-04045	Cotter Pin	3	2



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

- a) Remove the front wheels.
 - b) Torque the front axle nut to spec.
- Torque Spec: 235 N·m (2396 kgf·cm, 173 ft·lb)**
- 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: 113 N·m (1152 kgf·cm, 83 ft·lbf)

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

8. PERFORM A WHEEL ALIGNMENT

9. CHECK THE HEADLIGHT AIM AND ADJUST AS NEEDED

NEW Replacement Parts			
Part #	Part Name	Kit #	Qty
90080-11373	Bolt	7	8

10. REINSTALL THE ENGINE UNDER COVERS

- a) Reinstall the engine under cover with 8 **NEW** bolts and torque to spec.

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

11. REINSTALL THE NO.1 WHEEL OPENING EXTENSION PAD (IF EQUIPPED)

12. CHECK FOR DTC'S AND REPAIR AS NEEDED

13. PERFORM INITIALIZATION

14. PERFORM BLIND SPOT MONITOR OPERATION CHECK

- b) Click the link below to access TIS for instructions

[2016](#) [2017](#)

15. 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
 - Airbag System
 - All Gauges, Indicators and Warning Lights
 - Etc.

16. 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.

V. APPENDIX

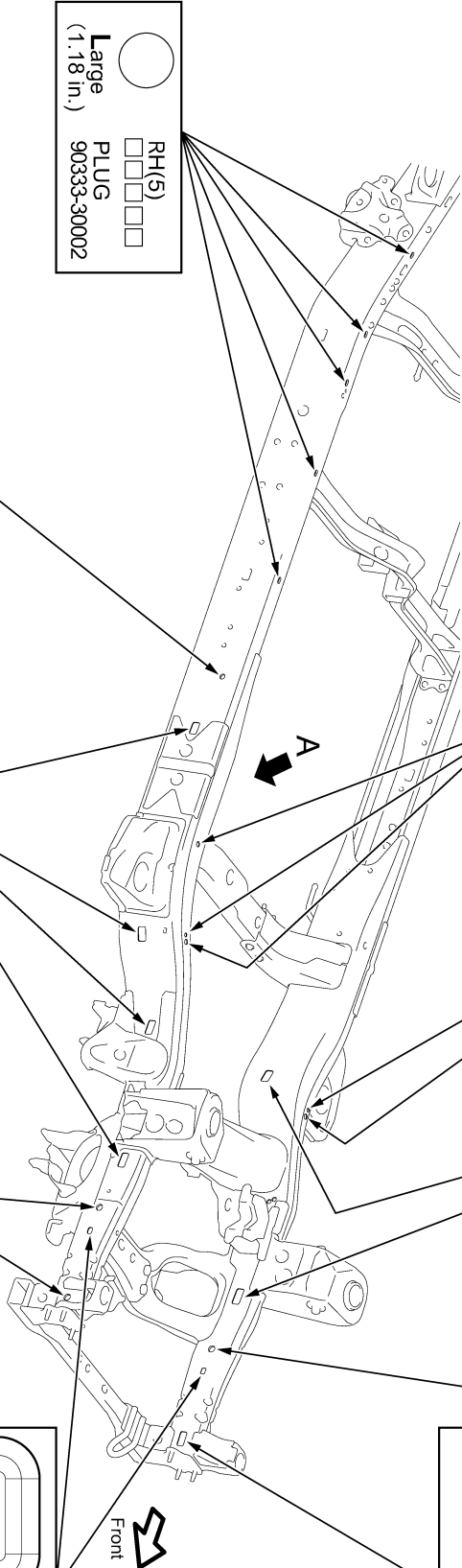
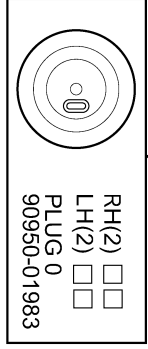
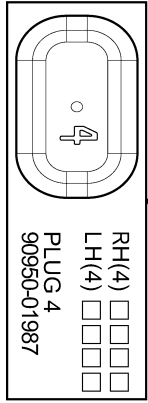
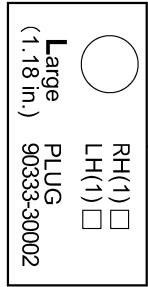
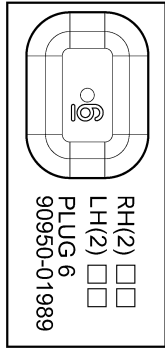
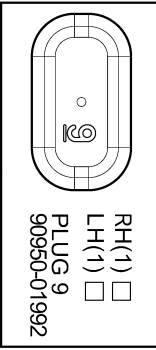
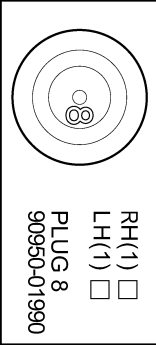
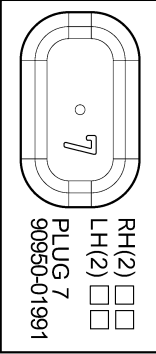
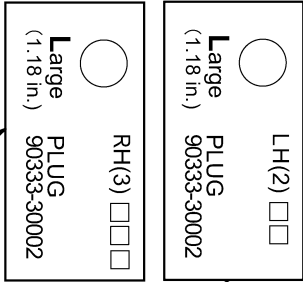
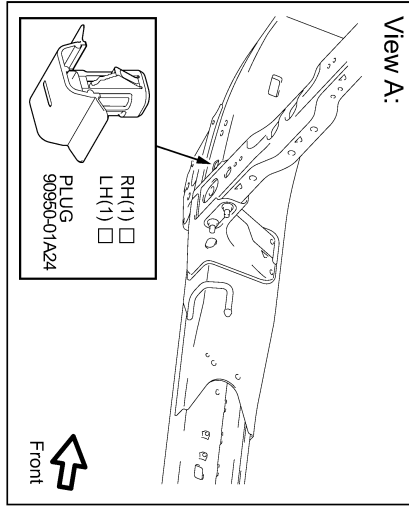
As required by Federal Regulations, please make sure all recalled parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused. Adequate time has been provided in the repair time to cut up and dispose of the perforated frame.

Hole Plugs Installation Check Sheet

TRN245, 265, GRN305, 325

Ex-Long

View A:



Hole Plugs Installation Check Sheet

GRN310,330 Super-Long

View A:

