

### Updated 10/30/12 - VIN Range Corrected (Page 2)

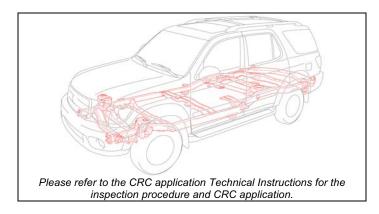
**Toyota Motor Sales, U.S.A., Inc.** 19001 South Western Avenue Torrance, CA 90501 (310) 468-4000

To: All Cold Climate States Toyota Dealer Principals, Service Manager, and Parts Managers

Subject: Limited Service Campaign (LSC) C0D

2001 through 2004 Model Year Sequoia Vehicles Corrosion-Resistant Compound (CRC) Application

Toyota will initiate a Limited Service Campaign (LSC C0D) to inspect and, based upon Toyota's inspection criteria\*, apply Corrosion-Resistant Compounds (CRC) to key areas of the frame assembly of certain 2001-2004 model year Sequoia vehicles without significant rust perforation\* until <u>July 31, 2014</u>. This campaign covers vehicles <u>currently registered</u> in the following Cold Climate States or the District of Columbia (D.C.): **CT, DE, IL, IN, KY, MA, MD, ME, MI, MN, NH, NJ, NY, OH, PA, RI, VA, VT, WI & WV** 



Due to the various Federal, State, and Local regulations, C0D will be rolled out on a state-by-state basis, with the first states beginning in August 2012.

### Condition

- Toyota has received reports that certain 2001 through 2004 model year Sequoia vehicles operated in specific cold climate areas with high road salt usage may exhibit more than normal corrosion to the vehicle's frame.
- Toyota investigated these reports and determined that the frames in some vehicles may not have corrosion-resistant protection sufficient for use in these areas. This combined with prolonged exposure to road salts and other environmental factors may contribute to the development of more than normal rust in the frame of some vehicles.
- This condition is unrelated to and separate from normal surface rust which is commonly found on metallic surfaces after some years of usage and/or exposure to the environment.

### Limited Service Campaign (LSC) Remedy

Over the next few months, owners of the covered vehicles will receive a notification requesting them to bring their vehicles to an authorized Toyota dealership in the Cold Climate States. The dealership will inspect the condition of the vehicle's frame. Based upon the results of the inspection\* the dealership will do one of the following:

- If significant rust perforation is not found\*, the dealership will apply Corrosion-Resistant Compounds (CRC) to key areas of the vehicle's frame at **no charge** to the owner until **July 31, 2014**.
- If significant rust perforation is found\*, the dealership will replace the vehicle's frame at **no charge** to the owner until **July 31, 2014**.

<sup>\*</sup>Please refer to the Technical Instructions for additional details and inspection criteria.

(Limited Service Campaign (LSC) Remedy Continued . . . )

The inspection will include a functional and visual check of the spare tire carrier to assure that it operates properly. If the spare tire carrier meets Toyota's inspection criteria, the CRC will also be applied to the spare tire carrier's lift plate. If the spare tire carrier does not meet Toyota's inspection criteria, the spare tire carrier will be replaced. (The carrier may also be replaced if the frame does not meet Toyota's inspection criteria.)

### 1. Owner Notification

The owner notification will commence as soon as dealers in a given area are prepared to perform the C0D campaign (Consult your Dealer Packet for LSC Preparation). Each dealer will be provided a packet outlining the individual regulatory requirements in their state prior to starting the CRC application.

### 2. Dealer/Owner Lists

Summary Reports containing the *number* of covered vehicles in your dealership's Primary Marketing Area (PMA) have been enclosed in the dealer package. Based upon our records, a dealership which does not have a covered vehicle in their PMA will receive a report indicating so.

### 3. Vehicle Coverage

There are approximately *66,600* Sequoia (certain 2001 – 2004 model year) vehicles covered by C0D.

	Madal	\A/8#1	V		Ma	
	Model	WMI	Year	VDS	Range	Мо
ľ				BT44A	S000139 - S057355	
	Sequoia	5TD	2001	BT48A	S000147 - S057339	
				ZT34A	S000148 - S057354	
				ZT38A	S000217 - S057356	Seq
			2002	BT44A	S056458 - S137479	Sequ
				BT48A	S056457 - S137474	
				ZT34A	S057361 - S137484	
				ZT38A	S057366 - S137473	

Model	WMI	Year	VIN Range			
Wiodei	VVIVII	rear	VDS	Range		
			BT44A	S101211 - S205101		
	5TD	2003	BT48A	S099426 - S205111		
			ZT34A	S100033 - S205190		
Sequoia			ZT38A	S100343 – S205189		
Sequoia		2004	BT44A	S205112 - S233601		
			BT48A	S205113 - S233598		
			ZT34A	S205197 - S238616		
			ZT38A	S205191 – S238607		

Please note that only owners of the covered vehicles registered in that specific state will be notified. VINs registered within that specific state will be loaded simultaneously on TIS and Dealer Daily.

A UIO state matrix is provided to inform your dealership of the number of affected vehicles in your state.

STATE	2001	2002	2003	2004	TOTAL
CT	584	611	547	472	2,214
DE	100	140	140	115	495
IL	1,472	1,711	1,408	1,235	5,826
IN	595	586	555	498	2,234
KY	606	745	673	580	2,604
MA	1,241	1,519	1,266	1,083	5,109
MD	1,598	2,064	1,880	1,787	7,329
ME	124	146	133	108	511
MI	597	594	504	436	2,131
MN	529	587	529	519	2,164
Total	7,446	8,703	7,635	6,833	30,617

STATE	2001	2002	2003	2004	TOTAL
NH	213	291	243	213	960
NJ	1,330	1,821	1,536	1,358	6,045
NY	1,828	2,117	1,912	1,582	7,439
ОН	1,048	1,187	1,023	965	4,223
PA	1,314	1,569	1,411	1,332	5,626
RI	153	144	137	116	550
VA	1,723	2,221	2,161	2,122	8,227
VT	64	48	54	48	214
WI	575	624	444	449	2,092
WV	149	136	138	137	560
Total	8,397	10,158	9,059	8,322	35,936

### 4. Remedy Procedure

- If the frame passes Toyota's inspection criteria, refer to the CRC application TI located on the C.L.E.A.N. Dealer website http://cleandealer.com.
- If the frame does not pass Toyota's inspection criteria, please refer to the frame replacement Technical instructions located on TIS.

Both the CRC application TI and Supplemental Frame Replacement TI contain the frame inspection criteria, spare tire carrier functional/visual check, and the procedure for replacing the spare tire carrier (if the spare tire carrier does not meet Toyota's inspection criteria).



- ➤ Verify vehicle eligibility by confirming through Dealer Daily/TIS prior to performing the repair.
- > Dealers that conduct LSC C0D on vehicles not covered under this program or in a state other than the Cold Climate States *will not receive reimbursement*.

### 5. Parts and Material Ordering

### Corrosion-Resistant Compound (CRC) and Support Material Ordering:

The necessary CRC kits can be ordered through the chemical program provided by Dealer Tire (Complete Maintenance Care). The kits will be directly shipped from AMREP. Please note that deliveries are only scheduled on business days. Saturday deliveries are not available. Allow 5 business days for order processing and shipping of the CRC kit(s) to your dealership.



Please note that only dealers in the Cold Climate States, which have been launched, will be able to order CRC kits for Campaign C0D.

Model	Part No.	Part Description	Qty/Unit		
Sequoia	00289-S00KT-DS	Toyota CRC Kit #4	1		
	e kit above includes the follow	ing parts:			
No	xudol 300S – 3 Liters	3005	3 <b>90</b> 5	712AM	712AM
Pa	rker 712AM – 2 Liters			Elec-	Eines

### When Ordering CRC Kits Please Note:

- Each kit will contain the proper amount of CRC for one vehicle.
- The CRC kits listed will be drop-shipped from AMREP, not your local PDC. Do not order more than your immediate needs, as these materials are *not returnable or refundable*.
- Orders for CRC kits should be placed separately from orders of other drop ship chemicals.
- Dealerships without any vehicles on their report should not order kits until you have confirmed an appointment.
- Refer to the Appendix in the Technical Instructions for the Material Safety Data Sheet (MSDS).
- Only dealers located in a Cold Climate State that has launched will receive CRC Kits.

### When Storing the CRC Kits Please Note:

- Follow local, state and federal regulations for hazardous materials storage and disposal that are explained in the Dealer Information Packet.
- Ensure that the CRC kits are stored at room temperature (refer to the MSDS for detailed instructions).

(Continued —

(Parts and Material Ordering CONTINUED . . . )

The CRC application will entail sealing the frame with two different products. The Parker 712AM, a paraffin wax based product, will be applied inside the frame. Noxudol 300S will be applied to the external surfaces of the frame. **Do not use the Noxudol® name and trademarks without the prior written consent of Soken Trade Inc. and Toyota Motor Sales, U.S.A., Inc.** 

Since C0D will be rolled out on a state-by-state basis, the CRC kits will be placed on Manual Allocation Control (MAC). Kits will only be released to a dealer once the Readiness Checklist indicates a dealer has completed all the necessary requirements (see "7. Before You Start" for additional information).

While the CRC kits are on MAC, a representative from TMS Quality Compliance will review each order and, *if necessary*, contact the dealership's Parts Manager to verify the necessity of the order. This will ensure an adequate and balanced CRC inventory.

If there are **special** circumstances where a dealer is having difficulty receiving its order, dealership associates may leave a voice message at: (310) 468-5516 to research their order. The associate should provide the following information to expedite research of the order status:

- Dealer Information. (Dealer Code, Contact Name, Telephone Number)
- Order Reference Number.
- Customer Name and Vehicle 17-digit VIN.
- The following support materials can be ordered through your dealer's facing PDC:

Part Number	Part Description	Qty Required
04002-0110C	Sequoia Plug Kit	1 per vehicle

The following support materials can be ordered through the MDC:

Part Number	Part Description	Qty Required
00411-12001	Foam Plug Kit	1 per vehicle
00411-11004	00411-11004 Corrosion-Resistant Compound Customer Information Hang Tag*	
00411-12003	Laminated Quick Reference Guide for the Corrosion- Resistant Compound Campaign (C0D) (Included in each Service Manager Package)	As needed
00411-12002	ASM Reference Guide – CRC Campaign	As needed

<sup>\*</sup> Additional CRC Customer Information Hang Tags can be ordered in packages of 50 through the MDC.

### Frame Replacement Parts Ordering (where applicable):

To assist dealers in determining the correct part number(s) to order, a website has been set up to look up part numbers by VIN. Please go to http://c0d-lookup.imagespm.info, login, enter the VIN, and the correct part numbers to order will be displayed. The website is for part(s) application reference only and will not order the part, nor will it confirm campaign completion status. Only dealers located in the Cold Climate States will be able to access this site.

- The parts will need to be ordered through the Dealer Daily Parts system.
- ETAs for the parts will be available via the normal system.

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 in the frame replacement Technical Instructions.



### 6. Tools and Equipment

Please refer to the appropriate Technical Instructions for a list of tools and equipment.

- CRC Application Stall Set Up Technical Instruction
- CRC Application Technical Instruction
- Supplemental Frame Replacement Technical Instruction

### 7. Before You Start

Review the entire C0D Campaign Dealer Information Packet and supporting material for legal and regulatory requirements. This packet is broken down into key steps that need to be taken in order to perform the C0D campaign.

The Dealer packet and supporting materials, provide step-by-step instructions for how to comply, and include forms to create and maintain compliance records. These guides assume that you will conduct C0D in the vehicle service area of your dealership and in the same location (stall) that was used for LSC 90D and B0D.

Note: Carefully read your dealer package even if your dealership uses the same stall that was/is being used for LSC 90D/B0D; there still may be permitting and/or other regulation requirements in your specific state.

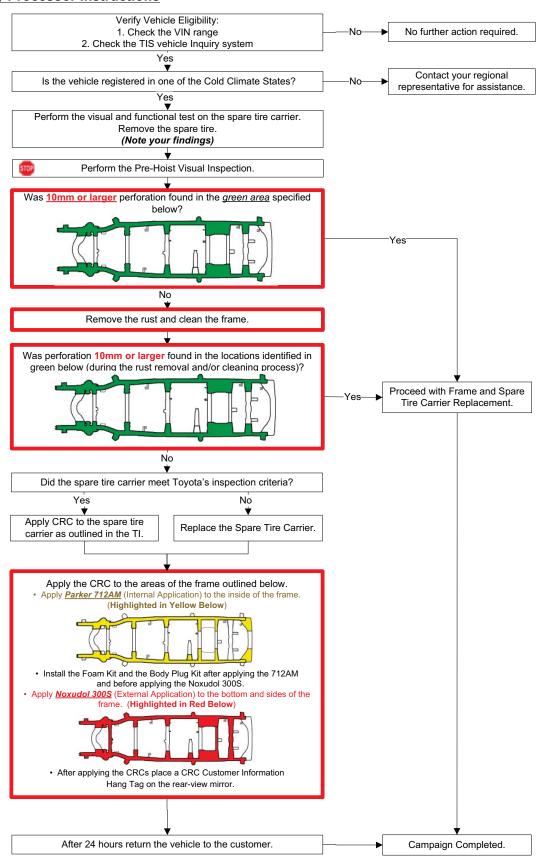
If you feel your facility will not be able to use the same location, please contact the EH&S Hotline at (877) 572-4347. Please note that considerable time, resources, and effort were dedicated to establish your current location. Based upon the circumstances, TMS may not be able to assist (i.e. permit modification, etc.) in location changes.

Most dealerships should be able to meet the necessary requirements within two weeks of receiving this package. A Readiness Checklist (http://cleandealer.com\*) has been created to help you review and keep track of your dealership's preparations for this and any other CRC application campaigns that may be currently in progress. Toyota's business partner, KPA, will be available for your dealership to help provide additional support if needed. *Once your dealership confirms that it has reviewed and understands the Readiness Checklist, COD CRC kits may then be ordered.* 

Please note, before starting C0D all dealer associates involved with this campaign must be properly trained using the Dealer Information Packet, Laminated Quick Reference Guide for the Corrosion-Resistant Compound Campaign (C0D), and Technical Instruction. Training should be documented in the associate training log.

\*Follow the *CRC Application* Support link located in the left bottom corner of the C.L.E.A.N Dealer webpage. Accessing and using this website will be similar to the procedure used for LSC 90D and B0D. Your dealership should have access to the C.L.E.A.N Dealer website. If you are having difficulty accessing or using the website, please contact the Environmental Health and Safety (EH&S) Hotline at (877) 572-4347.

### 8. Warranty Processor Instructions



(Warranty Processor Instructions CONTINUED . . . )



<u>ONLY</u> use the following Operation (Op.) Codes if your dealership is located in the Cold Climate States.



All other dealers will be debited for use of these Op. Codes.

### **Operation Codes:**

Limited Service Campaign	Op. Code	Frame Inspection and Spare Tire Functional and Visual Check	Replace the Spare Tire Carrier	Remove Rust – Clean Frame No Rust Perforation Found*	CRC Application By Dealer	CRC Application By Outside Shop	Frame Prep Incomplete Rust Perforation Found*	(2WD) Frame Replacement By Dealer Rust Perforation Found*	(4WD) Frame Replacement By Dealer Rust Perforation Found*	(2WD) Frame Replacement By Outside Shop – Rust Perforation Found*	(4WD) Frame Replacement By Outside Shop – Rust Perforation Found*	Flat Rate Hour
	2613A2	✓	-	✓	✓	_	_	_	_	_	_	6.8 hr/vehicle
	2613A3	✓		✓	_	✓	-	-	_	_	_	2.8 hr/vehicle
	2613AM	✓	✓	✓	✓	-	-	_	_	-	_	7.1 hr/vehicle
	2613AN	✓	✓	✓	_	✓	-	_	_	-	_	3.1 hr/vehicle
	2613A4	✓	✓	_	_	-	✓	✓	_	_	_	36.4 hr/vehicle
C0D	2613A5	✓	✓	_	-	-	✓	-	✓	-	_	38.9 hr/vehicle
COD	2613AA	✓	✓	_	-	_	✓	-	-	✓	_	2.0 hr/vehicle
	2613AB	✓	✓	_	ı	1	✓	ı	ı	_	✓	2.0 hr/vehicle
	2613AC	✓	✓	_	-	_	-	✓	-	_	_	35.0 hr/vehicle
	2613AD	✓	✓	-	1	-	-	1	✓	-	-	37.5 hr/vehicle
	2613AE	✓	✓	-	ı	ı	_	ı	ı	✓	-	0.6 hr/vehicle
	2613AU	✓	✓	_	ı	_	-	-	ı	-	✓	0.6 hr/vehicle
	Note: The flat rate time above includes 0.1 hours for campaign administrative cost per unit.											

### Allowable Sublet for Limited Service Campaign C0D - CRC Application

- Rental Vehicle: Use "RT" sublet type for Op. Code <u>2613A2</u>, <u>2613A3</u>, <u>2613AM</u> and <u>2613AN</u>. During the CRC application, customers rental car through the Toyota Rent-A-Car (TRAC) Program is available for a maximum of 2 days. Follow the Toyota Transportation Assistance Program (TTAP) quidelines.
- **Sublet:** The sublet cost for Op. Code 2613A3 and 2613AN (CRC Application by an Outside Repair Shop) should be claimed under sublet type 'YF' using the following formula:

= Maximum 4.0 hours (for CRC Application) X Outside Repair Shop Rate (Under this Op. Code dealers are responsible for inspecting, removing rust, and cleaning the frame)

A maximum of \$250 per vehicle may also be claimed under sublet type 'YG' for the cost of transporting vehicles to an Independent or Dealer Body Shop for Op. Code 2613A3 and 2613AN.

- Materials/Supplies: Use "YA" sublet type for Op. Code 2613A2 and 2613AM. A maximum of \$49/vehicle cost for preparation and application materials/supplies (fire-retardant poly sheeting (tarp), masks, tape, gloves, partitions, waste disposal, etc.) will be accepted.
- \* Based upon Toyota's inspection criteria



(Warranty Processor Instructions CONTINUED . . . )



<u>ONLY</u> use the following Operation (Op.) Codes if your dealership is located in the Cold Climate States.

All other dealers will be debited for use of these Op. Codes.



### Allowable Sublet for Limited Service Campaign C0D - Frame Replacement

• **Sublet:** The sublet cost for Frames Replaced at an Independent or Dealer Body Shop should be claimed under sublet type **'YF'** using the following formula:

Description	Sublet Amounts			
Op. Code 2613AA (2WD)	= Maximum 34.4 hours X Outside Repair Shop Rate			
Op. Code 2613AE (2WD)	– Maximum 34.4 hours X Outside Repair Shop Rate			
Op. Code 2613AB (4WD)	= Maximum 36.9 hours X Outside Repair Shop Rate			
Op. Code 2613AU (4WD)	- Maximum 30.9 hours A Outside Repair Shop Rate			

A maximum of \$250 per vehicle may be claimed under sublet type '**YG**' for the cost of transporting vehicles to an Independent or Dealer Body Shop for Op. Code 2613AA, 2613AE, 2613AB, and 2613AU.

### Rental Vehicles:

Op. Code	Description	Sublet Amounts	Sublet Type	DSPM Authorization
2613AF	Vehicle Rental 1-30 Days (For wax application / frame replacement)	Maximum \$60.00 per day	RT	Not Required
2613AG	Vehicle Rental 31-60* Days (For frame replacement)	Maximum \$60.00 per day with DSPM authorization	RT	Required

<sup>\*\*</sup>Rental car for frame replacement is up to 7 days. If frame replacement is delayed due to parts availability, additional time, up to 30 days, may be claimed *only* with DSPM authorization.

(Submit LSC claims following the procedures described in the Toyota Warranty Policy and Procedures Manual.)

### 9. Customer Handling

Please consider this campaign a great opportunity to focus on assuring customers that Toyota is focused on their satisfaction. Customers who receive the owner notification may contact your dealership with questions regarding the letter and/or campaign remedy. Please welcome them to your dealership and answer any questions that they may have. A Q&A is provided to assure a consistent message is communicated.

- Customers with additional questions or concerns should be instructed to please contact the Toyota Customer Experience Center (1-888-270-9371).
- If a customer has previously paid for repairs of their Tundra frame for this specific condition during the applicable period, please contact the Toyota Customer Assistance Center at 1-888-270-9371.



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### 10. Media Contacts

For News media inquiries only:

Due to the nature of this LSC, it is imperative that all media contacts (local and national) receive a consistent message. In this regard, all media contacts must be directed to Brian Lyons (310) 468-2552, in Toyota Corporate Communications. (Please do not provide these numbers to customers or call if you are a dealer associate. Please provide these contacts to media associates only.)

As part of our dedication to continuous improvement, changes have been incorporated in the production process to ensure the highest quality products are provided to our customers.

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

Thank you for your cooperation.

## Certain 2001 through 2004 Model Year Sequoia Vehicles Corrosion-Resistant Compound Application to the Vehicle's Frame LIMITED SERVICE CAMPAIGN

[VIN]

Dear Toyota Owner:

At Toyota, we are dedicated to providing vehicles of outstanding quality and value. As part of our continual efforts to meet your product expectations, Toyota would like to announce a Limited Service Campaign Program, which includes your vehicle.

### What is the condition?

Toyota has received reports that certain 2001 through 2004 model year Sequoia vehicles operated in specific cold climate areas with high road salt usage may exhibit more than normal corrosion to the vehicle's frame. Toyota investigated these reports and determined that the frames in some vehicles may not have corrosion-resistant protection sufficient for use in these areas. This combined with prolonged exposure to road salts and other environmental factors may contribute to the development of more than normal rust in the frame of some vehicles. This condition is unrelated to and separate from normal surface rust which is commonly found on metallic surfaces after some years of usage and/or exposure to the environment.

### What is included in this Limited Service Campaign?

Any authorized Toyota Dealership will inspect the condition of your vehicle's frame. Based upon the results of the inspection\*, if significant rust perforation is not found, Toyota will apply corrosion-resistant compounds (CRC) to key areas of your vehicle's frame at no charge to you. The CRC application will enhance the corrosion protection of the vehicle's frame.

The inspection will include a functional and visual check of your spare tire carrier to ensure that it operates properly. If the spare tire carrier meets Toyota's inspection criteria, the CRC will also be applied to the spare tire carrier's lift plate. If the spare tire carrier does not meet Toyota's inspection criteria, the spare tire carrier will be replaced.

This campaign involves customers whose vehicles are currently registered in the following specific 20 Cold Climate States (Cold Climate States) which have high road salt usage and the District of Columbia.

CT, DE, IL, IN, KY, MA, MD, ME, MI, MN, NH, NJ, NY, OH, PA, RI, VA, VT, WI & WV

Please schedule an appointment with an authorized participating dealer as soon as possible to have this Limited Service Campaign completed. Based upon the dealer's work schedule, the next available CRC application appointment may be several days away. This campaign expires on 07/31/2014. The CRC application must be completed by this date. Toyota will not be able to apply the CRC on your vehicle after this date.

If an authorized Toyota Dealership confirms that your vehicle's frame has significant rust perforation\*, the dealer will provide an appropriate remedy at **no charge** to you. The Limited Service Campaign covers remedy cost for perforation of the vehicle's frame caused by rust corrosion with no mileage limitations until **07/31/2014** (repairs must be completed by this date).

Please see your Toyota dealership for further details.

\*Based upon Toyota's inspection criteria.

### How do you take advantage of this Limited Service Campaign?

Please contact your authorized Toyota dealer in the state of [state] and make an appointment to have your vehicle inspected and the CRC application performed as soon as possible. The inspection and CRC application will take approximately 7 hours. The Toyota dealer will arrange a complimentary loaner vehicle (upon proof of adequate insurance) for your use for up to 2 days during the repair (extra time may be provided if additional repairs are needed for this condition).

This offer is limited to your specific vehicle whose Vehicle Identification Number (VIN) is printed at the beginning of this letter and is subject to the same conditions set forth in the New Vehicle Limited Warranty section of your Owner's Manual Supplement or Owner's Warranty Information booklet. Eligibility notes: (1) Damage incurred from abuse, misuse, tampering, accident or crash, vandalism, flood-damage and/or other impact is not covered by this offer. (2) This offer does not apply to scrapped, salvaged, dismantled, flood-damaged, rebuilt or other branded/salvage title vehicles (excluding lemon law branded vehicles). (3) You must demonstrate that your vehicle is operable, has been operated regularly over the preceding twelve months and has a valid and current registration or you must demonstrate that you were unable to register the vehicle due to the perforation condition in order for this limited service campaign to apply; (4) Vehicles must be drivable and vehicles with moderate, or more, accident damage are not eligible for this offer; and (5) If your vehicle is currently registered in the states of CT, DE, IL, IN, KY, MA, MD, ME, MI, MN, NH, NJ, NY, OH, PA, RI, WI, WV, VA, VT or the District of Columbia. An authorized Toyota dealer must perform this campaign by 07/31/2014.

This program is intended for individual customer support and only applies to warranty work performed at an authorized Toyota dealership.

If your vehicle is covered by this Limited Service Campaign, you do not need an owner letter to have the campaign completed; however, Toyota will be rolling this campaign out on a state by state basis, as various Federal, State and Local Requirements are addressed. Therefore, a received owner letter will help ensure the participating dealerships in your state have finalized the necessary preparations.

### What if you have other questions?

- Your local Toyota dealer will be more than happy to answer any of your questions and set up an appointment to perform this Limited Service Campaign.
- You can find additional information and locate a Toyota dealer in your area by going online and visiting www.toyota.com/recall.
- If you require further assistance, you may contact the Toyota Customer Experience Center at 1-888-270-9371 Monday through Friday, 5:00 am to 6:00 pm, Saturday 7:00 am through 4:00 pm Pacific Time.

### What if you have previously paid for repairs for this condition?

If you have previously paid for repairs to address this specific condition, please mail a copy of the repair order, proof-of-payment, and proof-of-ownership to the following address for reimbursement consideration:

Toyota Motor Sales, U.S.A., Inc.
Toyota Customer Experience, WC10
19001 South Western Avenue
Torrance, CA 90509

Include your name, address, and telephone number(s) in your request. Please allow us 6-9 weeks to process your request.

If you no longer own this vehicle or would like to update your vehicle ownership/contact information, please go to <a href="https://www.toyota.com/ownersupdate">www.toyota.com/ownersupdate</a>. You will need your full 17-digit Vehicle Identification Number (VIN) to input the new information.

If you are a vehicle lessor, please assist us by forwarding this notice to the lessee.

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

Thank you for driving a Toyota.

Sincerely,

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

Spanish translation on back side

### Owner Information Supplement – Corrosion Resistant Compound Application (CRC)

### What do I do next?

- Please make an appointment with a participating dealership in the States of [Insert Launching State] to have your vehicle's frame inspected and the CRC application performed.
- Dealerships in the following states are also authorized to apply the CRC: [Insert Previously Launched States]. You may
  contact a participating Toyota dealership in any of these states to have your vehicle's frame inspected and the CRC
  application performed.
- Toyota is continuing its efforts to arrange for dealerships in the remaining 20 Cold Climate States to be authorized to perform the CRC application.

### What if I have my normal maintenance conducted at a dealership that is not authorized to apply the CRC?

We apologize for any inconvenience, but at the current time, you have the following options:

- You may have the CRC application performed at this time at a Toyota dealership in one of the states identified above;
   Or
- You may choose to wait until your preferred dealership is authorized to apply the CRC. We anticipate that dealerships in the Cold Climate States will be authorized by November 2012. Please periodically check with your Toyota dealership on its status.

### Why aren't dealerships in the other Cold Climate States ready to perform the CRC application?

• The CRC is applied utilizing specialized spraying equipment. Toyota is currently working to address state and local regulatory requirements that apply to the usage of this spraying equipment. We apologize for the inconvenience.



### Limited Service Campaign C0D (Q&A)

Certain 2001 through 2004 Toyota Sequoia Vehicles Registered in the Cold Climate States Corrosion-Resistant Compound (CRC) Application to the Vehicle's Frame

### Q1: What is the condition?

A1: Toyota has received reports that certain 2001 through 2004 model year Sequoia vehicles operated in specific cold climate areas with high road salt usage may exhibit more than normal corrosion to the vehicle's frame. Toyota investigated these reports and determined that the frames in some vehicles may not have corrosion-resistant protection sufficient for use in these areas. This combined with prolonged exposure to road salts and other environmental factors may contribute to the development of more than normal rust in the frame of some vehicles. This condition is unrelated to and separate from normal surface rust which is commonly found on metallic surfaces after some years of usage and/or exposure to the environment.

### Q2: What is the cause of this condition?

A2: The frames in some number of vehicles may not have corrosion-resistant protection sufficient for use in these areas. This combined with prolonged exposure to road salts and other environmental factors may contribute to the development of rust corrosion in the frames of some vehicles. This condition is unrelated to, and separate from, normal surface rust which is commonly found on metallic surfaces after some years of usage and/or exposure to the environment.

### Q3: What are the "Cold Climate States" with high road salt usage covered by this Limited Service Campaign (LSC)?

A3: The following states and the District of Columbia are referred to as the "Cold Climate States":

CT, DE, IL, IN, KY, MA, MD, ME, MI, MN, NH, NJ, NY, OH, PA, RI, VA, VT, WI, and WV

### Q3a: Why are some states contiguous to the Cold Climate States not included?

A3a Only portions of the listed states may exhibit the cold climate and high road salt usage which can cause this condition. To simplify the administration of this campaign and avoid confusion, Toyota has elected to include the entire state rather than a portion.

### Q4: Which and how many vehicles are covered by this Campaign?

A4: There are approximately 66,600 Sequoia (2001 – 2004 model year) vehicles currently registered in the Cold Climate States.

### Q5: What is the production period of the vehicles covered by this CRC Campaign?

A5: The vehicles covered by this campaign were produced from August 11, 2000, to August 19, 2004.

### Q6: What is Toyota going to do?

A6: Over the next few months, owners of the covered vehicles will be requested to bring their vehicles to an authorized Toyota dealership in the Cold Climate States. The dealership will inspect the condition of the vehicle's frame. Based upon the results of the inspection, if significant rust perforation *is not* found\*, the dealership will apply corrosion-resistant compounds (CRC) to key areas of the vehicle's frame at *no charge* to the owners until *07/31/2014*.

The inspection will include a functional and visual check of your spare tire carrier to assure that it operates properly. If the spare tire carrier meets Toyota's inspection criteria, the CRC will also be applied to the spare tire carrier's lift plate. If the spare tire carrier does not meet Toyota's inspection criteria, the spare tire carrier will be replaced.

If significant rust perforation is found\* on the vehicle's frame, the dealership will replace the vehicle's frame, along with the spare tire carrier which is mounted to it. The frame and spare tire carrier replacement will be done at **no charge** to the owners until **07/31/2014**.

<sup>\*</sup> Per Toyota's Inspection Criteria

### Q6a: Once the CRC application is complete, will Toyota extend the warranty on the vehicle's frame?

A6a: The CRC application is designed to enhance the corrosion resistant properties of the vehicle's frame. Additional warranty enhancements are not offered under this campaign.

### Q6b: What if the vehicle's frame already exhibits excessive corrosion, will Toyota perform the CRC application or will the vehicle be repaired?

A6b: Toyota will inspect the vehicle's frame. If the frame passes Toyota's Inspection Criteria, the CRCs will be applied to the frame. If the frame exhibits significant rust perforation (based upon Toyota's inspection criteria) Toyota will replace the vehicle's frame. The work will be performed at *no charge* to the owner of the covered vehicles for a limited time, until *07/31/2014*.

### Q7: Why is Toyota only offering the CRC application to customers whose vehicles are currently registered in the Cold Climate States?

A7: Toyota is applying the CRC in areas where vehicles may experience or have experienced prolonged exposure to severe cold climates with high road salt use.

### Q8: What should customers, whose vehicles are covered under this LSC, do?

A8: Owners of vehicles covered by this LSC should bring their vehicle to a participating Toyota dealer located in one of the Cold Climate States for which authorization to perform the CRC application has been obtained. Customers may also contact their local Toyota dealer for additional information.

### Q9: What should owners do if they experience the condition, or have immediate concerns about their vehicle?

A9: Owners who have any immediate concerns about this issue are requested to contact their local Toyota dealer for any assistance and/or, if applicable, appropriate repair/remedy.

### Q10: Does an owner of a covered vehicle need to receive an owner letter before scheduling an appointment to have the CRC applied to their vehicle's frame?

A10: Owners of vehicles covered by this campaign do not need an owner letter in order to have the CRC applied to their vehicle's frame. However, due to the state and local regulatory requirements that must be met, Toyota will be rolling out LSC C0D a few states at a time. Therefore, we recommend that a customer wait to receive the owner letter to ensure that a dealer in their state has received any necessary regulatory approvals and is ready to offer this campaign. Customers may also contact their local Toyota dealer for additional information.

### Q11: Is this condition related to the previous Tacoma and/or Tundra rust condition?

A11: As with the previous Tacoma and Tundra campaigns, the primary contributors to this condition of greater than expected levels of corrosion are (1) the amount of corrosion-resistant protection and (2) severe cold climate conditions with high road salt usage. However, the frames are a different design.

### Q12: How long will the repair take?

A12: The inspection and CRC application will take approximately 7 hours. However, depending upon the dealer's work schedule, it may be necessary to make the vehicle available for a longer period of time.

### Q12a: Will Toyota provide a rental vehicle until the vehicle is repaired?

A12a: The Toyota dealer will arrange a complimentary loaner vehicle (upon proof of adequate insurance) for customer use at no charge for up to 2 days during the repair (extra time may be provided if additional repairs are needed for this condition).

### Q12b: What if the vehicle's frame fails Toyota's inspection criteria; how long will the repair take?

A12b: The frame replacement will take approximately 35 hours. However, depending upon the dealer's work schedule, it may be necessary to make the vehicle available for a longer period of time.

### Q13: When will owners be notified?

A13: The Campaign Notices will be mailed to owners of covered vehicles currently registered in the Cold Climate States and the District of Columbia starting in August 2012.

### Q14: When will this Limited Service Campaign expire?

A14: This Limited Service Campaign will be offered until July 31, 2014.

### Q15: What if a customer has previously paid for repairs related to this campaign?

A15: Owners that have previously paid for repairs to address this specific condition should refer to the owner letter for instructions regarding reimbursement consideration.

### Q16: What if the customer has other concerns with the vehicle?

A16: Customer satisfaction is very important to Toyota. If customers have other concerns with the vehicle, we request they work with their Toyota dealer and/or the Toyota Customer Experience Center. The Customer Experience Center telephone number is 1-888-270-9371.

# SUPPLEMENTAL TECHNICAL INSTRUCTIONS FOR

**LIMITED SERVICE CAMPAIGN COD** 

**CERTAIN 2001-2004 MODEL YEAR SEQUOIA** 

FRAME REPLACEMENT

### **OPERATION FLOWCHART** Verify Vehicle Eligibility: 1. Check the VIN range No further action required. 2. Check the TIS vehicle Inquiry system Yes Contact your regional Is the vehicle registered in one of the Cold Climate States? representative for assistance. Yes Perform the visual and functional test on the spare tire carrier. Remove the spare tire. (Note your findings) Perform the Pre-Hoist Visual Inspection. Was 10mm or larger perforation found in the green area specified below? Yes No Remove the rust and clean the frame. Was perforation 10mm or larger found in the locations identified in green below (during the rust removal and/or cleaning process)? Proceed with Frame and Spare Yes Tire Carrier Replacement. Νo Did the spare tire carrier meet Toyota's inspection criteria? Yes No Apply CRC to the spare tire Replace the Spare Tire Carrier. carrier as outlined in the TI. Apply the CRC to the areas of the frame outlined below. Apply <u>Parker 712AM</u> (Internal Application) to the inside of the frame. (Highlighted in Yellow Below) • Install the Foam Kit and the Body Plug Kit after applying the 712AM and before applying the Noxudol 300S. Apply <u>Noxudol 300S</u> (External Application) to the bottom and sides of the frame. (Highlighted in Red Below)

 After applying the CRCs place a CRC Customer Information Hang Tag on the rear-view mirror.

After 24 hours return the vehicle to the customer.

### II. PREPARATION

### A. TOOLS & EQUIPMENT

- Above Ground Lift (Required)
- Alignment Rack
- A/C Service Equipment with Manifold Gauges
- Brake Bleeder
- Cooling System Tester
- Engine Hoist (Qty: 2) or Hydraulic Mini Crane (Qty: 2)
- Engine Sling Device
- Floor Jack
- Protective Gloves
- Protective Eyewear
- Ratcheting Tie Down Strap (2 in X 27 ft, Minimum Work Load Capacity: 3,000 lbs)
- Standard Hand Tools
- Special Service Tools (SST)
  - o 09325-40010 Transmission Oil Plug
  - o 09520-01010 Drive Shaft Remover Attachment
  - o 09520-32040 Slide Hammer
  - o 09610-20012 Pitman Arm Puller
  - o 09617-24011 Steering Rack Wrench or Equivalent
  - o 09628-62011 Ball Joint Puller
  - o 09922-10010 Variable Open Wrench
- Techstream
- Torque Wrench

### **B. SUPPLIES**

- ATF D-II or DEXRON<sup>®</sup>III (DEXRON<sup>®</sup>II) As needed
- Hypoid Gear Oil API GL-5 SAE 75W-90 1.15 liter (4WD Only, Front Differential)
- MP Grease
- Marker
- ND-OIL 8 Compressor Oil As needed
- R134a Refrigerant As needed
- Silicon Lubricant
- Toyota DOT 3 Brake Fluid 3 pints
- Toyota Long Life Coolant 2 gallons
- Vinyl Tape

### 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 <a href="http://c0d-lookup.imagespm.info">http://c0d-lookup.imagespm.info</a>, enter the VIN, and the correct part numbers to order will be displayed. The website is for part(s) application reference only and will not order the part, nor will it confirm campaign completion status.

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

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 (Model Year)	Quantity	Illustration Name	Page
04001-7510C	Frame, Sub-Assy (01-02)	1	Frame & Misc Parts	6
04001-7520C	Frame, Sub-Assy (03-04)	1	Frame & Misc Parts	6
04001-7530C	Frame, Sub-Assy (01-02 w/Towing Hitch)	1	Frame & Misc Parts	6
04001-7540C	Frame, Sub-Assy (03-04 w/Towing Hitch	1	Frame & Misc Parts	6

### Individual Parts (Continued):

Part Number	Part Description (Model Year)	Quantity	Illustration Name	Page
12157-10010	Gasket, Drain Plug	1	Front Differential	10
43425-04020	Ring, Drive Shaft Snap	2	Front Suspension & Front Driveshaft	8
47316-0C040	Tube, FR Brake, No.6	1	Brake Tubes	9
47322-0C030	Tube, RR Brake, No.2	1	Brake Tubes	9
47323-0C020	Tube, RR Brake, No.3	1	Brake Tubes	9
47325-0C020	Tube, RR Brake, No.5	1	Brake Tubes	9
47326-0C020	Tube, RR Brake, No.6	1	Brake Tubes	9
51900-0C020	Carrier, Spare Tire	1	Spare Tire Carrier	6
90080-43034	Gasket, Exhaust Pipe (01-02)	2	Exhaust System	12
90430-24003	Gasket	1	Front Differential	10
90917-06083	Gasket, Exhaust Pipe (03-04)	2	Exhaust System	12
95381-04045	Pin, Cotter	2	Front Suspension & Front Driveshaft	8

### Parts Kits:

Part Number	Part Description	Quantity
04001-7010C	Parts Kit No.1 – Common Replacement kit A-1 (01-04MY)	1

### The kit listed above includes the following parts:

Part Number	Part Description	Qty	Illustration	Page
16492-21050	Ring, O Radiator	1	Radiator	13
18495-38020	Retainer, Converter RR Flange	2	Exhaust System	12
23232-41081	Gasket	1	Fuel System	12
47351-34040	Bracket, Flexible Hose, No. 5	1	Brake Tubes	9
47353-35110	Bracket, Flexible Hose, No. 3	1	Brake Tubes	9
47354-35100	Bracket, Flexible Hose, No. 4	1	Brake Tubes	9
48409-34020	Cam Sub-Assy, Toe Adjust	2	Front Suspension & Front Driveshaft	8
48409-34030	Cam Sub-Assy, Toe Adjust	2	Front Suspension & Front Driveshaft	8
48452-35020	Plate, Toe Adjust, No. 2	4	Front Suspension & Front Driveshaft	8
48824-34030	Bracket Stabilizer RH	1	Front Suspension & Front Driveshaft	8
48829-34020	Bracket Stabilizer LH	1	Front Suspension & Front Driveshaft	8
77285-34031	Clamp, Fuel Tube, No. 1	5	Fuel Tubes	10
77285-34060	Clamp, Fuel Tube, No. 1	1	Fuel Tubes	10
77285-34080	Clamp, Fuel Tube, No. 1	1	Fuel Tubes	10
77285-34200	Clamp, Fuel Tube, No. 1	1	Fuel Tubes	10
90069-08009	Ring, O	1	Air Conditioning	13
90119-08516	Bolt, w/ Washer	10	Front Floor Panel & Front Floor Member	14
90178-08011	Nut, Flange	4	Rear Bumper	14
90178-10024	Nut, Flange	4	Front Bumper	13
90179-08054	Nut	1	Auto Trans Shaft Cable	13
90179-08068	Nut	6	Front Floor Panel & Front Floor Member	14
90179-10071	Nut	4	Engine Mounting	11
90719-14062	Nut	1	Rear Spring & Shock Absorber	7
90182-10004	Nut, w/ Washer	2	Front Suspension & Front Driveshaft	8
90201-09019	Washer, Plate	1	Auto Trans Shaft Cable	13
90252-03015	Pin, Cotter	2	Front Suspension & Front Driveshaft	8
90430-12026	Gasket	1	Fuel System	12
90460-22001	Clamp, Hose	2	Fuel Tank	13
90460-46005	Clamp, Hose	2	Fuel Tank	13
90468-08035	Clip	4	Brake Tubes	9
90904-12066	Way, 2	1	Brake Tubes	9
90904-12067	Way, 2	1	Brake Tubes	9
90904-12068	Way, 2	1	Brake Tubes	9
90917-06085	Gasket, Exhaust Pipe	1	Exhaust System	12
90949-01C06	Clamp	7	Brake Tubes	9
91621-B0816	·		Brake Tubes	9
94130-01232	Nut, Hexagon	6	Rear Bumper	14
94622-31200	Washer, Plate	6	Rear Bumper	14
95381-03225	Pin, Cotter	2	Power Steering	11

### Parts Kits (Continued):

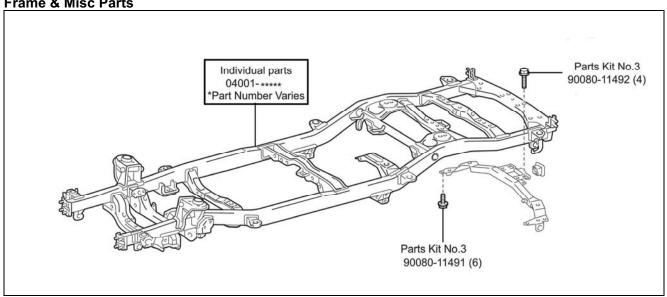
Part Number	Part Description	Quantity
04001-7030C	Parts Kit No.3 – Common Replacement kit B-1 (01-04MY)	1

The kit listed above includes the following parts:

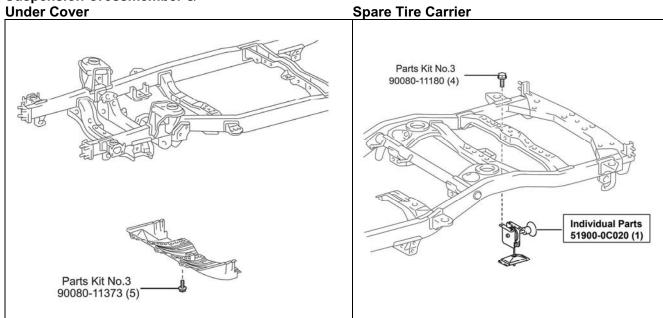
	The kit listed above	includes tr	ie ioliowing parts:	
Part Number	Part Description	Qty	Illustration	Page
47313-0C012	Tube, FR Brake, No. 3	1	Brake Tubes	9
47314-0C011	14-0C011 Tube, FR Brake, No. 4		Brake Tubes	9
47317-0C011	Tube, FR Brake, No. 7	1	Brake Tubes	9
82164-0C040	Wire, Frame	1	Wire Harness Clamps	10
89542-0C010	Sensor, Speed, Front RH	1	ABS	11
89543-0C010	Sensor, Speed, Front LH	1	ABS	11
89545-0C020	Sensor, Speed, Rear RH	1	ABS	11
89546-0C020	Sensor, Speed, Rear LH	1	ABS	11
90069-08007	Ring, O	1	Air Conditioning	13
90080-11180	Bolt, w/ Washer	4	Rear Spring & Shock Absorber	7
90080-11180	Bolt, w/ Washer	4	Spare Wheel Carrier	6
90080-11180	Bolt, w/ Washer	2	Fuel Tubes	10
90080-11275	Bolt, w/ Washer	2	Front Suspension & Front Driveshaft	8
90080-11373	Bolt, w/ Washer 5 Suspension Crossmember & Under		Suspension Crossmember & Under Cover	6
90080-11373	Bolt, w/ Washer 5 Fuel Tank		13	
90080-11387	1387 Bolt, w/ Washer 4 Engine Mounting		Engine Mounting	11
90080-11410	Bolt, w/ Washer	2	Front Suspension & Front Driveshaft	8
90080-11482	Bolt, w/ Washer	2	Front Suspension & Front Driveshaft	8
90080-11482	Bolt, w/ Washer	4	Rear Spring & Shock Absorber	7
90080-11491	Bolt, w/ Washer	6	Frame & Misc. Parts	6
90080-11492	Bolt, w/ Washer	4	Frame & Misc. Parts	6
90080-11555	Bolt, w/ Washer	2	Power Steering	11
90080-46263	Clamp	1	Exhaust System	12
90069-08009	Ring, O	1	Air Conditioning	13
90119-A0026	Bolt, w/ Washer	4	Rear Bumper	14
90119-A0027	Bolt, w/ Washer	2	Rear Bumper	14
90119-A0064	Bolt, w/ Washer	4	Rear Bumper	14
90119-A0077	Bolt, w/ Washer	2	Fuel Tank	13

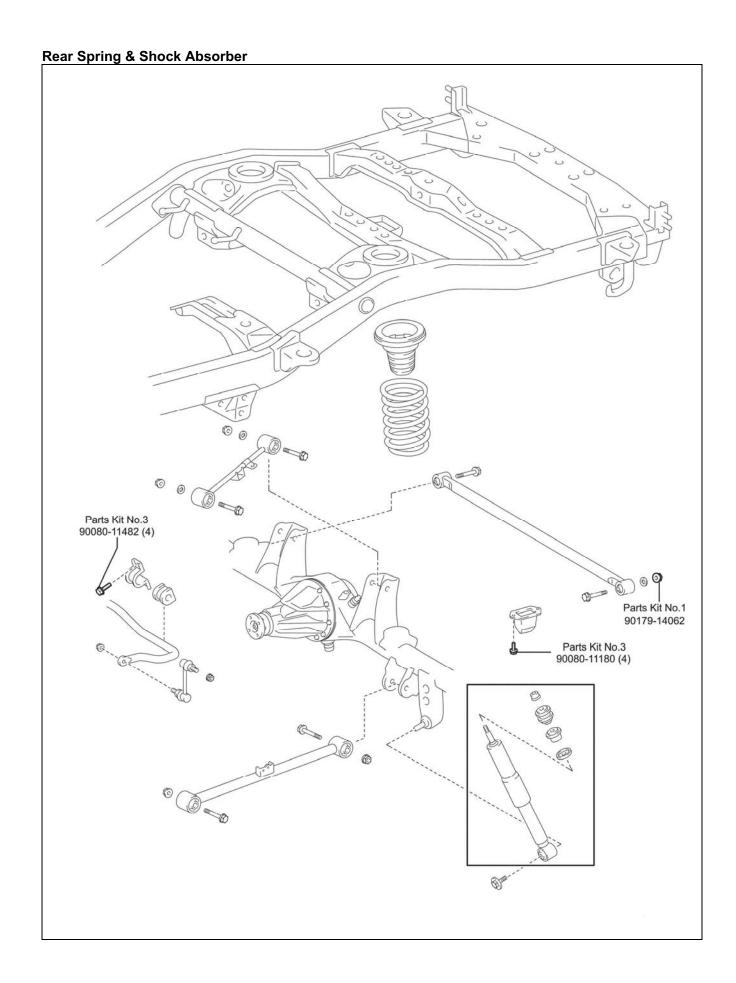
### **D. PARTS ILLUSTARTION**

### Frame & Misc Parts



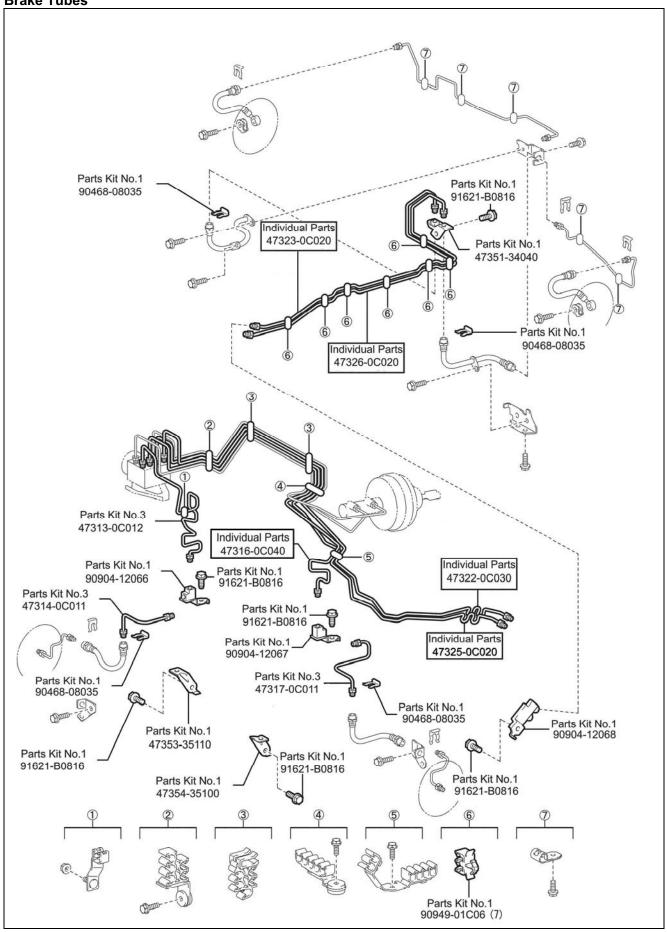
**Suspension Crossmember &** 

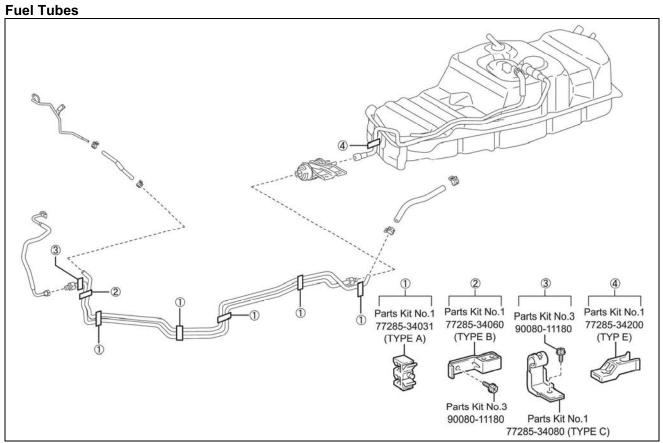


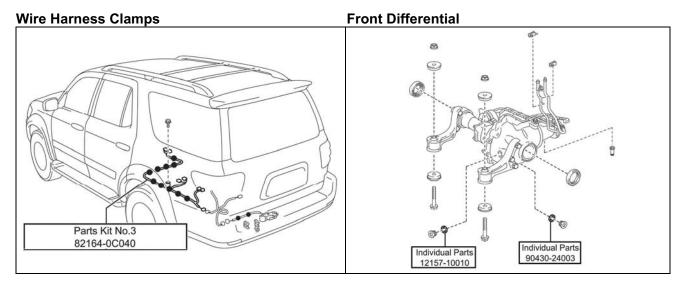


Front Suspension & Front Driveshaft Individual Parts 43425-04020 (2) 8 Individual Parts 95381-04045 (2) (0) Parts Kit No.3 90080-11482 (2) Parts Kit No.1 90182-10004 (2) Parts Kit No.1 48824-34030 (RH) 48829-34020 (LH) 89-1-0 mm Parts Kit No.1 48409-34030 (2) 8 Parts Kit No.1 48452-35020 (2) Parts Kit No.1 48452-35020 (2) Parts Kit No.3 90080-11410 (2) Parts Kit No.3 90080-11275 (2) Parts Kit No.1 48409-34020 (2) Parts Kit No.1 90252-03015 (2)

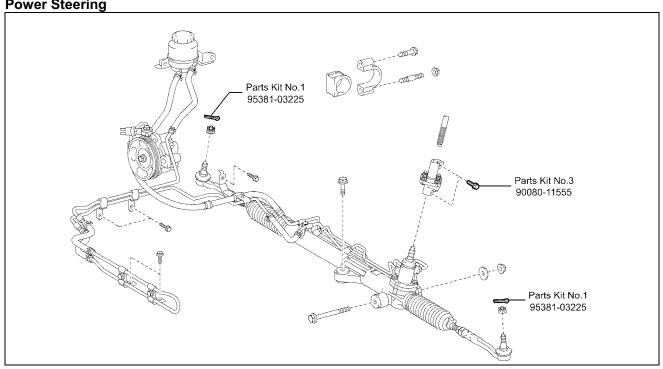
### **Brake Tubes**

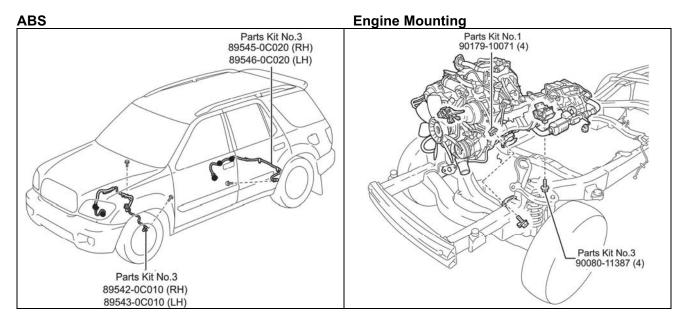


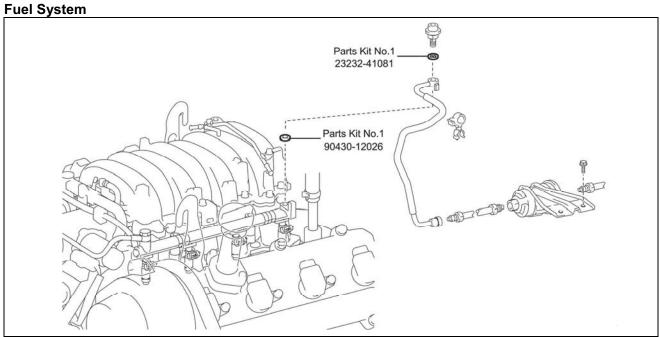


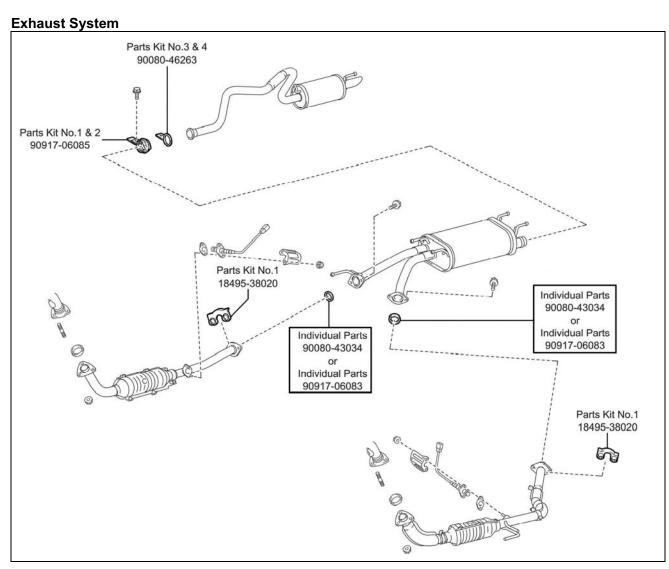


**Power Steering** 

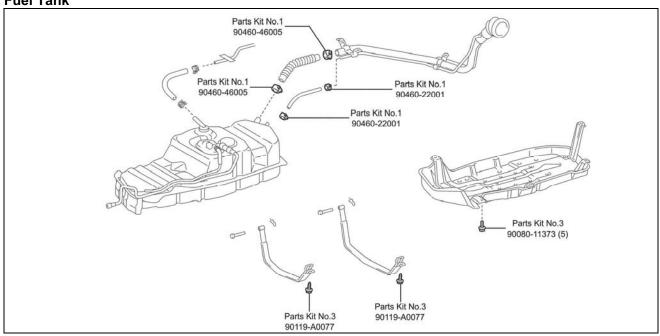


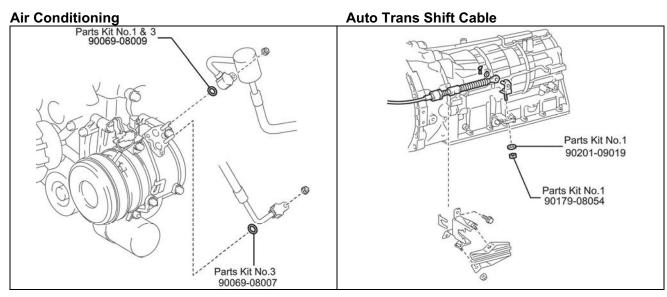


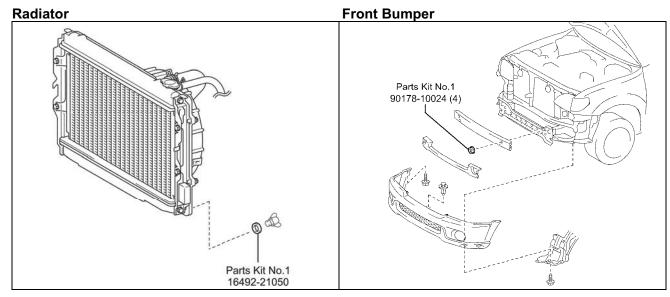


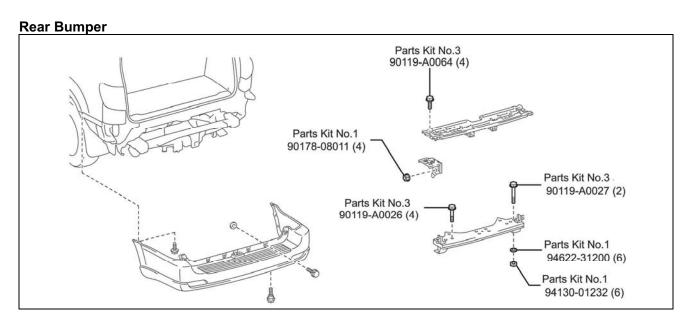


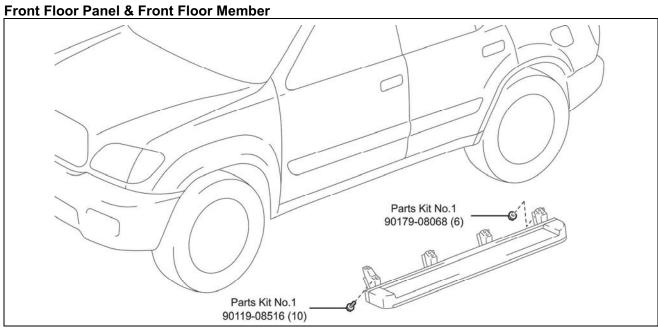
### **Fuel Tank**





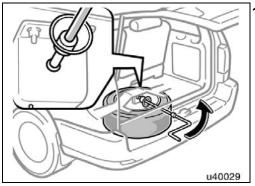






### III. VEHICLE INSPECTION WORK PROCEDURE

### A. FUNCTIONAL AND VISUAL INSPECTION OF THE SPARE TIRE CARRIER



### 1. FUNCTIONAL TEST OF THE SPARE TIRE CARRIER

a) Lower and raise the spare tire with the tools provided with the vehicle and ensure it is operating properly.

Note: Do not operate the spare tire carrier with an impact because damage will occur to the spare tire carrier.

b) Completely lower the spare tire and remove it from the carrier

### 2. VISUALLY INSPECT THE SPARE TIRE CARRIER PLATE FOR RUST COROSSION

a) Visually inspect the top and bottom of the spare tire carrier plate for rust corrosion as shown below.



If rust is not obvious, proceed to next step.

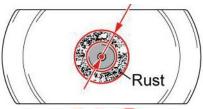


NG

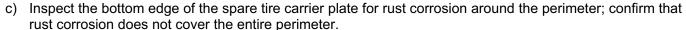
b) Inspect the top center portion (40 mm diameter circle) of the spare tire carrier plate for rust corrosion and confirm it contains **less** than 80% rust.

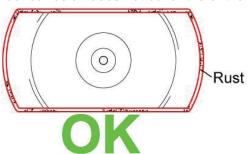


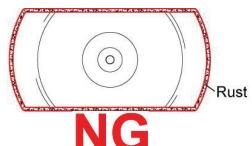
Proceed to next step



NG



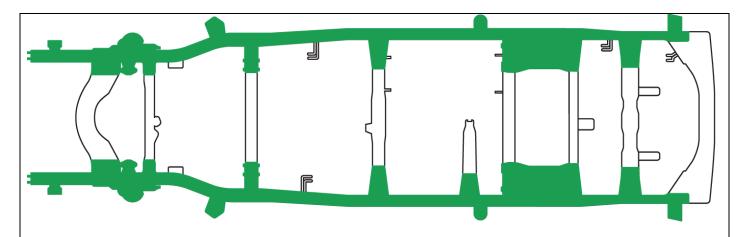




NG

- If the spare tire carrier does not pass <u>any</u> of the inspection criteria, the spare tire carrier will need to be replaced.
- If the frame does not pass the inspection (below) and requires replacement, the carrier is included in the parts supplied for the frame replacement.

### 1. PERFORM INITIAL PRE-HOIST INSPECTION



### 2. VISUALLY INSPECT THE FRAME

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

Judgment Criteria	Result	Action
Perforation (hole) of 10 mm or more  Minimum frame perforation sample size	NG	Replace the frame and spare tire carrier     Proceed to section IV. VEHICLE CONDITION INSPECTION below to begin the frame replacement process.  Note: If the frame fails the inspection the spare tire carrier will be replaced automatically.
Perforation (hole) of less than 10 mm	ОК	Apply Corrosion-Resistant Compound (CRC) to the vehicles frame and spare tire carrier lift plate (if applicable) according to the separate Technical Instruction.

### NOTE:

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

### IV. VEHICLE CONDITION INSPECTION



- Visually inspect both the vehicle interior and exterior. Note any damage found during the visual inspection prior to beginning work.
- As you disassemble the vehicle you may encounter parts that are in need of replacement, which are not covered by this repair procedure. If this is the case, please take the time to inform the customer that these parts can be replaced with no or minimal labor cost.

### V. FRAME REPLACEMENT WORK PROCEDURE



Due to the size and weight of the frame, only <u>above-ground lifts</u> are to be utilized when performing the frame replacement on 2001 – 2004 Sequoia Vehicles. If a dealership is not equipped with above-ground lifts, the frame replacement may need to be sublet to a body shop or other dealership business.

### A. 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
	<ul> <li>□ Perform work in a well ventilated area.</li> <li>□ DO NOT work underground or in an area where fuel vapors may fill the room due to poor ventilation.</li> <li>□ Quickly clean up any spilled fuel with a dry cloth and dissipate the fuel vapors.</li> <li>□ 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).</li> </ul>
2.	FIRES AND IGNITION SOURCES ARE STRICTLY PROHIBITED
	<ul> <li>☐ Fires and ignition sources are prohibited while working on the fuel system.</li> <li>☐ Clearly display the sign found on the next page stating "WORKING WITH GASOLINE, NO FIRES OR IGNITION SOURCES".</li> <li>☐ Smoking is prohibited near the work area.</li> <li>☐ DO NOT work in areas where there are welders, grinders, drills, electric motors, heaters, etc.</li> </ul>
	DO NOT use work lamps or any other electrical appliance due to the risk of sparks flying from the power

# DO NOT use work lamps or any other electrical appliance due to the risk of sparks flying from 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 bay	s equipped	with a	uto lifts,	cover all	access co	over joints v	with duct tape.
7							

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.
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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

Supervisor

Copiar y exhibir al trabajar

# NINGÚN INCENDIOS NINGUNA FUENTE DE IGNICIÓN TRABAJANDO CON GASOLINA

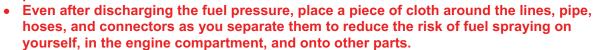
Supervisor

### B. DEPRESSURIZE THE FUEL SYSTEM PRESSURE AND EVACUATE A/C REFIGERANT



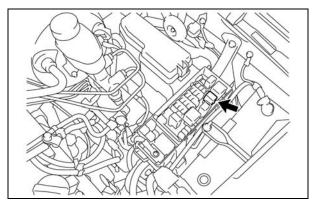






Before commencing the operation, set the vehicle in the center of a lift, stop it in a
position where all the doors can be opened, and center the steering wheel so that the
front wheels are in a straight-ahead position.

### 1. CHECK FOR DTCs TO ENSURE VEHICLE ORIGINAL OPERATING CONDITION



### 2. REMOVE THE FUEL PUMP RELAY

- a) Remove the junction block cover.
- b) Remove the fuel pump relay.

### 3. DISCHARGE THE FUEL SYSTEM PRESSURE

- a) Start the engine.
- b) After the engine has stopped, turn the ignition switch OFF.
- c) Crank the engine again to check that it does not start.

NOTE: Make sure to follow the procedure listed above, this prevents a large amount of gasoline from leaking out of the high pressure fuel line when it is disconnected.

### 4. EVACUATE THE A/C REFRIGERANT

### C. PREPERATION FOR REMOVAL OF THE BODY ASSY

- 1. RECORD THE RADIO STATION PRESETS
- 2. DISCONNECT THE NEGATIVE (-) BATTERY TERMINAL CABLE

Note: if the vehicle is equipped with power seats, you will need to access the front passenger seat bolts prior to disconnecting the battery in order to remove the seat to access the chassis wire.



 Wait at least 90 seconds after disconnecting the negative (-) battery terminal from the battery to prevent the SRS System from deploying (i.e. airbag, seat belt pretensioner, etc.).

# 3. REMOVE THE FOLLOWING INTERIOR PARTS TO ACCESS WIREHARNESS CONNECTORS & CAB MOUNTING BOLTS

- Front Door Scuff Plate LH/RH
- Cowl Side Trim Board LH/RH
- Passenger Front Seat
- Glove Compartment Door
- Lower No.2 Instrument Finish Panel
- No.4 Heater To Register Duct

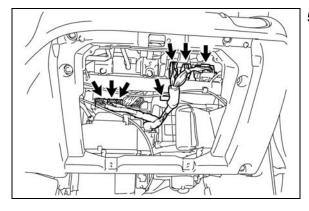


- The actual vehicle specs, equipment and parts required may differ than what is shown. Please use the correct specs and parts for the model you are working on.
- For additional repair information, please reference to the appropriate repair manual.



### 4. DISCONNECT THE FRAME WIRE CONNECTORS

- a) Fold back the floor carpet and disconnect the 2 connectors.
- b) Disconnect the frame wire harness grommet.
- c) Pull out the frame wire harness from the vehicle cab.



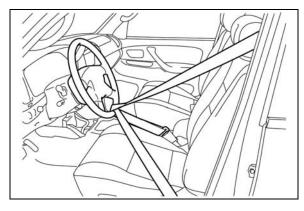
### 5. DISCONNECT THE ENGINE WIRE HARNESS

a) Disconnect the 6 connectors and clamp.

NOTE: The number of connectors will differ depending on the vehicle specs.

### 6. REMOVE THE FOLLOWING PARTS FROM THE CENTER CONSOLE AREA (4WD Only)

- Transfer Shift Lever Knob
- Shifting Hole Cover
- Upper Console Panel
- No.1 Shift and Select Lever Boot
- Transfer High and Low Shift Lever



### 7. SECURE THE STEERING WHEEL

- 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, in order to prevent damage to the spiral cable.

### 8. FOLD UP THE 2<sup>nd</sup> ROW SEATS AND REMOVE REAR PASSENGER DOOR SCUFF PLATES

### 9. REMOVE THE FOLLOWING INTERIOR COMPONENTS TO ACCESS CAB MOUNTING BOLTS

- 2<sup>nd</sup> Row Seat Outer Belt Floor Anchor
- 3<sup>rd</sup> Row Seats (If Equipped)
- 3<sup>rd</sup> Row Seats Outer Belt Floor Anchors (If Equipped)
- Rear Floor Mat Support Plate
- Rear Quarter Trim Panel LH/RH



- Place jack stands under the front and rear portions of the frame to support the frame.
- DO NOT work directly underneath vehicle when preparing the vehicle for cab body 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 to the appropriate repair manual for the vehicle you are working on.

### 10. LIFT VEHICLE ON LIFT

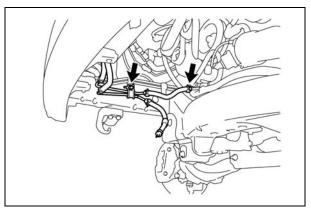
### 11. REMOVE THE FOLLOWING PARTS UNDER VEHICLE COMPONENTS

- No.1 Engine Under Cover
- Side Step Assy LH/RH (if applicable)

### 12. DRAIN THE FOLLOWING FLUIDS

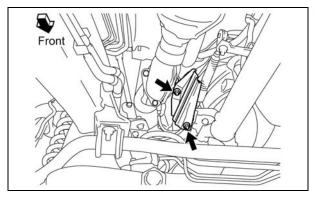
- Engine Coolant (including the engine block)
- Brake Fluid
- Front Differential Oil (4WD ONLY)

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



# 13. DISCONNECT THE AUTOMATIC TRANSMISSION NO.2 OIL COOLER OUTLET TUBE

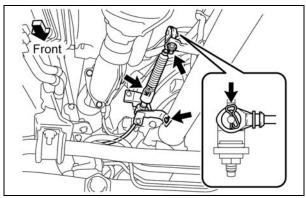
- a) Disconnect the hose.
- b) Remove the bolt and disconnect the No.2 oil cooler outlet tube.



### 14. DISCONNECT THE TRANSMISSION CONTROL CABLE

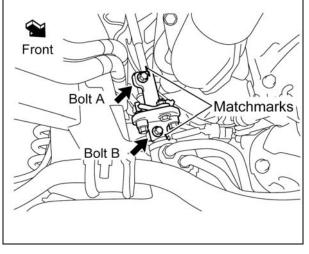
Remove the 2 nuts and transmission control cable insulator

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



- b) Remove the pin and washer.
- c) Remove the 2 bolts and disconnect the transmission control cable.

NOTE: If the pin is difficult to remove, remove the nut and then the cable.



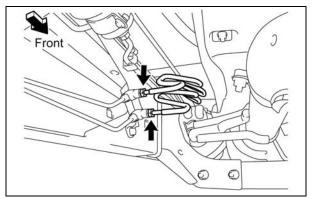
### 15. REMOVE THE NO. 2 STEERING INTERMEDIATE SHAFT

### NOTE:

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

- a) Place match marks on the steering sliding yoke and No.2 steering intermediate shaft.
- b) Remove the bolt (A).
- c) Place match marks on the No.2 steering intermediate shaft and control valve shaft.
- d) Remove bolt (B).
- e) Slide the No.2 steering intermediate shaft and remove it.

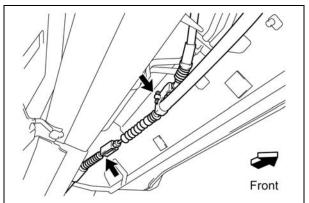
NOTE: If the No. 2 intermediate shaft assy. is stuck, tap it from below with a brass hammer to disconnect it.



### 16. DISCONNECT THE REAR BRAKE TUBES

a) Using a flare nut wrench, disconnect the 2 rear brake tubes.

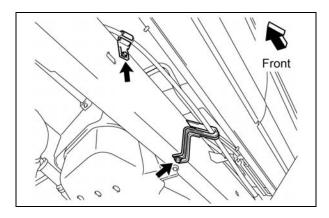
NOTE: Use precaution when performing this step, as you will need to work underneath the vehicle.



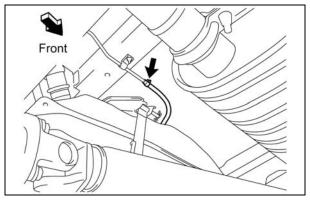
### 17. DISCONNECT THE PARKING BRAKE CABLES

- a) Disconnect the No.1 parking brake cable from the No.3 parking brake cable.
- b) Remove the clip and pin and disconnect the No.2 parking brake cable.

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

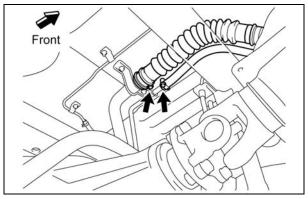


- c) Remove the bolt and cable support bracket from LH side frame rail.
- d) Remove the bolt and disconnect the No.1 parking brake cable from LH side frame rail.



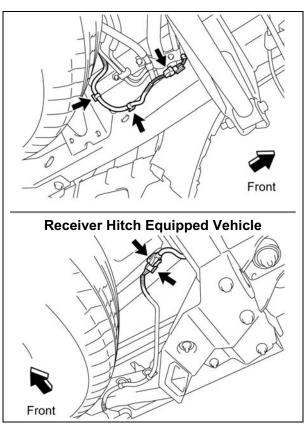
### 18. DISCONNECT THE FUEL TANK VENT HOSE

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



# 19. DISCONNECT THE FUEL TANK TO FILLER PIPE HOSE AND FUEL TANK BREATHER HOSE

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



### 20. DISCONNECT THE FRAME WIRE

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

a) Disconnect the connector for charcoal canister and clamp(s).

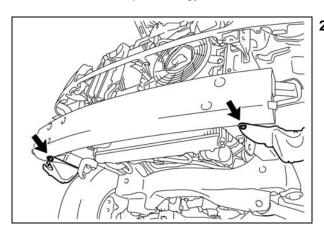
b) Disconnect the connector(s) and clamp(s) for the receiver hitch.

(Receiver Hitch Equipped Vehicle Only)

NOTE: The number of fastening connectors and clamps for the frame wire will differ depending on the vehicle options. Please verify the current vehicle options and continue.

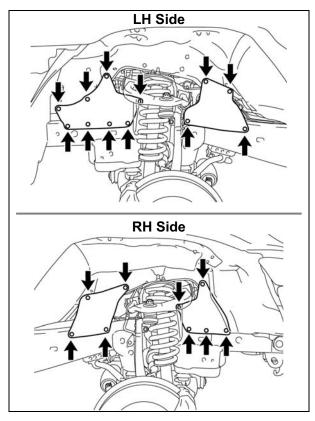
### 21. REMOVE THE FOLLOWING FRONT END COMPONENTS

- Front Fender Mudguard LH/RH
- Front Bumper Assy
- Front Bumper Energy Absorber



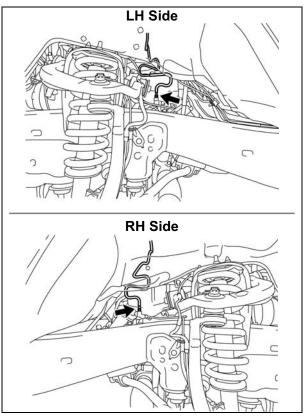
### 22. DISCONNECT THE FRONT FENDER LINERS

a) Remove the 2 screws and disconnect the front fender liners from the front bumper reinforcement.



### 23. REMOVE THE FRONT FENDER APRON SEALS

a) Remove the 21 clips and 4 front fender apron seals.

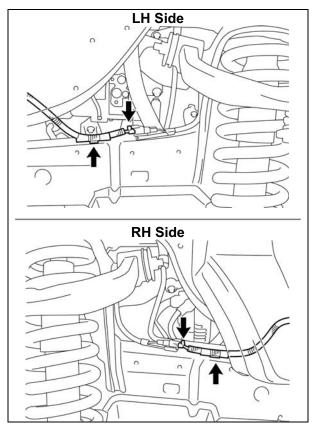


### 24. DISCONNECT THE FRONT BRAKE TUBES

a) Disconnect the front brake tube.

Note: Seal off the front brake lines to ensure no rust and debris enters the brake system.

b) Repeat the procedure on the opposite side.

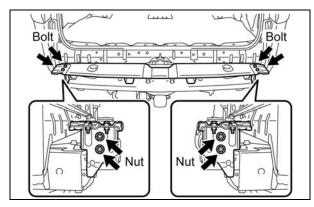


# 25. DISCONNECT THE FRONT SPEED SENSOR CONNECTORS

- a) Disconnect the clamp and front speed sensor connector.
- b) Repeat the procedure on the opposite side.

### 26. REMOVE THE FOLLOWING PARTS

- Rear Quarter Panel Mudguard LH/RH
- · Rear Bumper Assy.



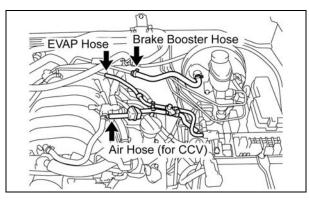
# 27. REMOVE THE REAR BUMPER EXTENSION MOUNTING BRACKET W/ BACK STEP REINFORCEMENT

- a) Loosen the 4 bolts.
- b) Remove the 4 nuts and the rear bumper extension mounting bracket w/ back step reinforcement.

### 28. REMOVE/DISCONNECT THE FOLLOWING PARTS FROM ENGINE COMPARTMENT AREA

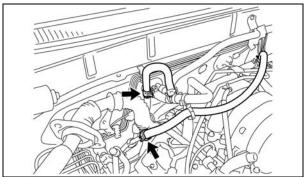
- Throttle Body Cover
- Air Cleaner
- Disconnect accelerator control cable (only on vehicles produced on or before August 2002)
- Radiator Inlet Hose (disconnect from engine)
- Radiator Outlet Hose (disconnect from engine)
- Disconnect Heater Coolant Hose
- Fan Shroud
- External Trans Cooler (If Equipped)
- Radiator Assy

NOTE: After disconnecting the automatic transmission oil cooler hoses, plug them and cap the fittings to prevent the ATF from spilling out.



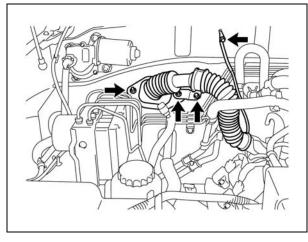
# 29. DISCONNECT THE FOLLOWING ENGINE COMPARTMENT HOSES

- a) Disconnect the brake booster hose.
- b) Disconnect the EVAP hose.
- c) Disconnect the air hose (for CCV).



# 30. DISCONNECT THE REAR HEATER WATER HOSES (IF EQUIPPED)

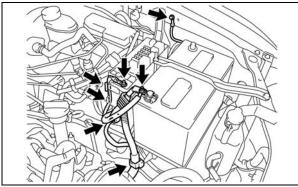
a) Disconnect the 2 rear heater water hoses from the water pipe.



### 31. DISCONNECT THE ENGINE WIRE HARNESS

- a) Remove the bolt and disconnect the ground wire from cowl panel.
- b) Remove the bolt and the 2 nuts holding the engine wire harness connector from the cowl panel.
- c) Gently pull the engine wire harness out from body assembly.

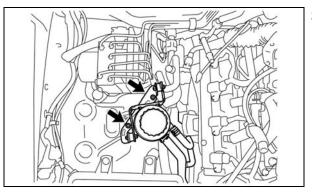
Note: Ensure all connectors have been previously disconnected from the glove compartment to ensure you do not damage the wire harness



### 32. DISCONNECT THE NO.2 ENGINE WIRE HARNESS

- a) Disconnect the connector and clamp from inner LH front fender.
- b) Remove the bolt and disconnect the ground wire.
- c) Remove the nut and disconnect the positive (+) battery cable.
- d) Remove the nut and 2 clamps and disconnect the No.2 engine wire harness from the junction block.

### 33. DISCONNECT THE A/C DISCHARGE HOSE AND SUCTION HOSE



# 34. DISCONNECT THE POWER STEERING PUMP OIL RESERVOIR

a) Remove the 2 nuts and place the power steering reservoir on the engine assembly.

### D. REMOVAL OF THE BODY ASSY

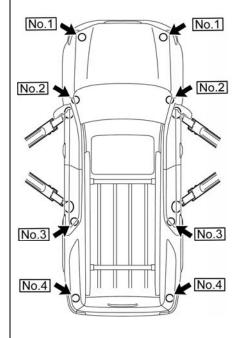
### 35. REMOVE THE CAB BODY ASSY USING AN ABOVE GROUND LIFT

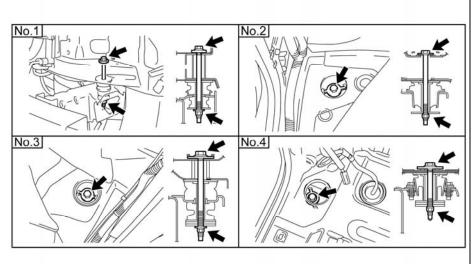
Note: Before rolling chassis out, mark the location of the tires on the floor, this will help align the chassis when the cab is reinstalled.

- a) Remove the 8 nuts and 8 washers.
- b) Set the lift arms under the cab body assy. so they **DO NOT** interfere with the frame or cab mounts.
- c) Check that all wire harnesses, hoses, cables and the steering shaft are disconnected.
- d) Lift the cab assy, up slowly, making sure it does not interfere with anything while being raised.
- e) Raise the cab assy high enough so that the top of the engine clears the lowest point of the cab assy.
- f) Pull the frame assy out from under the cab assembly.
- g) Lower the cab assy all the way down and leave it on the lift.

### NOTE:

- Center the cab assy weight on the lift arms so that it does not slant/tilt to one side.
- Raise the cab assy slightly off the frame and verify that it is held securely by the lift arms.
- DO NOT work directly underneath the vehicle when pulling the frame assy, out from under it.
- DO NOT remove the cab mount bolts, as they will be used as guides during the cab assy. reinstallation process.





### E. DISASSEMBLE THE FRAME

### 1. PLACE THE FRAME ON A 2<sup>nd</sup> LIFT

a) Place the frame on the 2<sup>nd</sup> lift, and secure it with a ratcheting tie down strap. This will prevent the frame from tilting or falling off as parts are removed.

Ratcheting Tie Down: Qty: 1
 Demensions: 2 in X 27 ft

Minimum Work Load Capacity: 3,000 lbs

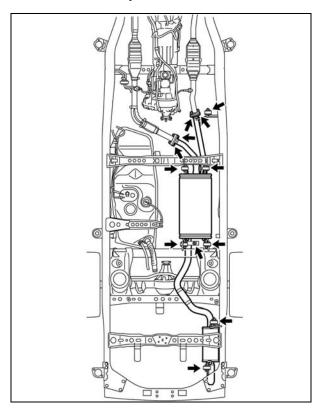
### 2. REMOVE THE FOLLOWING PARTS

Spare Tire Carrier

- Receiver Hitch Bracket Assy (If Equipped)
- Front Propeller Shaft (4WD Only)
- Rear Propeller Shaft
  - Insert the SST into the transmission after the rear propeller shaft is removed to prevent oil leakage.
    (2WD Only)
  - ° SST: 09325-40010
- No.1 Fuel Tank Protector
- Fuel Tank Straps
- Fuel Tank

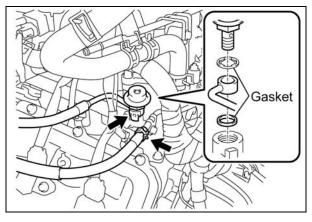
### NOTF:

Make sure to place matchmarks on the front (if equipped) and rear propeller shafts before removal.



### 3. REMOVE THE EXHAUST SYSTEM

- a) Remove the clamp, 2 rear tail pipe brackets and rear tail pipe.
- b) Remove the 4 bolts, 2 exhaust pipe retainers, 4 exhaust pipe supports and center exhaust pipe.
- c) Remove the 3 exhaust pipe gaskets.



### 4. DISCONNECT THE FUEL PIPE AND HOSE

- Remove the pulsation damper and disconnect the No.1 fuel pipe.
- b) Remove the 2 gaskets.
- c) Disconnect the No.1 fuel hose.

### NOTE:

- Put a shop towel under the delivery pipe.
- Slowly loosen the pulsation damper.

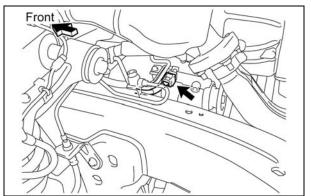
### 5. REMOVE THE DRIVE BELT

### 6. REMOVE AND SET A SIDE THE POWER STEERING PUMP ASSY

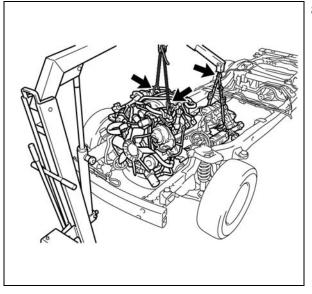
a) Remove the 2 bolts and nut and power steering vane pump assy.

### NOTE:

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



7. DISCONNECT THE A.D.D. ACTUATOR CONNECTOR (4WD ONLY)



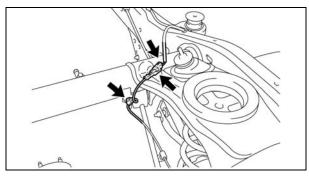
### 8. REMOVE THE ENGINE AND TRANSMISSION ASSY.

- a) Disconnect and remove the necessary items/parts to prepare the engine and transmission assy for removal.
- b) Remove the engine and transmission assy.

### NOTE:

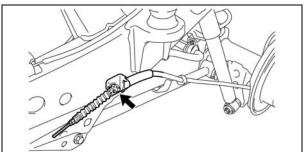
- When removing the engine and transmission assy,
   ALWAYS use 2 engine hoists or mini cranes to lift it.
- DO NOT use 1 engine hoist or mini crane to lift the engine and transmission assy, as the unbalanced weight may lead to an accident or injury.
- ONLY use engine hoists or mini cranes that can properly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

### 9. REMOVE THE 4 WHEELS



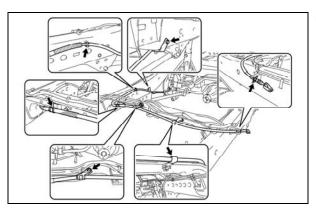
# 10. DISCONNECT THE REAR SPEED SENSOR CONNECTOR

- a) Remove the 2 clamps and disconnect the rear speed sensor connector.
- b) Repeat the procedure on the opposite side.



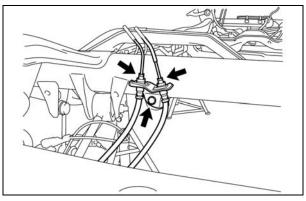
### 11. DISCONNECT THE NO.3 PARKING BRAKE CABLE

 Remove the bolt and disconnect the No.3 parking brake cable.



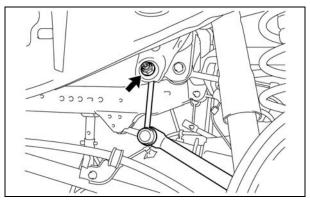
### 12. REMOVE THE NO.2 PARKING BRAKE CABLE

- a) Remove the clip.
- b) Remove the 2 bolts.
- c) Disconnect the No.2 parking brake cable from the 3 clamps.



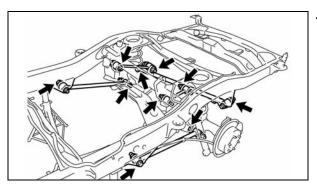
### 13. DISCONNECT THE REAR BRAKE FLEXIBLE HOSES

- a) Using a flare nut wrench, disconnect the 2 rear brake tubes.
- b) Remove the bolt and disconnect the No.5 flexible hose bracket.



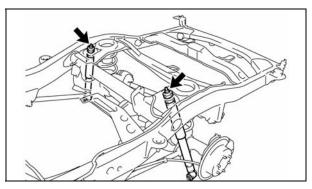
### 14. DISCONNECT THE REAR STABILIZER BAR

- a) Remove the 2 nuts and disconnect the 2 rear stabilizer links from the frame.
- b) Remove the 4 bolts, 2 brackets and rear stabilizer bar.



### 15. LOOSEN THE REAR SUSPENSION ARMS

- a) Loosen the bolts and nuts of the rear suspension arms, at the rear axle housing.
- b) Loosen the bolts and nuts of the rear suspension arms at the frame.

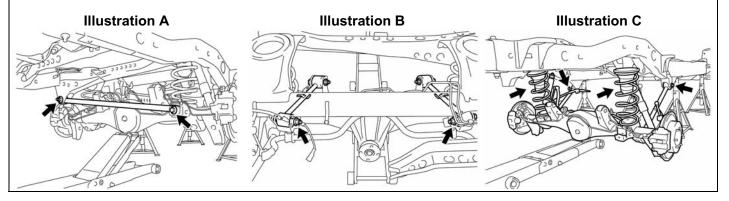


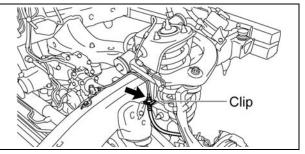
### 16. DISCONNECT THE REAR SHOCK ABSORBERS

- a) Using a floor jack raise the rear axle housing.
- b) Remove the 2 nuts and 2 retainers and disconnect the rear shock absorbers.

### 17. REMOVE THE REAR AXLE HOUSING W/ LINK ASSY

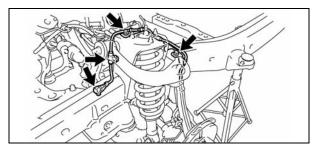
- a) Position the floor jack underneath the center section of the rear axle to support during the disassembly process.
- b) Remove the 2 bolts, washer, nut and the rear lateral control rod (Illustration A).
- c) Remove the 2 bolts, 2 washers and 2 nuts and disconnect the No.1 rear suspension arms from the frame (Illustration B).
- d) Slowly lower the jack, and remove the rear coil springs and hollow springs (Illustration C).
- e) Remove the 2 bolts, 2 washers and 2 nuts and disconnect the lower control arms from the frame (Illustration C).
- f) Roll the rear axle assembly away from frame.





# 18. DISCONNECT THE NO.1 FRONT BRAKE FLEXIBLE HOSES

- a) Disconnect the front brake tube.
- b) Remove the clip and disconnect the No.1 flexible hose.
- c) Plug the hose to ensure not rust or debris enter the brake hose
- d) Repeat the procedure on the opposite side.

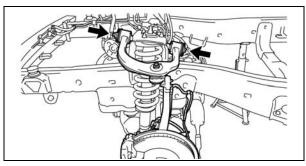


# 19. DISCONNECT THE FRONT SPEED SENSOR CONNECTORS

- a) Remove the 2 bolts and 2 clamps and disconnect the front speed sensor connector.
- b) Repeat the procedure on the opposite side.

### 20. REMOVE THE FOLLOWING FRONT END COMPONENTS

- Front Bumper Reinforcement
- Front Stabilizer Bar
- Front Axle Shaft Nuts (4WD Only)
- Tie Rod Ends
  - ° Remove the cotter pins and nuts.
  - Using the SST, disconnect the tie rod ends.
  - ° SST: 09610-20012
- Front Lower Ball Joints
  - Remove the cotter pins and nuts.
  - Using the SST, disconnect the lower ball joint.
  - ° SST: 09628-62011

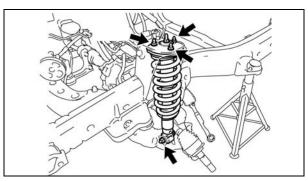


### 21. REMOVE THE FRONT SUSPENSION UPPER ARMS W/ STEERING KNUCKLE AND STRUT ASSY

- 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 it loose with a plastic hammer.



# 22. REMOVE FRONT STRUT ASSY AND LOWER CONTROL ARMS

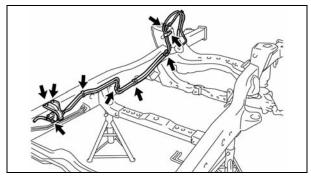
- a) Remove Front Strut Assy by removing the three nuts and bolt.
- b) Repeat procedure on opposite side.
- c) Remove Front Suspension Lower Control Arm

### 23. REMOVE THE FOLLOWING POWERTRAIN COMPONENTS

- Power Steering Gear Assy w/ Power Steering Vane Pump
- Front Drive Shafts (4WD Only)
  - Using the SST, remove the drive shafts.
  - SST: 09520-01010, 09520-32040
- Front Differential Carrier (4WD Only)

### NOTE:

- When removing the power steering rack with the pump assy attached, have one person support the power steering rack and the other support the pump assy.
- Keep the power steering pump reservoir in an upright position to prevent fluid from leaking out.
- 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.

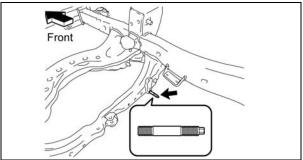


### 24. REMOVE THE FUEL TUBES

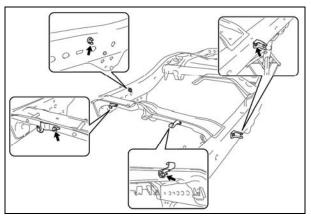
a) Remove the bolts and clamps and the fuel tubes.

### NOTE:

 The number of fastening clips and clamps for the fuel tubes will differ depending on the vehicle model. Please verify the current vehicle and continue.



### 25. REMOVE THE STUD BOLT



# 26. REMOVE THE FRONT PARKING BRAKE CABLE RETAINER BRACKET AND CLAMPS

- a) Remove the bolt and the front cable retainer bracket from crossmember.
- b) Remove the 2 bolts and the clamps from crossmember and LH frame rail.
- c) Remove the clamp from RH side frame rail.

### 27. REMOVE THE REMAINING COMPONENTS

- Front Spring Bumpers
- Rear Spring Bumpers
- Cab Mounting Cushions (Qty: 8)

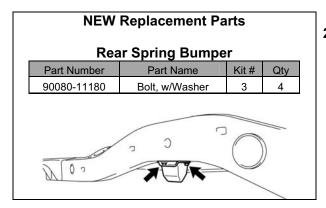
### 28. REMOVE THE FRAME FROM THE LIFT

### F. ASSEMBLE THE NEW FRAME

### 1. PLACE THE NEW FRAME ON THE LIFT

- a) Place the **NEW** frame on the lift, and secure it with a ratcheting tie down strap. This will prevent the frame from tilting or falling off as parts are installed.
  - Ratcheting Tie Down: Qty: 1

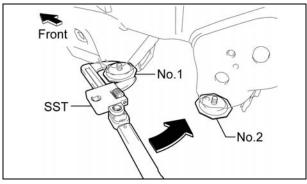
    Demension: 2 in X 27 ft
    - Minimum Work Load Capacity: 3,000 lbs



### 2. REINSTALL THE REAR SPRING BUMPER

- a) Reinstall the rear spring bumper with the 2 **NEW** bolts and torque to spec.
- b) Repeat the procedure on the opposite side.

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



**NEW Replacement Parts** 

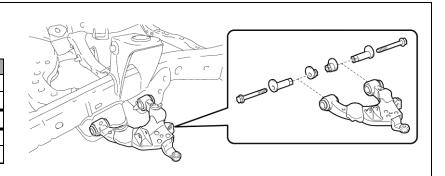
### 3. REINSTALL THE FRONT SPRING BUMPER

- a) Using the SST, reinstall the No.1 and No.2 front spring bumpers to the frame and torque to spec.
- b) Repeat the procedure on the opposite side.

SST: 09922-10010

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

### **Lower Control Arm Cam Assy.** Kit # Part Number Part Name Qty 48409-34020 2 Cam Sub-Assy, Toe 48409-34030 Adjust 2 48452-35020 Plate. Toe Adjust No. 2 1 4 90080-11275 3 2 Bolt w/ Washer 90080-11410 3 2

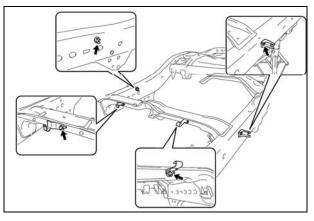


### 4. REINSTALL THE FRONT SUSPENSION LOWER CONTROL ARM

a) Reinstall the front suspension lower control arm with 2 **NEW** bolts, 2 **NEW** toe adjustment plates, and 2 **NEW** toe adjustment cams, then torque to spec.

Torque Spec: 130 N·m (1326 kgf·cm, 96 ft·lbf)

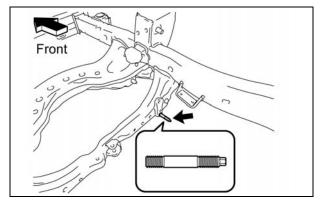
b) Repeat the procedure on the opposite side.



# 5. REINSTALL THE PARKING BRAKE CABLE RETAINER BRACKETS AND CLAMPS

- a) Reinstall the clamp.
- b) Reinstall the clamps with the 2 bolts and torque to spec.
- c) Reinstall the front parking brake cable retainer bracket with the bolt and torque to spec.

Torque Spec: 26 N·m (265 kgf·cm, 19 ft·lbf)



### 6. REINSTALL THE STEERING GEAR STUD BOLT

a) Reinstall the stud bolt and torque to spec.

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

# NEW Replacement Parts Front Bumper Reinforcement Part Number Part Name Kit # Qty 90178-10024 Nut, Flange 1 4

### 7. REINSTALL THE FRONT BUMPER REINFORCEMENT

a) Reinstall the front bumper reinforcement with the 4 **NEW** nuts and torque to spec.

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

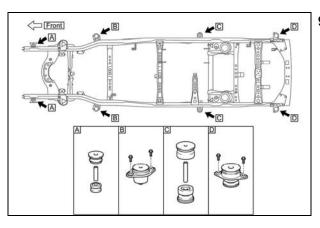
# NEW Replacement Parts Rear Bumper Reinforcement Part Number Part Name Kit # 0

Part Number	Part Name	Kit #	Qty
90119-A0026	Bolt w/Washer	3	4
90119-A0027	Bolt w/ Washer	3	2
94130-01232	Nut, Hexagon	1	6
94622-31200	Washer, Plate	1	6

# 8. INSTALL THE REAR BUMPER REINFORCEMENT SET (If applicable)

 a) Install the rear bumper reinforcement set with the 6 NEW bolts, 6 NEW nuts and 6 NEW washers, then torque to spec.

Torque Spec: 95 N·m (970 kgf·cm, 70 ft·lbf)



### 9. REINSTALL THE CAB MOUNTS

a) Reinstall the 8 cab mounts.

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

### 10. INSTALL THE NEW REAR BRAKE TUBES

a) Install the **NEW** rear brake tubes with the 7 **NEW** clamps.

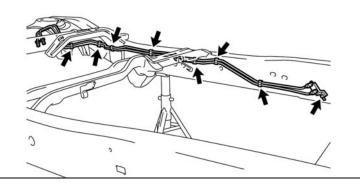
b) Install the **NEW** 2 way with the **NEW** bolt and torque to spec.

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

### **NEW Replacement Parts**

Part Number	Part Name	Kit #	Qty
47323-0C020	Tube, RR Brake, No.3	N/A*	1
47326-0C020	Tube, RR Brake, No.6	N/A*	1
90904-12068	Way, 2	1	1
90949-01C06	Clamp	1	7
91621-B0816	Bolt w/ Washer	1	1





### 11. REINSTALL THE FUEL TUBES

a) Reinstall the fuel tubes with the **NEW** bolts and **NEW** clamps, then torque to spec.

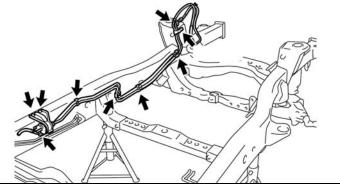
### **Torque Specs:**

Clamp Bolt - 29 N·m (296 kgf·cm, 21 ft·lbf) Filter Bolt - 20 N·m (204 kgf·cm, 15 ft·lbf)

NOTE: The number of bolts and clamps will differ depending on the vehicle specs.



Part Number	Part Name	Kit #	Qty
77285-34031	Clamp, Fuel Tube, No.1 (TYPE A)	1	5
77285-34060	Clamp, Fuel Tube, No.1 (TYPE B)	1	1
77285-34080	Clamp, Fuel Tube, No.1 (TYPE C)	1	1
77285-34200	Clamp, Fuel Tube, No.1 (TYPE E)	1	1
90080-11180	Bolt, w/ Washer	3	2



### 12. INSTALL THE *NEW* FRAME WIRE HARNESS

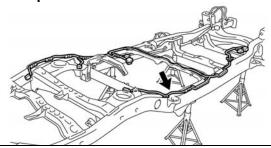
- a) Reconnect the clamps to install the **NEW** frame wire harness.
- b) Reconnect the ground wire with the bolt and torque to spec.

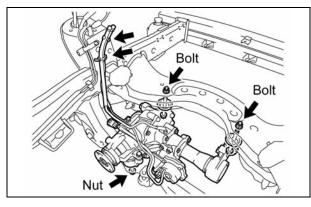
Torque Spec: 29 N·m (296 kgf·cm, 21 ft·lbf)

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

### **NEW Replacement Parts**

Part Number	Part Name	Kit #	Qty
82164-0C040	Wire, Frame	3	1



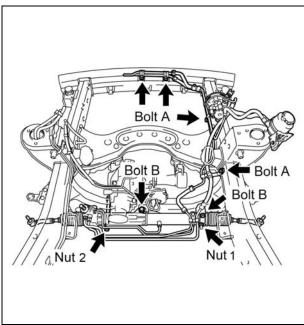


# 13. REINSTALL THE FRONT DIFFERENTIAL CARRIER ASSY (4WD ONLY)

- a) Reinstall the front differential carrier assy with the 2 bolts, 4 stoppers and 3 nuts, then torque to spec.
- b) Reinstall the front differential breather tube with the 2 clamps.

### **Torque Spec:**

Bolt - 137 N·m (1397 kgf·cm, 101 ft·lbf) Nut - 87 N·m (887 kgf·cm, 64 ft·lbf)



# 14. REINSTALL THE POWER STEERING LINK ASSY W/ POWER STEERING VANE PUMP

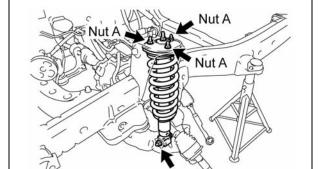
 Reinstall the power steering link assy w/ power steering vane pump with the 6 bolts, washer and 2 nuts, then torque to spec.

### **Torque Spec:**

Bolt A - 29 N·m (296 kgf·cm, 21 ft·lbf) Bolt B - 165 N·m (1682 kgf·cm, 122 ft·lbf) Nut 1 - 165 N·m (1682 kgf·cm, 122 ft·lbf) Nut 2- 130 N·m (1326 kgf·cm, 96 ft·lbf)

### NOTE:

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



### 15. REINSTALL THE FRONT SHOCK ABSORBER ASSY

- a) Reinstall the front shock absorber assy with 3 nut (A) and torque to spec.
- b) Reinstall the front shock absorber assy to the lower control arm 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 - 135 N·m (1377 kgf·cm, 100 ft·lbf)

c) Repeat the procedure on the opposite side.

### **NEW Replacement Parts**

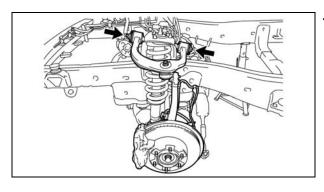
### Front Drive Shaft

	1 TOTIC BITTO GITAIC		
Part Number	Part Name	Kit #	Qty
43425-04020	Ring, Drive Shaft Snap	N/A*	2
	*Individual Part(s)		

### 16. REINSTALL THE FRONT DRIVE SHAFTS (4WD ONLY)

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

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



# 17. REINSTALL THE FRONT SUSPENSION UPPER ARM W/ STEERING KNUCKLE

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

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

b) Repeat the procedure on the opposite side.

### **NEW Replacement Parts**

### **Front Lower Ball Joint**

Part Number	Part Name	Kit #	Qty
90252-03015	Pin, Cotter	1	2

### Tie Rod End

Part Number	Part Name	Kit #	Qty
95381-03225	Pin, Cotter	1	2

### Front Stabilizer Bar

Part Number	Part Name	Kit #	Qty
48824-34030	Bracket, Stabilizer, RH	1	1
48829-34020	Bracket, Stabilizer, LH	1	1
90080-11482	Bolt w/ Washer	3	2
90182-10004	Nut, w/ Washer	1	2

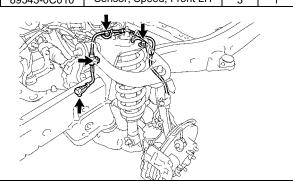
# 18. REINSTALL THE FOLLOWING PARTS

- Front Lower Ball Joints
  - Reinstall the front lower ball joint with the nut and torque to spec.
  - ° Install the **NEW** cotter pin.
  - ° Torque Spec: 140 N·m (1428 kgf·cm, 103 ft·lbf)
  - ° Repeat the procedure on the opposite side.
- Tie Rod Ends
  - Reinstall the tie rod end with the nut and torque to spec.
  - ° Install the **NEW** cotter pin.
  - Torque Spec: 91 N·m (928 kgf·cm, 67 ft·lbf)
  - Repeat the procedure on the opposite side.
- Front Axle Shaft Nuts (4WD Only)
  - Temporarily install the front axle nut. This nut will be tightened when the vehicle is completed.
  - ° Repeat the procedure on the opposite side.
- Front Stabilizer Bar
  - Reinstall the stabilizer bar and 2 NEW brackets with the 2 NEW bolts and 2 NEW nuts, then torque to spec.
  - ° Torque Spec: 37 N⋅m (377 kgf⋅cm, 27 ft⋅lbf)
  - Reinstall the stabilizer bar link with the 2 nuts and torque to spec.
  - ° Torque Spec: 69 N⋅m (704 kgf⋅cm, 51 ft⋅lbf)

### **NEW Replacement Parts**

**Front Speed Sensor** 

Part Number	Part Name	Kit #	Qty
89542-0C010	Sensor, Speed, Front RH	3	1
89543-0C010	Sensor, Speed, Front LH	3	1



### 19. CONNECT THE NEW FRONT SPEED SENSORS

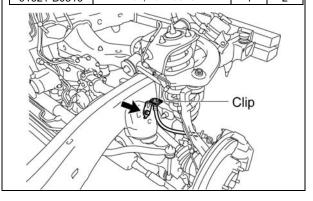
a) Install the front speed sensor with the 3 bolts and 2 clamps, then torque to spec.

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

b) Repeat the procedure on the opposite side.

# NEW Replacement Parts Front Brake Flex Hose

Part Number	Part Name	Kit #	Qty
	Bracket, Flexible Hose		
47353-35110	No. 3	1	1
	Bracket, Flexible Hose		
47354-35100	No. 4	1	1
90468-08035	Clip	1	2
91621-B0816	Bolt, w/ Washer	1	2

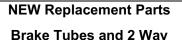


### 20. RECONNECT THE FRONT BRAKE FLEXIBLE HOSES

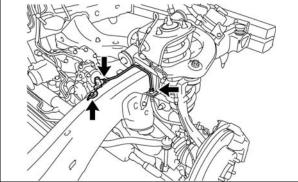
a) Install the **NEW** bracket with the **NEW** bolt and torque to spec.

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

- b) Reconnect the flexible hose with the **NEW** clip.
- c) Repeat the procedure on the opposite side.



Part Number	Part Name	Kit #	Qty
47314-0C011	Tube, FR Brake, No. 4	3	1
47317-0C011	Tube, FR Brake, No. 7	3	1
90904-12066	Way, 2	1	1
90904-12067	vvay, z	1	1
91621-B0816	Bolt, w/ Washer	1	2



# 21. INSTALL THE *NEW* FRONT BRAKE TUBES AND 2 WAYS

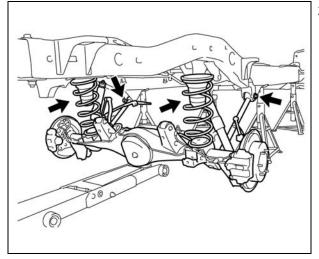
- a) Temporarily install the *NEW* front brake tube and *NEW*2 way.
- b) Reinstall the front brake tube and 2 way with the **NEW** bolt and torque to spec.

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

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

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

d) Repeat the procedure on the opposite side.

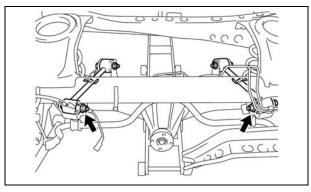


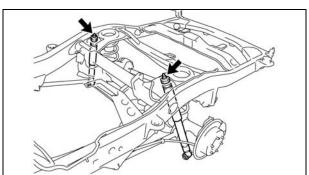
### 22. REINSTALL THE REAR AXLE HOUSING W/ LINK ASSY

- a) Place rear axle on floor jack and position under the frame.
- b) Temporarily reinstall the 2 bolts, 2 nuts and 2 washers on the frame side of the lower control arms to the frame.
- c) Set the rear coil springs and hollow springs on the rear axle housing.

### NOTE:

- After stabilizing the suspension, torque the bolts and nuts.
- Be sure to raise one side of the rear axle housing at a time.
- Install the rear lateral control rod after positioning the body on it.



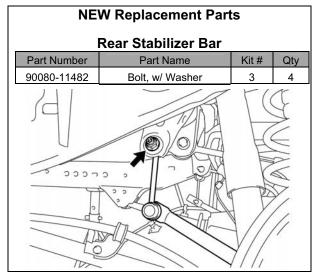


d) Raise the jack, and temporarily install the 2 bolts, 2 nuts and 2 washers on the frame side of the No.1 rear suspension arm to the frame.

### NOTE:

- After stabilizing the suspension, torque the bolt and nuts.
- Be sure to raise one side of the rear axle housing at a time.
- Install the rear lateral control rod after positioning the body on it.
- e) Reconnect the rear shock absorbers with the 2 nuts and 2 retainers, then torque to spec.

Torque Spec: 58 N·m (591 kgf·cm, 43 ft·lbf)



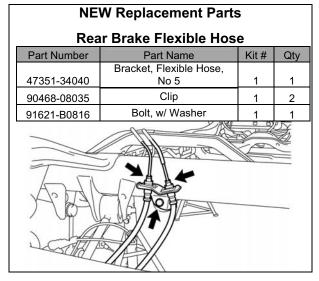
### 23. RECONNECT THE REAR STABILIZER BAR

a) Reconnect the 2 rear stabilizer links with the 2 nuts and torque to spec.

Torque Spec: 69 N·m (704 kgf·cm, 51 ft·lbf)

b) Install the 4 **NEW** bolts and 2 brackets, then torque to spec.

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



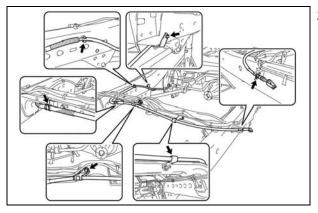
### 24. RECONNECT THE REAR BRAKE FLEXIBLE HOSES

a) Install the No.5 flexible hose bracket with the **NEW** bolt and torque to spec.

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

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

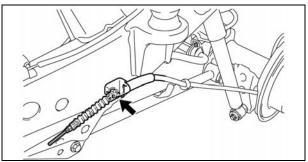
Torque Spec: 16 N·m (163 kgf·cm, 12 ft·lbf)



### 25. REINSTALL THE NO.2 PARKING BRAKE CABLE

- a) Reconnect the No.2 parking brake cable to the 3 clamps.
- b) Reinstall the 2 bolts and torque to spec.
- c) Reinstall the clip.

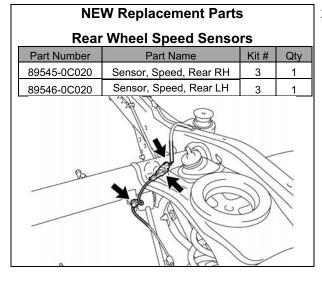
Torque Spec: 26 N·m (265 kgf·cm, 19 ft·lbf)



### 26. RECONNECT THE NO.3 PARKING BRAKE CABLE

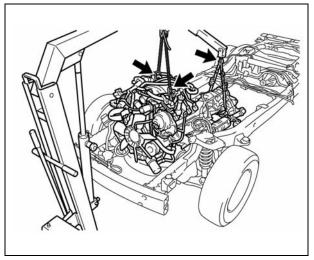
a) Reconnect the No.3 parking brake cable with the bolt and torque to spec.

Torque Spec: 26 N·m (265 kgf·cm, 19 ft·lbf)



# 27. CONNECT THE NEW REAR SPEED SENSOR CONNECTORS

- a) Install the new rear speed sensor
- b) Route the rear speed sensor connector and wire with the 2 clamps.
- c) Repeat the procedure on the opposite side.



### 28. REINSTALL THE 4 WHEELS

### 29. REINSTALL THE ENGINE AND TRANSMISSION ASSY

a) Reinstall the engine and transmission assy.

### NOTE:

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

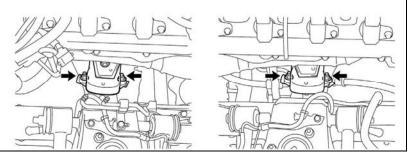
b) Attach the engine mounts with the 4 bolts and 4 **NEW** nuts and torque to spec.

Torque Spec: 38 N·m (387 kgf·cm, 28 ft·lbf)

### **NEW Replacement Parts**

**Engine Mounts** 

Part Number	Part Name	Kit #	Qty
90179-10071	Nut	1	4

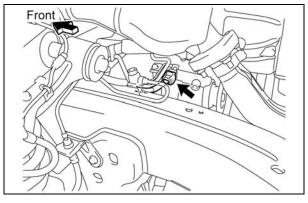


# NEW Replacement Parts Transmission Mount Part Number Part Name Kit # Qty 90080-11387 Bolt, w/ Washer 3 4

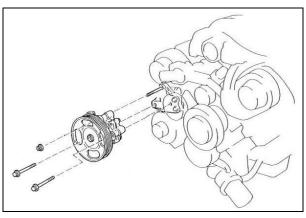
 Attach the transmission mount with 4 NEW bolts and torque to spec.

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

d) Reinstall the items/parts that were removed during the engine and transmission assy removal.



# 30. RECONNECT THE A.D.D. ACTUATOR CONNECTOR (4WD ONLY)

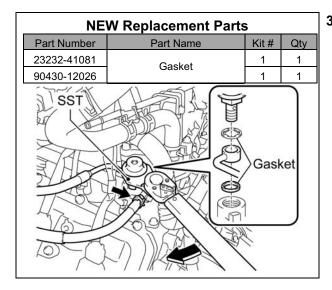


# 31. REINSTALL THE POWER STEERING VANE PUMP ONTO ENGINE ASSEMBLY ASSY

 Reinstall the power steering vane pump assy to the mounting bracket with the 2 bolts and nut, then torque to spec.

Torque Spec: 44 N·m (449 kgf·cm, 33 ft·lbf)

### 32. REINSTALL THE DRIVE BELT

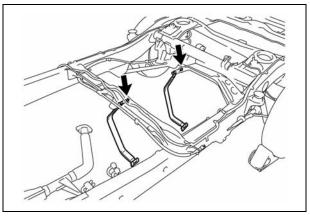


### 33. RECONNECT THE FUEL PIPES AND HOSE

- a) Reconnect the No.1 fuel hose.
- b) Always use 2 **NEW** gaskets.
- c) Tighten the pulsation damper by hand.
- d) Tighten the pulsation damper to the specified torque using the SST.

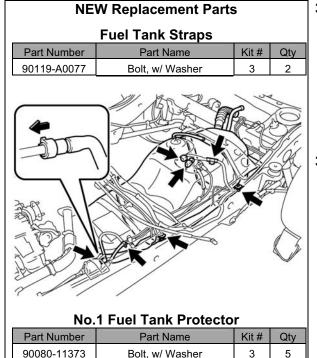
SST: 09617-24011 or equivalent

Torque Spec: 39 N·m (398 kgf·cm, 29 ft·lbf)



### 34. REINSTALL THE FUEL TANK STRAPS

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



### 35. 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) Reinstall the fuel tubes.
- c) Connect the clamp and connector(s).

### 36. REINSTALL THE NO.1 FUEL TANK PROTECTOR

a) Reinstall the No.1 fuel tank protector with the **NEW** bolts and **NEW** nuts, then torque to spec.

Torque Specs: Bolt - 29 N·m (296 kgf·cm, 21 ft·lbf)

### NOTE:

• The number of fuel connectors will differ depending on the vehicle specs.

### 37. REINSTALL THE EXHAUST SYSTEM

- a) Install the 3 **NEW** exhaust pipe gaskets.
- b) Reinstall the center exhaust pipe with the 4 exhaust pipe supports, 2 **NEW** flange retainers and 4 bolts, then torque to spec.

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

- c) Reinstall the tail exhaust pipe with the 2 tail pipe brackets.
- d) Face the clamp in the direction indicated in the illustration, and torque to spec.

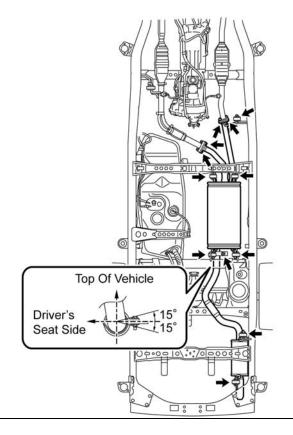
Torque Spec: 32 N·m (326 kgf·cm, 24 ft·lbf)

### **NEW Replacement Parts**

**Exhaust System** 

Part Number	Part Name	Kit #	Qty
18495-38020	Retainer, Converter RR Flange	1	2
90080-43034	Gasket, Exhaust System**	NA*	2
90080-46263	Clamp	3	1
90917-06083	Gasket, Exhaust System**	NA*	2
90917-06085	Gasket Exhaust System	1	1

\*Individual Part(s)



### 38. REINSTALL THE FRONT PROPELLER SHAFT (4WD ONLY)

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

Torque Spec: 74 N·m (755 kgf·cm, 55 ft·lbf)

# NEW Replacement Parts Receiver Hitch Part Number Part Name Kit # Qty 90080-11491 Bolt, w/ Washer 3 6 3 4

# 39. REINSTALL THE RECEIVER HITCH BRACKET SUB-ASSY (IF EQUIPPED)

 Reinstall the receiver hitch bracket sub-assy with the 10 **NEW** bolts and torque to spec.

Torque Spec: Bolt A - 105 N·m (1071 kgf·cm, 78 ft·lbf) Torque Spec: Bolt B - 105 N·m (1071 kgf·cm, 78 ft·lbf)

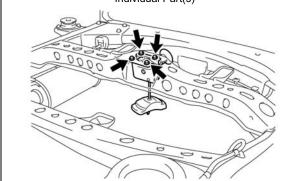
<sup>\*\*</sup>Only 1 part # is used. The part # varies depending on vehicle model year.

### **NEW Replacement Parts**

**Spare Tire Carrier** 

Part Number	Part Name	Kit #	Qty
90080-11180	Bolt, w/ Washer	3	4
51900-0C020	Spare Tire Carrier	NA*	1

\*Individual Part(s)



### **40. INSTALL THE SPARE TIRE CARRIER**

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

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

### NOTE

Install the spare wheel after tightening the rear suspension arms.

### 41. REMOVE THE FRAME FROM THE LIFT

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

### G. REINSTALL THE CAB BODY ASSY

NEW Replacement Parts			
Part Number	Part Name	Kit #	Qty
47313-0C012	Tube, FR Brake, No 3	3	1
47316-0C040	Tube, FR Brake, No 6	NA*	1
47322-0C030	Tube, FR Brake, No 2	NA*	1
47325-0C020	Tube, FR Brake, No 5	NA*	1
	*Individual Part(s)		

# 1. INSTALL THE *NEW* ENGINE COMPARTMENT BRAKE LINE

- a) Install the **NEW** No.3 and **NEW** No.6 front brake tubes.
- b) Install the **NEW** No.2 and **NEW** No.5 rear brake tubes.
- c) Torque all brake tubes to spec.

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

### NOTE:

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

### 2. REINSTALL THE CAB BODY ASSY

- a) Raise the cab assy high enough so that the top of the engine clears the lowest point of the cab.
- b) Push the frame under the cab assy.

Note: Line up the wheels with the alignment marks previously made to help align the frame with the cab.

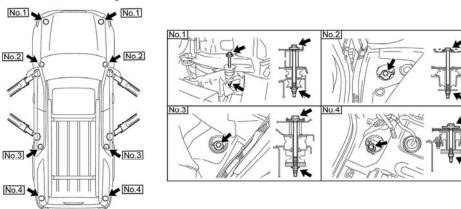
- c) Lower the cab assy slowly, making sure it does not interfere with anything.
- d) Adjust the vehicle's frame as needed to align the cab mounts with the cab assy bolts.
- e) Once the cab assy is set on the mounts, secure it to the frame with the 8 bolts, 8 nuts and 8 washers and torque to spec.

Torque Specs: No.1 and No.4 Nut - 47 N·m (479 kgf·cm, 35 ft·lbf)

Torque Specs: No.2 Nut - 54 N·m (551 kgf·cm, 40 ft·lbf) Torque Specs: No.3 Nut - 67 N·m (683 kgf·cm, 50 ft·lbf)

### NOTE:

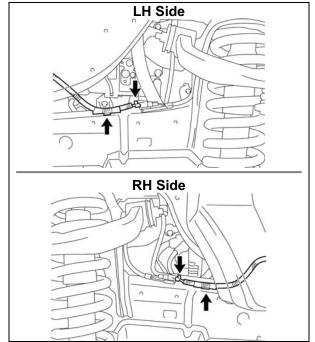
- DO NOT work directly underneath the vehicle when pushing the frame under the cab assy.
- Slowly lower the cab body assy while making sure that the wire harness, steering shaft and hoses do not interfere with it.
- With 2 to 3 people checking for interference, slowly lower the cab body assy to the frame.
- Center the vehicle's weight on the lift arms so that it does not slant/tilt to one side.

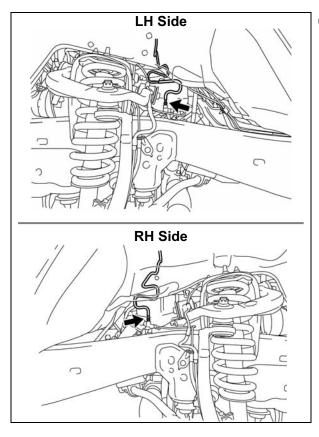


- 3. READJUST LIFT ARMS AND LIFT VEHICLE
- 4. REMOVE THE FRONT WHEELS

# 5. RECONNECT THE FRONT SPEED SENSOR CONNECTORS

- a) Reconnect the front speed sensor connector.
- b) Reinstall the clamp.
- c) Repeat the procedure on the opposite side.

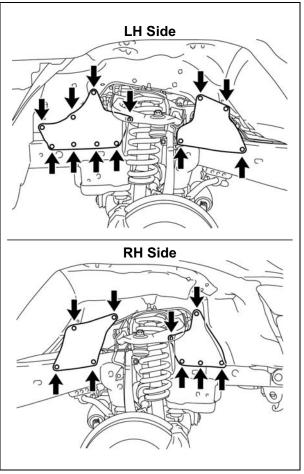




### 6. RECONNECT THE FRONT BRAKE TUBES

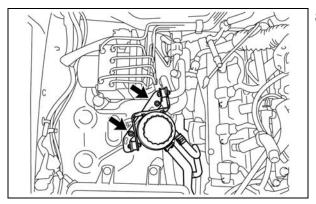
- a) Reconnect the front brake tube and torque to spec.b) Repeat the procedure on the opposite side.

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



### 7. REINSTALL THE FRONT FENDER APRON SEALS

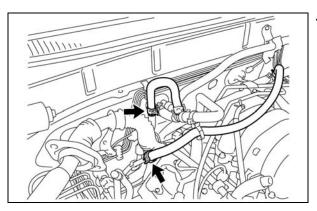
a) Reinstall the 4 front fender apron seals with the 21 clips.



### 8. RECONNECT THE VANE PUMP OIL RESERVOIR

a) Reinstall the vane pump oil reservoir with the 2 nuts and torque to spec.

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



### 9. RECONNECT THE HEATER WATER HOSE

# 10. RECONNECT THE REAR HEATER WATER HOSES (IF EQUIPPED)

a) Reconnect the 2 rear heater water hoses to the water pipe.

### **NEW Replacement Parts**

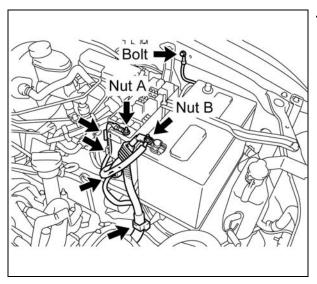
A/C Line O-Rings

Part Number	Part Name	Kit #	Qty
90069-08007	Ring, O	3	1
90069-08009		1 - 3	1

# 11. RECONNECT THE A/C DISCHARGE HOSE AND SUCTION HOSE

- a) Install the **NEW** O-rings to the discharge hose and suction hose.
- b) Reinstall the discharge hose and suction hose with the nuts and torque to spec.

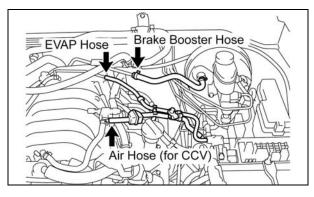
Torque Spec: 10 N·m (102 kgf·cm, 7 ft·lbf)



### 12. RECONNECT THE NO.2 ENGINE WIRE HARNESS

- a) Reinstall the No.2 engine wire harness with the nut and torque to spec.
- b) Reconnect the No.2 engine wire harness to the 2 clamps of the junction block.
- c) Reinstall the nut and reconnect the positive (+) battery cable and torque to spec.
- d) Reinstall the bolt and reconnect the ground wire to the LH side inner fender and torque to spec.
- e) Reconnect the connector and clamp.
- f) Reinstall the fuel pump relay.
- g) Reinstall the relay block cover.

Torque Specs: Nut A - 10 N·m (102 kgf·cm, 7 ft·lbf)
Torque Specs: Nut B - 13 N·m (133 kgf·cm, 10 ft·lbf)
Torque Specs: Bolt - 8.0 N·m (82 kgf·cm, 71 in·lbf)



# 13. RECONNECT THE FOLLOWING ENGINE COMPARTMENT HOSES

- a) Reconnect the EVAP hose
- b) Reconnect the air hose (for CCV)
- c) Reconnect the brake booster hose.

### **NEW Replacement Parts**

### Drain Cock O-Ring

Part Number	Part Name	Kit #	Qty
16492-21050	Ring, O Radiator	1	1

### 14. REINSTALL THE RADIATOR

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

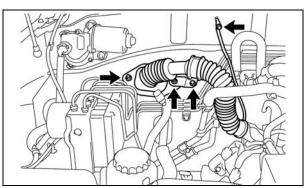
### Torque Spec: 12 N·m (122 kgf·cm, 9 ft·lbf)

- d) Reconnect the upper and lower radiator hoses, automatic transmission cooler hoses.
- e) Reinstall the fan shroud.
- f) If equipped re-install external transmission cooler

# 15. RECONNECT THE ACCELERATOR CONTROL CABLE (ONLY FOR VEHICLES PRODUCED ON OR BEFORE SEPTEMBER 2002)

### 16. REINSTALL THE FOLLOWING PARTS

- Air Cleaner
- Throttle Body Cover
  - Torque Spec: Nut 8.0 N·m (82 kgf·cm, 71 in·lbf)



# 17. RECONNECT THE ENGINE WIRE HARNESSa) Reinstall the engine wire harness connector with the 2

nuts and torque to spec.b) Reinstall the bolt and torque to spec.

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

c) Reconnect the ground wire to the cowl panel with the bolt and torque to spec.

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

# NEW Replacement Parts Rear Bumper Extension Part Number Part Name Kit # Qty 90178-08011 Nut, Flange 1 4 90119-A0064 Bolt, w/ Washer 3 4

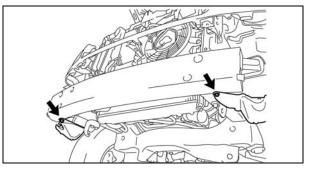
# 18. REINSTALL THE REAR BUMPER EXTENSION MOUNTING BRACKET W/ BACK STEP REINFORCEMENT

- Reinstall the rear bumper extension mounting bracket w/ back step reinforcement with the 4 NEW nuts and torque to spec.
- b) Install the 4 **NEW** bolts and torque to spec.

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

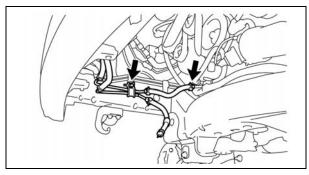
### 19. REINSTALL THE FOLLOWING REAR BODY COMPONENTS

- Rear Bumper Cover
  - Torque Spec: 7.0 N·m (71 kgf·cm, 62 in·lbf)
- Rear Quarter Panel Mudguard LH/RH



### 20. RECONNECT THE FRONT FENDER LINER

a) Reconnect the front fender liners with the 2 screws.



### 21. RECONNECT THE AUTOMATIC TRANSMISSION NO.2 **OIL COOLER OUTLET TUBE**

- a) Reinstall the No.2 oil cooler outlet tube with the bolt and torque to spec.
- b) Reconnect the hose.

Torque Spec: 12 N·m (122 kgf·cm, 9 ft·lbf)

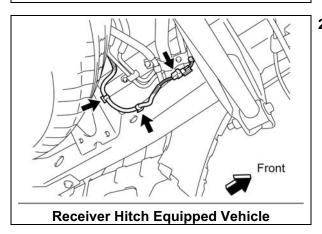
### **NEW Replacement Parts** Side Step Assy LH/RH

Part Number	Part Name	Kit #	Qty
90179-08068	Nut	1	6
90119-08516	Bolt, w/ Washer	1	10

### Front Bumper Energy Absorber Front Bumper Cover

22. REINSTALL THE FOLLOWING FRONT BODY PARTS

- - Torque Spec: 7.0 N·m (71 kgf·cm, 62 in·lbf)
- Front Fender Mudguard LH/RH
- Side Step Assy LH/RH with the 10 new bolts and 6 new nuts.
  - Torque Spec: 20 N·m (204 kgf·cm, 15 ft·lbf)

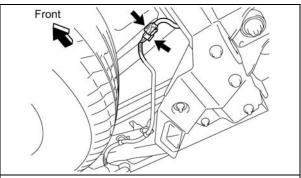


### 23. RECONNECT THE FRAME WIRE

- a) Reconnect the connector and clamp(s) (For Charcoal Canister).
- b) Reconnect the connector(s) and clamp(s) (Receiver Hitch Equipped Vehicles Only).

### NOTE:

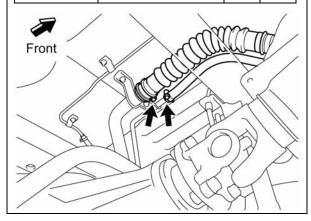
The number of fastening connectors and clamps for the frame wire will differ depending on the vehicle model. Please verify the current vehicle and continue.



### **NEW Replacement Parts**

# Fuel Tank Filler and Breather Hose Clamps

Part Number	Part Name	Kit #	Qty
90460-22001	Clamp, Hose	1	2
90460-46005		1	2

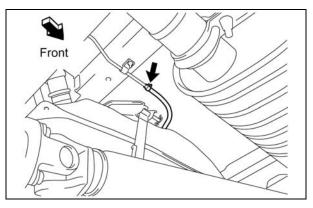


# 24. RECONNECT THE FUEL TANK TO FILLER PIPE HOSE AND FUEL TANK BREATHER HOSE

- a) Reconnect the fuel tank to filler pipe hose with the 2 **NEW** clamps.
- b) Reconnect the fuel tank breather hose with the 2 **NEW** clamps.

### NOTE:

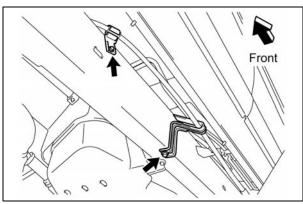
 Tighten the clamp of the fuel tank to filler pipe hose until it comes into contact with the stopper.



### 25. RECONNECT THE FUEL TANK VENT HOSE

### NOTE:

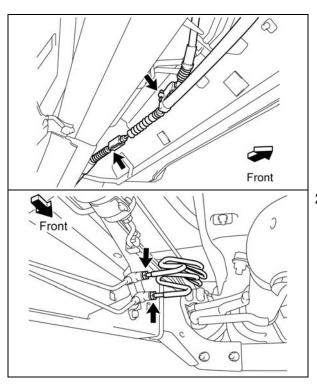
After finishing the connection, check whether the pipe and the connector are securely connected by pulling them.



### 26. RECONNECT THE NO.1 PARKING BRAKE CABLE

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

Torque Spec: 26 N·m (265 kgf·cm, 19 ft·lbf)



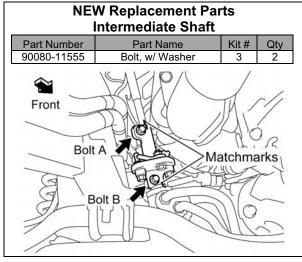
- c) Reconnect the No.2 parking brake cable with the clip and pin.
- d) Reconnect the No.1 parking brake cable to the No.3 parking brake cable and torque to spec.

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

### 27. RECONNECT THE REAR BRAKE TUBES

a) Using a flare nut wrench, connect the 2 rear brake tubes and torque to spec.

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



# 28. RECONNECT THE NO.2 STEERING INTERMEDIATE SHAFT

- a) Make sure the spindles are in a straight-ahead position and the steering wheel is centered.
- b) Aligning the matchmarks, connect the No.2 steering intermediate shaft to the steering sliding yoke with the **NEW** bolt (A).
- c) Aligning the matchmarks, connect the No.2 steering intermediate shaft to the control valve shaft with the **NEW** bolt (B).
- d) Torque all bolts to spec.

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

# NEW Replacement Parts Auto Transmission Control Cable Part Number Part Name Kit # Qty 90179-08054 Nut 1 1 90201-09019 Washer, Plate 1 1

### 29. RECONNECT THE TRANSMISSION CONTROL CABLE

a) Reinstall the bolt and connect the transmission control cable and torque to spec.

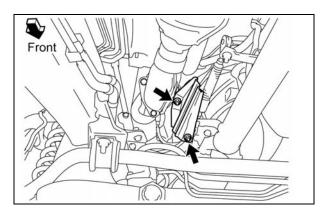
Torque Spec: 18 N·m (184 kgf·cm, 13 ft·lbf)

b) Reinstall the pin or **NEW** nut and **NEW** washer, then torque to spec.

Torque Spec: Nut- 13 N·m (133 kgf·cm, 10 ft·lbf) (Only For Vehicles Produced On Or Before June 2003)

Torque Spec: Nut- 15 N·m (153 kgf·cm, 11 ft·lbf) (Only For Vehicles Produced After June 2003)

NOTE: Vehicles produced after August 2003 is not equipped with washer.

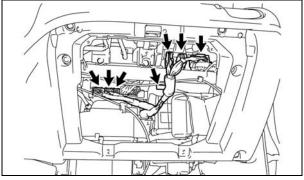


c) Reinstall the transmission control cable insulator with the 2 nuts and torque to spec.

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

### 30. REINSTALL FRONT WHEELS

### 31. LOWER THE VEHICLE

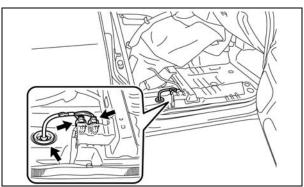


### 32. RECONNECT THE ENGINE WIRE HARNESS

a) Reconnect the connectors and clamp.

### NOTE:

- The number of connectors will differ depending on the vehicle specs.
- Incorrectly connected connectors may cause the engine to start improperly. Be certain that the connectors are correctly connected.



### 33. RECONNECT THE FRAME WIRE CONNECTOR

- a) Reinstall the frame wire harness grommet.
- b) Reconnect the 2 connectors.

### 34. REINSTALL THE FOLLOWING INTERIOR COMPONENTS

- a) Glove Compartment
  - No.4 Heater To Register Duct
  - Lower No.2 Instrument Finish Panel
  - Glove Compartment Door
- b) Center Console (4WD Only)
  - Transfer High and Low Shift Lever
  - No.1 Shift and Select Lever Boot
    - Torque Spec: 7.0 N·m (71 kgf·cm, 62 in·lbf)
  - Upper Console Panel
  - Shifting Hole Cover
  - Transfer Shift Lever Knob
- c) Front Seat and Trim
  - Front Seat RH
    - Torque Spec: 37 N·m (377 kgf·cm, 27 ft·lbf)
  - Cowl Side Trim Board LH/RH
  - Front Door Scuff Plate LH/RH

- d) Rear Passenger and Cargo Area
  - Rear Door Scuff Plate LH/RH
  - Rear Quarter Trim Panel LH/RH
  - Rear Floor Mat Support Plate
  - Rear No.2 Seat Outer Belt Floor Anchor (If Equipped)
    - Torque Spec: 42 N·m (428 kgf·cm, 31 ft·lbf)
  - Rear No.1 Seat Outer Belt Floor Anchor
    - ° Torque Spec: 42 N⋅m (428 kgf⋅cm, 31 ft⋅lbf)
  - Rear 3<sup>rd</sup> Row Seat (If Equipped)
  - Put 2<sup>nd</sup> Row Seat back into place

### 35. PUT THE REAR NO.1 SEATS BACK INTO PLACE

### H. FINAL ASSEMBLY

### 1. RECONNECT THE NEGATIVE BATTERY TERMINAL CABLE

# NEW Replacement Parts Front Differential Gaskets (4WD Only)

Part Number Part Name Kit # Oty

	i ait ivuilibei	i ait ivaille	IXIL#	Qty
	12157-10010	Gasket, Drain Plug	NA*	1
	90430-24003	Gasket	NA*	1
ì				

### 2. REFILL THE FOLLOWING

- a) Brake Fluid
  - Fill with Toyota DOT 3 Brake Fluid.
  - · Remove the brake lines from the master cylinder.
  - Bleed the master cylinder.
  - Reinstall the brake lines to the master cylinder and torque to spec.
    - Torque Spec: 16 N·m (163 kgf·cm, 12 ft·lbf)
  - Bleed the brake system at each wheel and torque the bleeder screws to spec.
    - ° Torque Spec: 11 N·m (112 kgf·cm, 8 ft·lbf)
  - Top off brake fluid
- b) Coolant
  - Refill with Toyota Long Life Coolant.
- c) Front Differential (4WD Only)
  - Install the NEW drain plug gasket and torque to spec.
  - Torque Spec: 65 N·m (663 kgf·cm, 48 ft·lbf)
  - Refill with Hypoid Gear Oil API GL-5 75W-90.
  - Install the NEW filler plug gasket and torque to spec.
    - Torque Spec: 39 N·m (398 kgf·cm, 29 ft·lbf)
- d) Recharge A/C System

### 3. START THE VEHICLE AND PERFORM AND INSPECT THE FOLLOWING

- Fuel System
  - Start the engine and let it run for 5 seconds, and then stop the engine and inspect for leaks.
  - If there are no leaks, restart the engine and re-inspect.
- Bleed Cooling System and Check for Leaks
- Brake System Leaks
- Front Differential System
- Operation of A/C System

### 4. INSPECT FOR A/C REFRIGERANT LEAKS

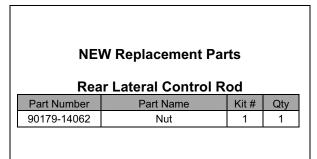
### 5. CHECK THE OPERATION OF THE FOLLOWING ITEMS AND ADJUST AS NEEDED



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 items listed below. This is an important step, and must be performed thoroughly to ensure proper operation of these items.

- Parking Brake Lever Travel
- Shift Control Lever

### 6. CHECK ALL FLUID LEVELS AND ADJUST AS NEEDED



# 7. REINSTALL AND TORQUE THE REAR LATERAL CONTROL ROD

**Torque Specs:** 

Nut: 140 N·m (1428 kgf·cm, 103 ft·lbf) Bolt: 130 N·m (1326 kgf·cm, 96 ft·lbf)

### NOTE:

- After stabilizing the suspension, torque the nut.
- Perform tightening with the vehicle grounded.

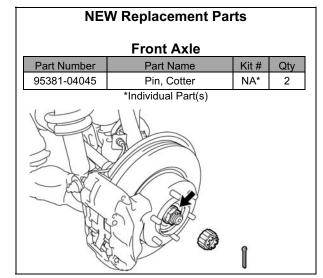
### 8. TORQUE THE BOLTS AND NUTS OF THE REAR SUSPENSION ARMS TO SPEC

Torque Specs: No.1 Rear Suspension Arm (Nut) - 140 N·m (1428 kgf·cm, 103 ft·lbf) Torque Specs: Bolt Of Lower Control Arm (Bolt) - 130 N·m (1326 kgf·cm, 96 ft·lbf)

### NOTE:

- After stabilizing the suspension, torque the bolt and nut.
- Perform tightening with the vehicle grounded.

### 9. REINSTALL THE SPARE WHEEL



### 10. TORQUE THE FRONT AXLE NUTS (4WD ONLY)

- a) Remove the front wheels.
- b) Torque the front axle nuts 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 grease cap.
- e) Repeat the procedure on the opposite side.
- f) Reinstall the front wheels and torque to spec.

Torque Spec: 112 N·m (1142 kgf·cm, 83 ft·lbf)

### NOTE:

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

### 11. PERFORM A WHEEL ALIGNMENT

### 12. CHECK THE HEADLIGHT AIM AND ADJUST AS NEEDED

### **NEW Replacement Parts**

**Engine Under Cover** 

Part Number	Part Name	Kit #	Qty
90080-11373	Bolt, w/ Washer	3	5

### 13. REINSTALL THE NO.1 ENGINE UNDER COVER

a) Install the No.1 engine under cover with the **NEW** bolts and torque to spec.

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

### 14. CHECK FOR DTCS AND REPAIR AS NEEDED

- 15. PERFORM INITIALIZATION
- **16. 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
    - All Gauges, Indicators and Warning Lights
    - Cooling Fans
    - Vehicle Height
    - Etc.

### 17. TEST DRIVE THE VEHICLE

### **◄ VERIFY REPAIR QUALITY** ►

- Confirm the all precautions are followed when servicing the vehicle
- Confirm the all system work properly and a test drive is conducted to ensure proper vehicle operation

If you have any questions regarding this LSC, please contact your regional representative

### VI. 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.