

SPECIAL SERVICE CAMPAIGN (SSC) F0U EXHAUST PIPE REPLACEMENT FOR CATALYTIC
CONVERTER

TOYOTA

◀ **IMPORTANT UPDATE** ▶

PRODUCT SUPPORT DIVISION

The attached Dealer Letter has been updated, refer to the details below.

DATE	TOPIC
12/15/2015	Catalytic Part Recovery Update
11/30/2015	Part Number Update for 2010 MY Vehicles

The most recent update in the attached Dealer Letter will be highlighted with a red box.

Please review this notification with your staff to assure that all relevant personnel have been briefed regarding this subject.

Thank you for your cooperation.



Toyota Motor Sales, U.S.A., Inc.
19001 South Western Avenue
Torrance, CA 90501
(310) 465-4000

To: All Toyota Dealer Principals, Service Managers, and Parts Managers

Subject: Special Service Campaign (SSC) F0U
Certain 2010 - 2014 Model Year Tacoma 2TR-FE Vehicles
Exhaust Pipe Replacement for Catalytic Converter

In our continuing efforts to ensure the best in customer satisfaction, Toyota is launching a Special Service Campaign (SSC) on certain 2010 – 2014 Model Year Tacoma 2TR-FE vehicles. This SSC covers approximately 170,200 vehicles.

Background

In the subject vehicles the front catalytic converter internal components may become deteriorated and begin to rattle. If continually operated in this condition, the deteriorated components could become dislodged and restrict the exhaust flow. If this occurs, the vehicle may illuminate a check engine light, and, depending on the level of exhaust restriction, the vehicle may experience a reduction in power.

Toyota has developed a new exhaust pipe with catalytic converters to prevent this condition from occurring.

Special Service Campaign (SSC) Remedy

Authorized Toyota dealerships are requested to replace the exhaust pipe with catalytic converters at **NO CHARGE** to the vehicle's owner.

1. Owner Notification Mailing Date

The owner notification will commence in Early November, 2015, approximately one week after the Dealer Letter.

Toyota makes significant effort to obtain current customer name and address information from each state through industry resources when mailing owner letters. In the event your dealership receives a notice for a vehicle that was sold prior to the SSC announcement, it is the dealership's responsibility to forward the owner letter to the customer who purchased the vehicle.

Please note that only owners of the covered vehicles will be notified. If you are contacted by an owner who has not yet received a notification, please **verify eligibility by confirming through TIS prior to performing repairs**. Dealers should perform the repair as outlined in the Technical Instructions found on TIS.

2. Used Vehicles in Dealership Inventory (In-Stock Vehicles)

To ensure customer satisfaction, Toyota requests that dealers conduct the SSC remedy on any new or used vehicles currently in dealer inventory that are covered by this SSC prior to customer delivery.

3. Number and Identification of Covered Vehicles

There are approximately 170,200 Tacoma 2TR-FE vehicles covered under this SSC.

If you are contacted by an owner who has not yet received the notification, please **verify coverage by confirming through TIS**. Dealers should perform the procedure as outlined in the Technical Instructions located on TIS.

4. Dealer Summary Reports

Summary Reports, containing the following will be enclosed in the dealer packet:

- The number of covered vehicles in your dealership's primary marketing area. (Please verify eligibility by confirming through TIS prior to performing repairs.)

5. Parts Ordering

Orders can be placed through the dealership's facing PDC.

Campaign	Model Year	Trans.	Part Number	Part Description	Qty.
F0U	2010	AT/MT	17410-0C100	PIPE ASSY, EXHAUST, FR	1
	2011-2012	A/T	17410-0C120	PIPE ASSY, EXHAUST, FR	1
		M/T	17410-0C100	PIPE ASSY, EXHAUST, FR	1
	2013-2014	MT/AT	17410-0C150	PIPE ASSY, EXHAUST, FR	1
	2010-2014	MT/AT	17451-0D020	GASKET, EXHAUST PIPE	1
			90080-43033	GASKET, EXHAUST PIPE	1
			90177-A0004	NUT, LOCK	2
			90080-10064	BOLT, FLANGE	2
			90080-10291*	BOLT	2

*NOTE: Part Number 90080-10291 will be provided in a quantity pack of 10. Order quantities will be rounded up. Example 1: Order qty. of 4 you will receive a 10 pack. Example 2: Order qty. 12, you will receive two 10 packs.

Exhaust pipe and associated components should be ordered together on ONE order reference number. This allows the Special Activity team to release the pipe and all the associated components on MAC at the same time, ensuring the dealer receives all parts required for the repair.

There will be no additional requirements by the dealership for release of MAC parts.

It is extremely important that the pipe and all associated components are on ONE order reference!

Parts Ordering Steps:

1. Use the Technical Instructions to determine the correct pipe required for the vehicle.
2. **(Mandatory)** The pipe(s) and all components must be on ONE order reference number.
3. All parts required for multiple repairs may be included on a single order reference number; however, please make sure that the total order quantity meets the repair ratio.

Order Example for Three Vehicles:

Part Number	Part Description	Quantity Needed Per Repair	Order Quantity*
174100C1XX	Pipe Assembly, Exhaust, FR	1	3
174510D020	Gasket, Exhaust Pipe	1	3
9008043033	Gasket, Exhaust Pipe	1	3
90177A0004	Nut, Lock	2	6
9008010064	Bolt, Flange	2	6
9008010291	Bolt	2	6

* Abnormal order quantities may result in further review and order release may be delayed.

- ✓ **Once the dealer has placed the order, DO NOT upgrade or change order status.**
- ✓ Failure to follow above process may cause delays and may result in an order cancellation.

Manual Allocated (MAC) Parts

To ensure parts availability, the following parts have been placed on Manual Allocation Control (MAC).

Part Number	Part Description	Order Process
174100C120	Pipe Assembly, Exhaust, FR	MAC
174100C100	Pipe Assembly, Exhaust, FR	MAC
174100C150	Pipe Assembly, Exhaust, FR	MAC
174510D020	Gasket, Exhaust Pipe	MAC
9008043033	Gasket, Exhaust Pipe	MAC
90177A0004	Nut, Lock	MAC
9008010064	Bolt, Flange	MAC
9008010291	Bolt	MAC

The MAC parts will be released based on the availability of all components. There will be no dealer contact required for parts release. This information is also available on the MAC Report on Dealer Daily.

6. Catalytic Converter Part Recovery (Continental United States Only)

- Removed catalytic converters must be returned to Toyota. If the catalytic converter is not returned, the warranty claim is subject to debit and core charges.
- Please be sure to follow the steps in the Technical Instructions to ensure that the catalytic converter is properly prepared for shipping.
- Do not ship the full exhaust pipe assembly back to Toyota. If the exhaust pipe is shipped back as a complete unit, your dealer will be debited for the additional shipping charges.
- Please refer to Warranty Policy Bulletin 9.11 "Warranty Catalytic Converter Recycling Program" for additional information.

7. Remedy Procedures

Please refer to TIS for Technical Instructions. Conduct all applicable, non-completed Safety Recall and Service Campaigns on the vehicle during the time of appointment.

8. Handling of Vehicles with Additional Component Damage

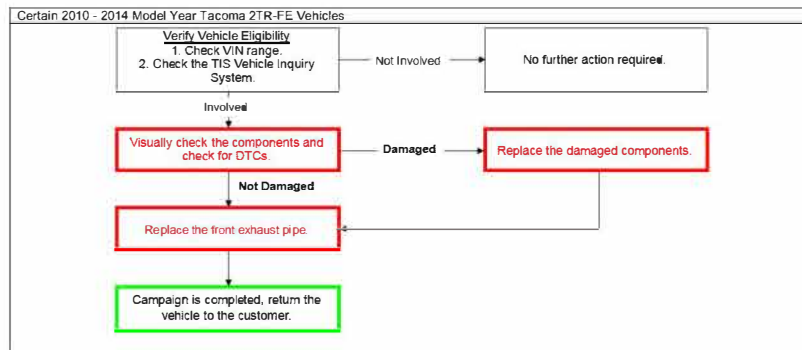
In limited cases, a vehicle subject to this campaign may have experienced additional component damage due to the occurrence of this condition. If additional damage is present on the vehicle you are servicing, you will need to provide additional documentation for regional staff review. Please refer to the flow chart found in the appendix for proper handling of these vehicles.

9. Technician Training Requirements

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

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

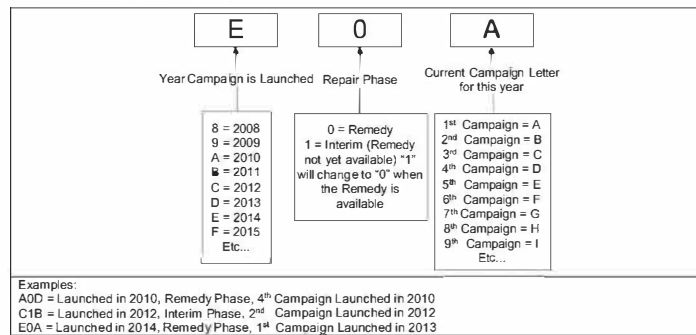
It is the dealership's responsibility to select technicians with the above certification level or greater to perform this Special Service Campaign repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider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

10. Warranty Reimbursement Procedure

SSC	Op. Code	Description	Flat Rate
F0U	BGG41A	Perform Inspection and Replace Front Exhaust Pipe	1.4 hr/vehicle

- The above operation codes include 0.1 hour for administrative cost per unit for the dealership.

NOTE: Claim filing information for vehicle with additional component damage will be provided by a regional representative. please reference the flow chart at the end of the dealer communication for proper documentation and handling procedures.

11. Campaign Designation Decoder

12. Vehicles Emission Recall Proof of Correction Form (California only)

As this SSC includes emission-related parts, California dealers are requested to fill out the Vehicle Emissions Recall – Proof of Correction form after repairs have been completed. The vehicle owner may require this form for vehicle registration renewal. ***It is important to note that the forms are an official state document and blank forms must be secured to prevent misuse.*** Booklets can be ordered from the MDC (material number 00410-92007).

Please complete the form and provide it to the owner. The first non-completed VIN's will be submitted to the California state DMV January 31, 2016. If the vehicle owner's warranty claim will not be processed and paid prior to this date, please be sure to complete a form and provide it to a California owner.

The form is titled "Vehicle Emission Recall – Proof of Correction". It contains the following fields and instructions:

- License Number, Make, Year Model, Body Type, and Vehicle Identification Number (VIN) fields.
- Manufacturer and Recall Number fields.
- A statement: "The above described vehicle has been repaired, modified and/or equipped with new emission control devices to meet applicable California Emission Control Laws."
- Dealer's Name and Address, City, State and Zip fields.
- Date and Dealership's Authorized Signature fields.
- Instructions at the bottom: "Return this certificate to DMV only when required - otherwise retain for your records."

13. Repair Quality Confirmation

The repair quality of covered vehicles is extremely important to Toyota. To help ensure that all vehicles have the repair performed correctly, please designate at least one associate (someone other than the individual who performed the repair) to verify the repair quality of every vehicle prior to customer delivery.

14. Media Contacts

It is imperative that all media contacts (local and national) receive a consistent message. In this regard, all media contacts must be directed to Cindy Knight (310) 4682170 in Toyota Corporate Communications. (Please do not provide this number to customers. Please provide this contact to only media associates.)

15. Customer Contacts

Customers who receive the owner letter may contact your dealership with questions regarding the letter and/or SSC 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 are asked to please contact the Toyota Customer Experience Center (1-888-270-9371).

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

Thank you for your cooperation.
TOYOTA MOTOR SALES, U.S.A., INC.



SSC F0U - Handling Vehicles with Additional Damage



TAS Case Documentation Requirements:

- Code the TAS case like the following:

Symptom Coding (Customer Complaint)	
*Service Category:	Engine/Hybrid System ☐ CLEAR
*Section:	Exhaust/Exhaust TE: ☐
*Sub-Component:	Exhaust Pipe PPC/DIO: ☐
*Condition:	Noise-Abnormal
Search TA Search TC Search TQCN Search TIS	

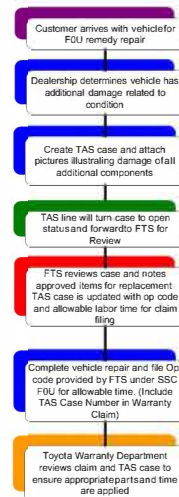
- Include a good call back number.
- Include this statement in the Condition Log: **"Special Service Campaign F0U - Additional Damage - Request for Allowable Time"**
- List damaged components with part number requiring replacement:
 - Damaged Harness, Air Pump Assy, Temp Sensor, Air Cleaner, Etc.
- Attach clear pictures illustrating the damage concern for each component requiring replacement.
- Attach a picture of the vehicle VIN plate.
- Submit the TAS case; the TAS line will then put the case in open status and forward to the FTS for review.

Submit the completed case in TAS; allow 1 day for a FTS to review the case. After 1 day, check the TAS case for status. If the repair is approved, the case will be marked closed. Additionally, the FTS will provide the necessary op codes as well as the allowable time for the repairs requested.

If the request is denied or additional information is required, the case will be left open. Please refer to the suggestion log for further instructions.

Important Note: it is critical that dealers document all damaged components in the TAS case and attach pictures of the damaged components. TMS warranty will review all warranty claims utilizing this special op code to ensure the allowable time noted in the TAS case by the FTS matches the warranty claim filed by the dealer. (Include TAS case # on the claim.)

NOTE: TAS hours of operation are 5:00 A.M to 5:00 P.M. PST Monday through Friday. Contact number: 1-855-716-7676



Legend:

- Customer Action
- Dealer Action
- TAS Action
- FTS Action
- TMS Warranty



Special Service Campaign - F0U
Certain 2010 – 2014 Model Year Tacoma Vehicles
Catalytic Converter

Customer Frequently Asked Questions

Published Early November, 2015

Q1: What is the condition?

A1: In the subject vehicles the front catalytic converter internal components may become deteriorated and begin to rattle. If continually operated in this condition, the deteriorated components could become dislodged and restrict the exhaust flow. If this occurs, the vehicle may illuminate a check engine light, and, depending on the level of exhaust restriction, the vehicle may experience a reduction in power.

Toyota has developed a new exhaust pipe with catalytic converters to prevent this condition from occurring.

Q1a: What is the Catalytic Converter?

A1a: The vehicle's exhaust system has two ceramic type Three Way Catalytic Converters. The catalytic converters are used to reduce vehicle emissions.

Q2: Are there any warnings that this condition has occurred?

A2: Yes, if the condition has occurred, the occupants may notice an exhaust rattle due to the deteriorated front catalytic converter.

Q2a: Are there Warning Lamps or Diagnostic Trouble Codes (DTCs) present if this condition occurs?

A2a: If continually operated in this condition, the deteriorated components could become dislodged and restrict the exhaust flow. If this occurs, the vehicle may illuminate a check engine light, and, depending on the level of exhaust restriction, the vehicle may experience a reduction in power.

Q2b: What should I do if I experience a reduction in power?

A2b: If you have experienced a reduction of power output, please immediately stop the vehicle and contact an authorized Toyota dealer for diagnosis and repair. Continued driving with reduced power output may result in damage to additional components.

Q3: What is Toyota going to do?

A3: Owners of vehicles covered by this Special Service Campaign will receive a notification letter by first class mail starting in Early November, 2015.

Any authorized Toyota dealer will replace the exhaust pipe with new Catalytic Converters at **NO CHARGE** to the vehicle owner. Please see your local authorized Toyota dealer for additional details.

If additional damage has occurred due to this condition, the additional damage will be repaired at **NO CHARGE** under this campaign.

NOTE (Customers who live in the state of California)

The State of California requires the completion of Special Service Campaigns on emission-related parts prior to vehicle registration renewal. In addition, the State requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this

no cost Special Service Campaign, a vehicle may be more likely to fail this test. State of California regulations require Toyota to provide the Department of Motor Vehicles with a record of all vehicles that have not had the Special Service Campaign completed.

A Toyota dealer will provide you with a Vehicle Emissions Recall Proof of Correction Form after the campaign has been completed. Please retain this form, because the DMV may require that you supply proof that the campaign has been completed during your vehicle registration renewal process.

Q3a: How does Toyota obtain my mailing information?

A3a: Toyota uses an industry provider who works with each state's Department of Motor Vehicles (DMV) to receive registration or title information based upon the DMV records. Please make sure your registration or title information is correct.

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

A4: There are approximately 170,200 Tacoma (Certain 2010 - 2014MY) vehicles covered under this Special Service Campaign in the U.S.

Model Name	Model Year	Production Period
Tacoma	Certain 2010-2014	Late July, 2009 through Mid-November, 2013

Q4a: Are there any other Toyota or Lexus vehicles covered?

A4a: No, there are no other Toyota or Lexus vehicles covered by this campaign.

Q5: How long will the repair take?

A5: The repair will take approximately 2 hours. However, depending upon the dealer's work schedule, it may be necessary to make the vehicle available for a longer period of time.

Q6: What if you have previously paid for repairs to your vehicle for this specific condition?

A6: Owners who have previously paid for repairs to address this specific condition should refer to the owner letter for instructions regarding reimbursement consideration.

Q7: What if an owner has additional questions?

A7: Owners with questions or concerns are asked to please contact the Toyota Customer Experience Center at 1-888-270-9371 Monday through Friday, 5:00 am to 6:00 pm, or Saturday 7:00 am through 4:00 pm Pacific Time.

**Certain 2010-2014 Model Year Tacoma Vehicles
Exhaust Pipe Replacement for Catalytic Converter
Special Service Campaign**

This notice applies to your vehicle: [VIN]

Dear Toyota Tacoma vehicle Owner:

At Toyota, we are dedicated to providing vehicles of outstanding quality and value. As part of our continuing efforts to provide superior customer satisfaction, Toyota is announcing a Special Service Campaign, which includes your vehicle.

What is the condition?

In the subject vehicles the front catalytic converter internal components may become deteriorated and begin to rattle. If continually operated the deteriorated components could become dislodged and restrict the exhaust flow. If this occurs the vehicle may illuminate a check engine light, additionally depending on the level of exhaust restriction the vehicle may experience a reduction in power.

Toyota has developed a new exhaust pipe with catalytic converters to prevent this condition from occurring.

What is included in the Special Service Campaign?

Before you are inconvenienced by this condition, any authorized Toyota will replace the exhaust pipe with catalytic converters at **NO CHARGE** to you.

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. For additional information, please refer to the booklet.

How do you take advantage of this Special Service Campaign?

Please contact your authorized Toyota dealer to make an appointment to have the repair performed. The repair will take approximately 1.5 hours. However, depending upon the dealer's work schedule, it may be necessary to make your vehicle available for a longer period of time.

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 the repair.
- If you would like to update your vehicle ownership or contact information, please go to www.toyota.com/ownersupdate. You will need your full 17-digit Vehicle Identification Number (VIN) to input the new information.
- 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 Standard Time.

What if you live in California and don't have this Special Service Campaign performed?

The State of California requires the completion of Special Service Campaigns on emission related parts prior to vehicle registration renewal. In addition, the State requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this **no cost** Special Service Campaign, your vehicle may be more likely to fail this test. State of California regulations require Toyota to provide the Department of Motor Vehicles with a record of all vehicles that have not had the Special Service Campaign completed.

Your Toyota dealer will provide you with a Vehicle Emissions Recall Proof of Correction Form after the campaign has been completed. Please ensure you retain this form, because the DMV may require that you supply proof that the campaign has been completed during your vehicle registration renewal process.

What if you have previously paid for repairs to your vehicle for this specific condition?

If you have previously paid for repair to your vehicle for this specific condition prior to receiving this letter, please mail a copy of your 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, WC 10
19001 South Western Avenue
Torrance, CA 90509

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, USA, INC.

SAMPLE

SUPPLEMENTAL TECHNICAL INSTRUCTIONS

FOR

SPECIAL SERVICE CAMPAIGN F0U

ANCILLARY PART REPLACEMENT

- **OUTER DASH PANEL INSULATOR**
- **ENGINE ROOM MAIN WIRE HARNESS**
- **ENGINE WIRE HARNESS**

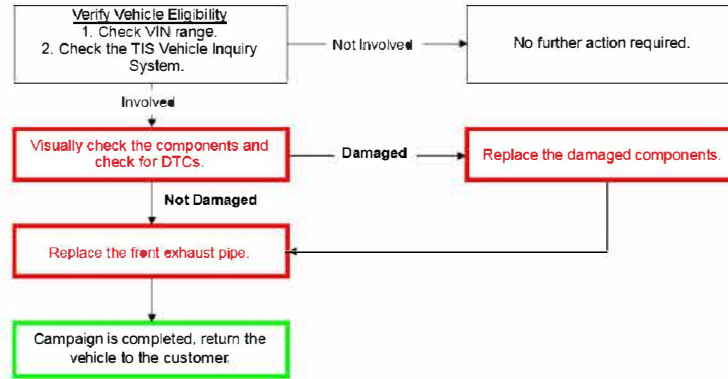
CERTAIN 2010- 2014 MODEL YEAR TACOMA 2TR-FE VEHICLES

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

- *Toyota Certified
- *Toyota Expert
- Master
- Master Diagnostic Technicians
- *Note: Certified technicians can perform the inspection and catalytic converter replacement, however if the inspection determines that the vehicle requires additional electrical repairs it must be performed by a technician that is Toyota Expert or above.

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

I. OPERATION FLOW CHART



II. IDENTIFICATION OF AFFECTED VEHICLES

A. COVERED VIN RANGE

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Safety Recall, and that the campaign has not already been completed prior to dealer shipment or by another dealer.
- TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or were completed by another dealer.

III. PREPARATION

A. PARTS

ANCILLARY PARTS ARE ONLY REPLACED AS NEED BASED ON THE VEHICLE INSPECTION. PRIOR TO REPLACING ANY ANCILLARY COMPONENTS, IT IS REQUIRED THAT A TAS CASE IS CREATED AND THAT FTS APPROVAL IS PROVIDED BEFORE PROCEEDING.

B. TOOLS & EQUIPMENT

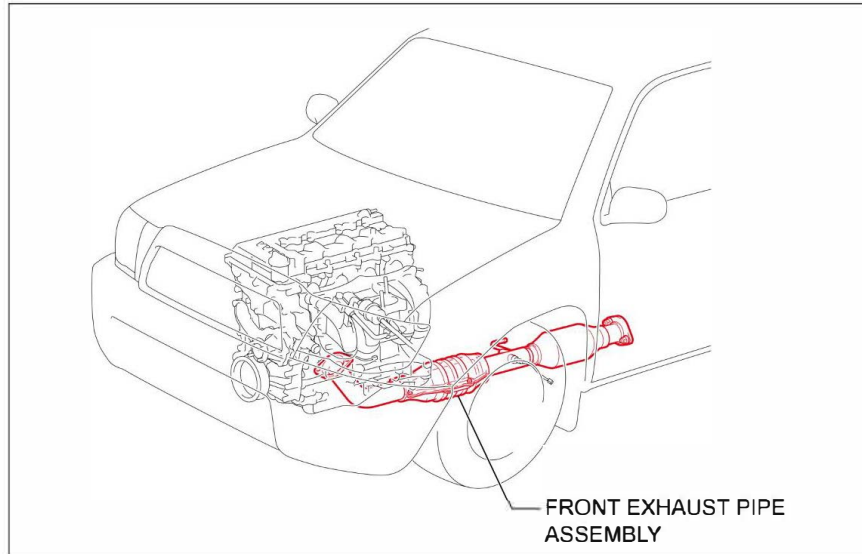
- Techstream
- Standard Hand Tools
- Vernier Calipers
- Protective Glasses
- Wooden Pieces
- Inspection Mirror
- Protective Gloves
- Torque Wrench

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

Part Number	Description	Quantity
09224-00010	O2 Sensor Wrench	1

IV. BACKGROUND

In the subject vehicles the front catalytic converter internal components may become deteriorated and begin to rattle. If continually operated in this condition, the deteriorated components could become dislodged and restrict the exhaust flow. If this occurs, the vehicle may illuminate a check engine light, and, depending on the level of exhaust restriction, the vehicle may experience a reduction in power.



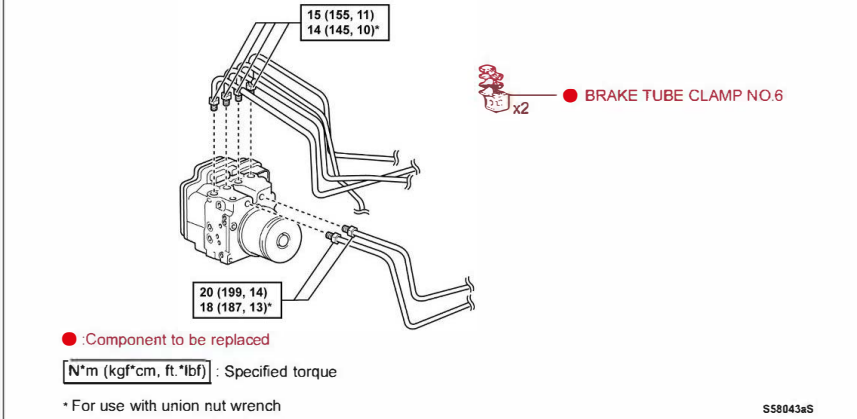
V. TABLE OF CONTENT

- Section VI-Brake Tube Clamp Replacement
- Section VII- Outer Dash Panel Insulator Replacement
- Section VII- Engine Room Main Wire Harness Replacement
- Section IX- Engine Wire Harness Replacement
- Section X- Final Vehicle Check (required for all repairs)

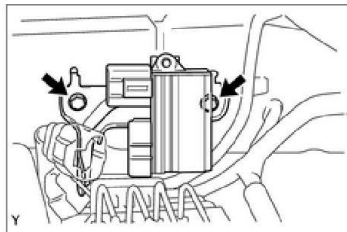
Note: The supplemental TI is only intended to cover components that do not have direct repair manual instructions, if other components are in need of replacement that are not covered by this TI please refer to the repair manual.

VI. BRAKE TUBE CLAMP REPLACEMENT

COMPONENTS TO BE REPLACED/REMOVED OVERVIEW

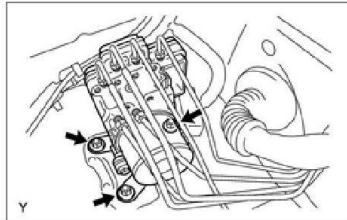


A. VEHICLE DISASSEMBLY



1. TEMPORARILY RELOCATE THE AIR INJECTION DRIVER

- Remove the 2 bolts securing the air injection driver to the inner passenger fender.
- Temporarily relocate the driver to give you additional room to move the actuator assembly.

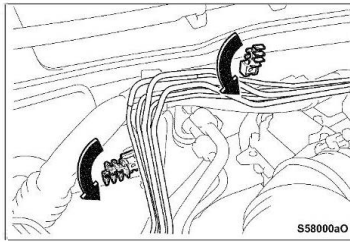


2. REMOVE BRAKE ACTUATOR NUTS

- Remove the 3 brake actuator bracket nuts that secure it to the wheel well.

Note: By loosening the brake actuator it gives you more flex in the brake lines so that the brake tube clamps can be replaced.

STOP Always gently move the brake tubes when replacing the brake tube clamps.



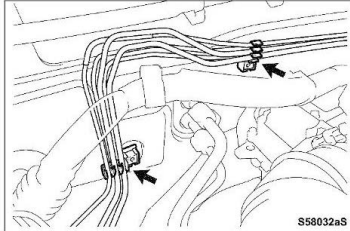
3. REMOVE THE HEAT DAMAGED BRAKE TUBE CLAMPS

- Carefully disengage the brake tube bracket from the brake tube.
- Turn the brake tube clamps in the direction shown to remove them from the studs.



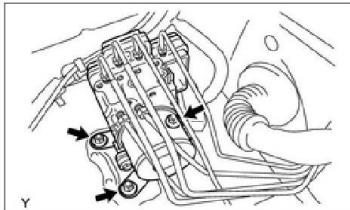
Always gently move the brake tubes when replacing the brake tube clamps.

B. VEHICLE REASSEMBLY



1. INSTALL THE **NEW** BRAKE TUBE CLAMPS

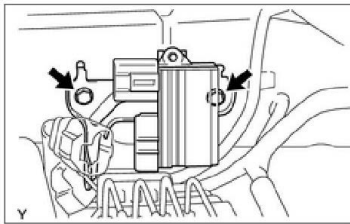
- Set the 5 brake tubes into the 2 **NEW** clamps.
- Install the 2 new clamps onto the studs.



2. REINSTALL THE BRAKE ACTUATOR

- Reinstall the 3 nuts and torque to specification.

Torque Spec: 19 Nm (194 kgf-cm, 14ft-lbf)



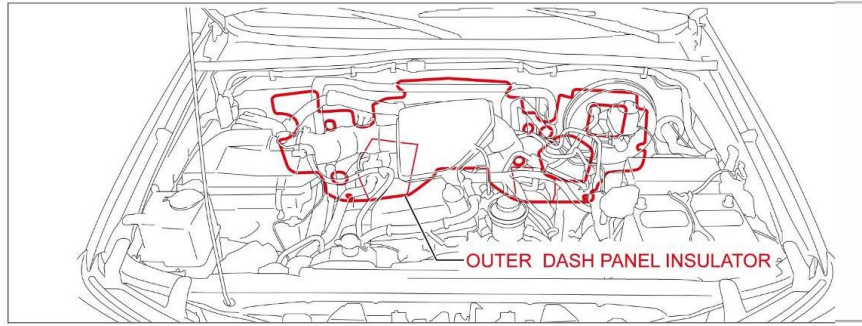
3. REINSTALL THE AIR INJECTION DRIVER

- Insert the bracket tabs into the fender guide holes and reinstall the 2 nuts.

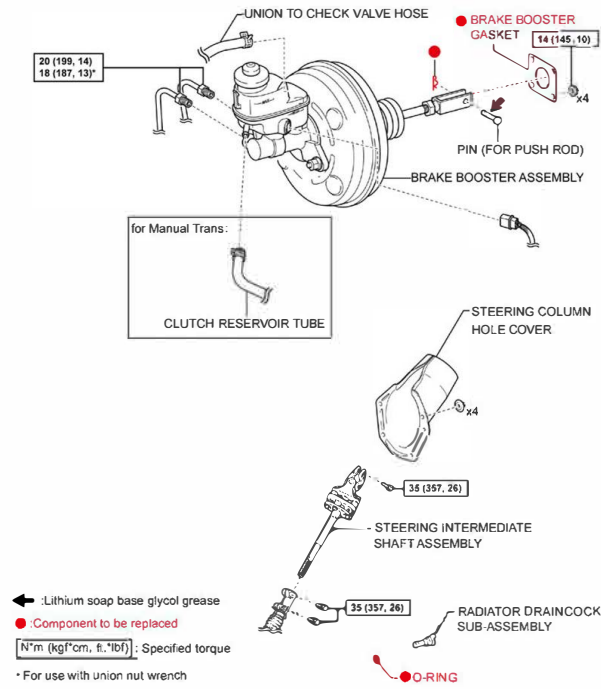
Torque Spec: 10 Nm (102 kgf-cm, 7 ft-lbf)

4. PROCEED TO SECTION X: FINAL VEHICLE CHECK

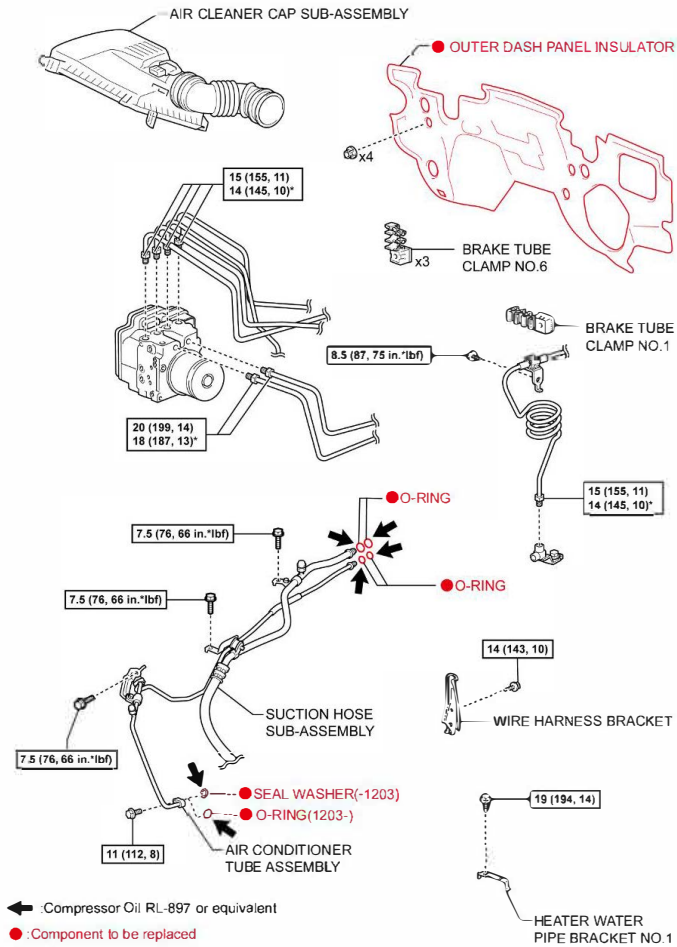
5.
VII. OUTER DASH PANEL INSULATOR REPLACEMENT



COMPONENTS TO BE REPLACED/REMOVED OVERVIEW



COMPONENTS TO BE REPLACED/REMOVED OVERVIEW CONTINUED...



← Compressor Oil RL-897 or equivalent

● Component to be replaced

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

* For use with union nut wrench

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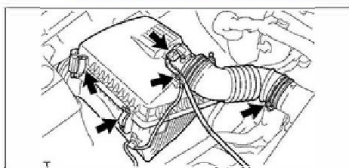


- Always use caution when working in the engine bay because many sharp edges are exposed.
- The following procedure is intended to help guide you, always use the repair manual links to help with the detailed procedure for certain component removal.

A. OUTER DASH PANEL INSULATOR REPLACEMENT

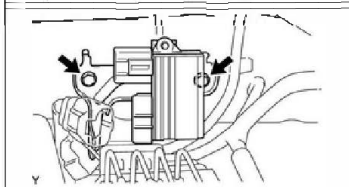
1. EVACUATE A/C REFRIGERANT
2. DRAIN ENGINE COOLANT

[ENGINE COOLANT DRAIN RM LINK](#)



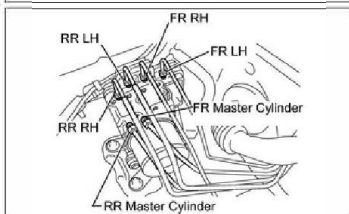
3. REMOVE AIR CLEANER CAP SUB-ASSEMBLY

- a) Disconnect the mass air flow meter connector.
- b) Disconnect the wire harness clamp.
- c) Loosen the hose clamp bolt, then disconnect the air cleaner hose No. 1.
- d) Disconnect the 2 air cleaner clamps.
- e) Remove the air cleaner cap together with the air cleaner hose No. 1.

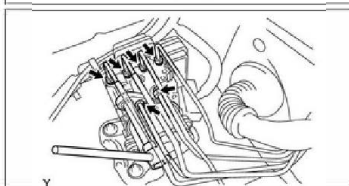


4. REMOVE BRAKE TUBES FROM ACTUATOR

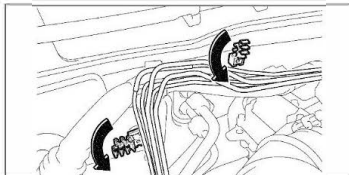
- a) Remove the 2 bolts securing the air injection driver to the inner passenger fender.
- b) Temporarily relocate the driver to give you additional room to access the actuator.



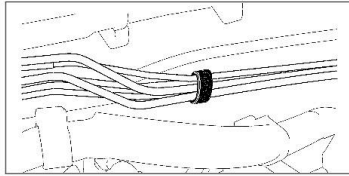
- c) Label the brake tubes so they return to the correct location.



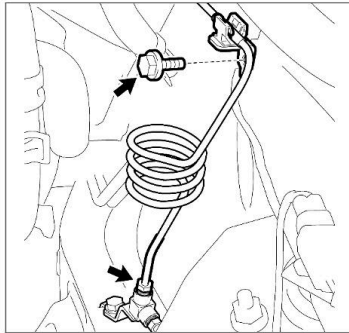
- d) Using a union nut wrench, separate the brake tubes from the actuator.



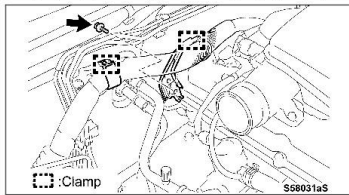
- e) Separate the brake tubes from the brake tube brackets from the 4 locations.
- f) Remove the brake tube brackets as shown.



g) Bind the brake tubes together with vinyl tape.

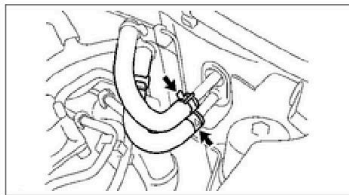


h) Disconnect the No. 5 front brake tube.
i) Remove the brake tube clamp bolt.



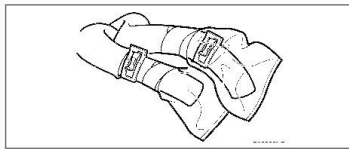
5. REMOVE WIRE HARNESS BRACKET

a) Disengage the 2 clamps.
b) Remove the bolt and wire harness bracket.



6. SEPARATE WATER HOSE

a) Remove the hose clamps and remove the coolant hoses.



b) Cover water hoses with plastic bags to ensure foreign objects do not enter the system.

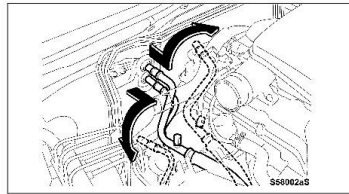
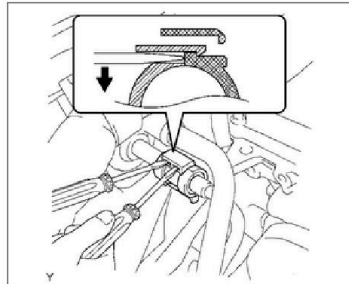
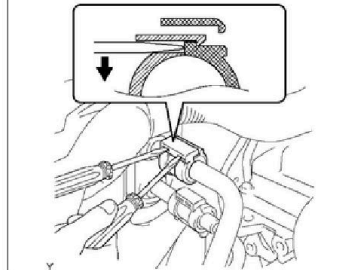
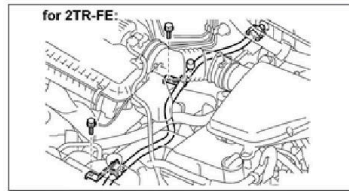
7. REMOVE BRAKE BOOSTER ASSEMBLY

[BRAKE BOOSTER REMOVAL RM LINK](#)

8. REMOVE STEERING INTERMEDIATE SHAFT

[STEERING INTERMEDIATE SHAFT \(2wd\) RM LINK](#)

[STEERING INTERMEDIATE SHAFT \(4wd\) RM LINK](#)



9. DISCONNECT THE A/C SUCTION HOSE

- Remove the 2 bolts.
- Insert 2 screwdrivers into the 2 piping clamp slots, and while holding them down, disengage the piping clamp claws and the piping clamp.
- Disconnect the suction hose.
- Remove the O-rings from the suction hoses as they will be replaced.
- Cover the hose and A/C unit line to prevent debris from entering the system.

STOP

Never use a screwdriver to pry apart the suction hose from the A/C Unit.

10. DISCONNECT A/C DISCHARGE HOSE

- Remove the bolt.
- Disengage the 2 clamps and separate the A/C discharge hose.
- Insert 2 screwdrivers into the 2 piping clamp slots, and while holding them down, disengage the piping clamp claws and the piping clamp.
- Disconnect the A/C discharge hose.
- Remove the O-ring from the air conditioning tube.
- Cover the hose and A/C unit line to prevent debris from entering the system.

STOP

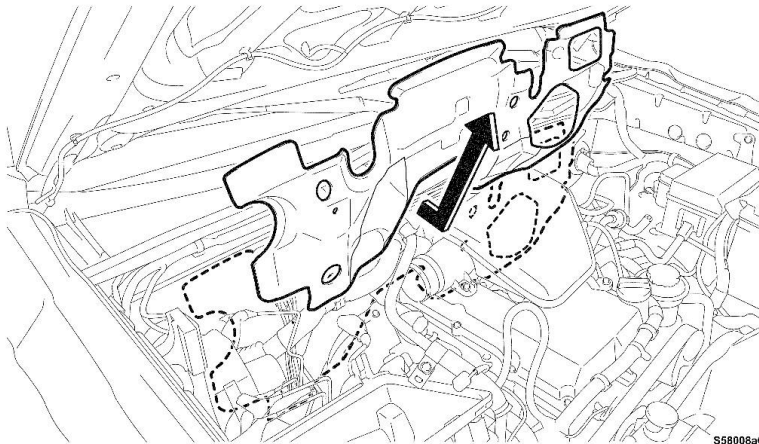
Never use a screwdriver to pry apart the air conditioning tube from the A/C Unit.

11. TEMPORARILY RELOCATE THE A/C HOSES

- Move the A/C hoses so that they do not interfere with removing the insulator.

12. REMOVE THE OUTER DASH PANEL INSULATOR

- a) Remove the 4 clips securing the insulator.
- b) Move the brake tubes toward the front of the vehicle to obtain sufficient workspace.
- c) Remove the insulator.

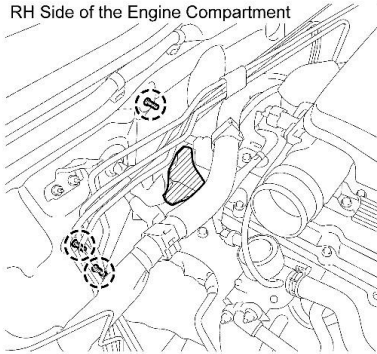


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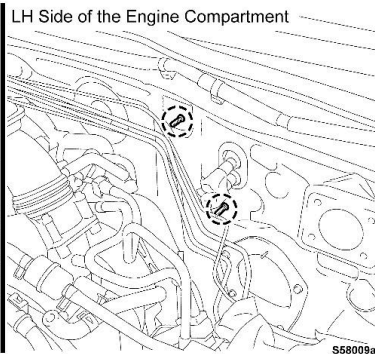
B. *NEW* OUTER DASH PANEL INSULATOR INSTALLATION

1. TAPE THE 5 STUDS WITH PROTECTIVE TAPE

RH Side of the Engine Compartment



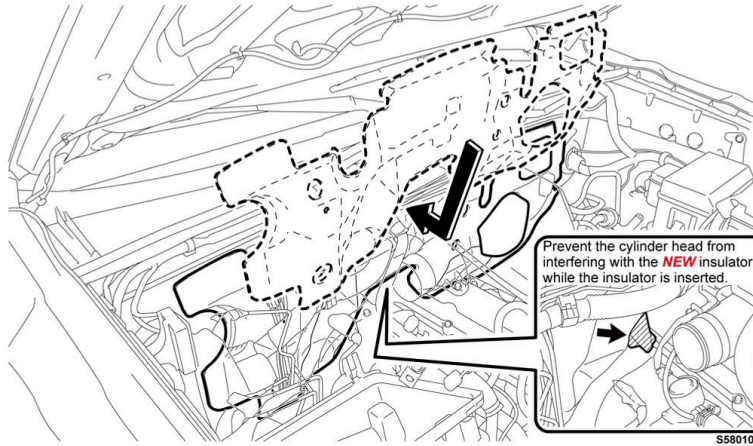
LH Side of the Engine Compartment

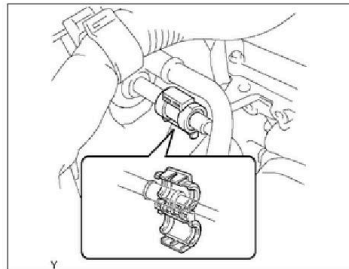


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2. INSTALL THE NEW OUTER DASH PANEL INSULATOR

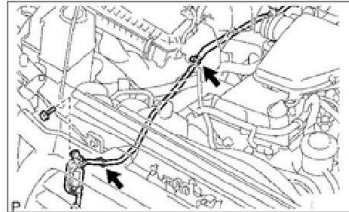
- Move the tubes toward the front of the vehicle to obtain sufficient workspace.
- Carefully install the *NEW* insulator as shown.
- Remove the protective tape from the studs and engine.
- Fasten the insulator with the 4 clips.





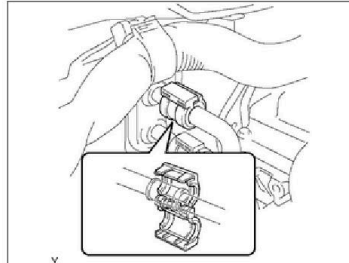
3. REINSTALL THE A/C DISCHARGE HOSE

- Apply compressor oil to the 2 **NEW** O-rings and install them.
- Install the hose and clamp as shown.



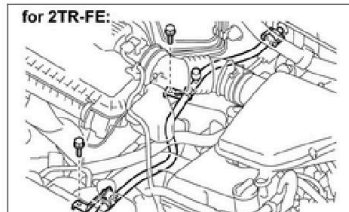
- Install the bracket with the bolt and 2 clamps.

Torque Spec: 7.5 Nm (76 kgf-cm, 66in-lbf)



4. REINSTALL THE A/C SUCTION HOSE

- Apply compressor oil to the 2 **NEW** O-rings and install them.
- Install the hose and clamp as shown.



- Install the bracket with the 2 bolts.

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

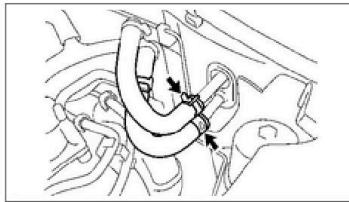
13. REINSTALL STEERING INTERMEDIATE SHAFT

[STEERING INTERMEDIATE SHAFT \(2wd\) RM LINK](#)

[STEERING INTERMEDIATE SHAFT \(4wd\) RM LINK](#)

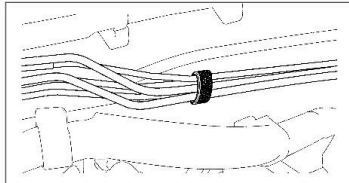
14. REINSTALL BRAKE BOOSTER ASSEMBLY

[BRAKE BOOSTER REINSTALLATION RM LINK](#)



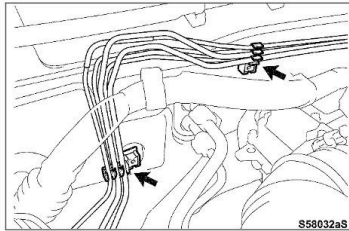
15. REINSTALL WATER HOSE

- a) Remove the plastic bags from the water hoses.
- b) Reinstall the hoses and secure with the hoses clamps.

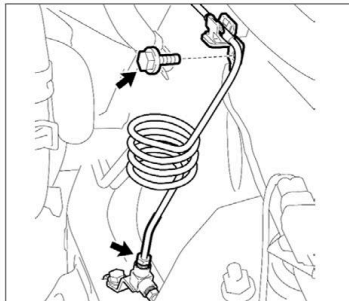


16. REINSTALL BRAKE TUBES TO ACTUATOR

- a) Remove the vinyl tape from the brake tubes.



- b) Install the 4 brake tube clamps

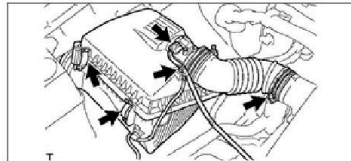
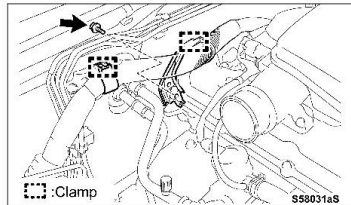
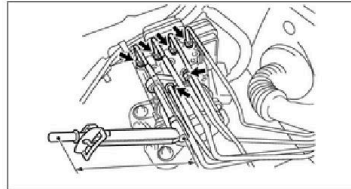
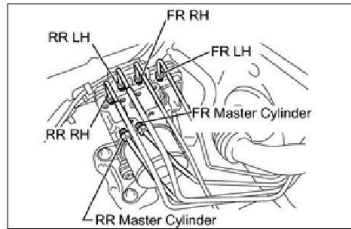


- c) Reinstall the front No. 5 brake line.

Torque Spec: 15 Nm (87 kgf-cm, 11ft-lbs)

- d) Reinstall the brake bracket bolt.

Torque Spec: 8.5 Nm (56 kgf-cm, 75in-lbs)



- e) Temporarily install the brake tubes in the correct locations.
- f) Remove the labels from the brake tubes

- g) Using a union nut wrench torque the brake tubes.

Torque for 10mm line nut:	
without union nut wrench	with union nut wrench
15 Nm (155 kgf-cm, 11ft-lbf)	14 Nm (145 kgf-cm, 10ft-lbf)

Torque for 12mm line nut:	
without union nut wrench	with union nut wrench
20 Nm (199 kgf-cm, 14ft-lbf)	18 Nm (187 kgf-cm, 13ft-lbf)

17. REINSTALL WIRE HARNESS BRACKET

18. REINSTALL AIR CLEANER CAP SUB-ASSEMBLY

- f) Reinstall the air cleaner cap together with the air cleaner hose No. 1.
- g) Connect the 2 air cleaner clamps.
- h) Tighten the hose clamp bolt.
- i) Connect the mass air flow meter connector.
- j) Connect the 2 air cleaner clamps.

19. BLEED BRAKE LINES

[BRAKE BLEEDING RM LINK](#)

20. ADD ENGINE COOLANT

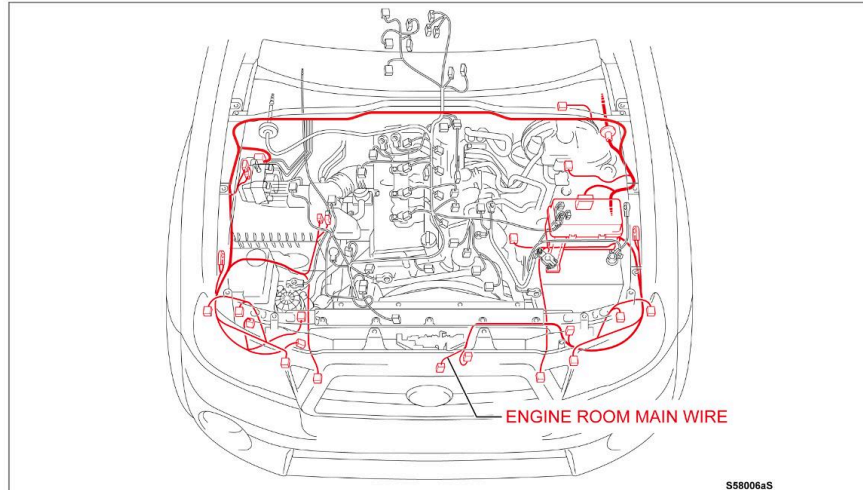
[ENGINE COOLANT RM LINK](#)

21. CHARGE A/C SYSTEM

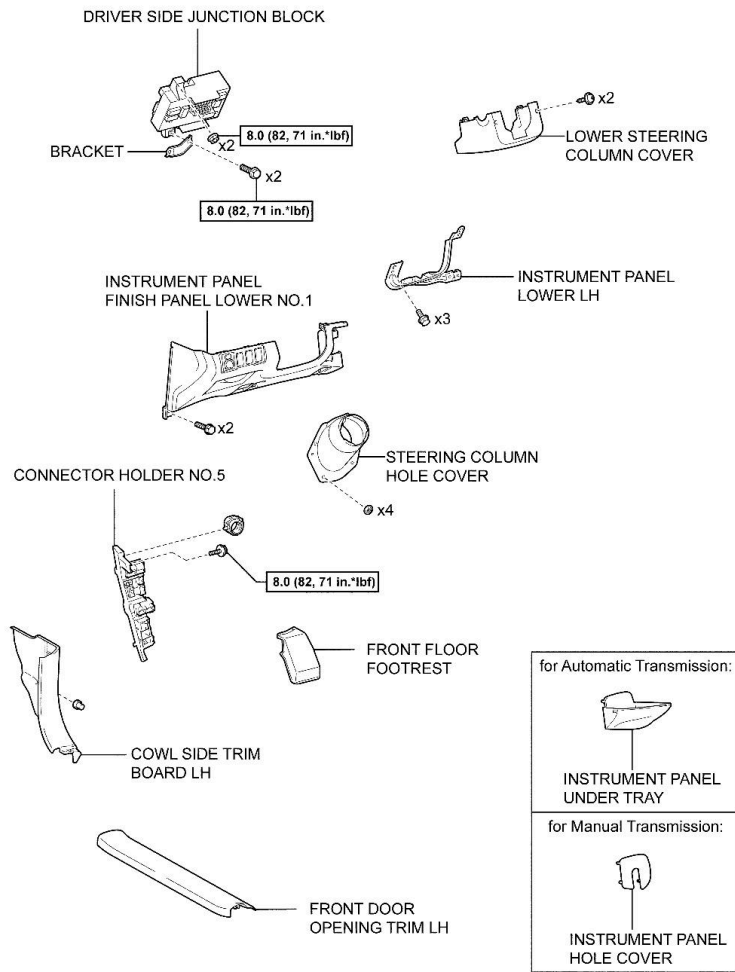
[A/C CHARGE RM LINK](#)

22. PROCEED TO SECTION X: FINAL VEHICLE CHECK

VIII. ENGINE ROOM MAIN WIRE HARNESS REPLACEMENT



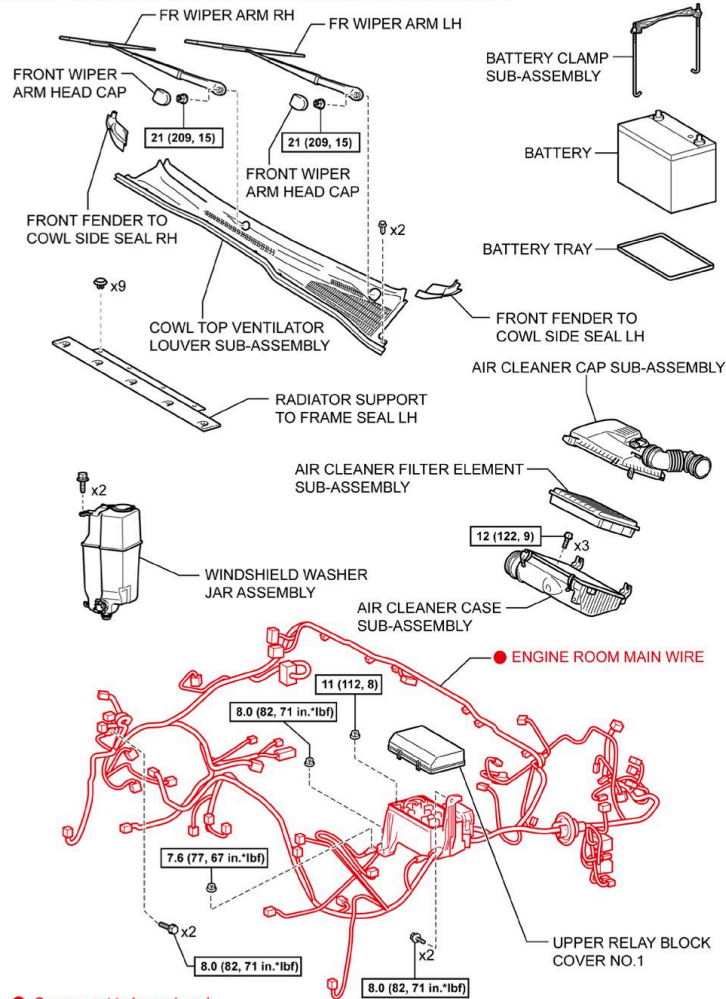
COMPONENTS TO BE REPLACED/REMOVED OVERVIEW



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

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COMPONENTS TO BE REPLACED/REMOVED OVERVIEW CONTINUED...



● :Component to be replaced

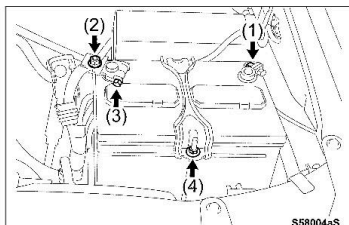
N*m (kg*cm, ft.*lbft) : Specified torque

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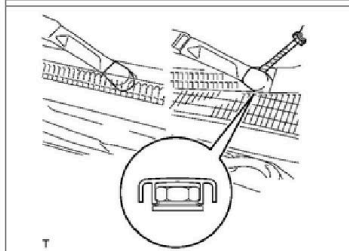
- Always use caution when working in the engine bay because many sharp edges are exposed.
- The following procedure is intended to help guide you, main harness configurations may vary based on vehicle options.
- Use the repair manual links to help with the detailed procedure for certain component removal.

A. ENGINE ROOM MAIN WIRE HARNESS REPLACEMENT



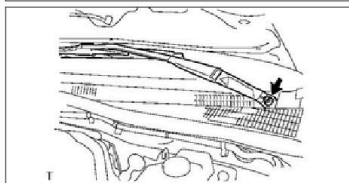
1. REMOVE BATTERY

- Disconnect both the negative and positive battery cables.
- Remove the nut and battery securing bracket.
- Remove battery assembly.

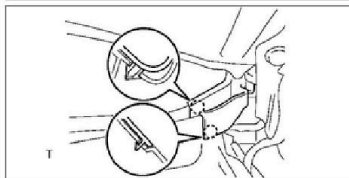


2. REMOVE THE WINDSHIELD WIPER ARMS

- Confirm that the wiper arms are at the auto stop location.
- Remove the 2 windshield wiper arm caps with a screwdriver wrapped in protective tape.

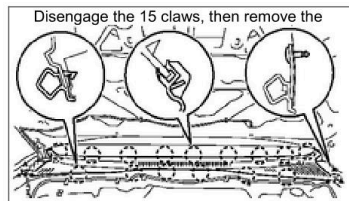


- Remove the nuts and wiper arms.

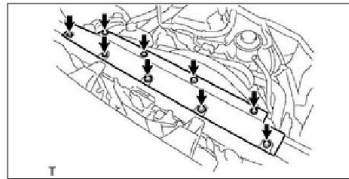


3. REMOVE COWL TOP VENTILATOR LOUVER

- Remove the RH and LH side front fender to cowl seal by disengaging the 2 claws as shown.

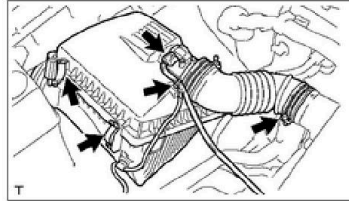


- b) Disengage the 2 clips on the cowl top ventilation louver.
- c) Remove the cowl top ventilator louver.



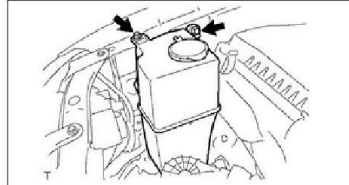
4. REMOVE RADIATOR SUPPORT TO FRAME SEAL LH

- a) Disengage the 9 clips and remove.



5. REMOVE AIR CLEANER

- a) Disconnect the mass air flow meter connector.
- b) Disconnect the wire harness clamp.
- c) Loosen the hose clamp bolt, then disconnect the air cleaner hose No. 1.
- d) Disconnect the 2 air cleaner clamps.
- e) Remove the air cleaner cap together with the air cleaner hose No. 1.
- f) Remove filter element.
- g) Remove the 3 bolts and air cleaner base.



6. SEPARATE WINDSHIELD WASHER JAR

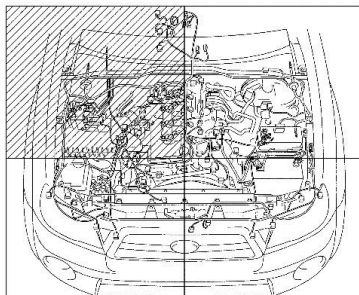
- c) Remove the 2 bolts and remove the windshield washer jar.

7. DISCONNECT ENGINE ROOM MAIN WIRE HARNESS

a) Disconnect the connectors and disengage the clamps as shown in the following illustrations.

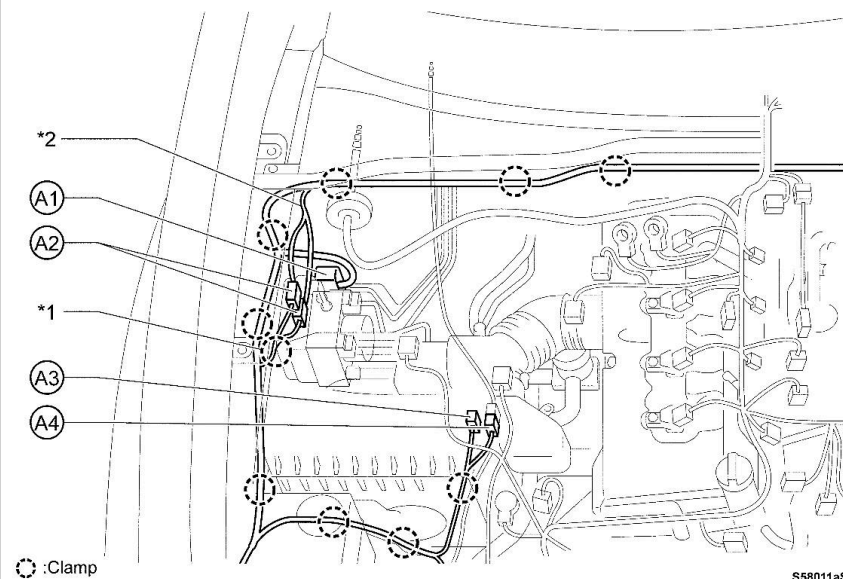


- Exact wire harness configuration can vary based upon vehicle options, use the following pages as a guide when disconnecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you remove all connectors and clamps.



A1: Brake Actuator Assembly
A2: Air Injection Control Driver
A3: Skid Control Sensor Wire
A4: Frame Wire No.1

*1: 10,11MY
*2: From 12MY

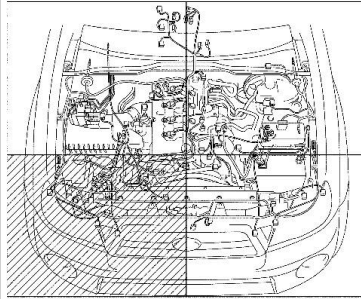


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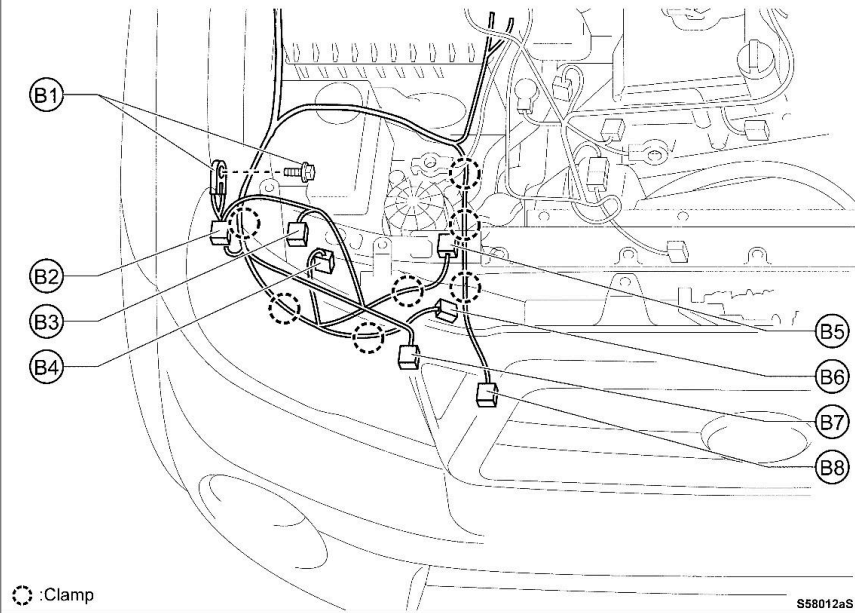
b) Disconnect the connectors and disengage the clamps as shown in the following illustrations.



- Exact wire harness configuration can vary based on vehicle options, use the following pages as a guide when disconnecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you remove all connectors and clamps.



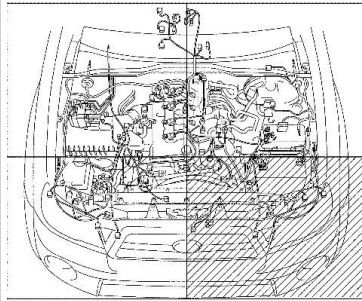
B1: Body Ground
B2: Clearance Lamp
B3: Headlamp
B4: Windshield Washer Motor and Pump Assembly
B5: Air Pump Assembly
B6: Pressure Switch No.1
B7: Front Turn Signal Lamp
B8: Front Airbag Sensor RH



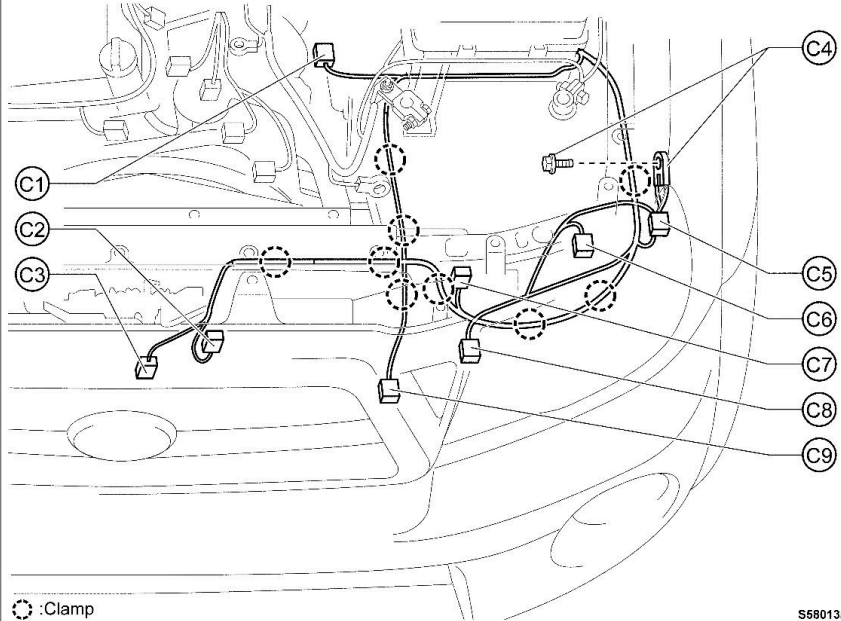
- c) Disconnect the connectors and disengage the clamps as shown in the following illustrations.
d) Remove the body ground bolt.



- Exact wire harness configuration can vary based on vehicle options, use the following pages as a guide when disconnecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you remove all connectors and clamps.



- C1: Skid Control Sensor Wire
C2: Low Pitched Horn Assembly
C3: Cooler Thermistor (Ambient Temperature Sensor)
C4: Body Ground
C5: Clearance Lamp
C6: Headlamp
C7: Wireless Door Lock Buzzer
C8: Front Turn Signal Lamp
C9: Front Airbag Sensor LH



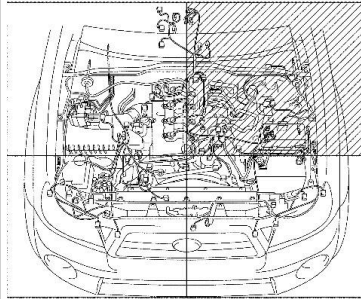
:Clamp

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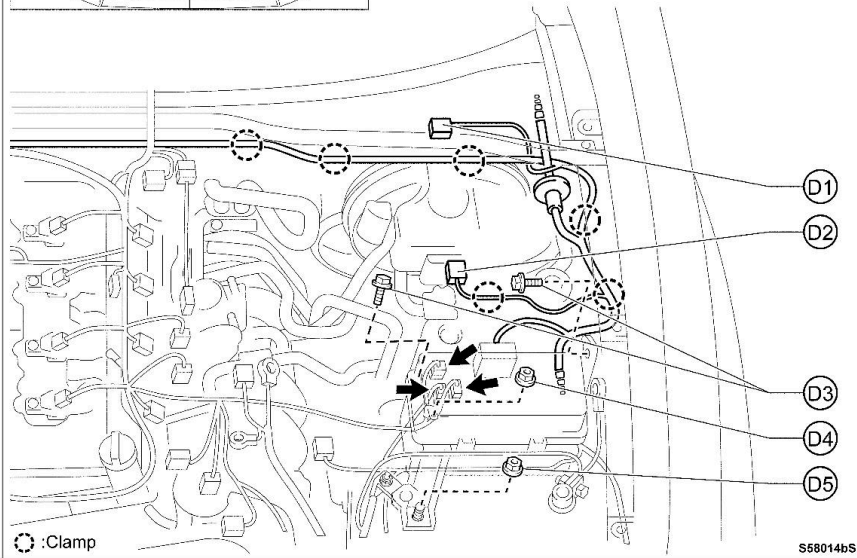
- e) Remove the upper relay block cover No.1.
- f) Disconnect the connectors and disengage the clamps as shown in the following illustrations.
- g) Remove the 2 bolts and the 2 nuts.

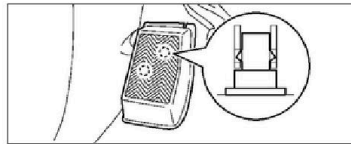


- Exact wire harness configuration can vary based on vehicle options, use the following pages as a guide when disconnecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you remove all connectors and clamps.



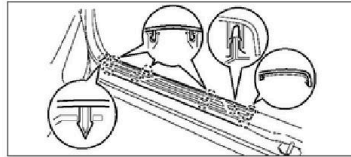
D1: Windshield Wiper Motor Assembly
D2: Brake Master Cylinder Reservoir Sub-Assembly
D3: Bolt
D4: Nut
D5: Nut





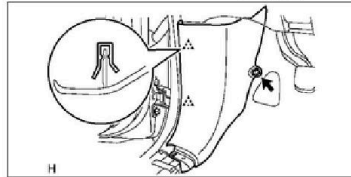
8. REMOVE THE FRONT FLOOR FOOT REST

- a) Disengage the 2 clips.



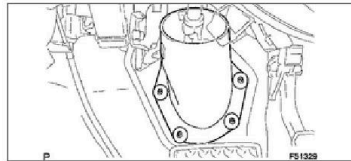
9. REMOVE FRONT DOOR SCUFF PLATE

- a) Disengage the 9 claws and remove.



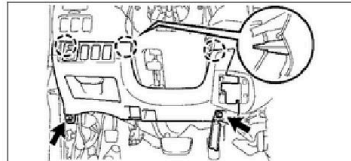
10. REMOVE COWL SIDE TRIM BOARD LH

- a) Remove the clip.
- b) Disengage the 2 clips and remove.



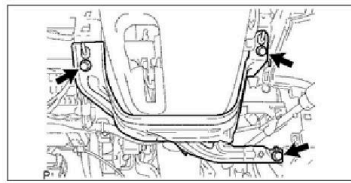
11. REMOVE STEERING COLUMN HOLE COVER

- a) Disengage the 2 clips and remove.



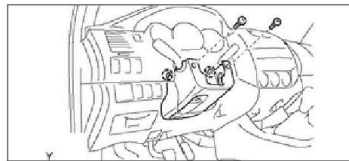
12. REMOVE INSTRUMENT PANEL LOWER FINISH PANEL NO.1

- a) Remove the 2 bolts.
- b) Disengage the 3 clips and carefully remove.
- c) Disconnect the electrical connectors.



13. REMOVE INSTRUMENT PANEL LOWER LH

- a) Remove the 3 bolts and remove the panel.

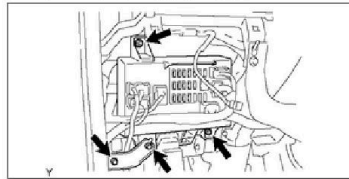


14. REMOVE LOWER STEERING COLUMN COVER.

- a) Remove the 2 screws.

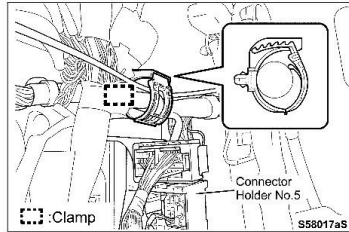
Note: To access the screws you may need to turn the steering wheel.

- b) Disengage the 2 clips and remove.



15. REMOVE DRIVER SIDE JUNCTION BLOCK

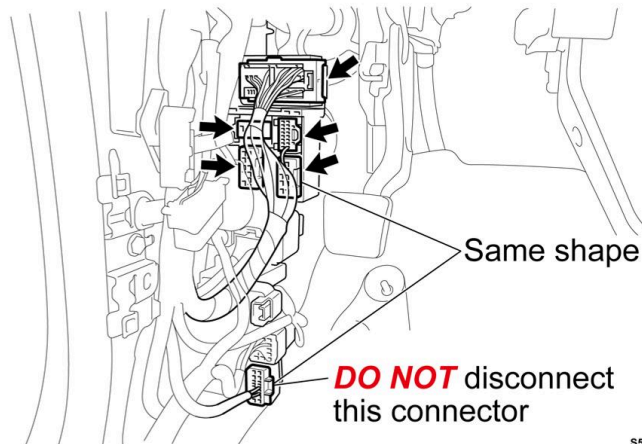
- a) Remove the 2 bolts and bracket.
- b) Remove the 2 nuts and separate the driver side junction block.



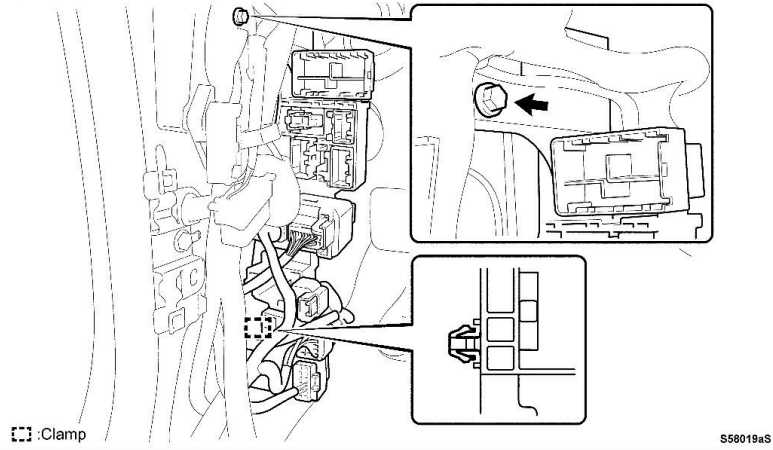
16. REMOVE THE ENGINE ROOM MAIN HARNESS

- a) Disengage the clamp from the connector holder No. 5.

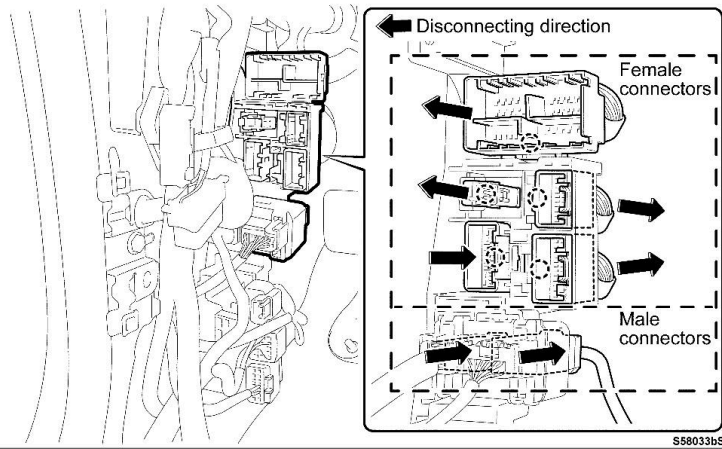
- b) Disconnect the 5 front connectors from the connector holder No. 5.



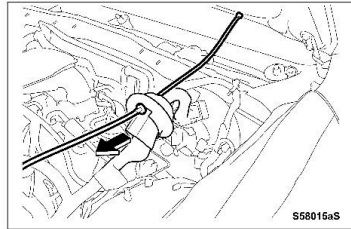
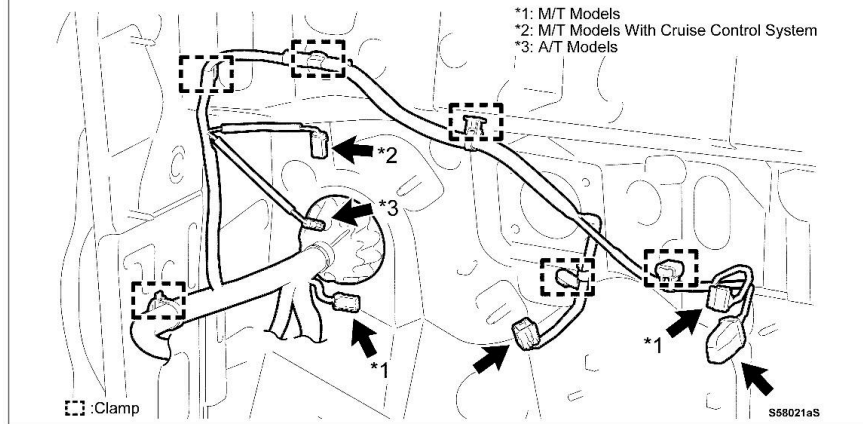
c) Remove the bolt and clamp to unfasten the connector holder No. 5



d) Disconnect the 5 female connectors and 2 male connectors that are located at the back of the connector holder No. 5.

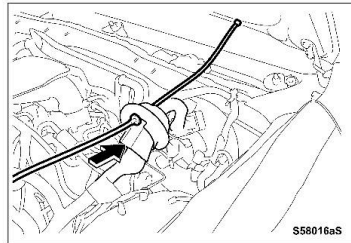


e) Disconnect the 5 female connectors and disengage the clamps located in the foot pedal area as shown.



- f) Confirm all connectors and clamps have been disconnected.
- g) Pull out the engine room main harness from the vehicle cabin towards the engine compartment as shown.
- h) Pull out the hood lock cable from the wire harness grommet.
- i) Mark the removed harness so that it is not reused.

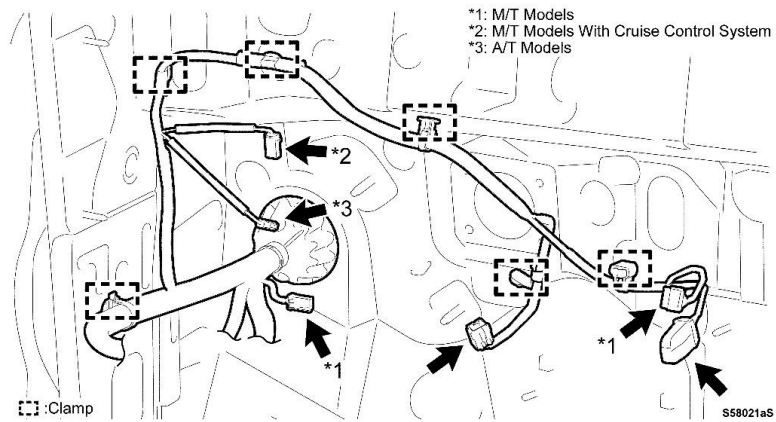
B. INSTALL **NEW** ENGINE ROOM MAIN HARNESS



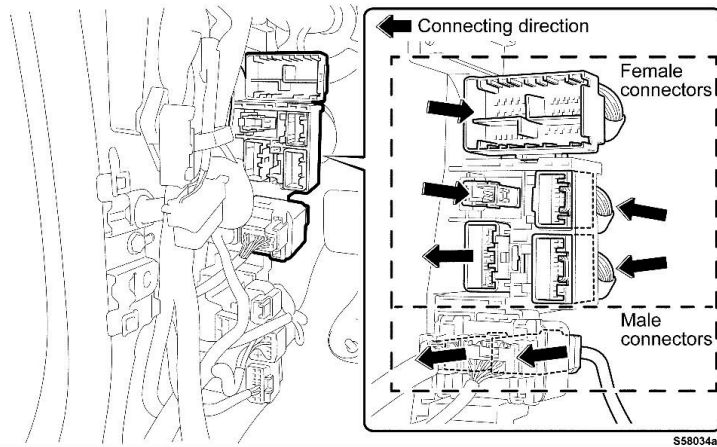
1. INSTALL ENGINE ROOM MAIN HARNESS INTO THE VEHICLE CABIN

- a) Insert the hood lock cable into the harness grommet.
- b) Insert the engine room main harness from the engine room into the vehicle cabin as shown.

c) Connect the 5 female connectors and engage the clamps located in the foot pedal area as shown.

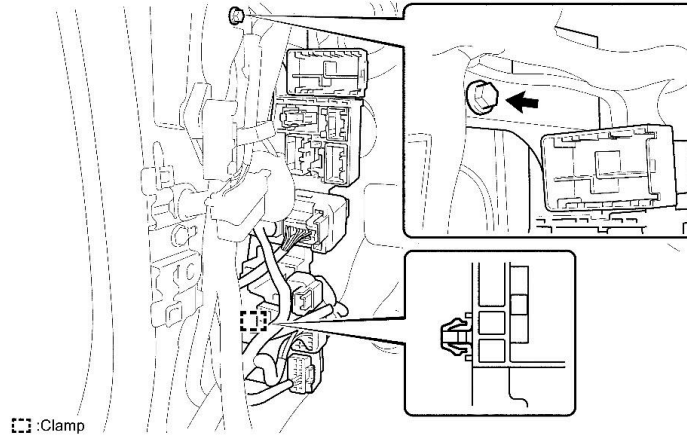


d) Connect the 5 female connectors and 2 male connectors that are located at the back of the connector holder No. 5.



e) Fasten the connector holder No. 5 with the bolt.

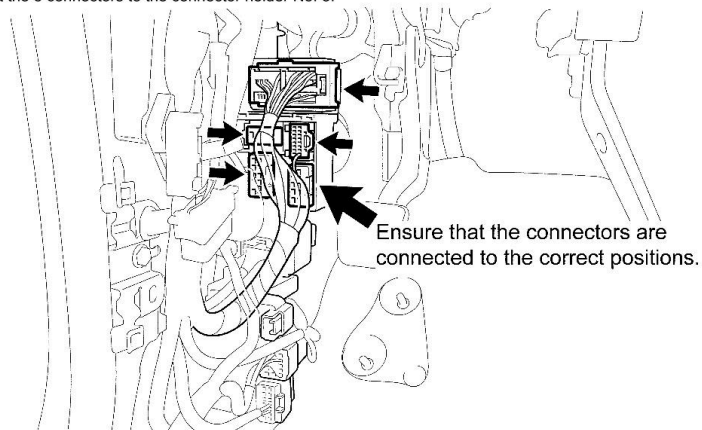
Torque Spec: 8.0Nm (82 kgf-cm, 71 in-lbf)

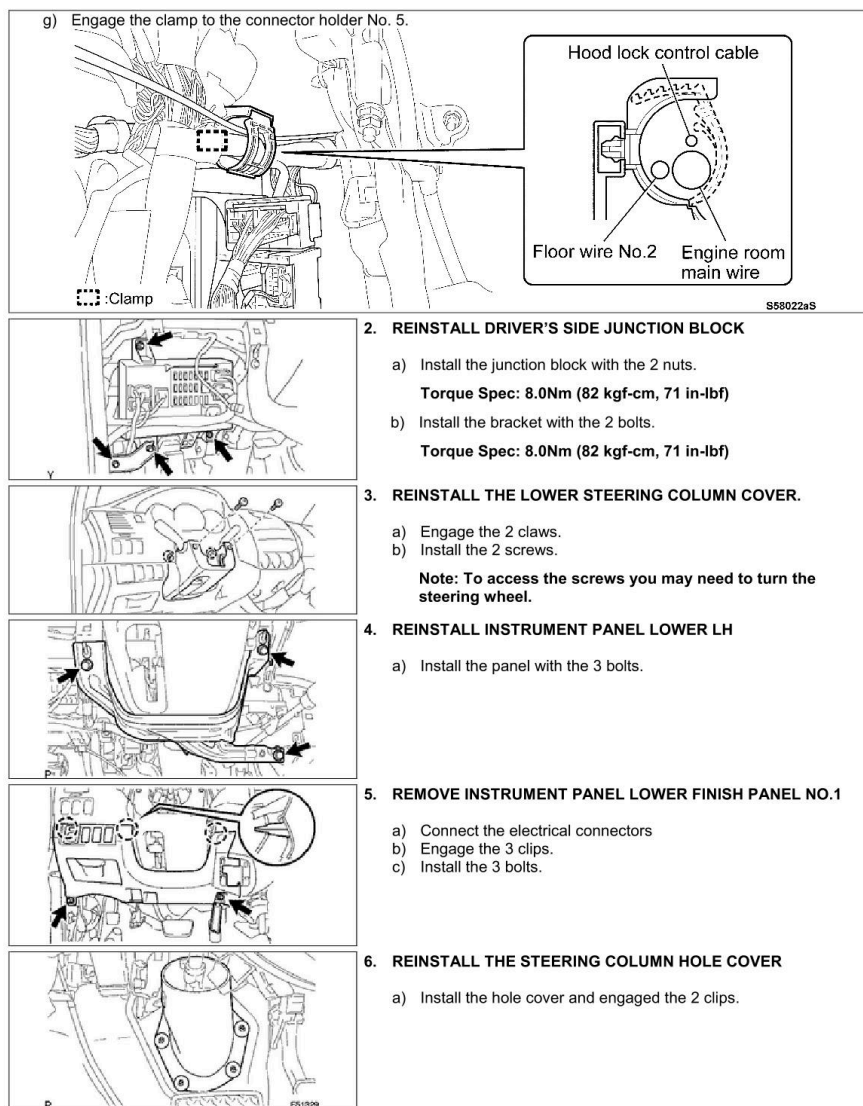


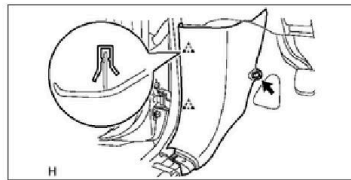
Clamp

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f) Connect the 5 connectors to the connector holder No. 5.

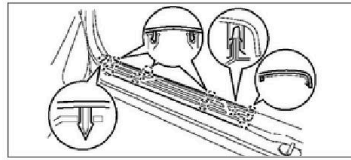






7. REINSTALL COWL SIDE TRIM BOARD LH

- a) Engage the 2 clips.
- b) Install the clip onto the stud.



8. REINSTALL FRONT DOOR SCUFF PLATE

- a) Install the scuff plate and engage the 9 claws.



9. REINSTALL THE FRONT FLOOR FOOT REST

- b) Install the foot rest and engage the 2 clips.

10. INSTALL THE **NEW** ENGINE ROOM MAIN HARNESS IN THE ENGINE ROOM

- a) Connect the connectors and engage the clamps as shown.
- b) Reinstall the 2 bolts and nuts

Torque Spec:

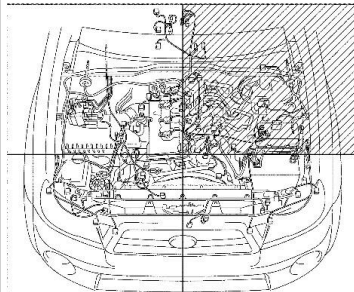
D3, D5: 8.0 Nm (82 kgf-cm, 71 in-lbf)

D4: 11.0 Nm (112 kgf-cm, 8 ft-lbf)

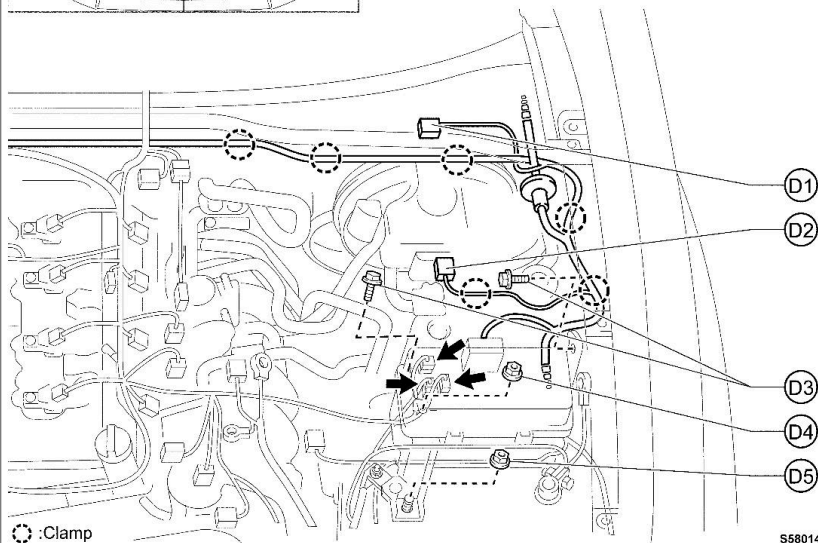
- c) Reinstall the relay block cover No. 1



- Exact wire harness configuration can vary based on vehicle options, use the following pages as a guide when connecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you connect all connectors and clamps.



D1: Windshield Wiper Motor Assembly
D2: Brake Master Cylinder Reservoir Sub-Assembly
D3: Bolt
D4: Nut
D5: Nut



⊗ :Clamp

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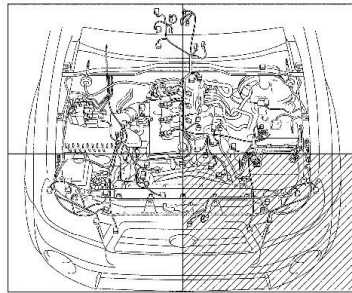
- d) Connect the connectors and engage the clamps as shown.
e) Reinstall the bolt.

Torque Spec:

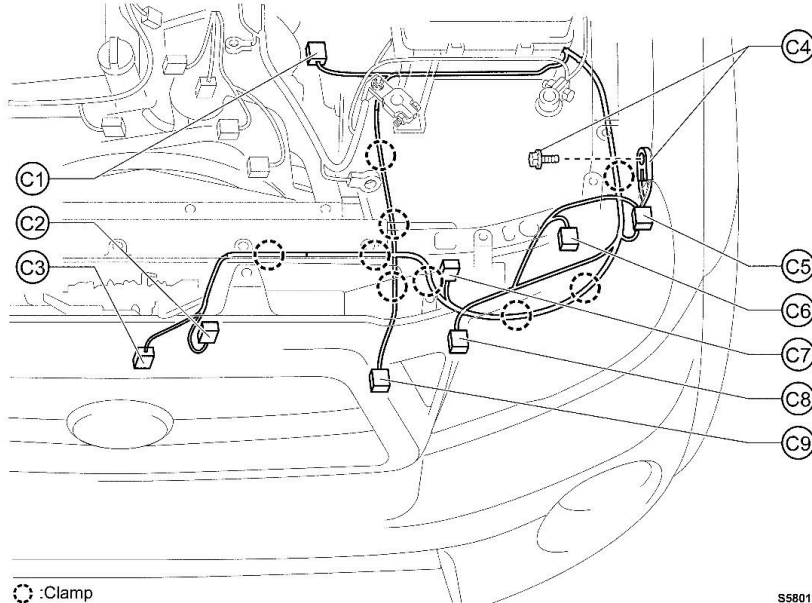
C4: 8.0 Nm (82 kgf-cm, 71 in-lbf)



- Exact wire harness configuration can vary based on vehicle options, use the following pages as a guide when connecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you connect all connectors and clamps.



C1: Skid Control Sensor Wire
C2: Low Pitched Horn Assembly
C3: Cooler Thermistor (Ambient Temperature Sensor)
C4: Body Ground
C5: Clearance Lamp
C6: Headlamp
C7: Wireless Door Lock Buzzer
C8: Front Turn Signal Lamp
C9: Front Airbag Sensor LH



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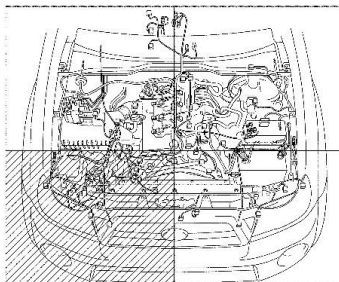
- f) Connect the connectors and engage the clamps as shown.
g) Reinstall the bolt.

Torque Spec:

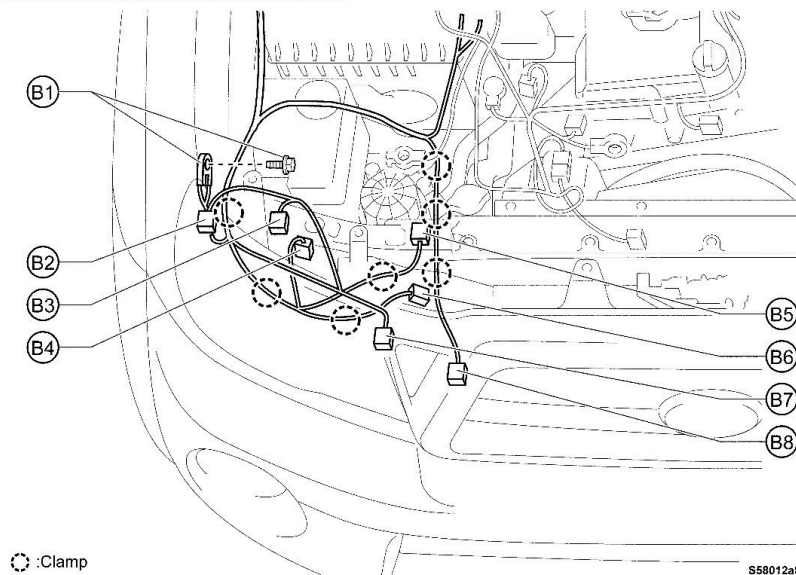
B1: 8.0Nm (82 kgf-cm, 71 in-lbf)



- Exact wire harness configuration can vary based on vehicle options, use the following pages as a guide when connecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you connect all connectors and clamps.



B1: Body Ground
B2: Clearance Lamp
B3: Headlamp
B4: Windshield Washer Motor and Pump Assembly
B5: Air Pump Assembly
B6: Pressure Switch No. 1
B7: Front Turn Signal Lamp
B8: Front Airbag Sensor RH



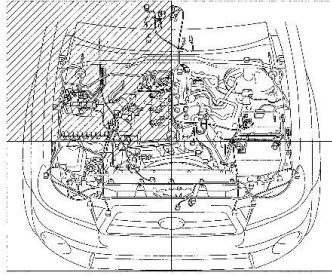
⊗:Clamp

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h) Connect the connectors and engage the clamps as shown.

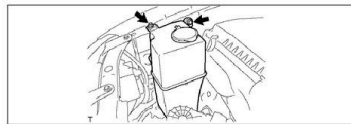
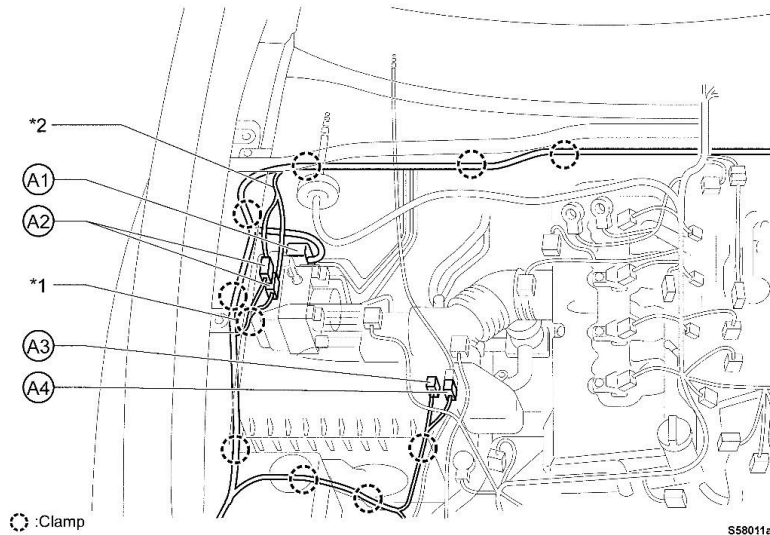


- Exact wire harness configuration can vary based on vehicle options, use the following pages as a guide when connecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you connect all connectors and clamps.



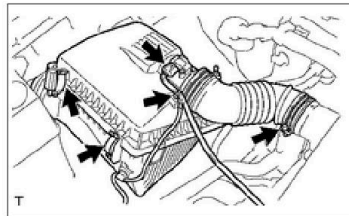
A1: Brake Actuator Assembly
A2: Air Injection Control Driver
A3: Skid Control Sensor Wire
A4: Frame Wire No.1

*1: 10,11MY
*2: From 12MY



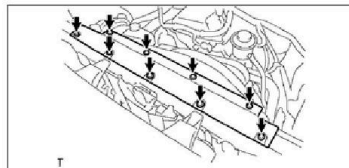
11. REINSTALL WINDSHIELD WASHER JAR

- a) Install the washer jar and 2 bolts.



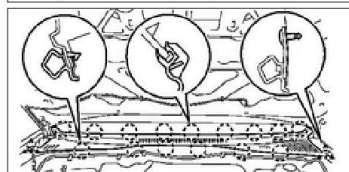
12. REINSTALL AIR CLEANER

- Install the air cleaner base and 3 bolts.
Torque Spec: 12.Nm (122 kgf-cm, 9 ft-lbf)
- Install filter element.
- Install air cleaner cap and hose.
- Connect the mass air flow meter connector.
- Connect the wire harness clamp.
- Tighten the hose clamp bolt, and connect the air cleaner hose No. 1.
- Connect the 2 air cleaner lid clamps.



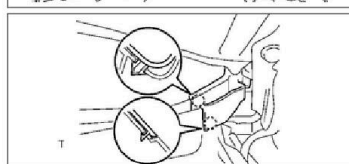
13. REINSTALL RADIATOR SUPPORT TO FRAME SEAL LH

- Install seal and engage the 9 clips.



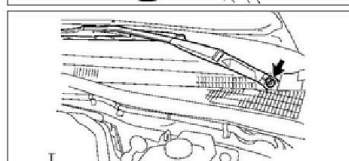
14. REINSTALL COWL TOP VENTILATOR LOUVER

- Install the louver and engage the 15 claws.
- Reinstall the RH and LH side front fender to cowl seal by engaging the 2 claws as shown.



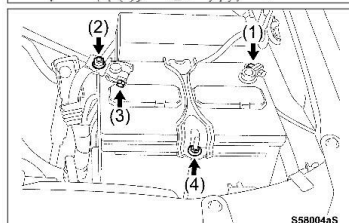
15. REINSTALL THE WINDSHIELD WIPERS

- Install the wiper arms.
- Install the wiper arm nuts.
Torque Spec: 21 Nm (209 kgf-cm, 15 ft-lbf)
- Install the wiper arm caps.

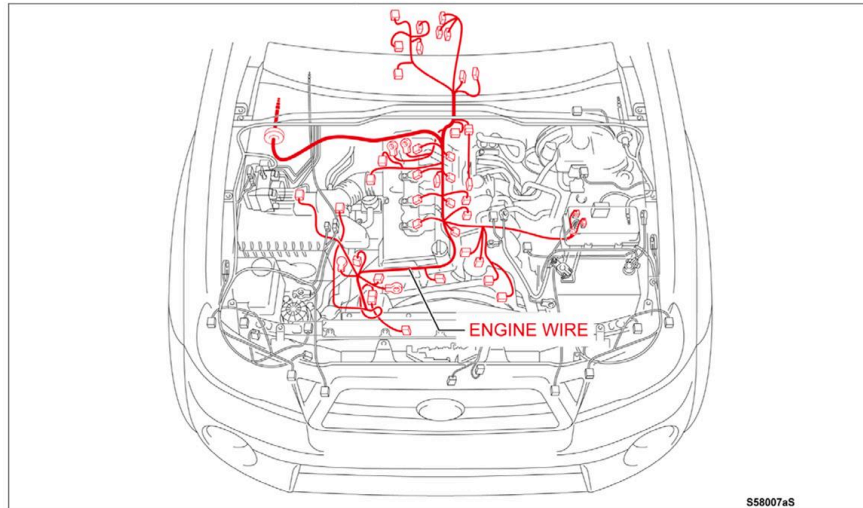


17. REINSTALL BATTERY

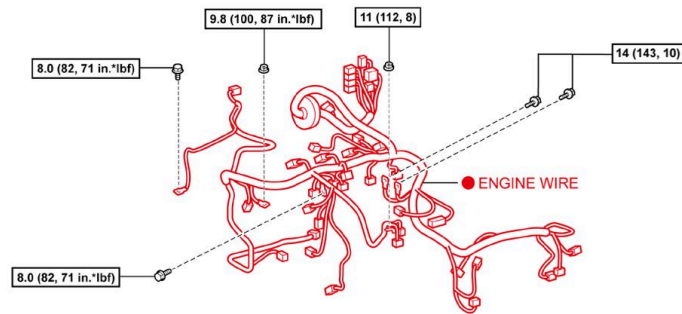
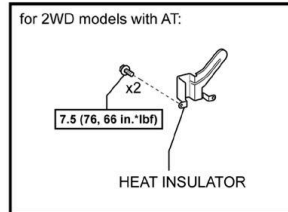
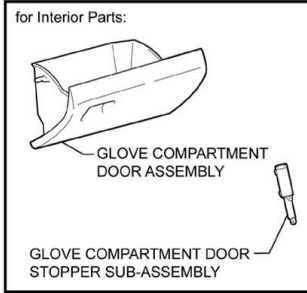
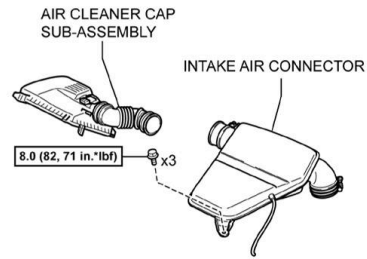
- Reinstall battery tray.
- Install the battery.
- Install the battery bracket and tighten the nut.
Torque Spec: 5.4 Nm (55 kgf-cm, 48 in-lbf)
- Connect both the negative and positive battery cables.
- Remove the nut and battery securing bracket.
- Remove battery assembly.



IX. ENGINE WIRE HARNESS REPLACEMENT



COMPONENTS TO BE REPLACED/REMOVED OVERVIEW



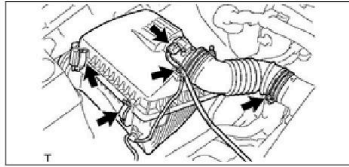
● :Component to be replaced

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

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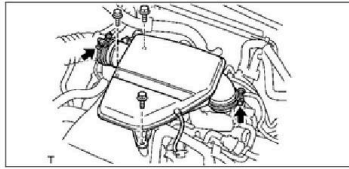
A. ENGINE WIRE HARNESS REMOVAL

1. DISCONNECT THE BATTERY



2. REMOVE AIR CLEANER CAP

- Disconnect the mass air flow meter connector.
- Disconnect the wire harness clamp.
- Loosen the hose clamp bolt, then disconnect the air cleaner hose No. 1.
- Disconnect the 2 air cleaner lid clamps.
- Remove the air cleaner cap together with the air cleaner hose No. 1.



3. REMOVE INTAKE AIR CONNECTOR

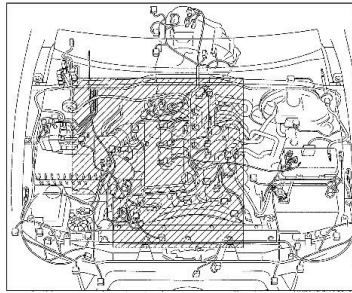
- Disconnect the pressure sensor connector.
- Disengage the wire harness clamp.
- Disconnect the vacuum hoses.
- Disconnect the No. 2 ventilation hose.
- Loosen the hose clamp bolt.
- Remove the 3 bolts and the air connector.

4. REMOVE ENGINE WIRE FROM ENGINE ROOM

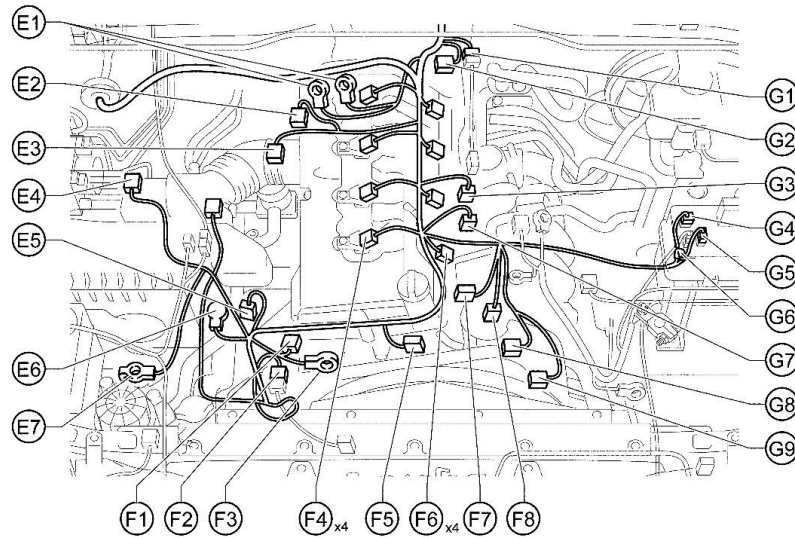
- Remove the upper relay block cover No. 1.
- Disconnect the connectors and disengage the clamps as shown in the following illustrations.
- Remove the 4 bolts and 2 nuts.



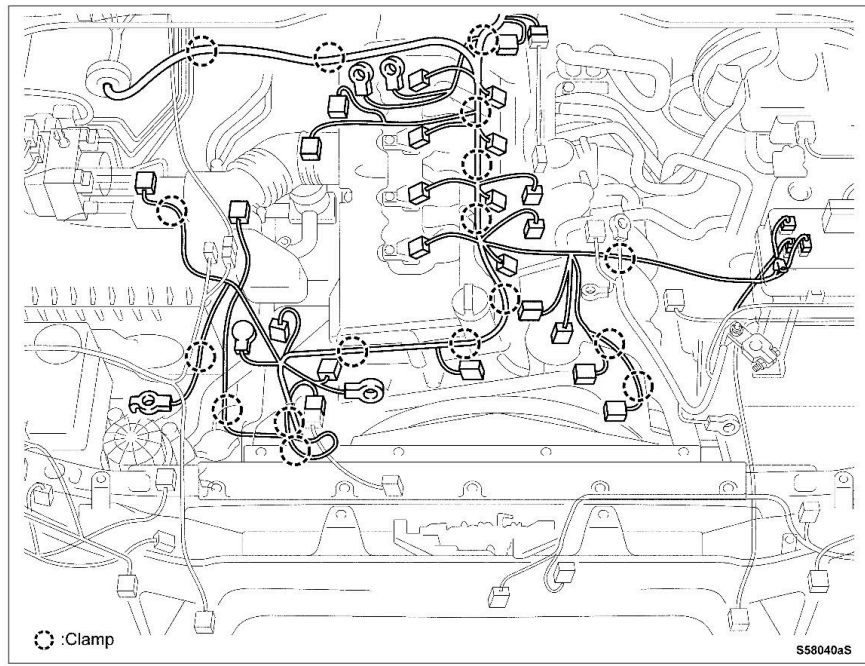
- Exact wire harness configuration can vary based on vehicle model year, use the following pages as a guide when disconnecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you remove all connectors and clamps.



- | | |
|--|---|
| E1: Body Ground | G1: Wire to Wire |
| E2: Vacuum Sensor Assembly (For E.F.I.) | G2: Water Temperature Sensor (For E.F.I.) |
| E3: Air Switching Valve Assembly | G3: Throttle w/ Motor Body Assembly |
| E4: Mass Air Flow Sensor | G4: Wire to Wire |
| E5: Alternator Assembly | G5: Wire to Wire |
| E6: Alternator Assembly (Nut) | G6: Nut |
| E7: Body Ground | G7: Vacuum Switching Valve Assembly No.1 |
| F1: Oil Pressure Switch Assembly (For Engine) | G8: Power Steering Oil Pressure Switch |
| F2: Wire to Wire | G9: Cooler Compressor Assembly |
| F3: Body Ground | |
| F4: Ignition Coil Assembly | |
| F5: Cam Position Sensor | |
| F6: Fuel Injector Assembly | |
| F7: Camshaft Timing Oil Control Valve Assembly | |
| F8: Crank Position Sensor | |

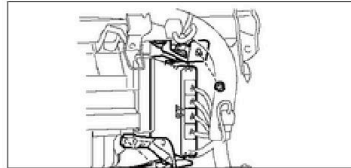
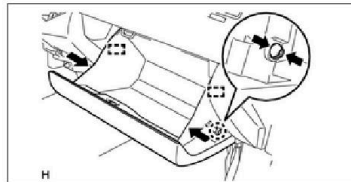
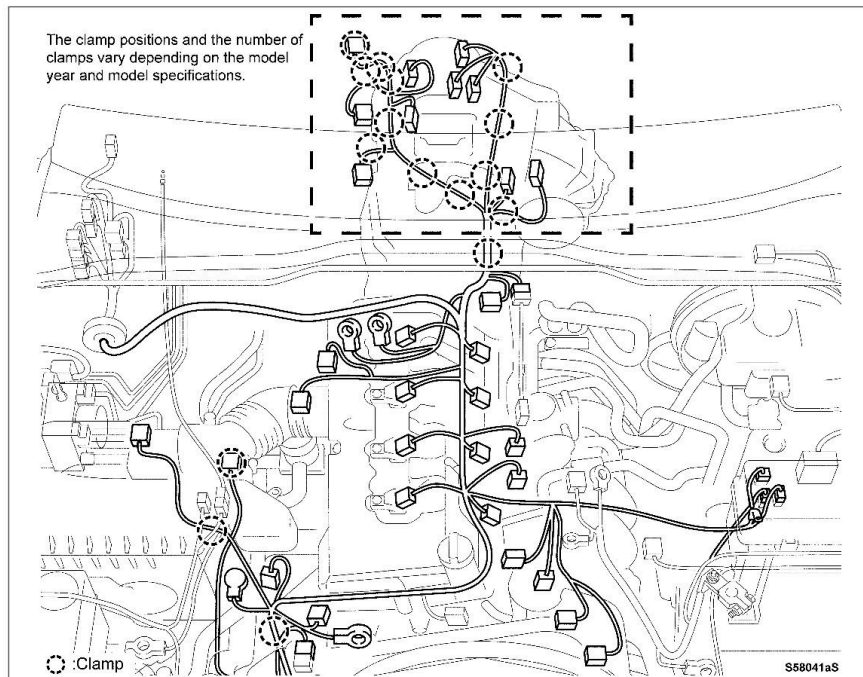


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1. DISCONNECT THE ENGINE WIRE FROM VEHICLE CABIN

- a) Lower the vehicle.
- b) Remove the glove box door.
- c) Disengage the claw and separate the glove box door from the glove box stopper.
- d) Slightly compress the side wall of the glove box door carefully until it is horizontal, then pull the glove box door toward the rear of the vehicle.
- e) Disconnect the connectors and disengage the wire harness clamps.
- f) Release the wire harness grommet and pull the harness from the vehicle cabin toward the engine room.

B. NEW ENGINE WIRE HARNESS INSTALLATION

1. ROUTE AND CONNECT THE ENGINE WIRE HARNESS

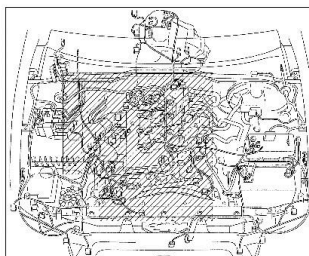
- Connect the connectors and engage the clamps as shown in the following illustrations.
- Reinstall the 4 bolts and 2 nuts.

Torque Spec:

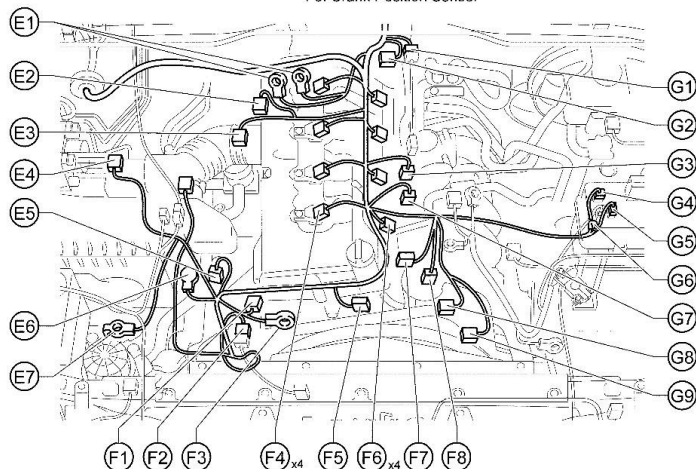
E1: 14 Nm (143 kgf-cm, 10 ft-lbf)
E6: 9.8 Nm (100 kgf-cm, 87 in-lbf)
E7, F3: 8.0 Nm (82 kgf-cm, 71 in-lbf)
G8: 11.0 Nm (112 kgf-cm, 8 ft-lbf)



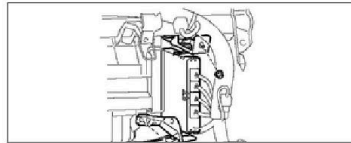
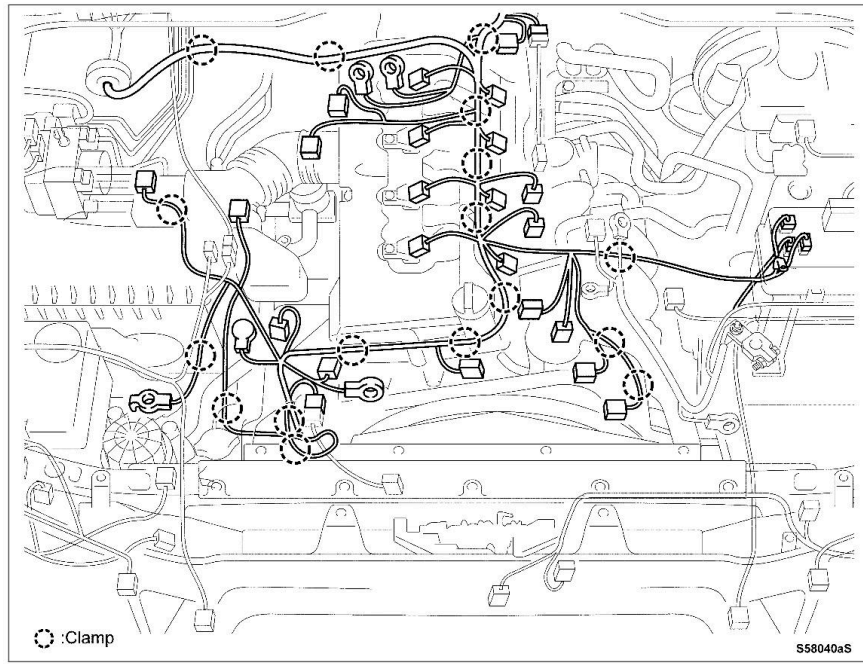
- Exact wire harness configuration can vary based on vehicle model year, use the following pages as a guide when disconnecting the harness.
- The vehicle engine bay is broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you remove all connectors and clamps.



E1: Body Ground
E2: Vacuum Sensor Assembly (For E.F.I.)
E3: Air Switching Valve Assembly
E4: Mass Air Flow Sensor
E5: Alternator Assembly
E6: Alternator Assembly (Nut)
E7: Body Ground
F1: Oil Pressure Switch Assembly (For Engine)
F2: Wire to Wire
F3: Body Ground
F4: Ignition Coil Assembly
F5: Cam Position Sensor
F6: Fuel Injector Assembly
F7: Camshaft Timing Oil Control Valve Assembly
F8: Crank Position Sensor
G1: Wire to Wire
G2: Water Temperature Sensor (For E.F.I.)
G3: Throttle w/ Motor Body Assembly
G4: Wire to Wire
G5: Wire to Wire
G6: Nut
G7: Vacuum Switching Valve Assembly No.1
G8: Power Steering Oil Pressure Switch
G9: Cooler Compressor Assembly

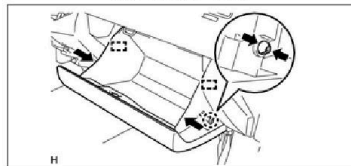


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2. REINSTALL THE ENGINE HARNESS IN THE VEHICLE CABIN

- Pass the engine wire harness through the bulk head and into the vehicle cabin.
- Install the connectors and clamps.
- Confirm that the grommet is installed on the bulk head.



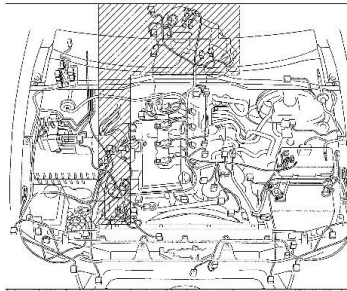
3. REINSTALL THE GLOVE BOX

- Engage the glove box door hinges
- Swing the door up and slightly compress the sides.
- Engage the claw on the glove box door stop.

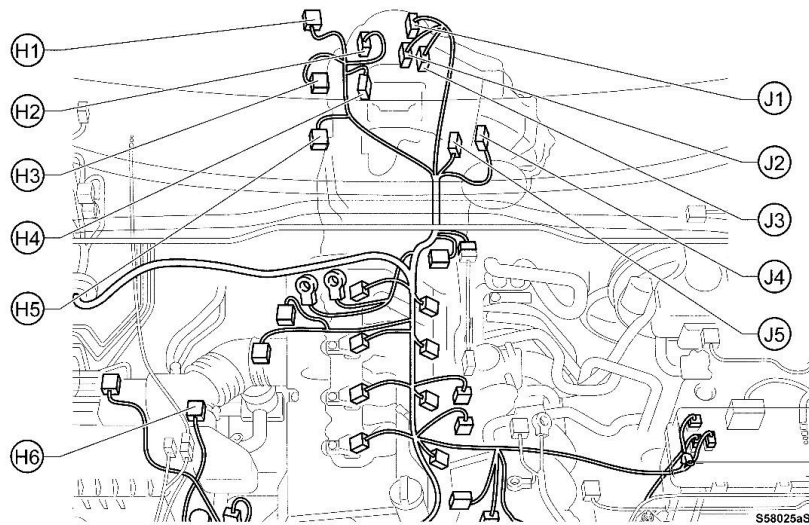
- d) Raise the vehicle.
e) Connect the connectors and engage the clamps on the transmission as shown.
f) Reinstall the heat insulator. (A/T trans only)
- Torque Spec: 7.5 Nm (76 kgf-cm, 66 in-lbf)**



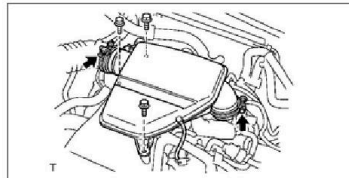
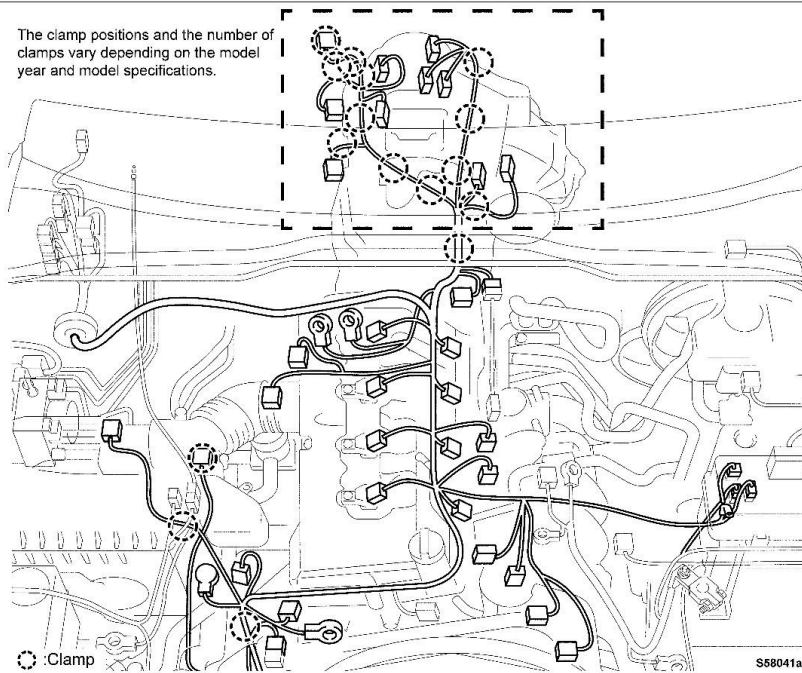
- Exact wire harness configuration can vary based on vehicle model year, use the following pages as a guide when disconnecting the harness.
- The engine wire clamps/connectors are broken up into 4 quadrants for your reference.
- Use the following pages as a check sheet to ensure you remove all connectors and clamps.



- H1: Oxygen Sensor
H2: Speedometer Sensor (A/T)
H3: Speedometer Sensor (M/T)
H4: Electronically Controlled Transmission Solenoid (A/T)
H5: Neutral Start Switch Assembly (A/T)
Back-up Lamp (M/T)
H6: Air Fuel Ratio Sensor
J1: Transfer Indicator Switch No.1 (4WD)
J2: Transfer Shift Actuator Assembly (4WD)
J3: Transfer Indicator Switch No.2 (4WD)
J4: Transmission Revolution Sensor (A/T)
J5: Temperature Sensor (A/T)

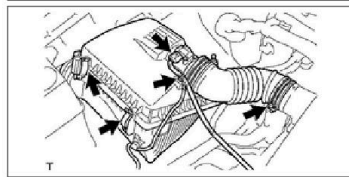


The clamp positions and the number of clamps vary depending on the model year and model specifications.



5. REINSTALL INTAKE AIR CONNECTOR

- a) Install the air intake connector.
 - b) Install the 3 bolts.
- Torque Spec: 12 Nm (122 kgf-cm, 9ft-lbf)**
- c) Tighten the hose clamp bolt.
 - d) Connect the vacuum hoses.
 - e) Connect the No. 2 ventilation hose.



6. REINSTALL AIR CLEANER CAP

- a) Install filter element.
- b) Install air cleaner cap and hose.
- c) Connect the mass air flow meter connector.
- d) Connect the wire harness clamp.
- e) Tighten the hose clamp bolt, and connect the air cleaner hose No. 1.
- f) Connect the 2 air cleaner lid clamps.

7. RECONNECT BATTERY

8. PROCEED TO SECTION X: FINAL VEHICLE CHECK

X. FINAL VEHICLE CHECK

1. CHECK AND CLEAR DTC
2. CHECK FOR ENGINE COOLANT LEAK
3. CHECK FOR BRAKE FLUID LEAK
4. CHECK FOR REFRIGERANT LEAK
5. CONDUCT TEST DRIVE
6. RESTORE SYSTEM SETTINGS



- All catalytic converters must be returned to Toyota, the CPS system will send you a request the day after the warranty claim is approved.
- If the catalytic converters are not returned the warranty claims are subject to debit and core charges.
- Do not ship the full exhaust pipe assembly back to Toyota. If the exhaust pipe is shipped back as a complete unit your dealer will be debited for the additional shipping charges.

◀ VERIFY REPAIR QUALITY ▶

- Confirm that there are no exhaust leaks
- Confirm that all components were inspected and replaced as needed
- Confirm that the catalytic converter is returned to Toyota (REQUIRED)

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

XI. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

