

READ THIS IMPORTANT NOTICE BEFORE INSTALLING THE TRD SUPERCHARGER SYSTEM.

The TRD Supercharger System requires a special calibration that needs to be installed into the OEM ECU. The supercharger calibration is unique for each model variation and cannot be interchanged.

NOT ALL MODELS ARE ELIGIBLE FOR A SUPERCHARGER SYSTEM!

Do not install the TRD Supercharger System until the OE vehicle calibration ID can be verified, and a Supercharger Calibration exists for your vehicle.

*Ensure you have the latest set of installation instructions. The latest set of instructions can be downloaded through TIS, or may be obtained through your local Toyota Dealer. Check the OE Calibration ID of the vehicle that will have a TRD Supercharger System installed. Refer to T-SB-0012-13 "Techstream ECU Flash Reprogramming Procedure". Verify that a Supercharger Calibration exists before proceeding with the installation. Compare the OE Calibration ID with the Supercharger Calibration chart near the end of these instructions.

If the OE calibration IS NOT LISTED in the Target Calibration ID table, DO NOT INSTALL THE SUPERCHARGER SYSTEM!

Calibrations not listed on the Target Calibration ID Table will result in a "No Flash" condition!

Refer to ASG or your Toyota Dealer for updated information regarding available supercharger calibrations.

WARNING! – DO NOT INSTALL THE TRD SUPERCHARGER CALIBRATION FILE INTO A VEHICLE THAT WILL NOT HAVE A SUPERCHARGER SYSTEM INSTALLED.

Installation of the TRD Supercharger calibration file is **NON-REVERSABLE!** Installation of a TRD supercharger calibration into a non-supercharged equipped vehicle will result in multiple malfunction codes. A supercharger calibration cannot be removed once the ECU has been programmed.

Replacement of the ECU will be required if an OE calibration is needed.

Neither Toyota Motor Sales, USA, Inc. nor TRD will honor any warranty claim in which a non-supercharged vehicle was unintentionally programmed with a supercharger calibration.

TRD supercharger systems are only calibrated to operate on PREMIUM Gasoline (91 Octane or higher Unleaded Fuel) R+M / 2 method.

Use of Flex-Fuels or Gasoline with more than 10% Ethanol is not approved.

Emissions Compliance Information:

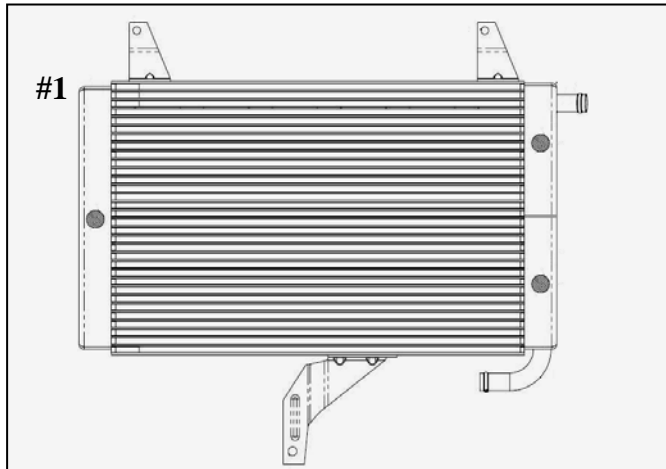
A new process has been implemented. No longer is the Emissions Label included in the Supercharger Fit Kit.

If your state requires an Emissions Compliance Label, one may be ordered through your Toyota dealer or the Toyota Materials Distribution Center (MDC) 310-468-9800 or MDC@toyota.com

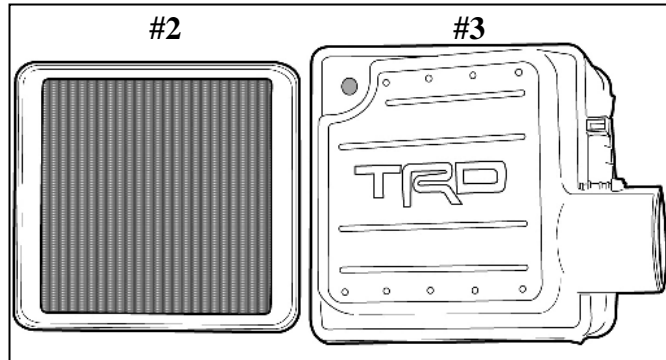
This TRD Supercharger Kit has received 50-State Emissions Compliance via the California Air Resources Board (CARB). Not all states require the Emissions Compliance Label but TRD does recommend ordering one. To receive the proper Supercharger Emissions Compliance Label for this TRD Supercharger kit, please order MDC label part number **00602-34158**. Proof of ownership may be required.

TUNDRA FIT KIT: PTR29-34110

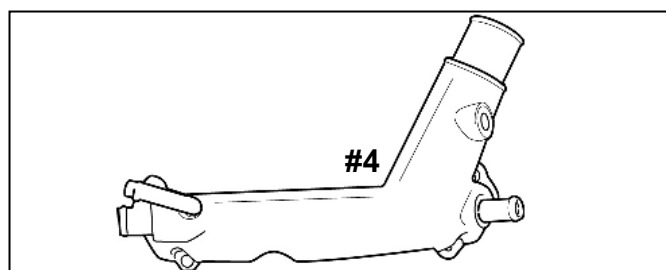
| Item | Qty Req'd | Description |
|------|-----------|--------------------------------|
| 1 | 1 | Low Temperature Radiator (LTR) |
| 2 | 1 | TRD Air Filter (PTR43-00090) |
| 3 | 1 | TRD Air Box Lid |
| 4 | 1 | Coolant Cross Over Manifold |
| 5 | 1 | Hardware Bag "A" |
| 6 | 1 | Hardware Bag "B" |
| 7 | 1 | Hardware Bag "C" |
| 8 | 1 | Hardware Bag "D" |
| 9 | 1 | 8 Rib Belt |
| 10 | 1 | Hardware Bag "E" |
| 11 | 1 | Hardware Bag "F" |
| 12 | 1 | Hardware Bag "G" |
| 13 | 1 | Hardware Bag "H" |



TRD Air Filter & Air Box Lid

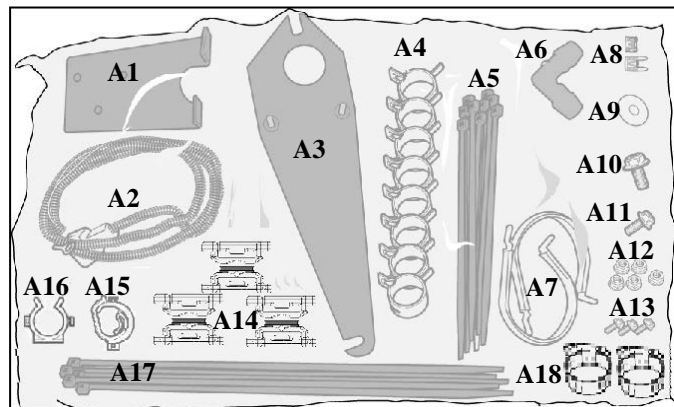


Coolant Cross Over Manifold



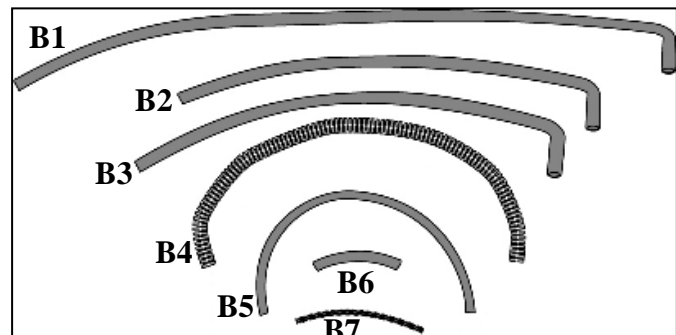
Hardware Bag "A" Contents

| Item | Qty Req'd | Description |
|------|-----------|-------------------------------------|
| 1 | 1 | Reservoir Mounting Bracket |
| 2 | 1 | Relay with Wire Harness Assembly |
| 3 | 1 | Intercooler Pump Mounting Bracket |
| 4 | 8 | Wide Band Spring Clamp |
| 5 | 10 | Lock Ties (Short) |
| 6 | 1 | 90° Plastic Elbow |
| 7 | 2 | Adel #36 Clamp |
| 8 | 2 | Fuses: 15 amp ATC, 10 amp mini fuse |
| 9 | 1 | 5/16" ID x 1-1/4" OD Flat Washer |
| 10 | 1 | M6 x 20 mm Hex Flange Head Bolt |
| 11 | 1 | M8 x 20 mm Hex Flange Head Bolt |
| 12 | 5 | M6 Hex Flange Nut |
| 13 | 3 | M6 x 12 mm Hex Flange Head Bolt |
| 14 | 3 | Swivel Spacer |
| 15 | 1 | Harness Clip |
| 16 | 1 | "C" Clip |
| 17 | 6 | Lock Ties (1/2" Wide) |
| 18 | 2 | #10 Hose Clamp |



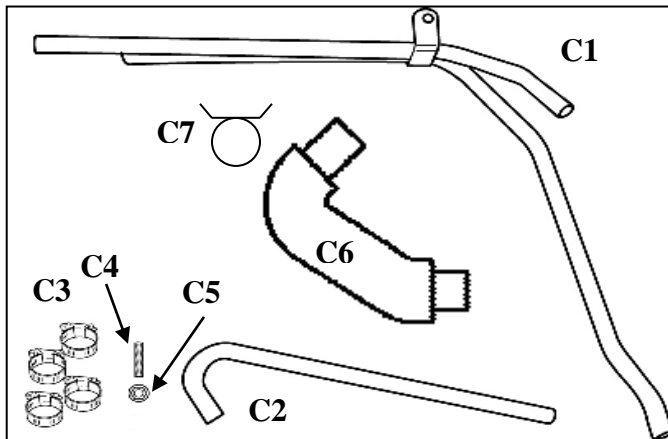
Hardware Bag "B" Contents

| Item | Qty Req'd | Description |
|------|-----------|------------------------------|
| 1 | 1 | 3/4" Coolant Hose, 4" x 60" |
| 2 | 1 | 3/4" Coolant Hose, 4" x 36" |
| 3 | 1 | 3/4" Coolant Hose, 4" x 36" |
| 4 | 36" | 1" Convoluted Tube |
| 5 | 26" | 11/32" DOT Brake Vacuum Hose |
| 6 | 6" | 1/2" Coolant Hose |
| 7 | 9" | 3/8" Convoluted Tube |



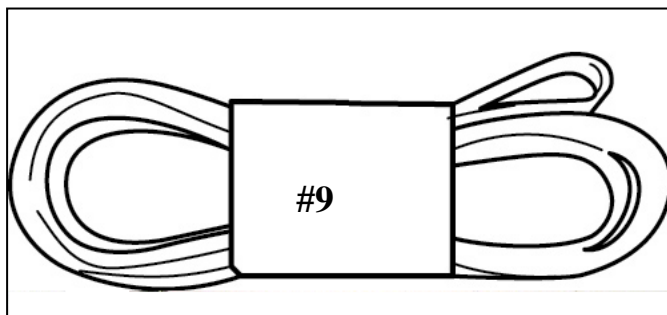
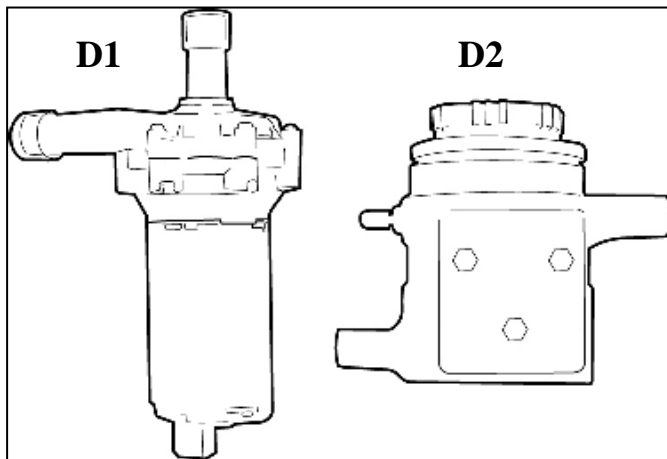
Hardware Bag “C” Contents

| Item | Qty Req'd | Description |
|------|-----------|----------------------------|
| 1 | 1 | Oil Cooler Tube Manifold |
| 2 | 1 | Thermostat Bypass Manifold |
| 3 | 4 | #7 Hose clamp |
| 4 | 1 | M6 x 30 mm Allen Stud |
| 5 | 1 | M6 Hex Flange Nut |
| 6 | 1 | PCV Hose |
| 7 | 1 | PCV Hose Clamp |



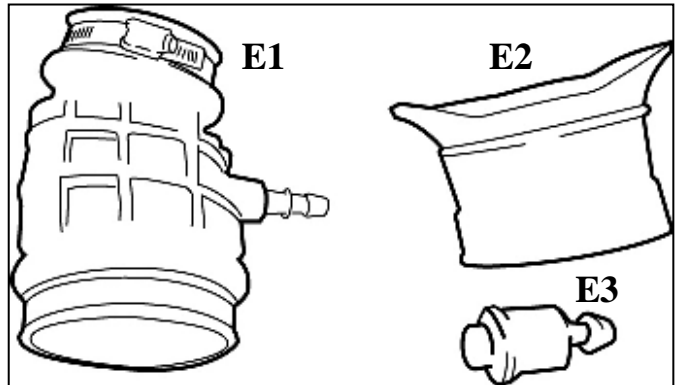
Hardware Bag “D” Contents

| Item # | Qty Req'd | Description |
|--------|-----------|-----------------------------------|
| 1 | 1 | Intercooler Pump |
| 2 | 1 | Intercooler Res. with Cap & Bolts |



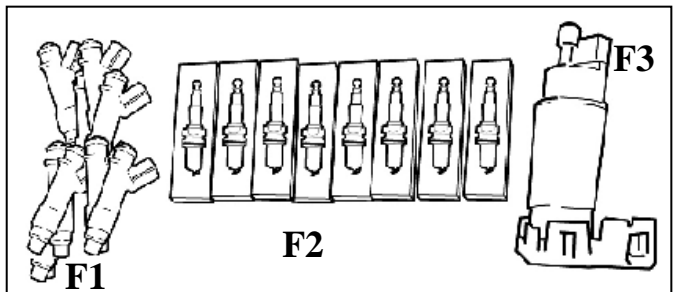
Hardware Bag “E” Contents

| Item # | Qty Req'd | Description |
|--------|-----------|------------------------------------|
| 1 | 1 | Air Inlet Rubber Bellows w/ Clamps |
| 2 | 1 | Inlet Air Flow Accelerator |
| 3 | 1 | Filter Minder with Grommet |



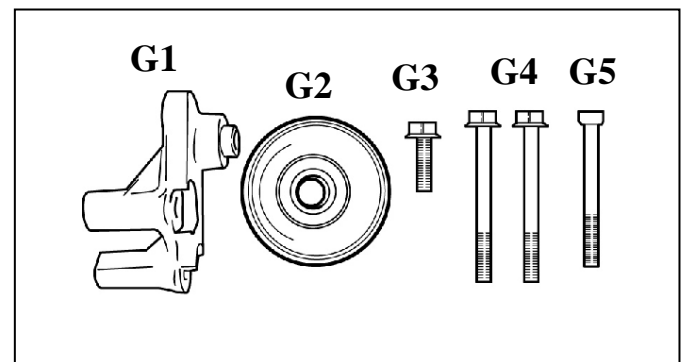
Hardware Bag “F” Contents

| Item | Qty Req'd | Description |
|------|-----------|-----------------------------|
| 1 | 8 | Fuel Injectors, - High Flow |
| 2 | 8 | Spark Plugs IKH22 |
| 3 | 1 | Fuel Pump |



Hardware Bag “G” Contents

| Item | Qty Req'd | Description |
|------|-----------|-----------------------------------|
| 1 | 1 | Idle Bracket |
| 2 | 1 | Idle Pulley |
| 3 | 1 | M10 x 30 mm Hex Flange Head Bolt |
| 4 | 2 | M10 x 85 mm Hex Flange Head Bolt |
| 5 | 1 | M8 x 80 mm Allen Socket Head Bolt |



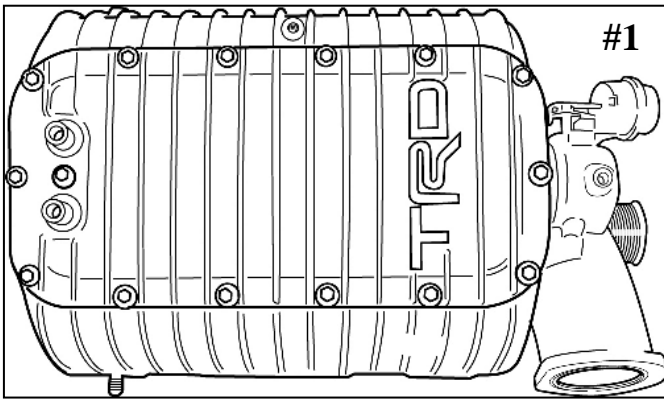
Hardware Bag “H” Contents

| Item | Qty Req'd | Description |
|------|-----------|--------------------------------|
| 1 | 2 | Sticker, TRD Supercharged |
| 2 | 2 | Sticker, TRD Development |
| 3 | 2 | Sticker, Premium Fuel Warning |
| 4 | 2 | Sticker, TRD Red TRD Logo |
| 5 | 1 | Warranty certificate, TRD |
| 6 | 1 | Warranty Registration Card |
| 7 | 1 | Mirror Hanger, S/C Noise |
| 8 | 1 | Label, Vacuum and Belt Routing |

Kit Contents (MAIN SUPERCHARGER KIT)

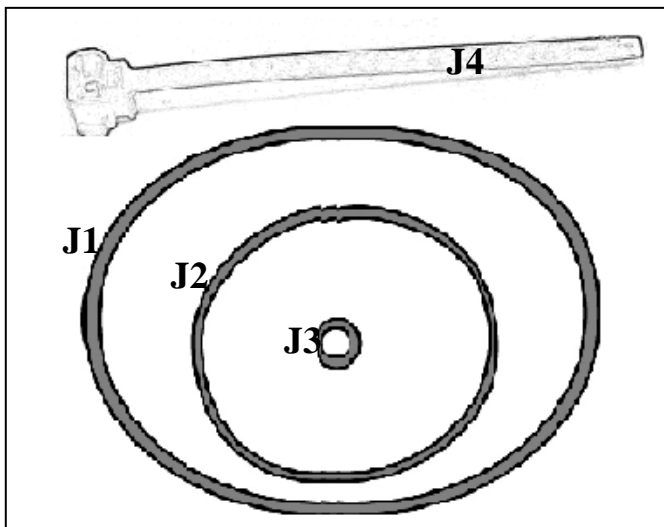
P/N PTR29-34070

| Item | Qty Req'd | Description |
|------|-----------|------------------------------|
| 1 | 1 | Main Supercharger Assembly |
| 2 | 1 | Hardware Bag “J” – SEE BELOW |



Hardware Bag “J” Contents

| Item | Qty Req'd | Description |
|------|-----------|----------------------------|
| 1 | 1 | Fuel Pump Module O-Ring |
| 2 | 1 | Throttle Body O-Ring |
| 3 | 1 | Fuel Pump Discharge O-Ring |
| 4 | 1 | Wire Harness Clip |



Additional Items Required For Installation

| Item # | Quantity Req'd. | Description |
|--------|-----------------|---|
| 1 | 1 | Main Supercharger Assembly, P/N PTR29-34070 |
| 2 | 2 | Water Outlet Gasket, P/N 16341-38030 |

Conflicts

| |
|--|
| TRD Performance Air Intake System for N/A Engines: PTR03-34070, PTR03-34090, PTR03-34100 |
|--|

Recommended Tools

| Personal & Vehicle Protection | Notes |
|--|--------------------------------|
| Safety Glasses | |
| Fender Blankets | |
| Protective Gloves | |
| Special Tools | Notes |
| Toyota TIS Techstream | Version 10.30.029 or Later |
| GR8 Battery Charger | |
| Fuel Pump Retainer SST | P/N 09808-14020 |
| Hoist Bracket | P/N PTR25-34070 |
| | |
| Installation Tools | Notes |
| Mechanic's Hand Tools | Combo wrenches & sockets |
| 1/2" & 3/8" Torque Wrenches | |
| 12mm - 6pt 3/8 drive Swivel Socket | Craftsman #43203 or equivalent |
| Special Chemicals | Notes |
| Anti-Seize Assembly Lube | For Spark Plugs |
| | |
| | |

General Applicability

| |
|---|
| All Tundras with 3UR-FE 5.7L V-8 Engine Gasoline Fuel Only (Not for use on-Flex Fuel Engines (FFV)) |
|---|

Recommended Sequence of Application

| Item # | Accessory |
|--------|----------------|
| 1 | Not Applicable |







*Mandatory

Vehicle Service Parts (may be required for reassembly)

| Item # | Quantity Req'd. | Description |
|--------|-----------------|--|
| 1 | 1 Gallon* | Toyota Pre-Mix Antifreeze Coolant |
| 2 | A/R | Form In Place Gasket (FIPG), P/N 00295-00103 |

* Additional coolant will be required if the original coolant is not saved and reused.

Legend

| | |
|---|--|
|  | STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with. |
|  | OPERATOR SAFETY: Use caution to avoid risk of injury. |
|  | CAUTION: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation. |
|  | TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process. |
|  | REVISION MARK: This mark highlights a change in installation with respect to previous issue. |
|  | SAFETY TORQUE: This mark indicates that torque is related to safety. |

NOTE: THIS SUPERCHARGER SYSTEM IS NOT COMPATIBLE WITH FLEX-FUEL VEHICLES (FFV).

Recommended Installer Skill Level:
Expert Technician or higher.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).
- The TIS Repair Manual can be referenced for additional details.

Please see your Toyota dealer for a copy of this document.

1. Installation Review and Vehicle Preparation.

- (a) Review the entire installation instructions provided before beginning the installation
- (b) Review the parts list/kit contents to ensure that all parts are present before beginning the installation. If any items are missing, contact Technical Support at **(800) 688-5912** before proceeding.



- (c) Remove any low-octane fuel from the vehicle. Ensure that **ONLY 91 octane or higher** unleaded gasoline is used.

- (d) Place the vehicle onto a vehicle hoist.
- (e) Protect the vehicle with protection blankets over the fenders and the front of the vehicle.
- (f) Disconnect and remove the battery.



- (g) When draining the cooling system into a clean container in Step 3, save this coolant as it will be reused.



CAUTION: To avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot. Thermal expansion will cause the hot engine coolant and steam to blow out from the radiator.

- (h) All parts that are removed and not reused should be saved for the customer, i.e., **“discard” means to save for the customer.**

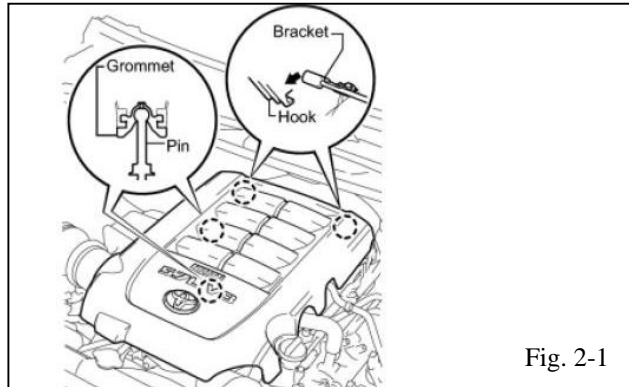


Fig. 2-1

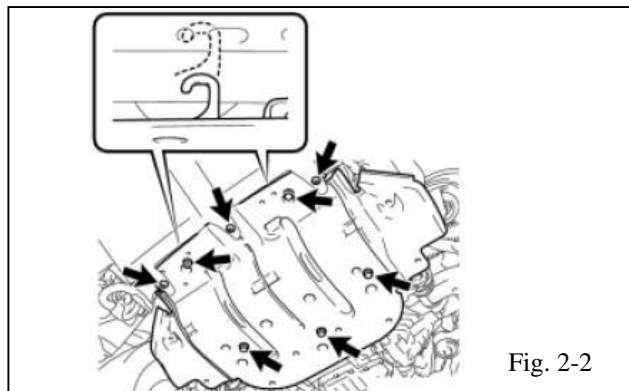


Fig. 2-2

2. Remove the Engine Cover.

- (a) To remove the engine V-bank cover, lift the front of the cover and pull it away from the firewall (Fig. 2-1). Discard these parts.

- (b) If installed, remove the 3 screws and 5 bolts to remove the No. 1 engine under cover (Fig. 2-2). Save these parts for reuse.

3. Drain the Engine Coolant.

+ **CAUTION: Do not remove the radiator cap while the engine and radiator are still hot. Pressurized, hot engine coolant and steam may be released and cause serious burns.**

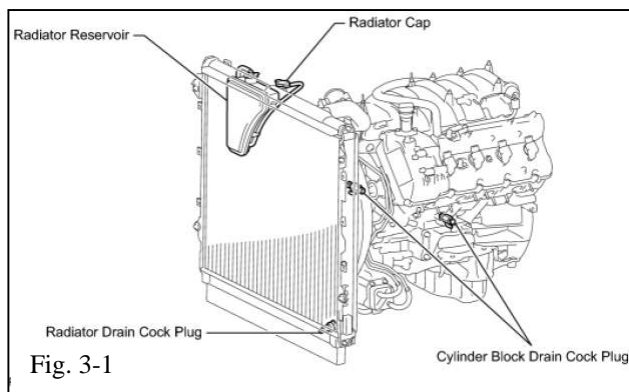


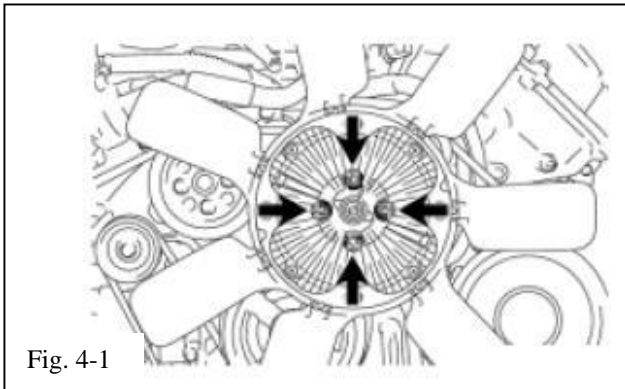
Fig. 3-1

- (a) Loosen the radiator drain cock plug (Fig. 3-1).
- (b) Remove the radiator cap. Drain the coolant from the radiator into a clean container so it can be reused (Fig. 3-1).
- (c) Loosen the 2 cylinder block drain cock plugs (Fig. 3-1). Drain the coolant from the engine and save for reuse.
- (d) Tighten the 2 cylinder block drain cock plugs.

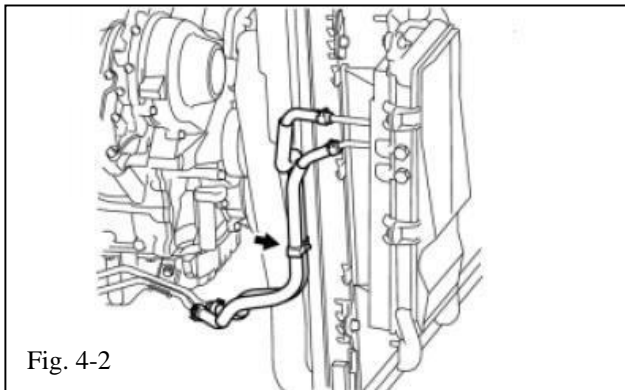
Torque: 13 Nm (10 ft lbf)

4. Remove the Fan and Shroud.

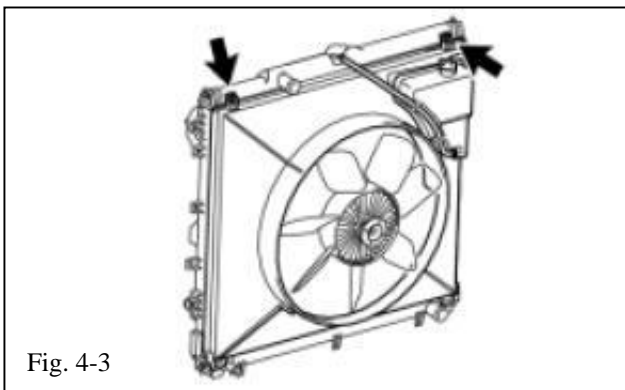
- (a) Remove the upper radiator hose.
 - (1) Mark the radiator end of this hose with a marker or tape.
 - (2) This hose will be reinstalled inverted and the mark will help identify the ends.
- (b) Loosen the 4 nuts holding the fluid coupling fan (Fig. 4-1).
- (c) Remove the fan/generator V-rib belt. Discard this belt as it will be replaced by a new belt.
- (d) Disconnect the reservoir hose from the upper radiator tank.



- (e) For vehicles with the Trailer Towing System: Detach the claw to open the No. 1 hose clamp on the side of the fan shroud (Fig. 4-2).



- (f) Remove the 2 bolts holding the fan shroud (Fig. 4-3).
- (g) Remove the 4 nuts of the fluid coupling fan, and then remove the shroud together with the coupling fan. Retain these parts for reuse.



- (h) Temporarily reinstall the 4 nuts to keep the pulley in place (reference Fig. 4-1). Do not tighten them.

⚠ CAUTION: Be careful not to damage the radiator core. It is helpful to protect the radiator core with a piece of cardboard to prevent damage during subsequent steps.

5. Replace the Air Cleaner Lower Box.

- (a) Remove the air cleaner hose.

- (1) Disconnect the vacuum and ventilation hoses (Fig. 5-1).
- (2) Loosen the 2 clamps (Fig. 5-1).
- (3) Discard the hose and clamps.

- (b) Remove the air cleaner lid.

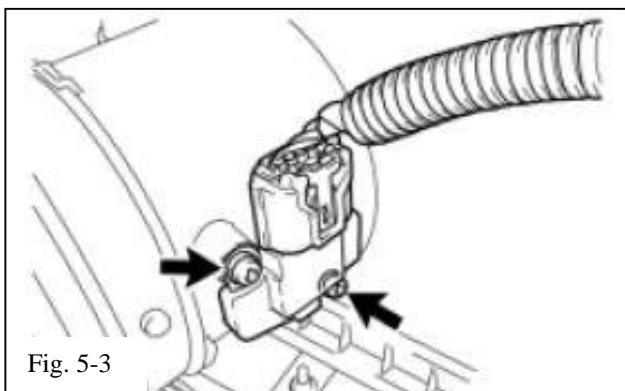
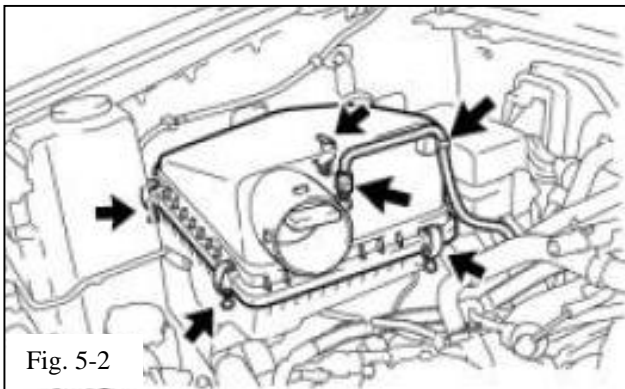
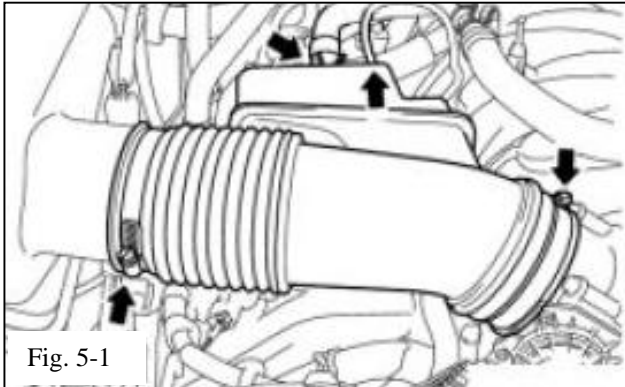
- (1) Disconnect the mass airflow meter connector.
- (2) Use a clip removal tool to detach the wire harness clamp (Fig. 5-2).
- (3) Unfasten the 4 hook clamps (Fig. 5-2).

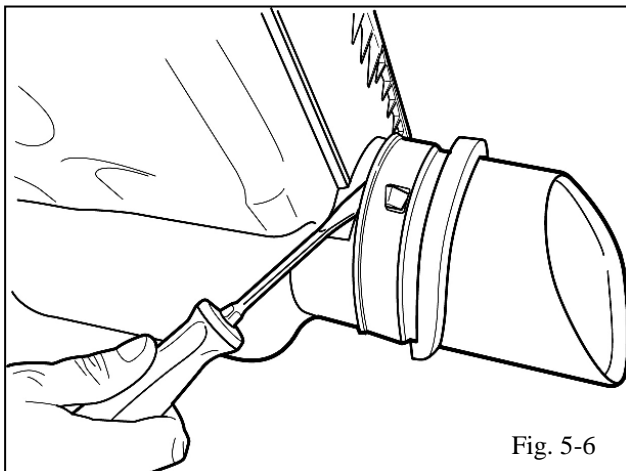
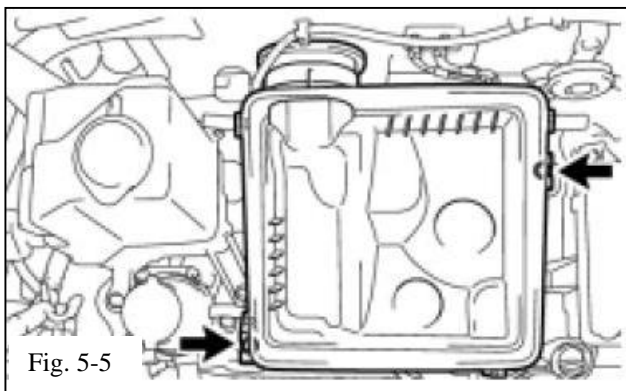
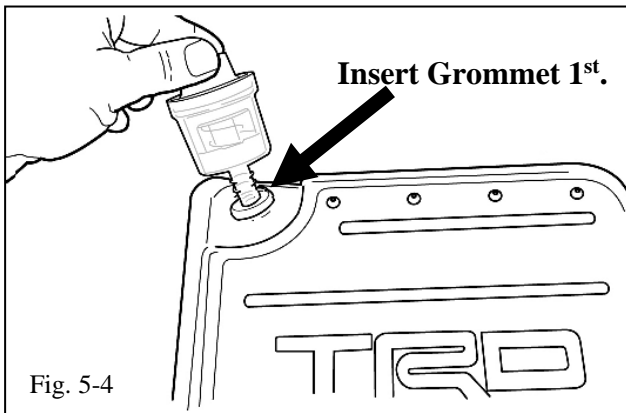
- (c) Remove and discard the air cleaner element.

- (d) Remove the mass airflow meter from the air cleaner lid (Fig. 5-3). Discard the air cleaner lid and retain the 2 screws.

- (e) Use the OE screws to install the mass airflow meter in the new air cleaner lid (Item #3) (Fig. 5-3).

Torque: 1.7 Nm (15 in lbf)





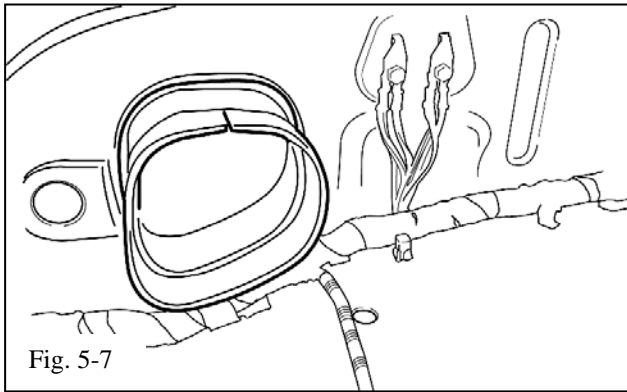
(f) Install the Filter Minder (Item E3) (Fig. 5-4).

(1) Insert the grommet into the TRD air box top. Make sure the groove in the grommet is lined up with the TRD air box cover surface.

(2) Lubricate the Filter Minder barbed end and push it into the grommet.

(g) Remove the 2 bolts and remove the air cleaner case (Fig. 5-5).

(h) Use a flat blade screwdriver to unclip the air inlet tube from the air cleaner case (Fig. 5-6). It will not be reused.



- (i) Install the new air flow accelerator (Item E2) into the opening in the inner fender panel (Fig. 5-7).

HINT: Squeeze and compress the bell mouth of the air flow accelerator to get it through the opening in the inner fender.

- (j) Use the original bolts to reinstall the air cleaner case.
 - (1) The inlet to the case is inserted into and snaps to the air flow accelerator.
 - (2) Once the two parts are snapped together, push the air flow accelerator further through the panel so the bolt holes line up.

Torque: 5.0 Nm (44 in lbf)

6. Remove the Intake Manifold.

- (a) Blow away dirt and debris that has accumulated around the intake manifold ports and the fuel injectors.

+ CAUTION: Wear eye protection when using compressed air.

- (b) Disconnect the ventilation hose from the ventilation pipe on the cylinder head covers, LH and RH (Fig. 6-1).

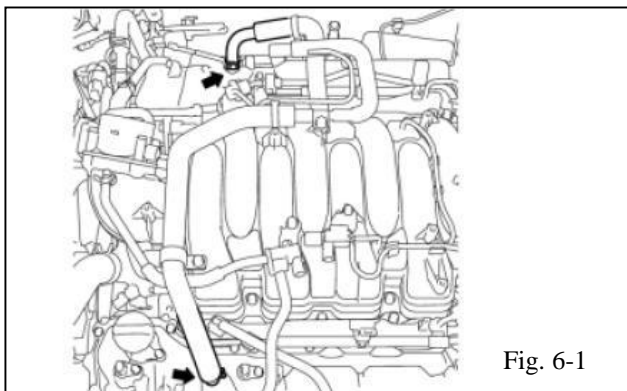
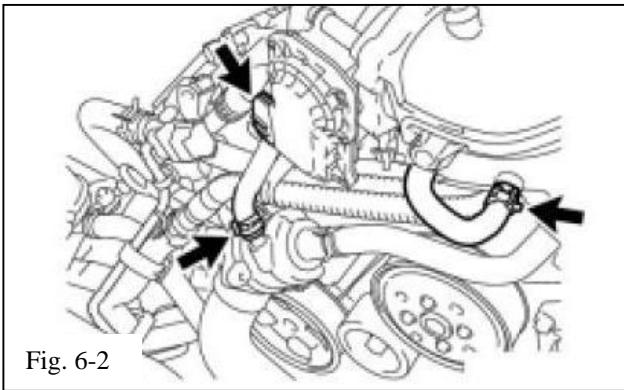
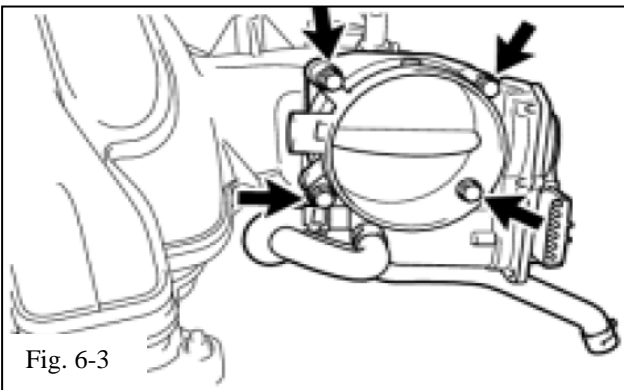


Fig. 6-1



(c) Disconnect the 2 water bypass hoses and the throttle body connector (Fig. 6-2).



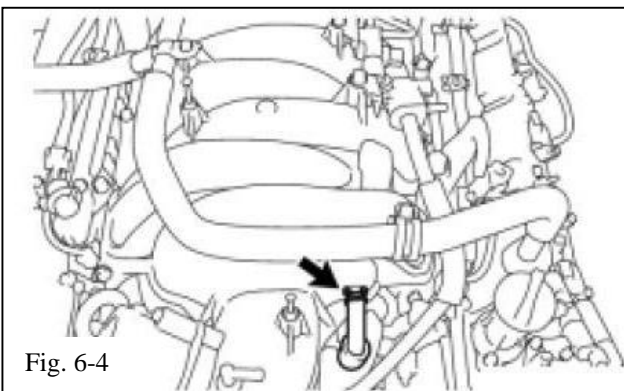
(d) Remove the throttle body.

(1) Remove the 4 bolts and then the throttle body from the manifold (Fig. 6-3).

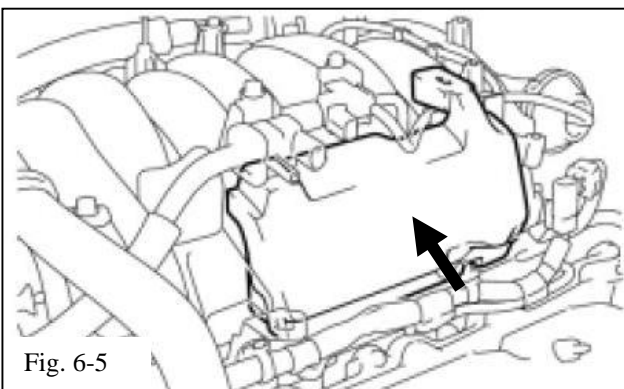
(2) Save the bolts and the throttle body for reuse.

(3) Discard the throttle body gasket.

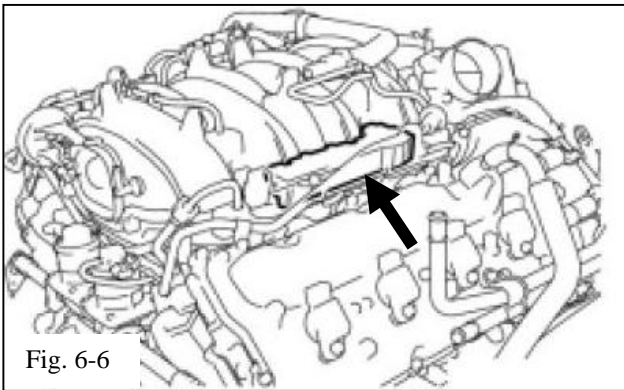
(4) Cover the throttle body opening.



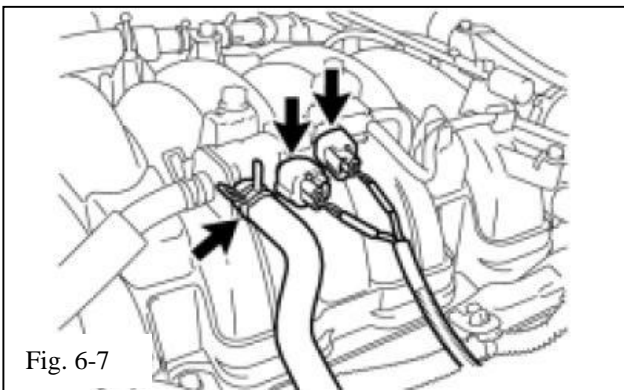
(e) Disconnect the No. 1 ventilation hose (Fig. 6-4).



(f) Remove the No. 1 engine cover sub-assembly (Fig. 6-5). Discard this part.

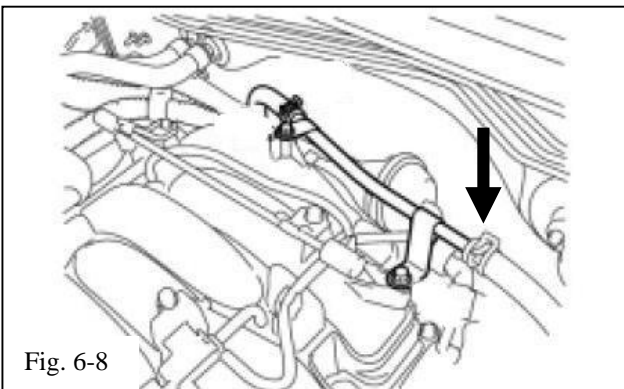


- (g) Remove the No. 3 engine cover (Fig. 6-6). Discard this part.

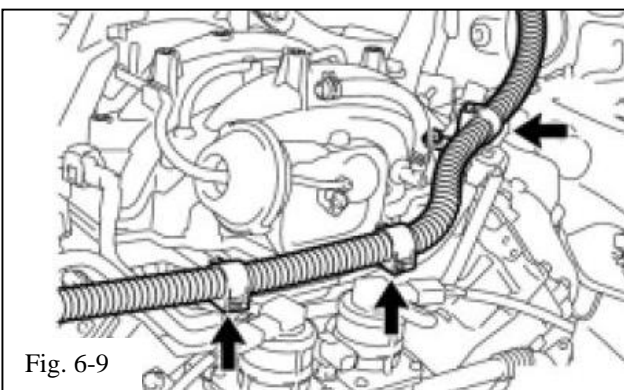


- (h) Disconnect the purge VSV connector, the hose from the VSV, and the ACIS connector (Fig. 6-7).

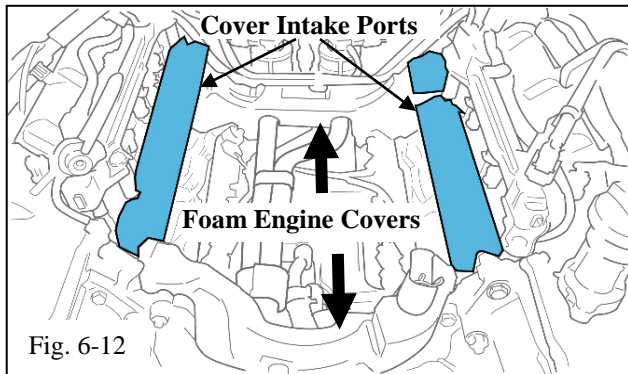
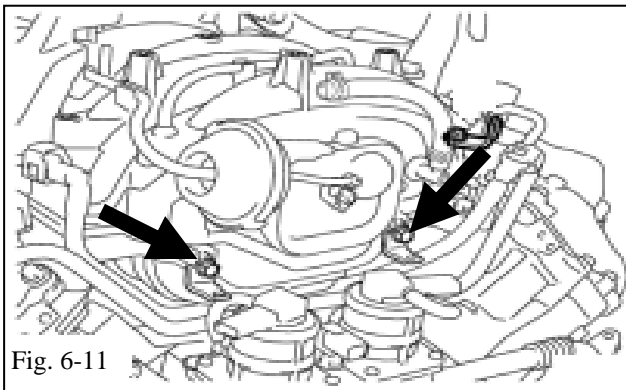
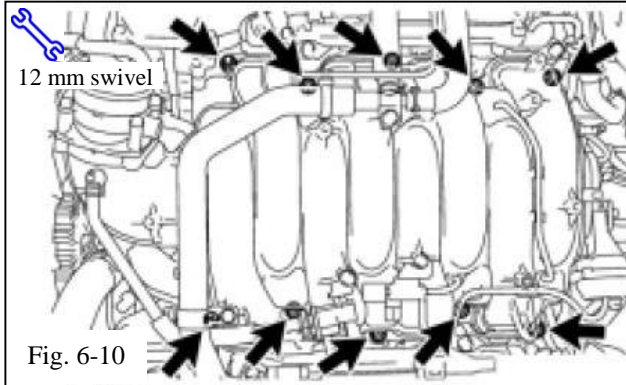
- (1) Disconnect the purge line hose from the body of the purge valve.
- (2) Disconnect the purge hose from the front of the intake manifold, but leave it connected to the front of the purge valve.
- (3) Unbolt the purge valve and set it and the bolts aside for now.



- (i) Remove the brake booster vacuum hose from the manifold pipe and the brake booster (Fig. 6-8). Save the clamps, but discard the hose.




- (j) Disconnect the 3 wire clamps from the 3 wire harness brackets (Fig. 6-9).



(k) Remove the intake manifold.


- (1) Use a 12mm 6 point 3/8" drive swivel socket to remove the 2 nuts and 8 bolts (Fig. 6-10).
- (2) Set the manifold aside.

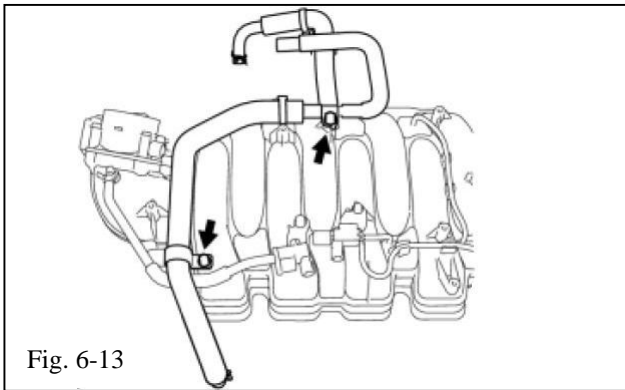
(l) Remove the 2 harness clips from the back of the intake manifold (Fig. 6-11). These will be reused in Step 12(b).

 (m) Clean and cover the intake ports to prevent debris from entering the engine (Fig. 6-12).

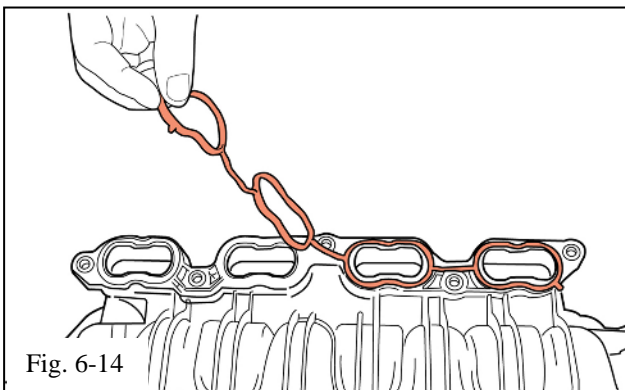
(n) Remove and discard the 2 foam engine covers that are under the intake manifold (Fig. 6-12).

(o) Blow away any debris that may be in the engine valley.

 **CAUTION:** Wear eye protection when using compressed air.



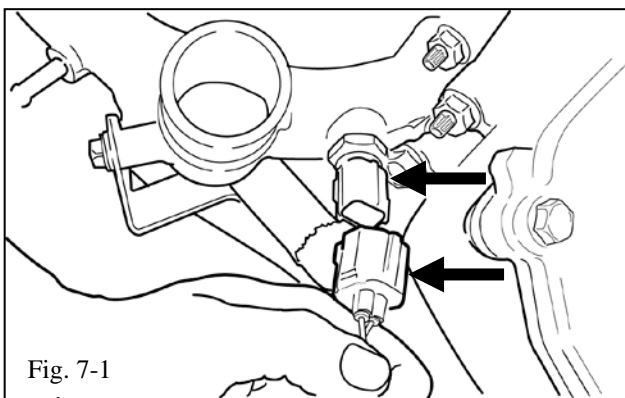
- (p) Remove the 2 bolts and the ventilation hose from the intake manifold (Fig. 6-13). Set the hose aside for later reuse.



- (q) Carefully remove the gaskets from the bottom of the intake manifold (Fig. 6-14).
 - (1) Clean and set them aside as they will be reused in Step 12(a).
 - (2) Discard the intake manifold and the remaining attached parts.

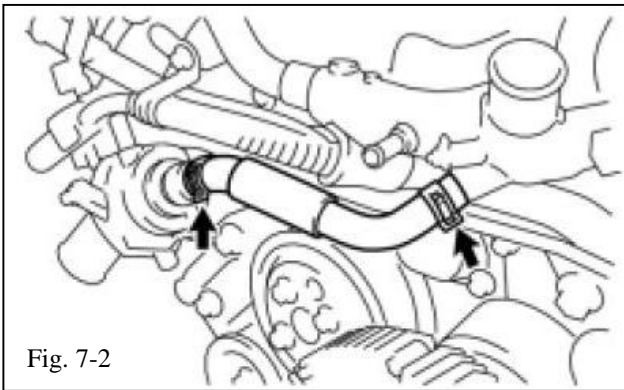
STOP **CAUTION:** Be careful not to damage the gaskets. If the gaskets appear to be worn or **!** damaged, replace the gaskets with new ones (Qty 2: Toyota P/N 17171-38010 or 17171-0S010 or equivalent superseded part).

7. Remove the Water Bypass Joint.

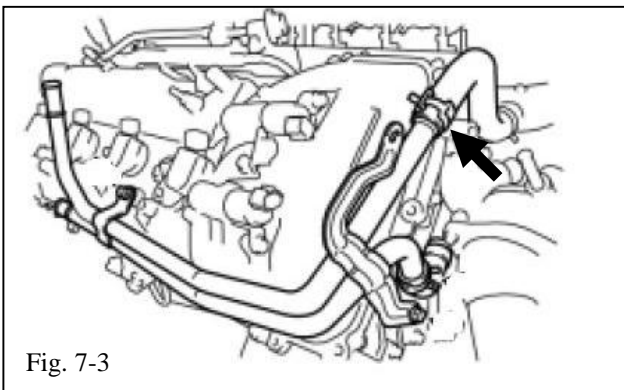


- (a) Unplug the water temperature sensor, remove it, and set it aside (Fig. 7-1).

! **CAUTION:** Do not misplace the copper sealing washer.

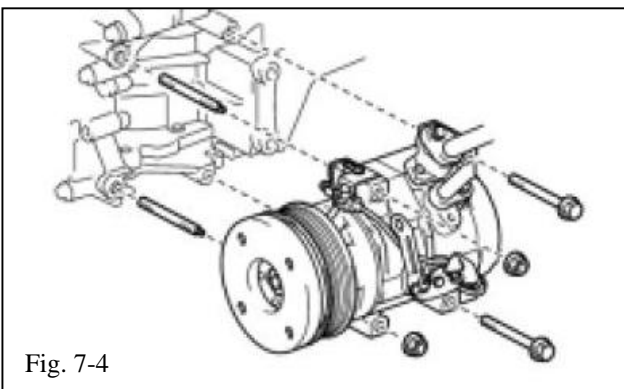


- (b) Remove the water bypass hose No. 1 (lower heater hose) and discard it (Fig. 7-2).

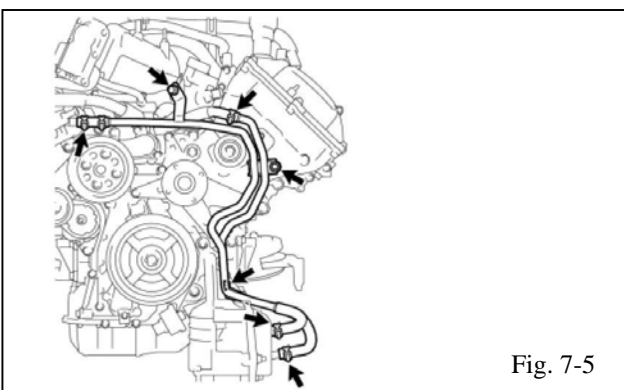


- (c) Remove the water bypass hose No. 2 from the heater tube (upper heater hose) (Fig. 7-3).

NOTE: If the vehicle is equipped with a towing package, proceed to Step 7(d), otherwise jump to Step 7(h).



- (d) Loosen the A/C compressor.
 - (1) Remove the 2 nuts and 2 stud bolts that attach the A/C compressor to the engine (Fig. 7-4).
 - (2) Slide the compressor out away from the engine on the 2 studs (Fig. 7-4).
 - (3) It is not necessary to completely remove the compressor.



- (e) Remove the water bypass pipe assembly.
 - (1) Remove the 3 bolts and 4 hoses (Fig. 7-5).
 - (2) Remove the water bypass pipe assembly (Fig. 7-5).

HINT: When the lower hoses are disconnected, they will be full of coolant. Drain this coolant into a clean container for reuse.

- (f) Remove and save the hoses (soft) from the hard bypass pipe assembly. Discard the hard bypass pipe assembly.
- (g) Reattach the A/C compressor to the engine.

Torque: 25 Nm (18 ft lbf)

- (h) Remove the front water bypass joint.

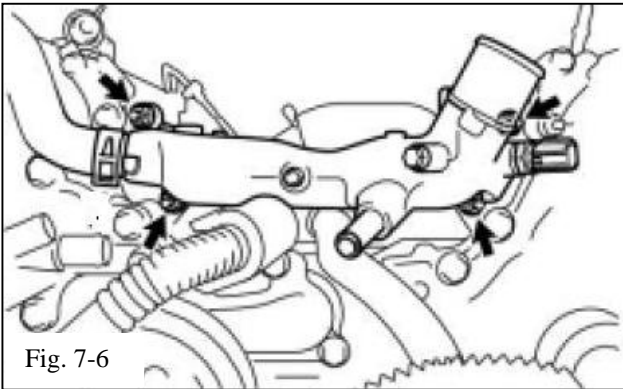


Fig. 7-6

- (1) Remove the 4 nuts and 2 gaskets (Fig. 7-6). Retain them for reuse.
 - (2) Discard the water bypass joint.
 - (3) Clean the gaskets and mating surfaces on the engine.
- (i) Reuse the water bypass hose No. 2.
 - (1) Remove the water bypass hose No. 2 from the water bypass joint (Refer to Fig. 7-3).
 - (2) Keep the same orientation and reattach the water bypass hose to the engine (Refer to Fig. 7-3). Secure it with the original clamp.

8. Install the New Water Bypass Joint.

- (a) Carefully inspect the gaskets removed from the water bypass joint. If the gaskets are worn or aged in any way, replace them with new gaskets: Toyota P/N 16341-38030 (QTY 2) or an equivalent superseded part.

⚠ NOTE: No FIPG is required or recommended on new gaskets.

- (b) If the water bypass joint gaskets are to be reused, apply a very LIGHT coat of Toyota FIPG (Form in Place Gasket) to both sides of the gaskets and place them over the studs on the engine.

⚠ NOTE: Excess FIPG may cause future cooling system problems.

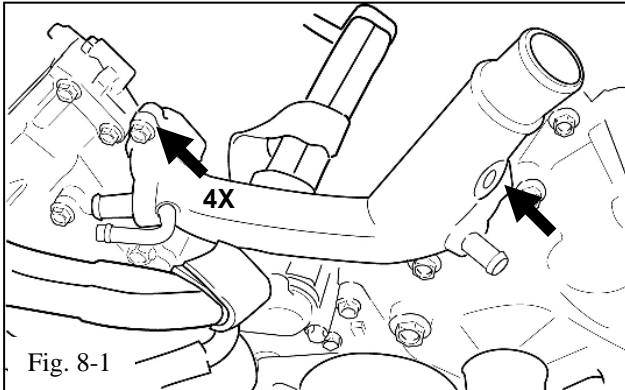
- (c) Slide the supplied water bypass joint (Item #4) over the studs and secure it with the 4 nuts previously removed (Fig. 8-1).

Torque: 21Nm (15ft lbf)

- (d) Install the water temperature sensor (Fig. 8-1).

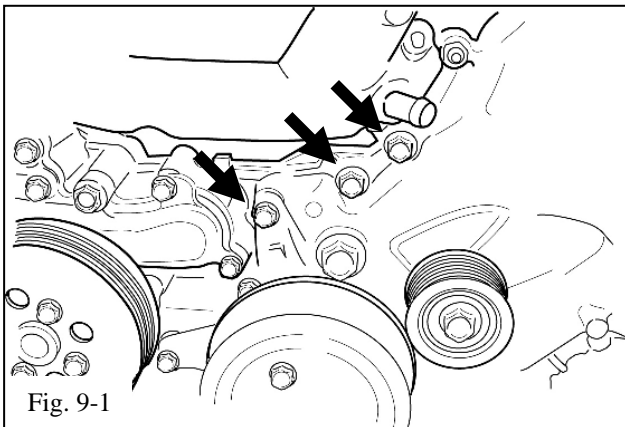
Torque: 20Nm (14ft lbf)

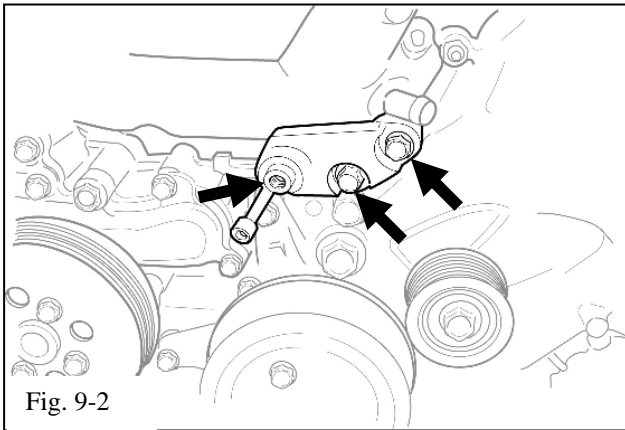
- (e) Reconnect the wiring harness.



9. Install the Idler Pulley.

- (a) Remove the 2 M10 bolts and the M8 bolt from the engine timing chain cover and fan bracket (Fig. 9-1). Discard these 3 bolts.



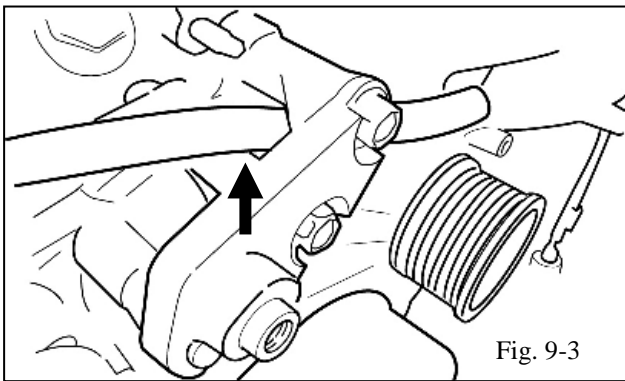


- (b) Use the 2 supplied M10 bolts (Item G4) and the supplied M8 Allen socket head bolt (Item G5) to bolt the idler pulley bracket (Item G1) to the front engine timing chain cover (Fig. 9-2).

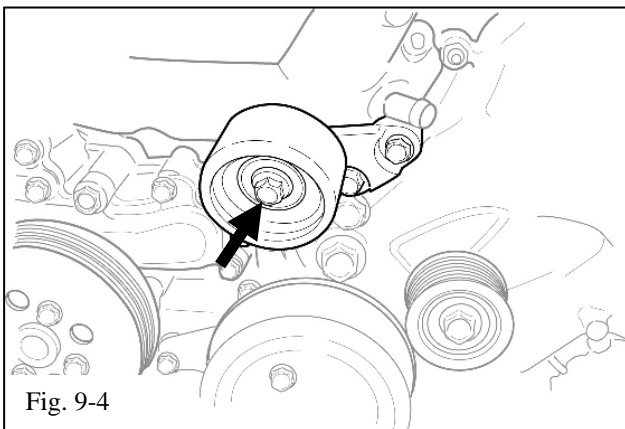
Torque: M10 Bolts, 47Nm (35 ft lbf)

M8 Bolt, 23 Nm (17 ft lbf)

NOTE: If the vehicle is equipped with a towing package, proceed to Step 9(c), otherwise jump to Step 9(d).



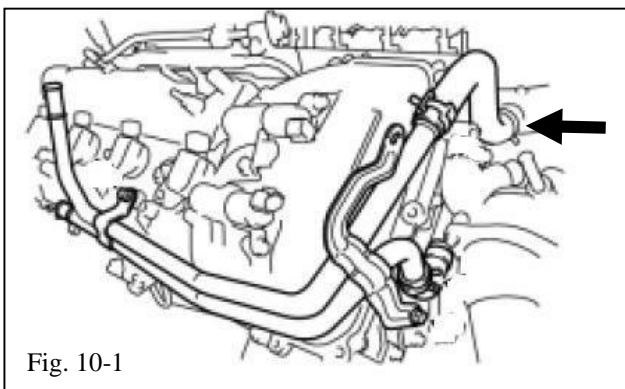
- (c) Route the No. 6 water bypass hose between the two legs of the idler pulley bracket (Fig. 9-3).



- (d) Bolt the idler pulley (Item G2) to the idler pulley bracket with the M10 x 30 bolt (Item G3) (Fig. 9-4).

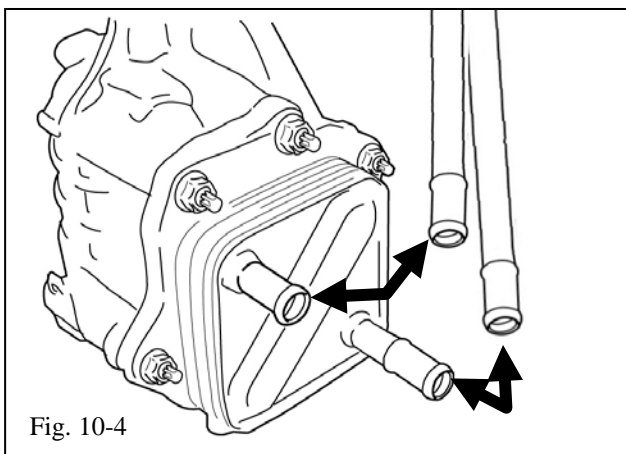
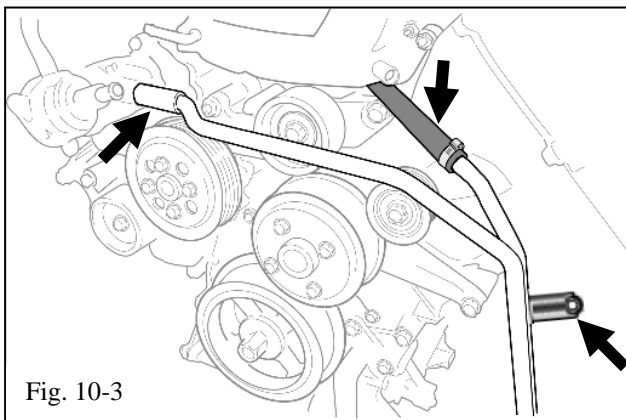
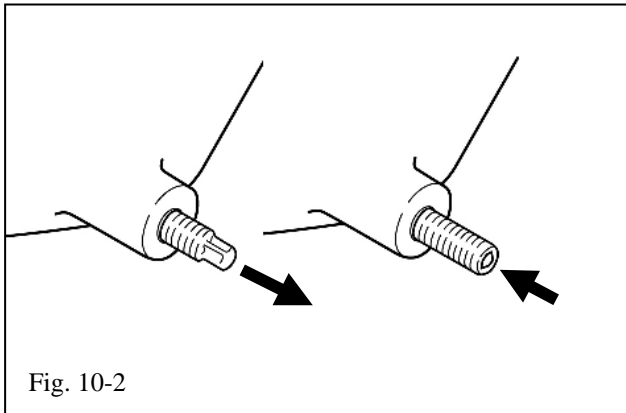
Torque: 47Nm (35ft lbf)

10. Install the Water Hose.



- (a) Use the original clamp to reconnect the No. 2 water bypass hose to the water bypass joint (Fig. 10-1).

NOTE: If the vehicle is equipped with a towing package, proceed to Step 10(b), otherwise jump to Step 10(g).



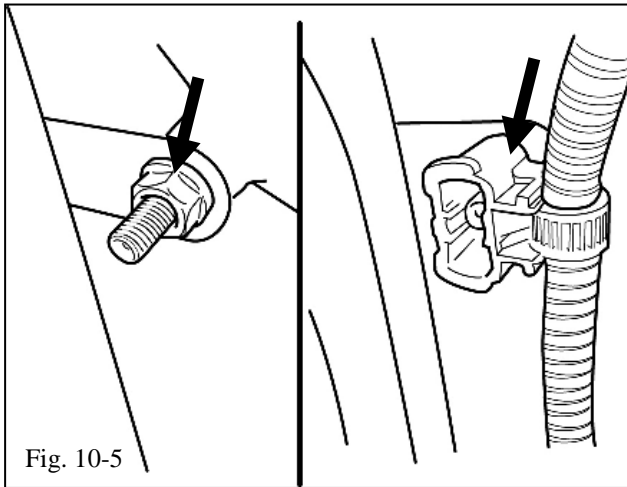
- (b) Unclip the wire harness from the stud on the front of the timing cover on the driver's side of the engine (Fig. 10-2).
- (c) Use an E-6 "Torx" socket to remove this stud and discard it.
- (d) Use a 3 mm Allen socket to install the M6 x 30 mm Allen stud (Item C4) (Fig. 10-2).

Torque: 6 Nm (53 in lbf)

- (e) Attach the hoses removed in Step 7(f) to the oil cooler hard coolant lines (Item C1) with the OE clamps (Fig. 7-5 & Fig. 10-3).
- (f) Use the supplied M6 nut (Item C5) to mount the oil cooler hard coolant lines (Item C1) to the M6 x 30 mm Allen stud (Fig. 10-3). Leave the nut finger tight for now.

NOTE: For clarity, some parts normally on the engine are not shown.

- (g) Attach the OE coolant hoses from the oil cooler to the lower ends of the hard coolant lines (Fig. 7-5 & Fig. 10-4). Secure both ends of these hoses with the OE clamps.

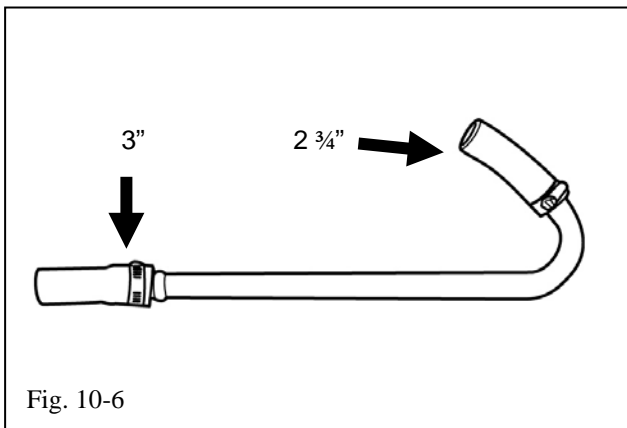


- (h) Tighten the M6 nut and reattach the wire harness clip (Fig. 10-5).

Torque: 10 Nm (7 ft lbf)

- (i) Prepare the thermostat bypass manifold (Item C2).

- (1) Cut one 2¾" length and one 3" length of the supplied ½" coolant hose (Item B6)
- (2) Discard the extra hose.



- (3) Slide the 2¾" length onto the short leg of the "J" shaped thermostat bypass manifold (Item C2) (Fig. 10-6).

- (4) Slide the 3" length of hose onto the longer leg (Fig. 10-6).

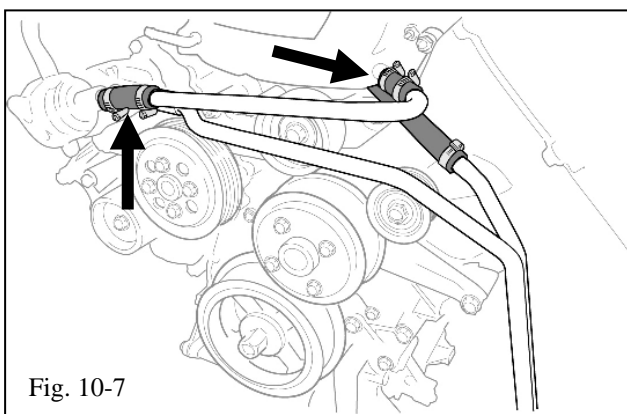
- (5) Secure the hoses with the supplied clamps (Item C3).

- (j) Install the thermostat bypass manifold (Item C2).

- (1) Slide a supplied screw clamp (Item C3) on each end of the "J" shaped bypass manifold (Item C2).

- (2) Attach the manifold to the thermostat housing and the water bypass joint (Fig. 10-7).

- (3) Ensure the tube fits comfortably without any kinks and tighten the screw clamps.



11. Remove the Fuel Injectors.

CAUTION: The fuel system is under high pressure. Use safety glasses and fuel-compatible gloves to prevent personal injury.

(a) Unplug the No. 6 and No. 7 wire harness connectors from the RH and LH fuel rail harnesses (Fig. 11-1).

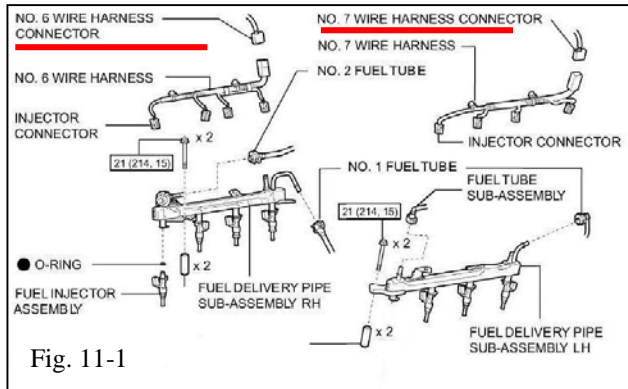


Fig. 11-1

(b) Disconnect the No. 2 fuel tube from the fuel pressure regulator (Fig. 11-2). Place shop rags around the fitting to prevent fuel spray and to absorb any fuel that comes out of the line.

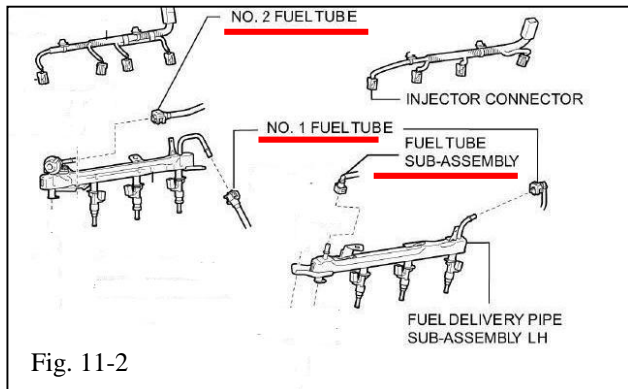


Fig. 11-2

(c) Disconnect the No.1 fuel tube from the back of each fuel delivery pipe sub-assembly (Fig. 11-2).

(d) Disconnect the fuel tube sub-assembly from the front of the LH fuel delivery pipe sub-assembly (Fig. 11-2). Use shop rags to absorb any fuel as each connector is disconnected.

(e) Unbolt and remove the fuel delivery pipe sub-assemblies (Fig. 11-3). Retain the four bolts.

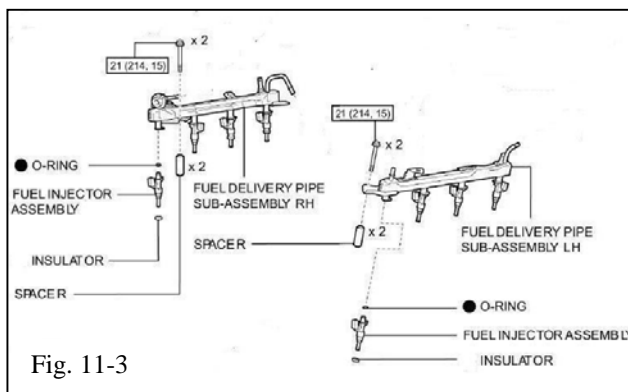


Fig. 11-3

CAUTION: The fuel delivery pipe sub-assemblies have fuel in them which must be drained into an approved disposal container.

NOTICE: When removing the delivery pipes, hold the pipes by the ends and pull them straight upwards.

(f) Remove and retain the four spacers (Fig. 11-3).

- (g) Remove the eight insulators from either the intake manifold or from the injectors.
 - (1) Clean and inspect the insulators for damage and wear.
 - (2) If any damage or wear is evident, replace all 8 insulators with new parts (Toyota P/N 23291-23010 or equivalent superseded part).

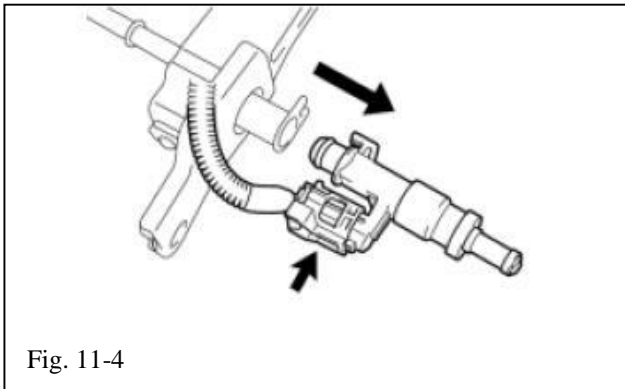
(h) Install the insulators into the cylinder heads.

(i) Remove the fuel injectors from the fuel delivery pipes (Fig. 11-4).

(1) As each injector is removed, disconnect the injector connector (Fig. 11-4).

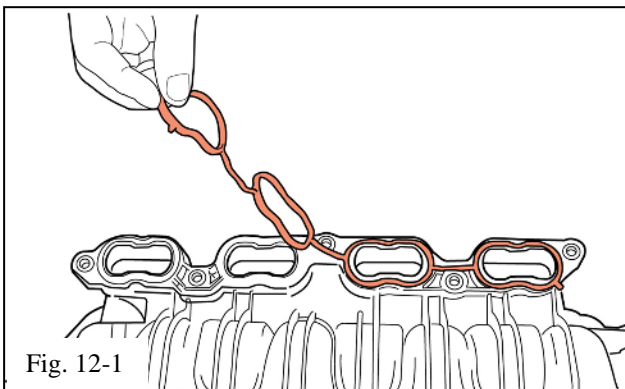
(2) Discard the injectors.

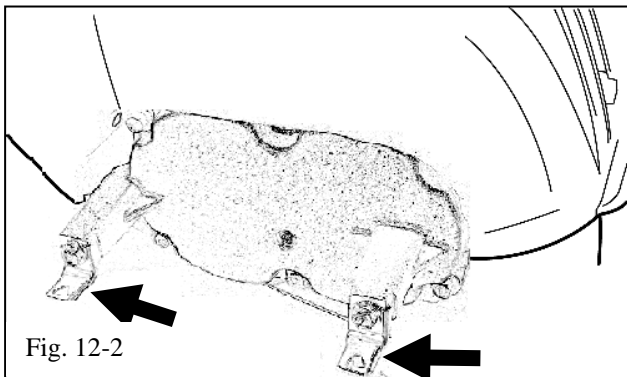
(j) Cover all eight injector ports in the cylinder heads and all open fuel lines to prevent debris contamination.



12. Prepare for Supercharger Installation.

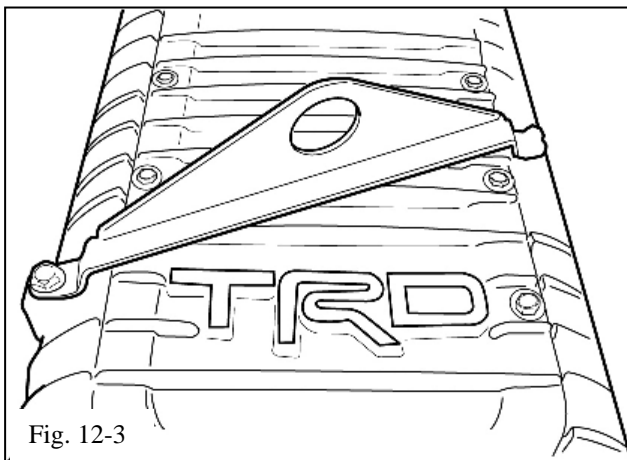
- STOP** (a) Coat the intake manifold gaskets removed in Step 6(q) with a light film of oil and install them on the bottom of the supercharger (Fig. 12-1).





- (b) Install the wire harness clips removed in Step 6(l) onto the cast bosses on the back of the supercharger as shown (Fig. 12-2).

Torque: 10 Nm (7 ft lbf)

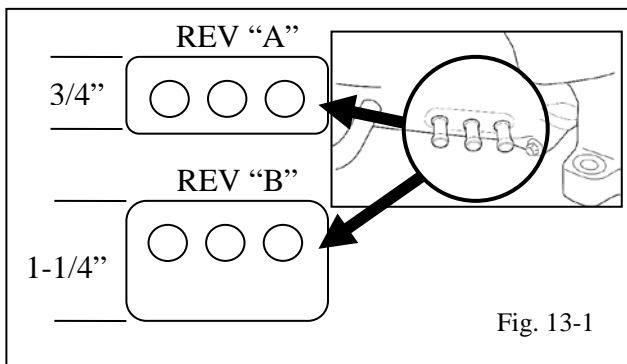


- (c) Attach the TRD hoist bracket to the top of the supercharger with the M8 bolts that are part of the hoist bracket kit (Fig. 12-3).

Torque: 21 Nm (15 ft lbf)

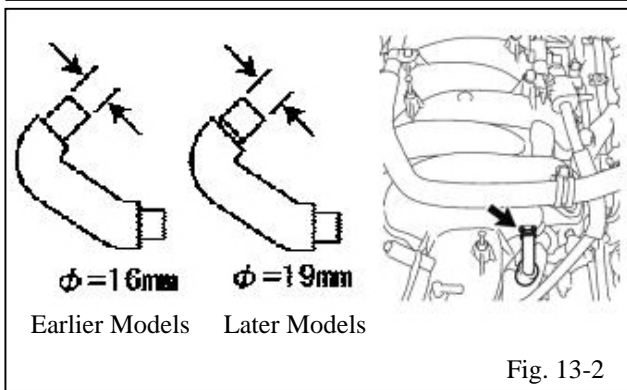
NOTE: This bracket is not part of the kit and needs to be ordered separately, P/N PTR25-34070.

13. Modify the No. 1 Ventilation Hose.



- (a) Identify which generation of supercharger you have by inspecting the vacuum hose barb area (Fig. 13-1).

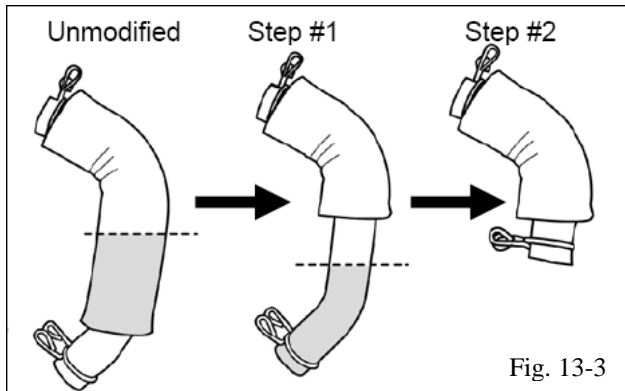
- (1) The earlier generation has a boss height of about $\frac{3}{4}$ " (Rev "A").
- (2) The new generation has a boss height of about 1-1/4" (Rev "B").



- (b) Identify which generation of OE intake manifold the vehicle was equipped with (Fig. 13-2) by inspecting the No. 1 ventilation hose at the intake manifold side.

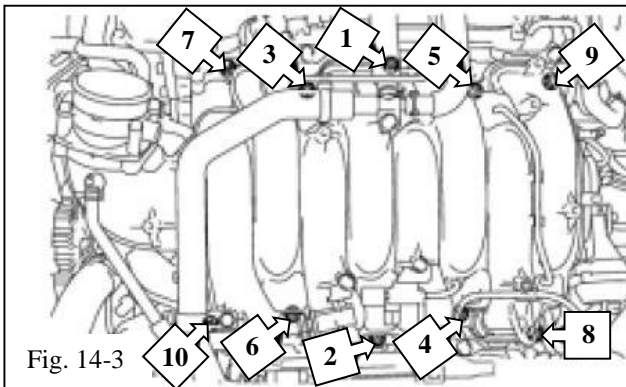
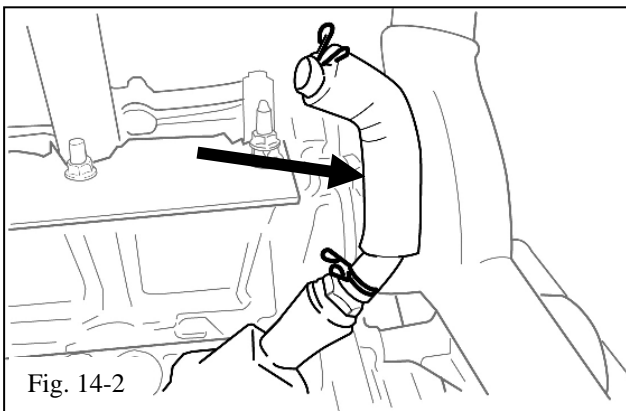
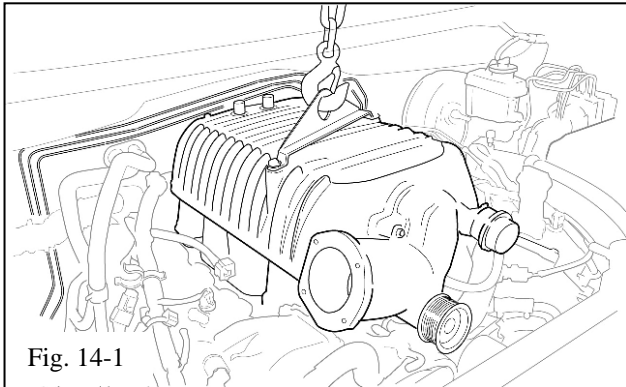
- (1) Earlier models have an outer hose diameter of about 16mm.
- (2) Later models have an outer hose diameter of about 19mm.

- (c) If the vehicle is equipped with the later 19mm OD hose, discard the OE hose and utilize the hose (Item C6) and clamp (Item C7) supplied in the kit. If the vehicle is equipped with the earlier 16mm OD hose, reuse the hose and clamp that came with the vehicle.
- (d) If the supercharger is determined to be Rev “B”, install the No. 1 ventilation hose to the end of the PCV valve and proceed to Step 14 – **Install the Supercharger Housing**. Otherwise, proceed to the next step.




- (e) If the supercharger is determined to be Rev “A”, then modification of the No. 1 ventilation hose is necessary.
 - (1) Remove the bottom half of the insulation as shown (Fig. 13-3). Use a sharp razor blade to cut the insulation but be careful not to cut the hose inside.
 - (2) Cut 2” from the bottom of the hose (Fig. 13-3).
 - (3) Move the clamp from the removed section to the new end (Fig 13-3).
 - (4) Install the hose to the end of the PCV valve.

14. Install the Supercharger Housing.



(a) Use an engine hoist to lift the supercharger by hooking the hoist to the hoist bracket bolted to the top of the supercharger (Fig. 14-1).

(b) Remove the tape covering the intake ports of the cylinder heads. Make sure the surface is clean.

 (c) Carefully position the supercharger main housing on the intake ports (Fig. 14-1). Do not pinch the No.1 ventilation hose (Fig. 14-2).

(d) Use the OE intake manifold fasteners removed in Step 6(k) (2 nuts and 8 bolts) to uniformly bolt the supercharger housing in place. Follow the tightening sequence in Fig. 14-3.



Torque: 21 Nm (15 ft lbf)

(e) Remove the hoist bracket. Save the hoist bracket and the 2 M8 bolts for future installations.

(f) Clip the factory wire harness into the harness clips behind the supercharger (Refer to Fig. 12-2).

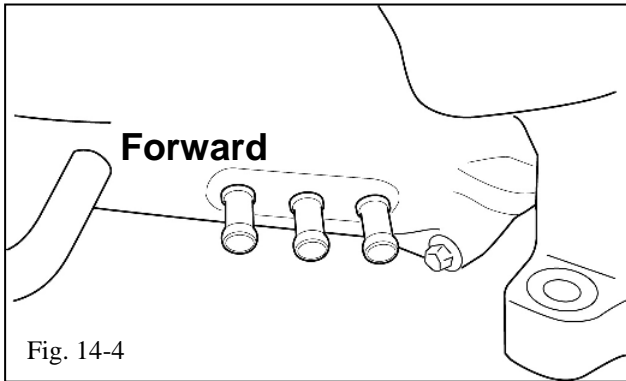


Fig. 14-4

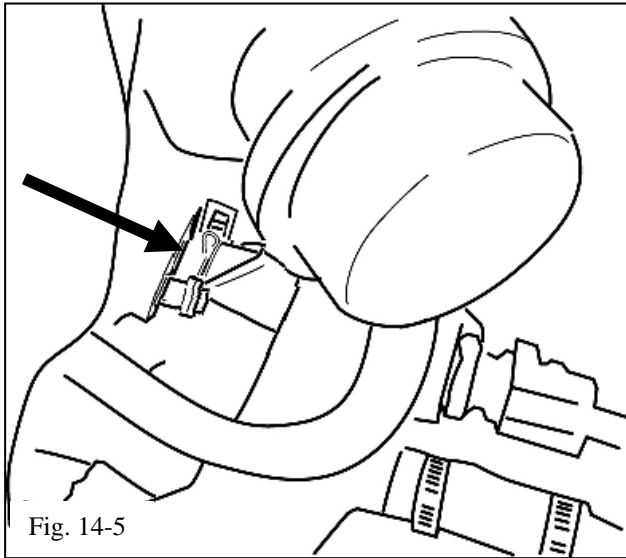


Fig. 14-5

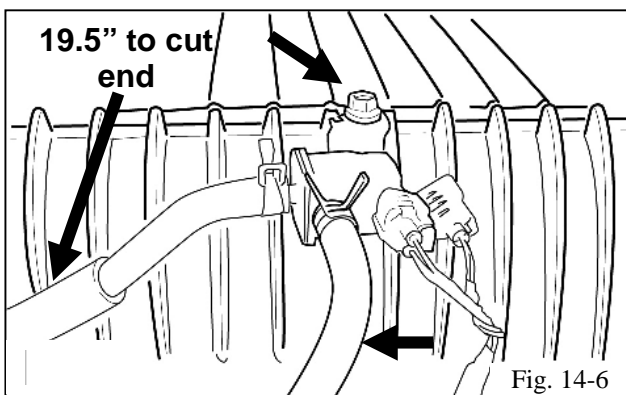


Fig. 14-6

(g) The supercharger housing has three barbs at the front (Fig. 14-4). These will be referred to in subsequent steps as the “forward,” “middle,” and “rear” barbs.

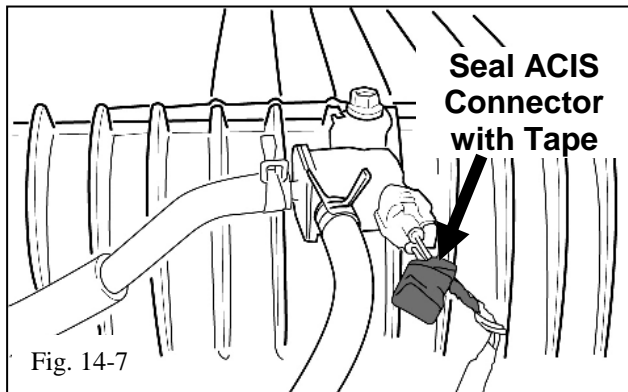
(h) Use the OE clamp to attach the No. 1 ventilation hose to the middle barb (Fig. 14-4 & Fig. 14-5).

(i) Use the original bolts removed in Step 6(p) to install the purge valve onto the top of the supercharger housing (Fig. 14-6).

NOTE: Inspect the 2 OE bolts that secured the VSV to the intake manifold and the vent hose clamp to the intake manifold. If one is longer than the other, use the long bolt to secure the VSV. The short bolt will be used for the vent hose clamp in Step 19(b)(2).

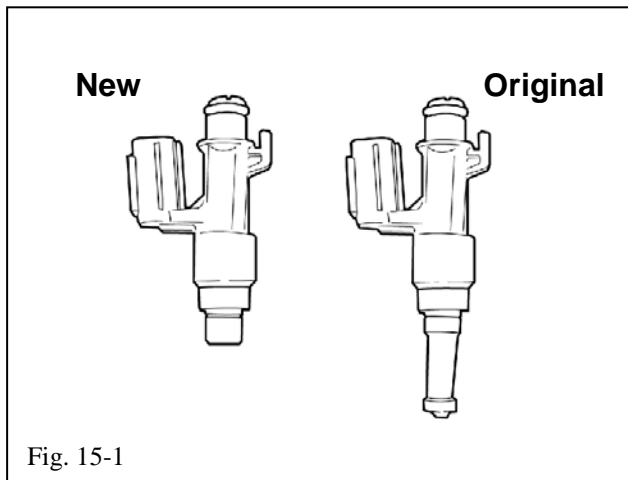
(j) Reconnect the purge line hose to the body of the purge valve (Fig. 14-6).

(k) Connect the purge valve to the forward barb (Fig. 14-4).

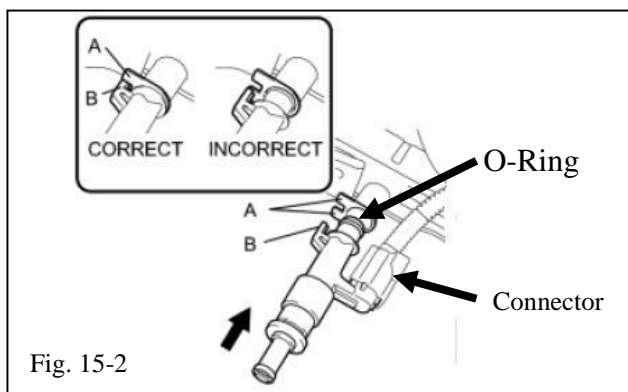


- (l) Connect the electrical connector to the purge valve (Fig. 14-7).
 - (1) The valve has 2 connectors and only 1 will fit.
 - (2) The ACIS connector is no longer used and should be sealed with electrical tape and secured to the main harness (Fig. 14-7).
- (m) Use the supplied hose (Item B5) to connect the brake booster to the rear barb (Fig 14-4). Use the OE clamps previously removed in Step 6(i).

15. Install the Fuel Injectors.



- (a) The supplied fuel injectors (Item F1) have a shorter nose than the original injectors (Fig. 15-1).



- (b) Connect the injector connector (Fig. 15-2).

- (c) Apply a light coat of gasoline or spindle oil onto the upper injector O-ring and install the injector to the fuel delivery pipe (Fig. 15-2).

⚠ NOTICE:

- **Make sure that no scratches or foreign matter exist in or around the insertion hole of the delivery pipe.**
- **When inserting the injector, be careful not to damage the O-ring.**
- **Attach the part of the injector labeled B between the parts of the delivery pipe labeled A.**

- (d) Check to see that each injector is installed to the delivery pipe facing the direction shown (Fig. 15-3).

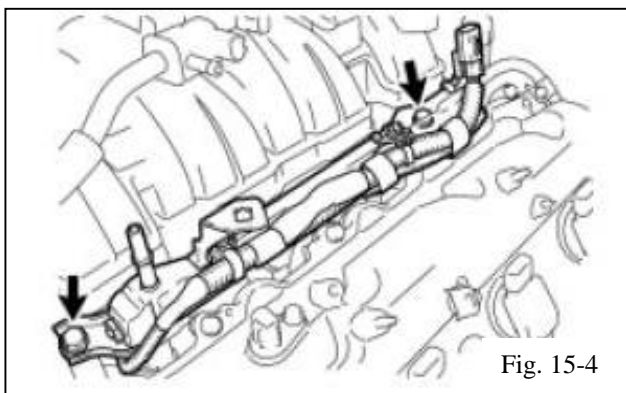
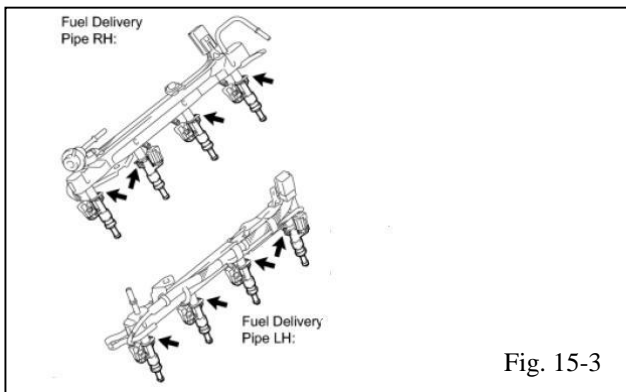
- (e) Apply a light coat of oil to the ID of the insulators in the cylinder heads.

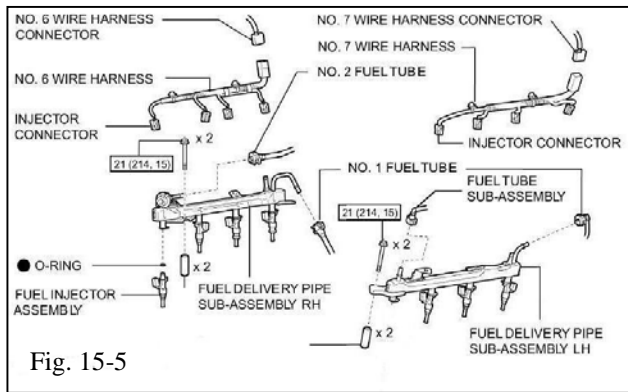
- (f) Install the 2 delivery pipe spacers and make sure the 4 insulators are in place in each cylinder head.

- (g) Install the 2 delivery pipes (with injectors) to the cylinder heads.

- (h) Install the 2 bolts on each side (Fig. 15-4).

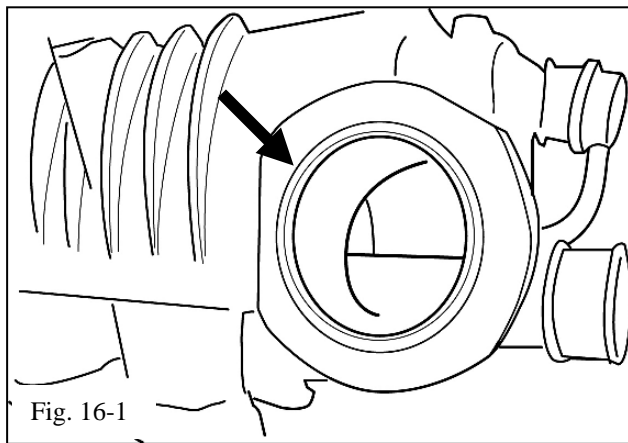
⚠ Torque: 21 Nm (15 ft lbf)



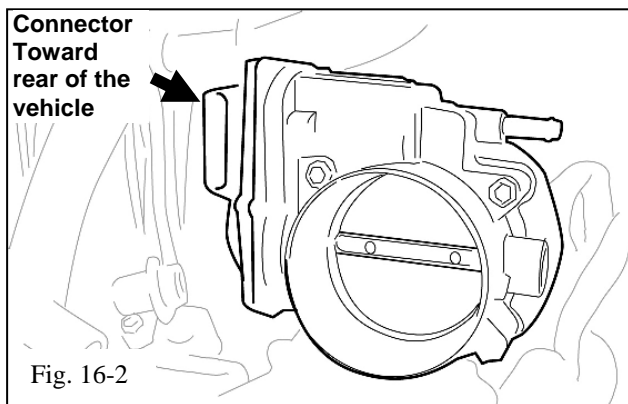


- (i) Reconnect the No. 6 and No. 7 wire harness connectors (Fig. 15-5).
- (j) Reconnect the 4 previously disconnected fuel line connectors, 2 per side, (Fig. 15-5).

16. Install the Throttle Body.

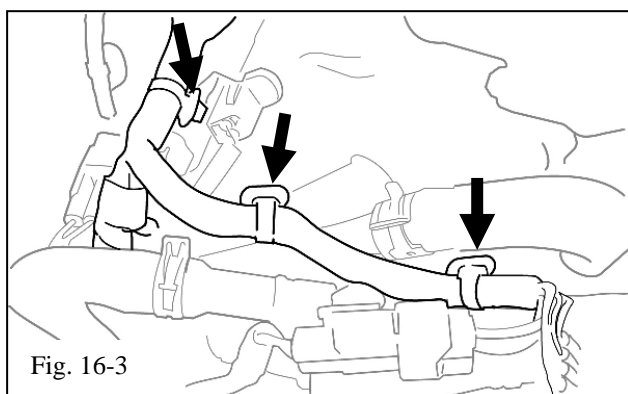


- (a) Install the supplied throttle body O-ring (Item J2) in the groove on the nose of the supercharger housing (Fig. 16-1).
- (b) Rotate the throttle body 180° from the OE position so that the connector is toward the rear of the vehicle.



- (c) Fasten the throttle body to the supercharger housing with the 4 OE bolts (Fig. 16-2).

Torque: 21 Nm (15 ft lbf)



- (d) Unclip the 3 wire harness clips (Fig. 16-3).
- (e) Use a small flat blade screwdriver to release the lock tabs and remove the clips from the wire harness.

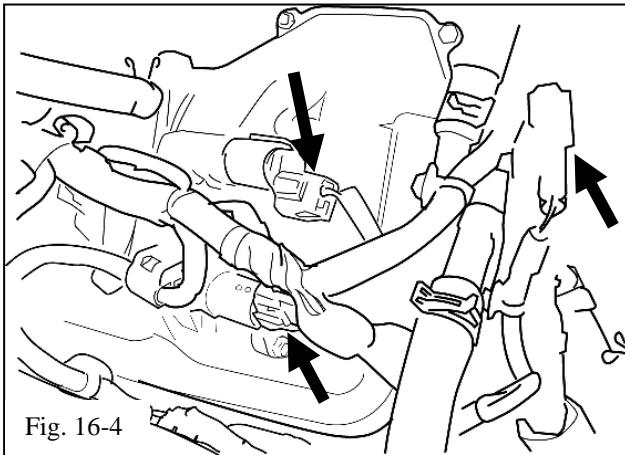


Fig. 16-4

- (f) Unplug the 2 VVT sensors and the front air injection connector (Fig. 16-4).

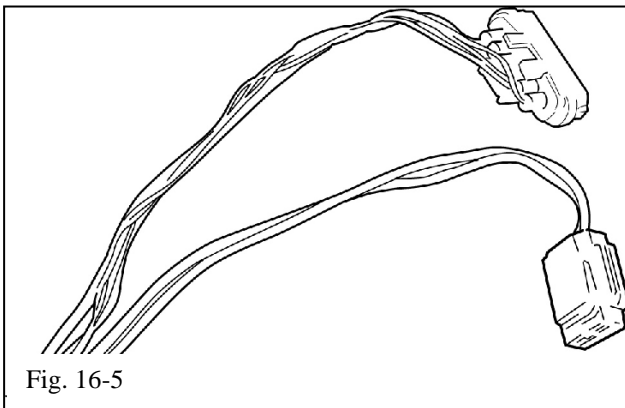


Fig. 16-5

- (g) Open the wire harness and remove the wire loom wrap up to the junction where the wire loom that contains the throttle and air injection wires branch out from the main harness (Fig. 16-5).
- (h) Separate the throttle motor wires from the air injection wire (Fig. 16-5).

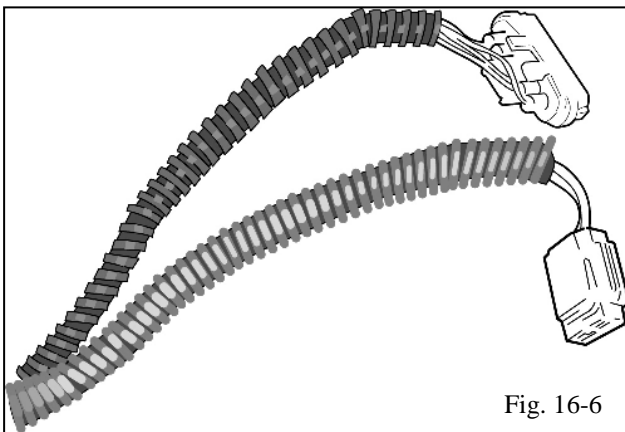
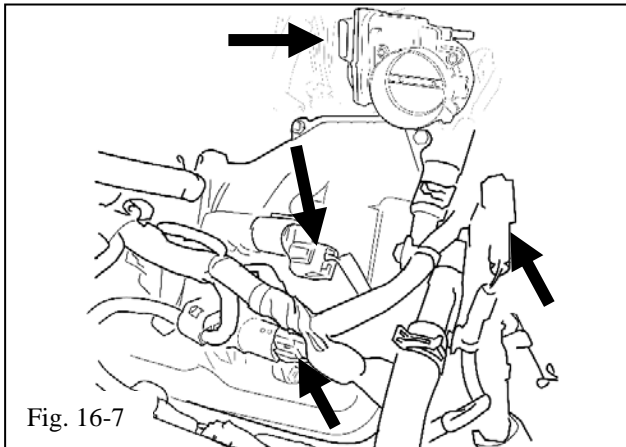
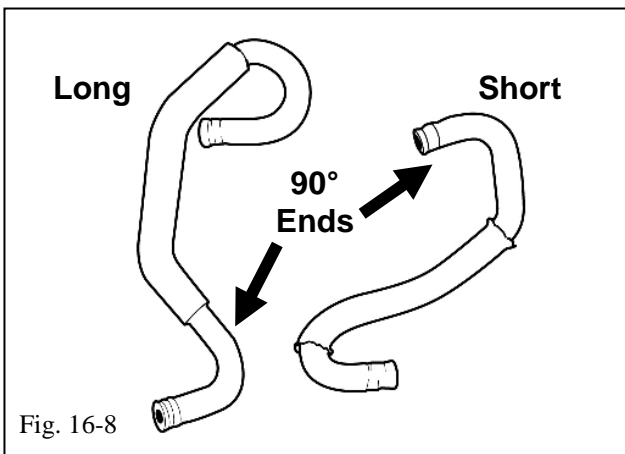


Fig. 16-6

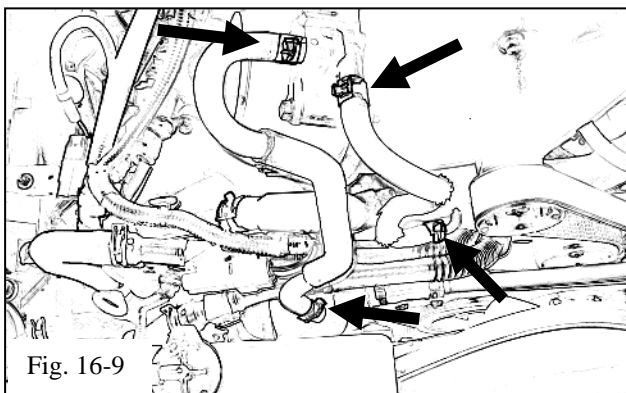
- (i) Install a 9" length of the supplied 3/8" convoluted tube (Item B7) over the exposed throttle motor wires and secure it with electrical tape (Fig. 16-6).
- (j) Reinstall the original wire loom wrap over the air injection wires and secure it with electrical tape (Fig. 16-6).
- (k) Tape the rest of the harness closed.
- (l) Attach the 3 clamps back onto the harness and clip them to their mounting brackets.



(m) Plug in the throttle body connector, the air injection connector, and the 2 VVT sensors (Fig. 16-7).



(n) The vehicle has 2 water bypass hoses (Fig. 16-8).

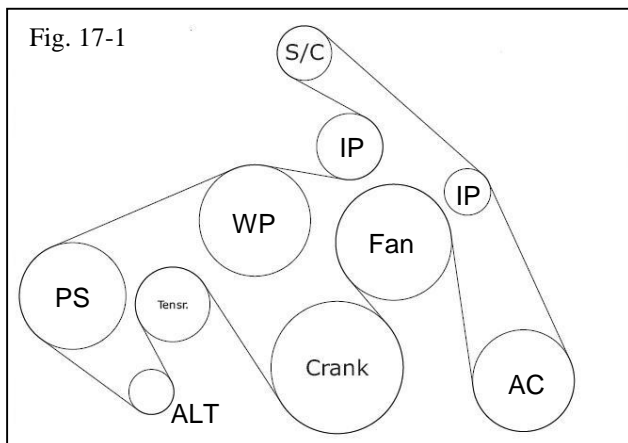


(o) Install the short throttle body water bypass hose.

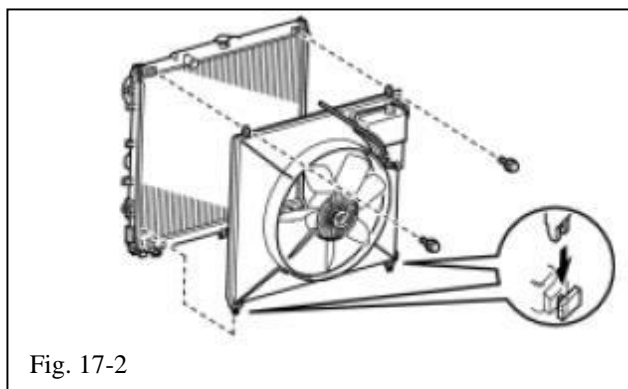
- (1) Fit the natural 90 degree bend to the front facing barb on the throttle body (Fig. 16-9).
- (2) Install the other end to the water bypass joint (Fig. 16-9).
- (3) Secure the ends with the OE spring clamps (Fig. 16-9).

- (p) Install the long throttle body water bypass hose.
 - (1) Fit the natural 90 degree bend to the thermostat housing (Fig. 16-9).
 - (2) Attach the other end to the throttle body water connection facing the RH side of the vehicle (Fig. 16-9).
 - (3) Secure the ends with the OE spring clamps (Fig. 16-9).

17. Install the Belt, Fan & Fan Shroud, and Radiator Hose.



- (a) Install the supplied drive belt (Item #9) following the outlined belt routing (Fig. 17-1). Ensure the belt is completely on all of the pulleys.
- (b) Remove anything covering the radiator used to prevent damage to the core.
- (c) Remove the 4 nuts temporarily holding the fan pulley in place. Lower the fan and shroud together.
- (d) Clip the fan shroud into the lower radiator mounting tabs (Fig. 17-2).



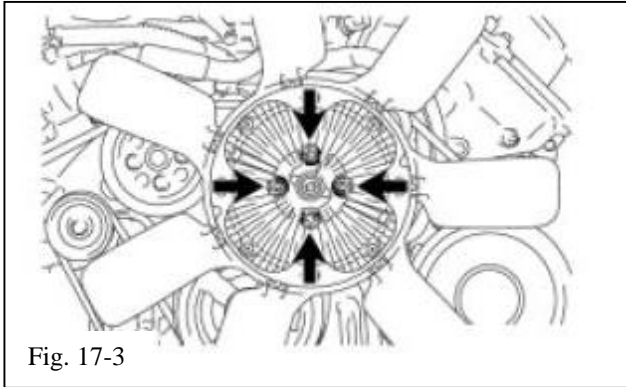


Fig. 17-3

- (e) Use the 4 OE nuts to attach the fan clutch to the fan pulley (Fig. 17-3).

Torque: 21 Nm (15 ft lbf)

- (f) Use the 2 OE bolts to install the fan shroud (Fig. 17-2).

Torque: 6.5 Nm (58 in lbf)

- (g) Install the upper radiator hose.
 - (1) The radiator side of this hose should have been marked during removal, see Step 4(a).
 - (2) The marked side will now attach to the water bypass junction and the other unmarked side to the radiator.
 - (3) Secure it with the OE spring clamps.
- (h) Connect the coolant overflow hose to the upper radiator tank.

18. Replace the Spark Plugs.



Fig. 18-1

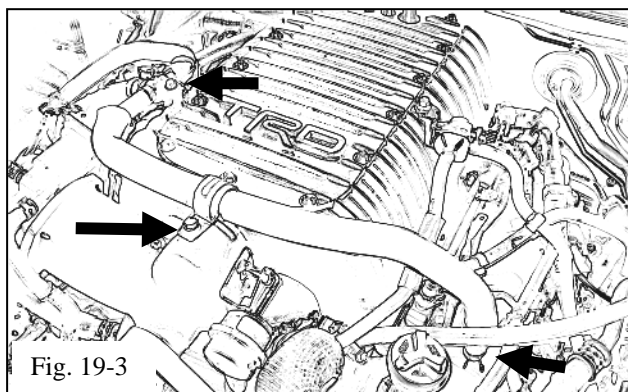
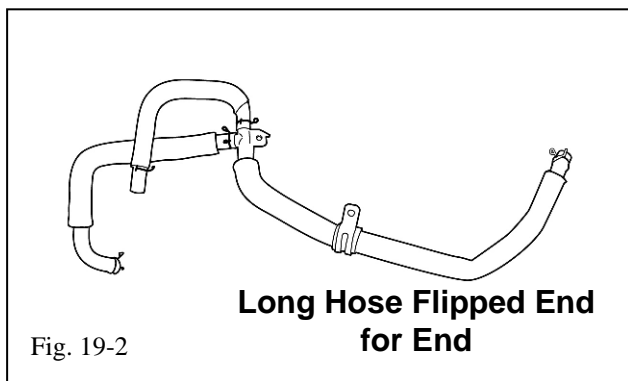
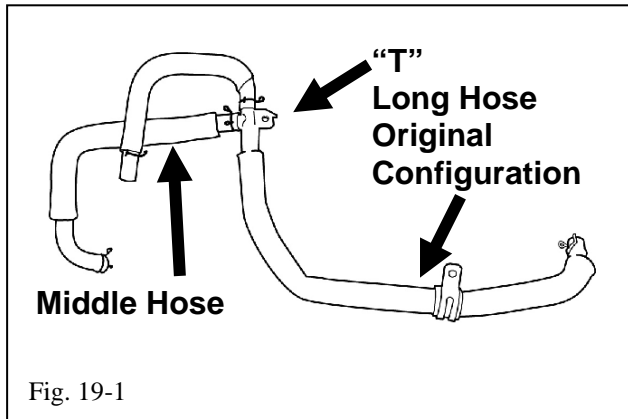
- (a) Unplug and remove all 8 coils (Fig. 18-1).
- +** (b) Blow out any debris from the spark plug holes (wear eye protection).
- (c) Remove and discard all 8 spark plugs.
- (d) Apply a small amount of anti-seize to the threads of the supplied spark plugs (Item F2).
- (e) Install all 8 spark plugs (Plug Gap: 0.032”).

Torque: 18 Nm (13 ft lbf)

- (f) Reinstall all 8 coils.

Torque: 9 Nm (80 in lbf)

- (g) Reconnect the 8 coil connectors.



19. Install the Vent Hoses.

- (a) The ventilation hose assembly is shown as removed from the intake manifold (Fig. 19-1).

- (1) Remove the long hose from the "T", flip it end for end, and reconnect it to the "T" (Fig. 19-2).
- (2) Remove the clamp from the long hose, rotate it, and then reinstall it so it points toward the front of the engine (Fig. 19-2).

- (b) Mount the ventilation hose assembly to the supercharger with the OE bolts.

- (1) The M6 bolt attaches the "T" to the RH side of the supercharger housing (Fig. 19-3).

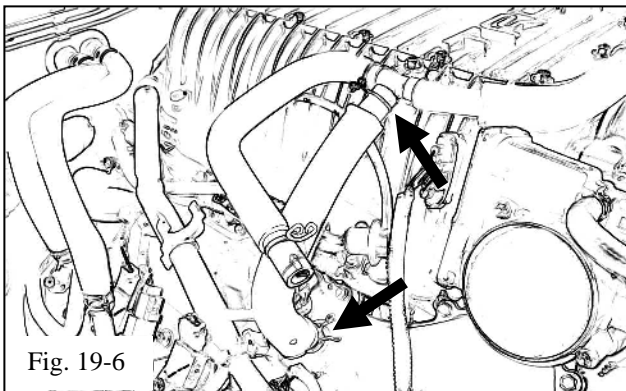
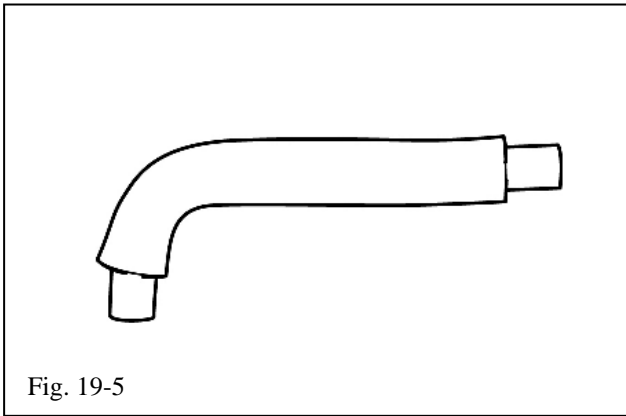
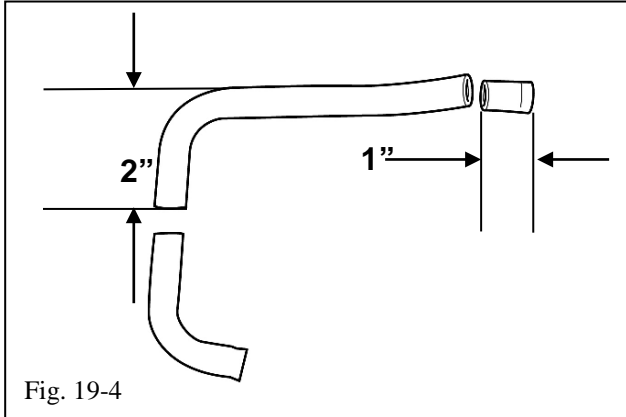
Torque: 10 Nm (7 ft lbf).

- (2) The M8 bolt attaches the clamp on the long hose to the front of the supercharger housing (Fig. 19-3).

NOTE: Be sure to use the short bolt here if the long bolt was used in Step 14(i).

Torque: 21 Nm (15 ft lbf)

- (c) Connect the loose end of the long hose to the LH cam cover (Fig. 19-3).



(d) Remove the middle hose from the "T" and trim it so it will neatly fit between the "T" and the RH cam cover.

(1) Trim 1" off the end that attaches to the "T" (Fig. 19-4).

(2) Trim the other end so that 2" remains from the trimmed end to the bottom of the longer leg (Fig. 19-4).

(e) Trim the insulation to allow enough room for the clamps (Fig. 19-5).

(f) Attach the modified middle hose to the "T" fitting and the RH cam cover (Fig. 19-6).

(g) Leave the remaining hose connected to the "T" fitting loose for now (Fig. 19-6).

20. Install the Air Inlet.

(a) Place screw clamps on each end of the TRD air box lid to throttle body rubber bellows (Item E1).

(b) Place the TRD air filter (Item #2) in the air box base.

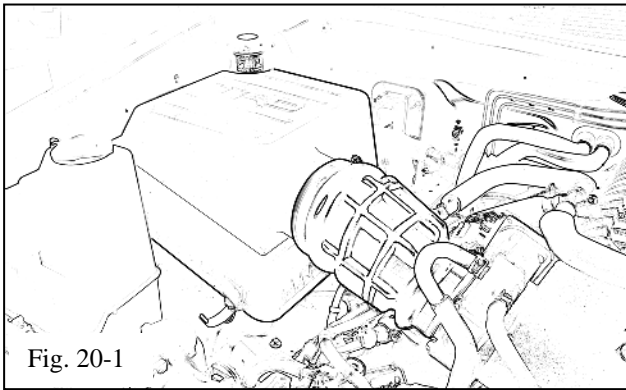


Fig. 20-1

(c) Clip the supplied TRD air box lid onto the air box base and attach the inlet hose to the upper air box (Fig. 20-1).

(1) Position the inlet hose so that it is in a natural position.

(2) Tighten the hose clamps.

Torque: 4 Nm (35 in lbf)

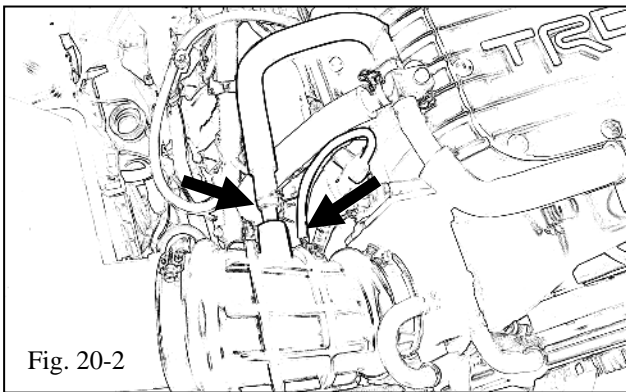


Fig. 20-2

(d) Connect the vent hose and fuel pressure regulator hose to the air inlet bellows (Fig. 20-2).

(e) Plug in the mass airflow meter and clip the harness to the TRD air box lid.

21. Prepare to Install the Intercooler.

(a) Remove the low pitch horn.

(1) Disconnect the low pitch horn connector.

(2) Unbolt and remove the low pitch horn (Fig. 21-1).

(3) Set the horn and bolt aside for reuse.

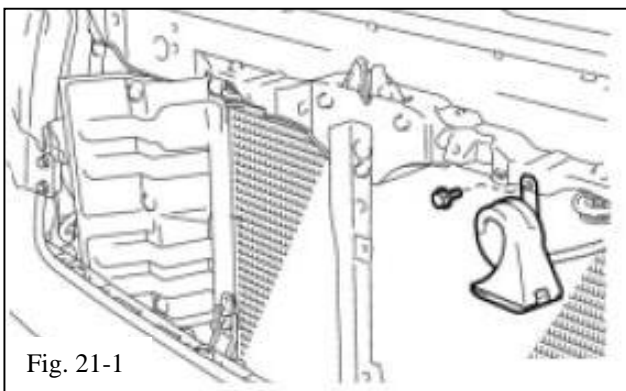


Fig. 21-1

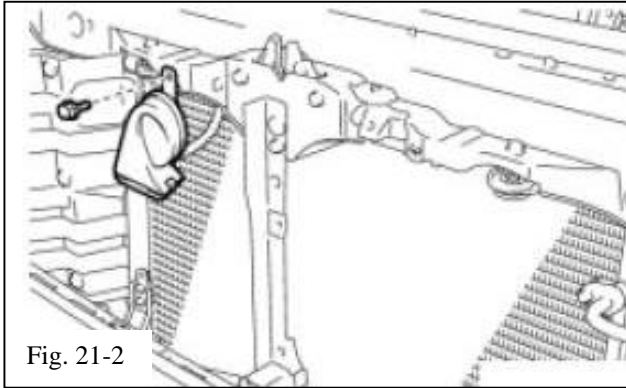


Fig. 21-2

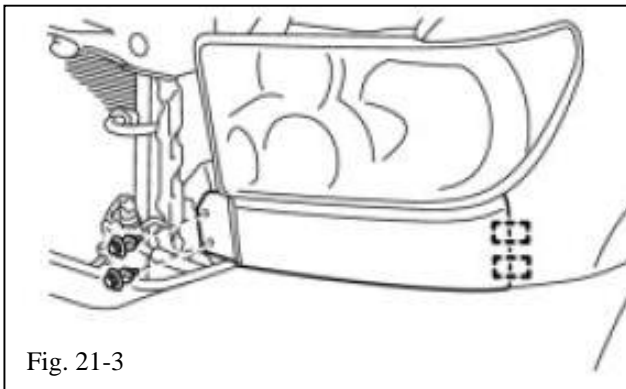


Fig. 21-3

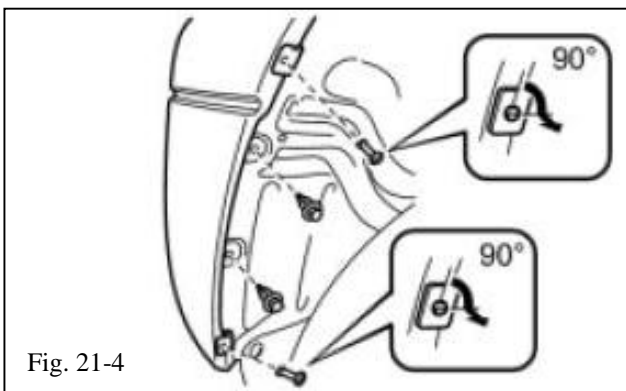


Fig. 21-4

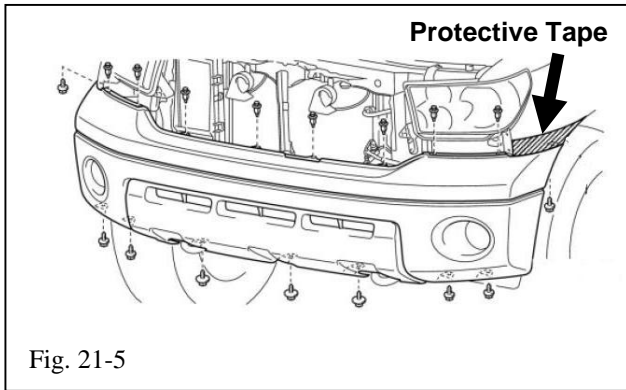
- (b) Remove the high pitch horn.
 - (1) Disconnect the high pitch horn connector.
 - (2) Unbolt and remove the high pitch horn (Fig. 21-2).
- (c) Set the horn and bolt aside for reuse.

- (d) Remove the LH and RH front end panels.
 - (1) Use a clip remover to remove the 2 clips on each panel (Fig. 21-3, left).
 - (2) Detach the 2 pins (Fig. 21-3, right).

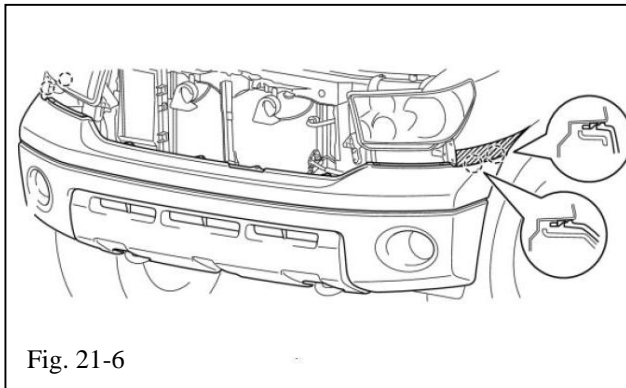
NOTE: For vehicles with resin front bumpers, proceed to Step 21(e).

For vehicles with steel front bumpers, skip to Step 21(f).

- (e) Remove the bumper (resin).
 - (1) Use a screwdriver to remove the two pin hold clips from each side (Fig. 21-4).
 - (2) Use a clip remover to remove the 2 clips from each side (Fig. 21-4).

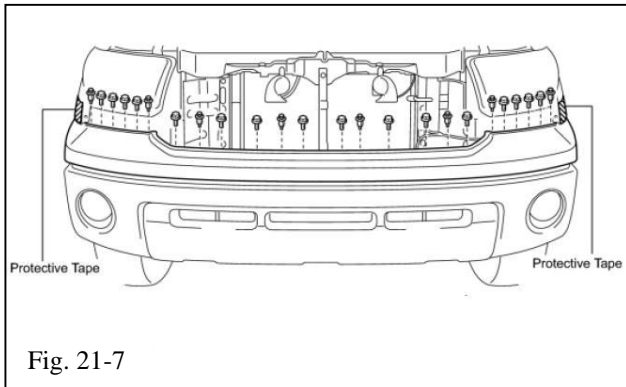


- (3) Put protective tape on each side as shown in Fig. 21-5.
- (4) Use a clip remover to remove the 8 clips.
- (5) Remove the 9 screws.

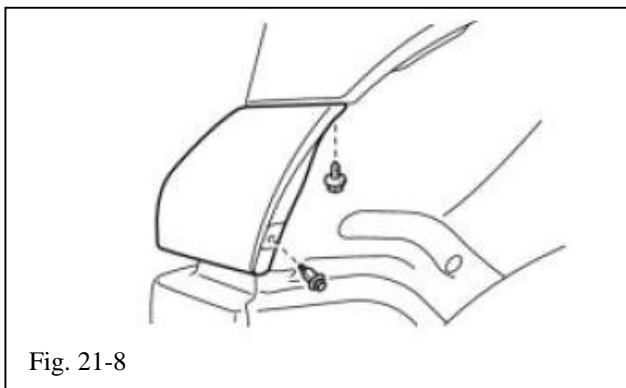


- (6) Detach the 4 claws and remove the bumper cover. If the vehicle has fog lights and/or intuitive assist parking, disconnect the connectors first (Fig. 21-6).

Skip to Step 21(g)



- (f) Remove the bumper (steel)
 - (1) Place protective tape on each side as shown (Fig. 21-7).
 - (2) Use a clip remover to remove the 8 clips.
 - (3) Remove the 16 bolts.



- (4) Remove the screw and clip on both sides (Fig. 21-8).

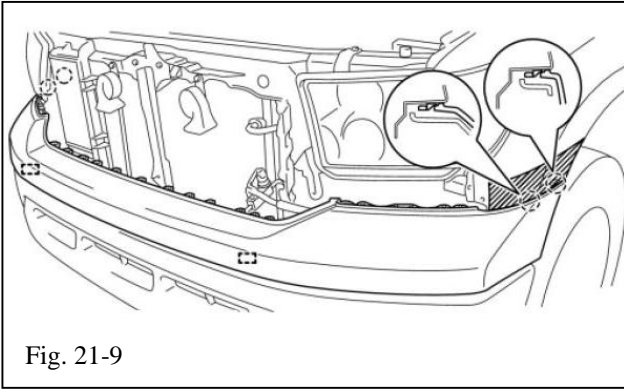


Fig. 21-9

- (5) Detach the 4 claws and 2 pins and remove the upper bumper cover (Fig. 21-9).

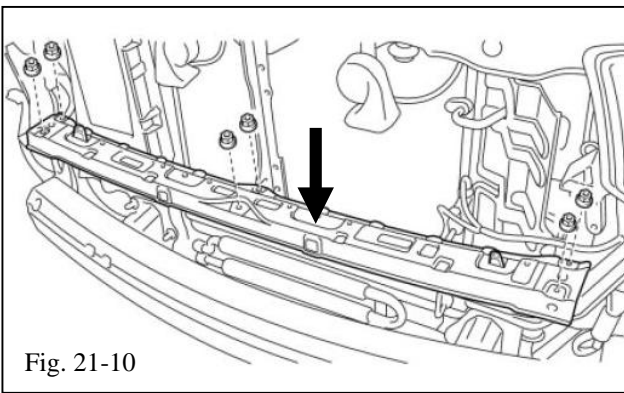


Fig. 21-10

- (6) Remove the 6 nuts and the front upper center bumper retainer (Fig. 21-10).

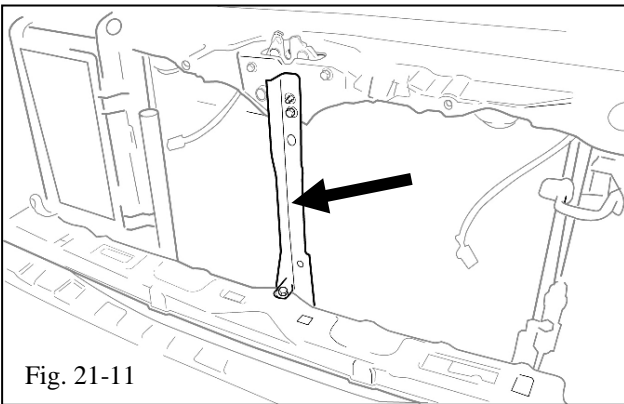


Fig. 21-11

- (g) Remove the radiator support brace by removing 1 nut and 2 bolts (Fig. 21-11 & Fig. 21-12).

- (1) The nut at the top is covered with a plastic cap to make it tamper proof. Use a small pry tool to remove this cover exposing the hex nut (Fig. 21-12).
- (2) Retain the nut and cover plus 1 of the 2 bolts. Also retain the brace.

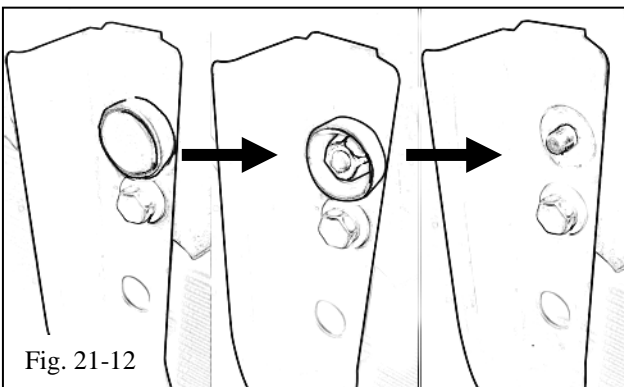
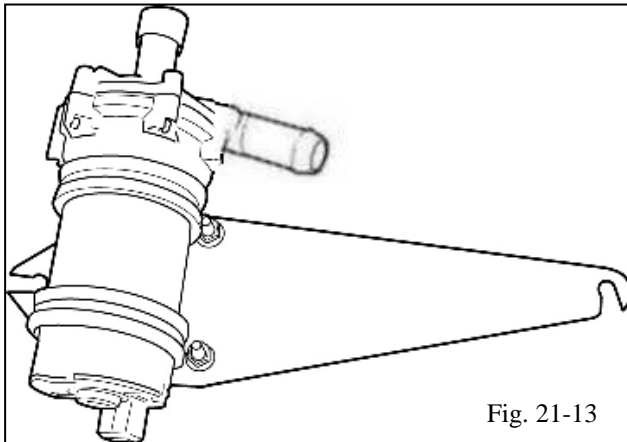


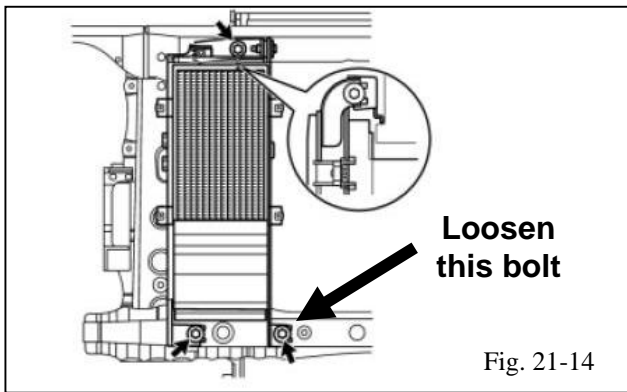
Fig. 21-12



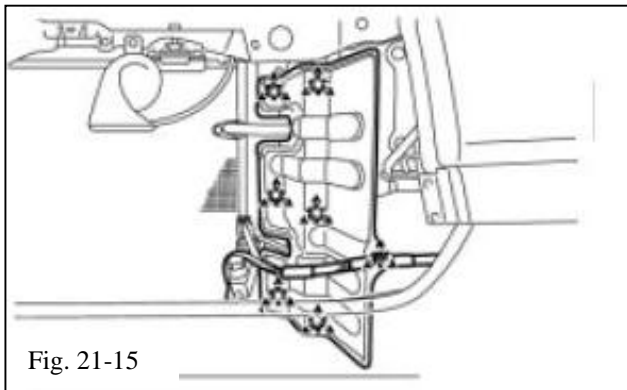
- (h) Mount the intercooler pump (Item D1) to the pump mounting bracket (Item A3) with 2 #36 Adel Clamps (Item A7) and 2 M6 nuts (Item A12) (Fig. 21-13).
- (i) Once the clamps and nuts are tight, the pump outlet should be at an approximately 15° angle to the bracket.

Torque: 15 Nm (11 ft lbf)

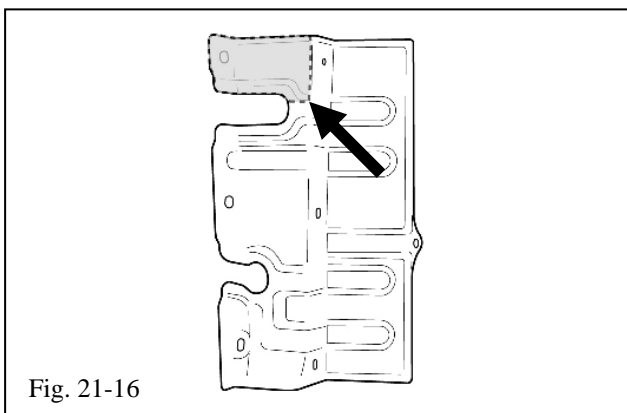
NOTE: For vehicles without a trailer towing system, skip to Step 21(k).



- (j) Three bolts secure the transmission oil cooler. Loosen the lower bolt closest to the vehicle center line (Fig. 21-14).

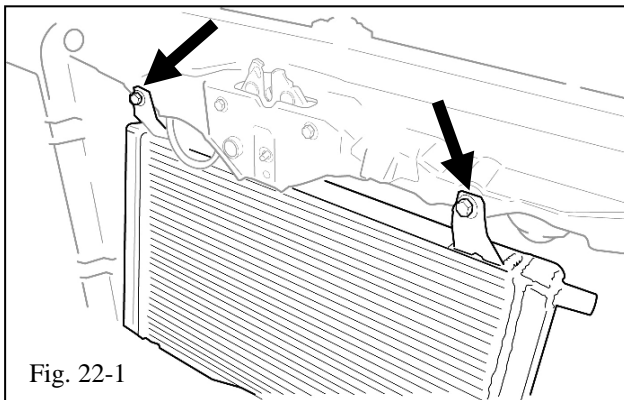
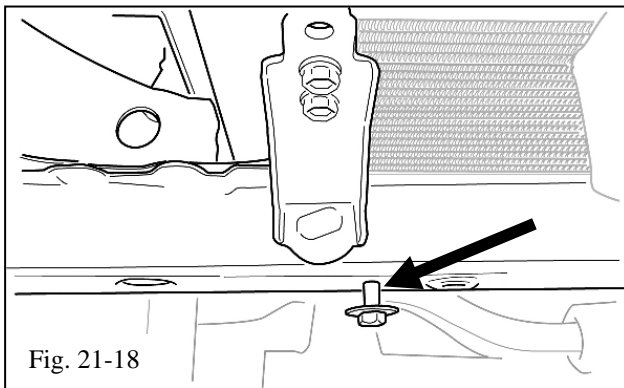
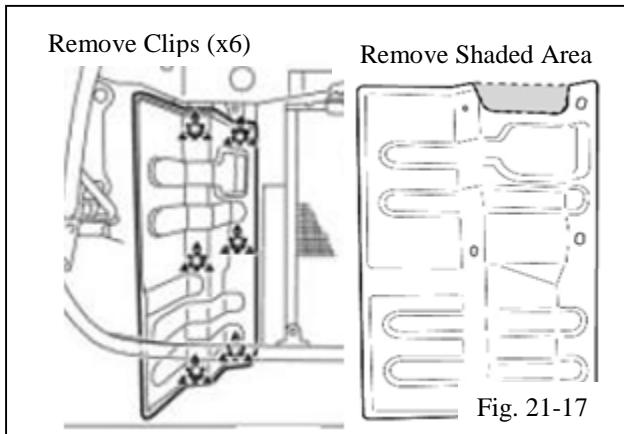


- (k) Remove the LH radiator side deflector (Fig. 21-15).
 - (1) Use a clip remover to remove the 6 clips.
 - (2) Disconnect the wire harness clamp.



- (l) Trim and remove the corner area shaded in Fig. 21-16. Use 5 of the 6 original clips to reinstall the LH side deflector.

NOTE: For vehicles with a trailer towing system, skip to Step 22.



(m) Remove the RH radiator side deflector (Fig. 21-17).

(1) Use a clip remover to remove the 6 clips.

(2) Disconnect the wire harness clamp.

(n) Trim and remove the area shaded in Fig. 21-17.

(o) Use the original 6 clips to reinstall the RH side deflector.

(p) Install a M8 x 20mm bolt (Item A11) and flat washer (Item A9) in the lower radiator cross beam (Fig. 21-18). Do not tighten.

22. Install the Intercooler.

(a) Set the intercooler low temperature radiator (LTR, Item #1) in front of the A/C condenser (Fig. 22-1).

(1) Align the upper mounting tabs with the horn mounting holes and temporarily install the horn mounting bolts a few turns. Leave these bolts loose for now.

(2) Notice that the inlet and outlet on the LTR are on the driver's side of the vehicle.

- (b) Replace the radiator support brace (removed in Step 21(g)). The lower end of the brace is placed behind the lower mounting tab on the LTR.
 - (1) Insert the supplied M6 x 20 mm bolt (Item A10) a few turns, but do not tighten it.
 - (2) Place the OE M6 nut and M6 bolt in the upper mounting holes of the brace but do not tighten them.
- (c) Lower the pump/mounting bracket assembly into place and install it by sliding the slots over the M8 & M6 bolts.

- (1) Start with the passenger's side slot and then lower the driver's side slot.
- (2) The mount goes back against the lower radiator cross beam behind the brace. When in place, it will look as shown in Fig. 22-2.

- (d) Tighten all of the fasteners for the radiator support brace and the LTR pump mounting bracket.

Torque: M6 = 8 Nm (71 in lbf)

M8 = 20 Nm (15 ft lbf).

- (e) Reinstall the plastic cap over the top nut of the radiator support brace.
- (f) Remove 1 of the M8 horn mounting bolts and place the horn mounting tab on top of the LTR mounting tab. Secure it with the OE bolt. Repeat for the other side.

Torque: 20 Nm (15 ft lbf)

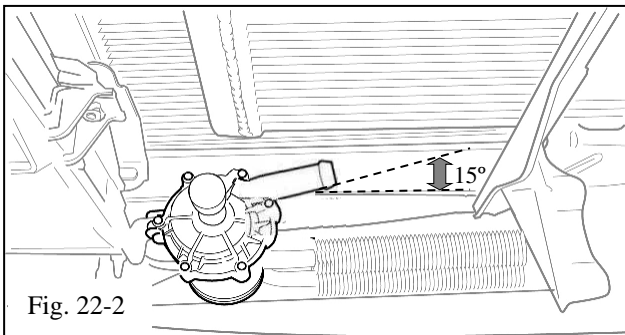


Fig. 22-2

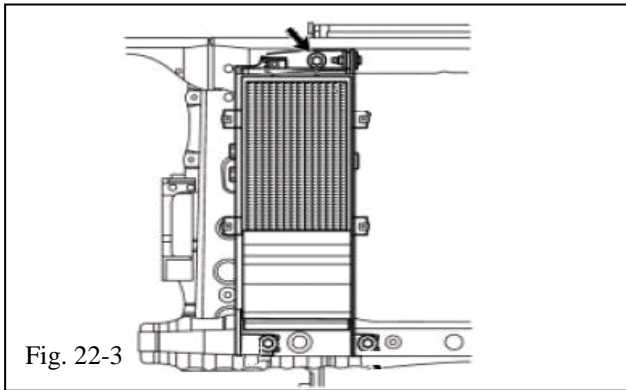


Fig. 22-3

- (g) **Tow package vehicles only:** Unbolt the transmission oil cooler top bolt and let it hang out from the radiator upper cross member (Fig. 22-3 & Fig. 22-4). Leave the fluid lines attached.

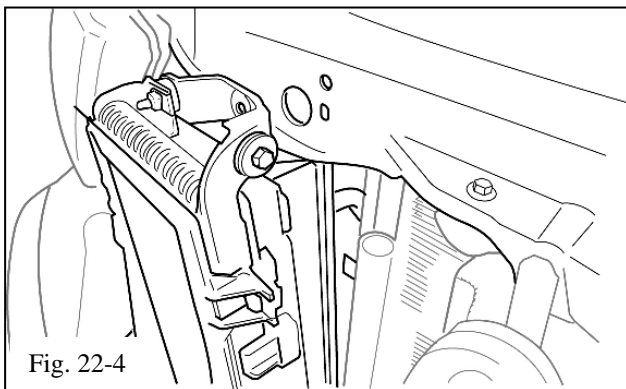


Fig. 22-4

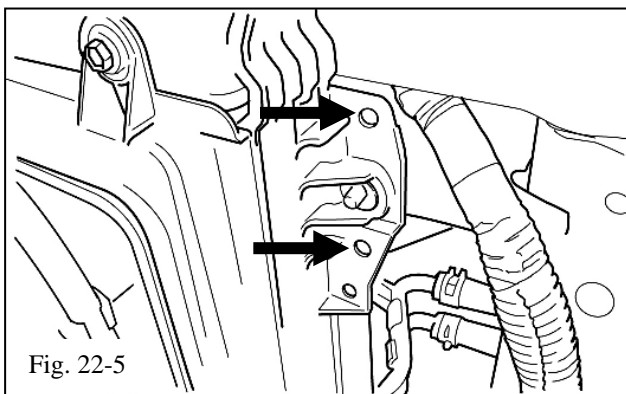


Fig. 22-5

- (h) The intercooler reservoir mounting bracket (Item A1) mounts to the upper RH corner of the vehicle radiator in the 2 existing holes (Fig. 22-5).

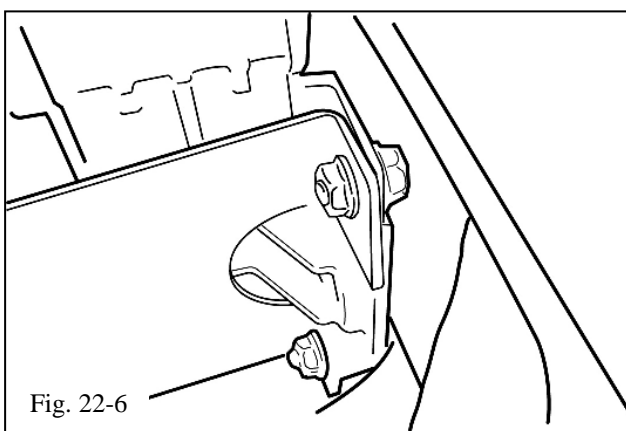


Fig. 22-6

- (i) Unbolt the upper RH corner of the radiator so that corner can be pulled back slightly to make it easier to mount the intercooler reservoir mounting bracket (Item A1) with 2 M6 x 12 mm bolts (Item A13) and nuts (Item A12) (Fig. 22-6).

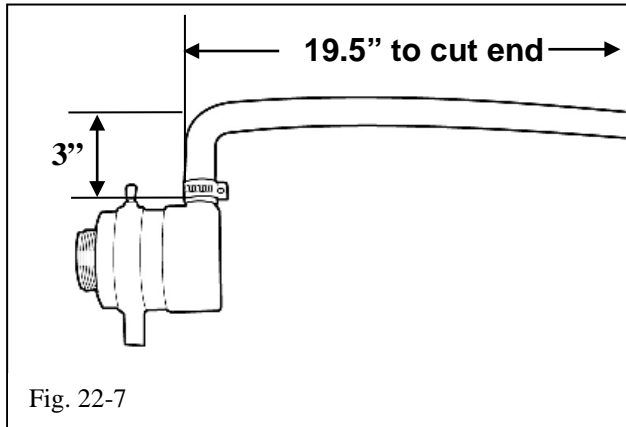
Torque: 8 Nm (71 in lbf)

(j) Trim a 4" x 36" section of molded hose (Item B2).

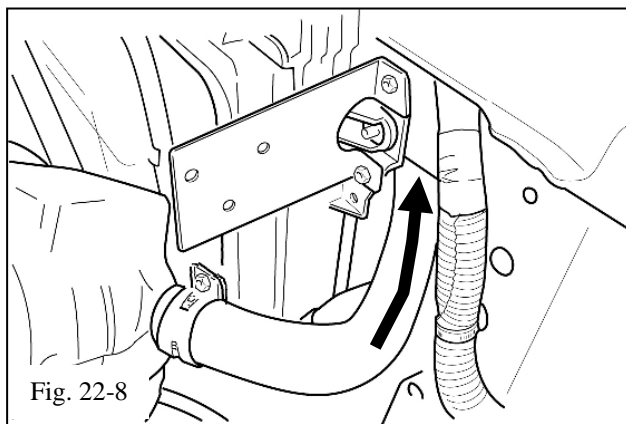
(1) Trim 16.5" from the long leg leaving 19.5". Retain the 16.5" piece for use later.

(2) Trim 1" from the short leg leaving 3".

(k) Attach the short leg to the reservoir (Item D2) with a #10 hose clamp (Item A18) (Fig. 22-7).

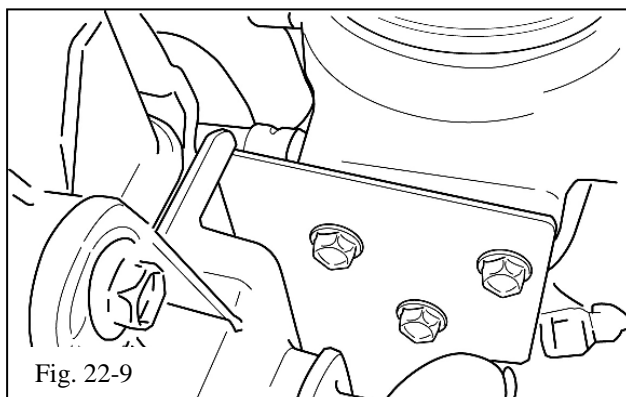


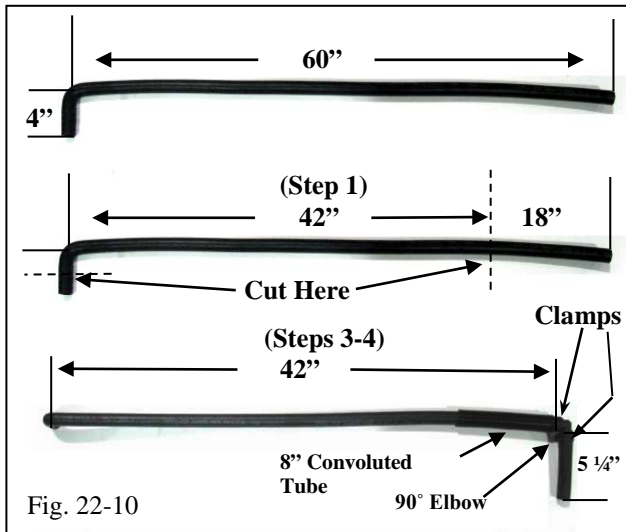
(l) Thread the long end of the hose attached to the reservoir through the radiator mount until the short leg is pointing straight forward (Fig. 22-8).



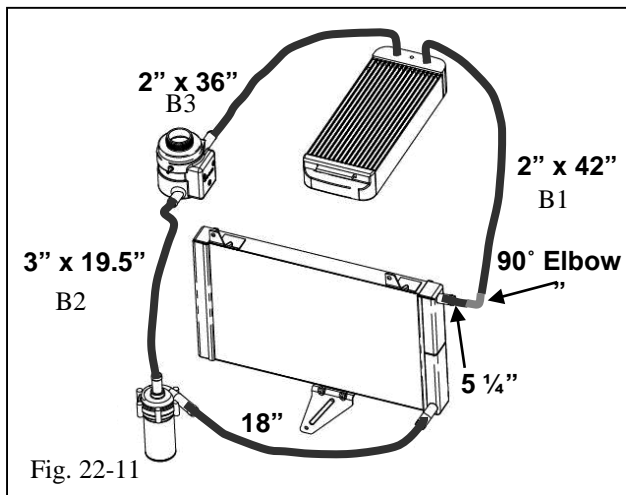
(m) Mount the reservoir to the reservoir mount bracket (Item A1) with the three M6 x 12 mm bolts already attached to the reservoir (Fig. 22-9).

Torque: 10 Nm (7 ft lbf)



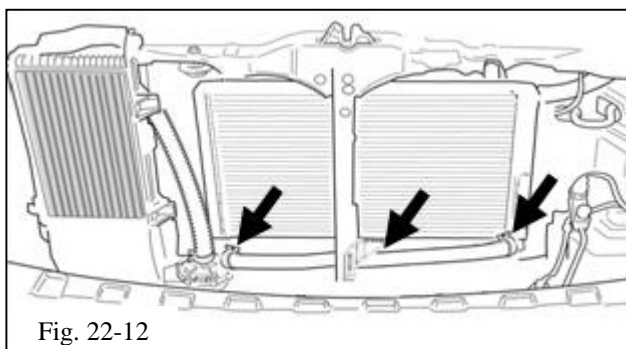


- (n) Configure hose B1 (4"x 60") (Fig. 22-10 & Fig. 22-11).
 - (1) Cut the hose to 2"x 42" as shown. Retain the cut piece for use later.
 - (2) Obtain the extra 16.5" piece from Step 22(j). Trim it to 5 1/4".
 - (3) Slide an 8" piece of 1" convoluted tube (Item B4) over the 42" hose as shown.
 - (4) Install the 90° elbow (Item A6) and 5 1/4" hose with wide band spring clamps (Item A4) as shown.

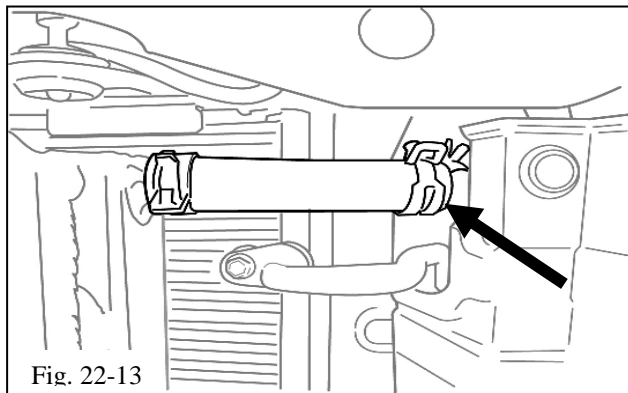


- (o) Apply an 18" piece of 1" convoluted tube (Item B4) to the long end of the hose (Item B1) and then attach the hose to the inlet port on the pump (Item D1). Secure it with a wide band spring clamp (Item A4) (Fig. 22-10 & Fig. 22-11).
- (p) Install the LTR inlet hose.

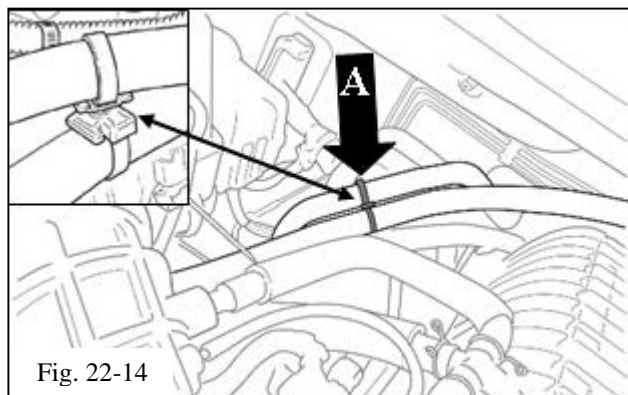
- (1) Obtain the 18" length of hose removed from hose B1 in Step 22(n) (Fig. 22-11).
- (2) Apply a 10" piece of 1" convoluted tube (Item B4) in the middle.
- (3) Route the hose from the pump outlet to the inlet on the bottom of the driver's side of the LTR (Fig. 22-12).
- (4) Secure it with 2 wide band spring clamps (Item A4).



- (q) Cut 2" off the short leg of the 2nd 4" x 36" molded coolant hose (Item B3).
- (1) The short leg mounts to the passenger's side nipple on top of the supercharger housing and is secured by a wide band spring clamp (Item A4) (Fig. 22-11).
- (2) The other end mounts to the inlet of the reservoir, secured with a #10 hose clamp (Item A18) (Fig. 22-11).
- (r) The 2" leg connects to the driver's side nipple on top of the supercharger housing, while the 5 1/4" leg connects to the top nipple on the LTR (Fig. 22-11). Use 2 wide band spring clamps (Item A4) to join the sections.



- ⚠ (s) Make sure the clamp points up as shown (Fig. 22-13).



- (t) On the passenger's side of the supercharger, use 1 swivel spacer (Item A14) and 2 lock ties (Item A17) to secure the supercharger coolant hose to the factory heater hose (arrow "A", Fig. 22-14).

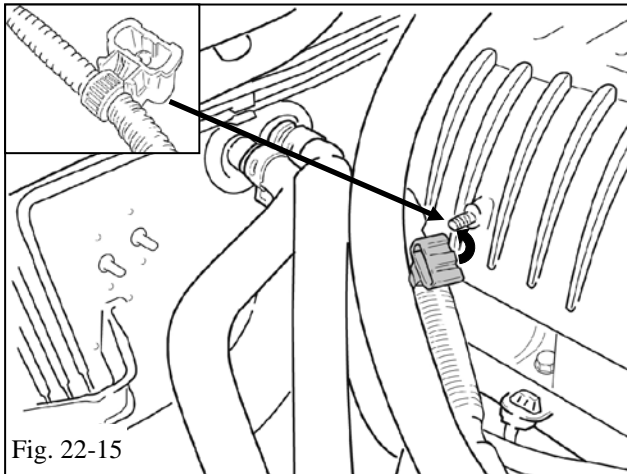


Fig. 22-15

- (u) On the passenger's side of the supercharger, re-secure the factory wire harness to the stud on the side of the supercharger housing with the wire harness clip (Item J4) (Fig. 22-15).

NOTE: Rev "A" superchargers (identified in Step 13(a)) have boost ports on this side of the supercharger. No stud or any other provision exits to secure the wire harness. Skip this step if this is the case.

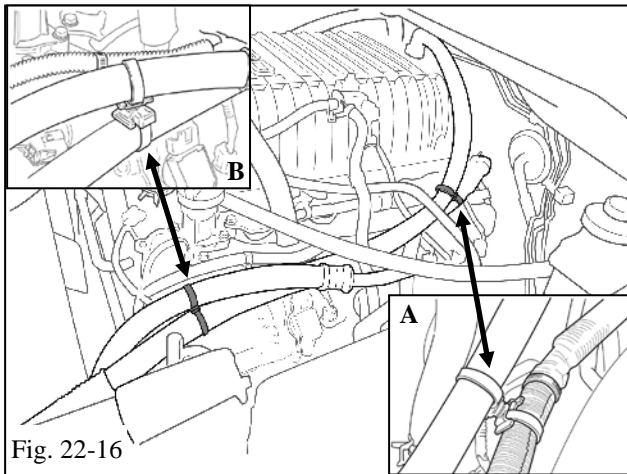


Fig. 22-16

- (v) Secure the supercharger coolant hose on the driver's side of the supercharger.
 - (1) Attach it to the gray vehicle wire harness with 1 swivel spacer (Item A14) and 2 lock ties (Item A17) (arrow "A", Fig. 22-16).
 - (2) Attach it to the factory A/C hose with 1 swivel spacer (Item A14) and 2 lock ties (Item A17) (arrow "B", Fig. 22-16).

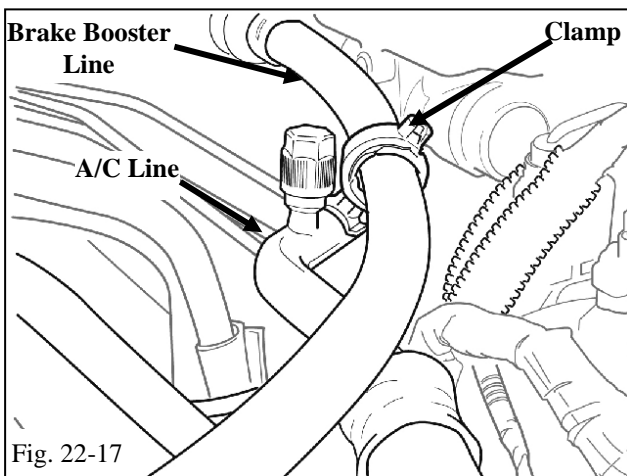


Fig. 22-17

- (w) On the driver's side of the supercharger, use the harness clamp (Item A15) and "C" Clip (Item A16) to secure the brake booster line which was installed in Step 14(m) to the A/C line (Fig. 22-17).

23. Complete the Electrical Wiring.

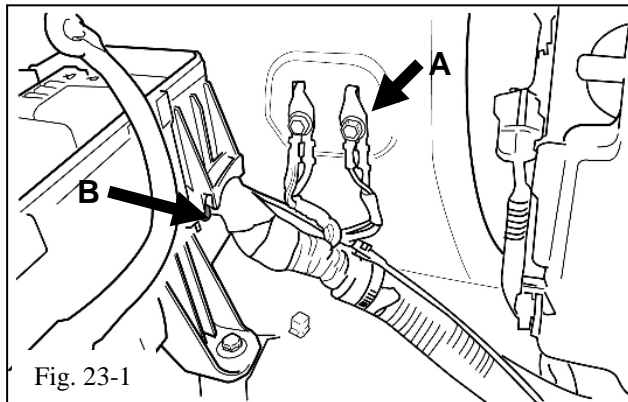


Fig. 23-1

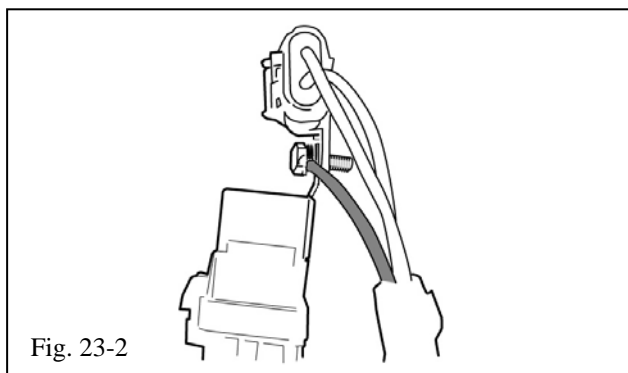


Fig. 23-2

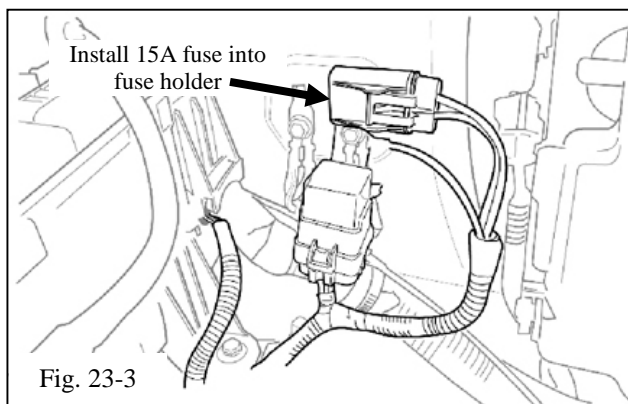


Fig. 23-3

- (a) Go to the battery box area to see the ground point (A) and entry into the fuse box (B) (Fig. 23-1).

- (b) Remove bolt "A" and screw it into the fuse/relay assembly that is part of the wire harness (Item A2) (Fig. 23-1 & Fig. 23-2).
- (c) Make sure the bolt goes through the black ground wire eyelet first, then the metal bracket of the relay, and then the fuse bracket (Fig. 23-2).

- (d) Install the 15A fuse (Item A8) into the fuse holder.
- (e) Reinstall the ground bolt with the assembly attached back into grounding point "A" (Fig. 23-1 & Fig. 23-3).

Torque: 10 Nm (7 ft lbf)

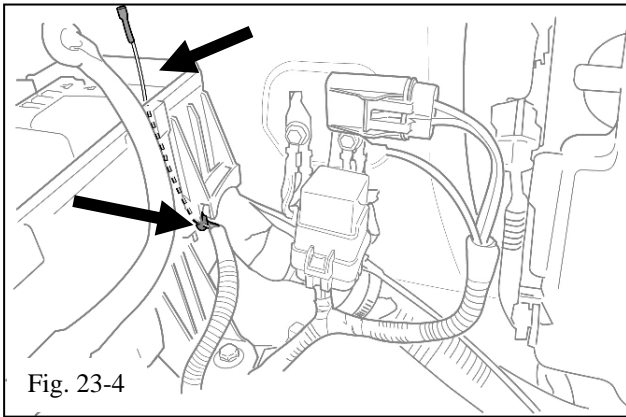


Fig. 23-4

- (f) Route the yellow wire of the relay wire harness (Item A2) into the vehicle fuse box through the opening “B” (Fig. 23-1 & Fig. 23-4).

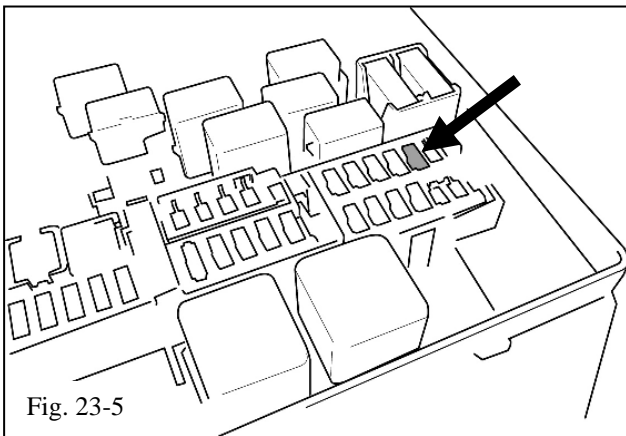


Fig. 23-5

- (g) Remove the 10 amp ignition fuse (Fig. 23-5 & Fig. 23-6).

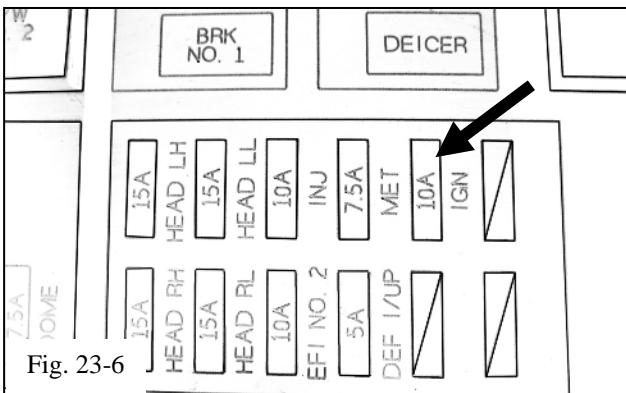


Fig. 23-6

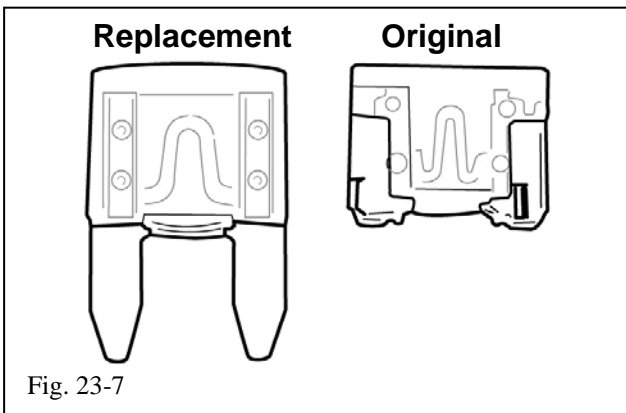
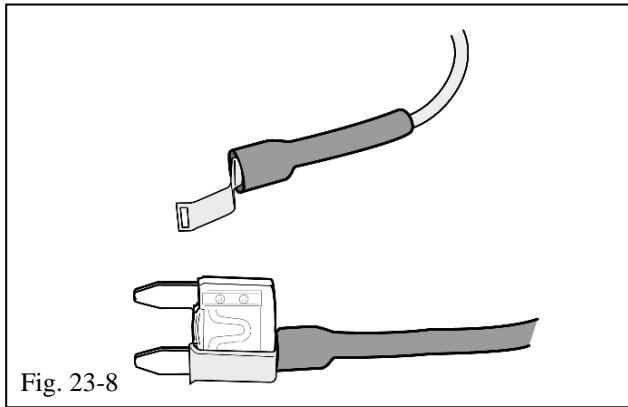
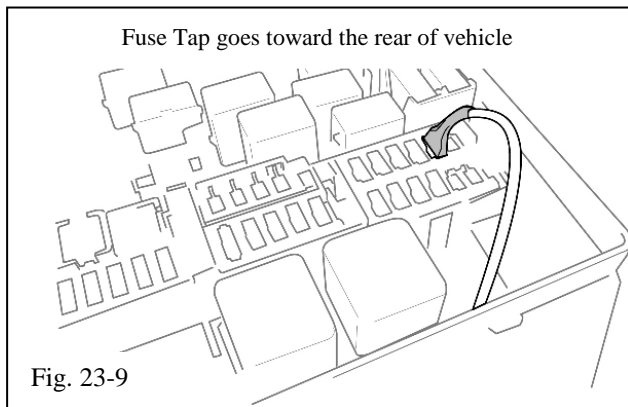


Fig. 23-7

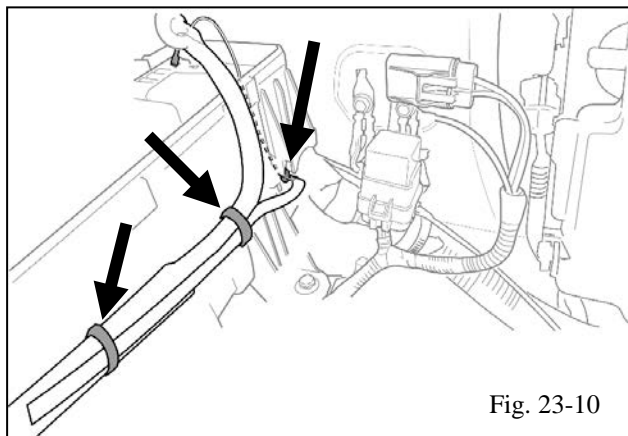
- (h) The original (removed) fuse and the supplied (replacement) fuse (Item A8) are shown in Fig. 23-7.



- (i) The yellow wire that was routed up into the vehicle fuse box has a fuse tap on the end (Fig. 23-8). Connect the fuse tap onto the new replacement fuse as shown (Fig. 23-8).



- (j) Insert the new fuse connected to the yellow wire in place of the removed fuse. **The yellow wire side of the fuse goes toward the rear of the vehicle** (Fig. 23-9).



- (k) Route the main length of the relay wire harness along the battery ground cable and use the short lock ties (Item A5) to secure it (Fig. 23-10).
- (l) Add a short lock tie (Item A5) at the end of the cover over the yellow wire as shown (Fig. 23-10).

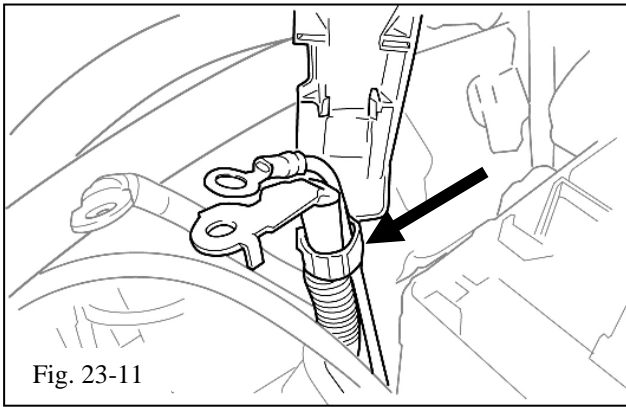


Fig. 23-11

(m) Route the red B+ wire of the relay wire harness up to the main battery B+ terminal and secure it with the plastic cover that clips to the cable (Fig. 23-11).

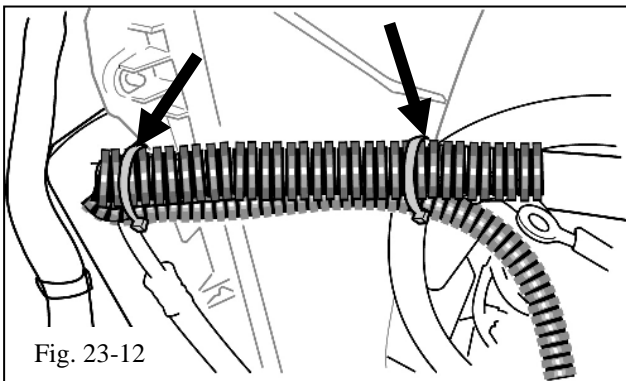


Fig. 23-12

(n) Route the wire harness along the intercooler hose on the driver's side of the vehicle (Fig. 23-12). Secure it with short lock ties (Item A5) as shown.

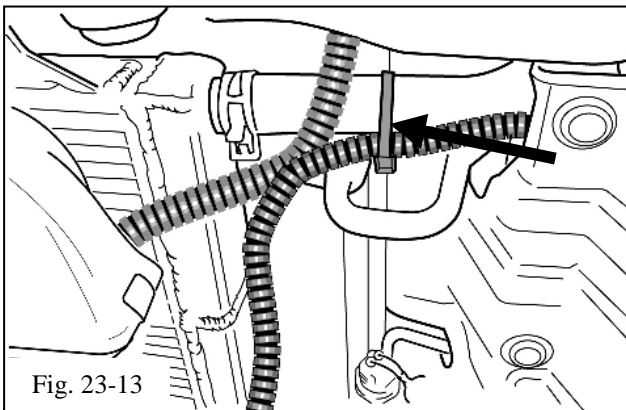


Fig. 23-13

(o) Route the wire harness through the radiator bulkhead and down along the LTR (Fig. 23-13). Secure it with short lock ties (Item A5).

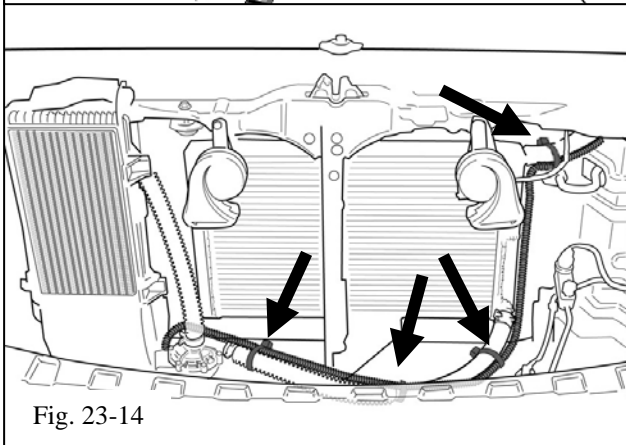
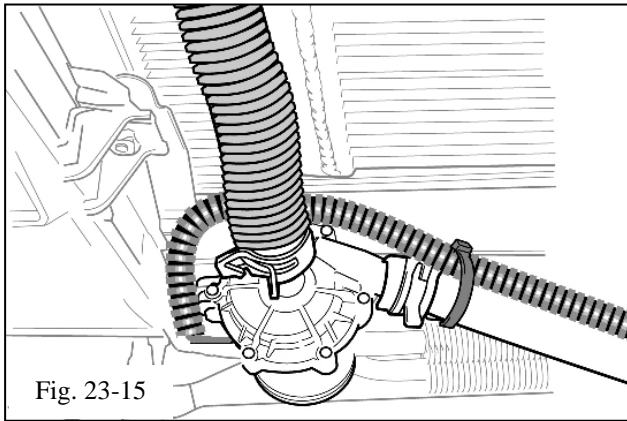


Fig. 23-14

(p) Route the harness down and across the 3/4" hose between the intercooler pump outlet and the LTR inlet (Fig. 23-14). Secure it with short lock ties (Item A5).

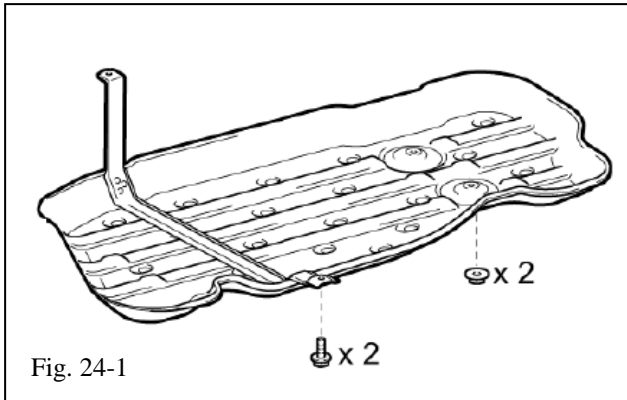


- (q) Route the end of the wire harness behind the intercooler pump inlet, down along the length of the pump and connect the electrical connector to the base of the pump (Fig. 22-15).
- (r) Reattach the front bumper assembly.

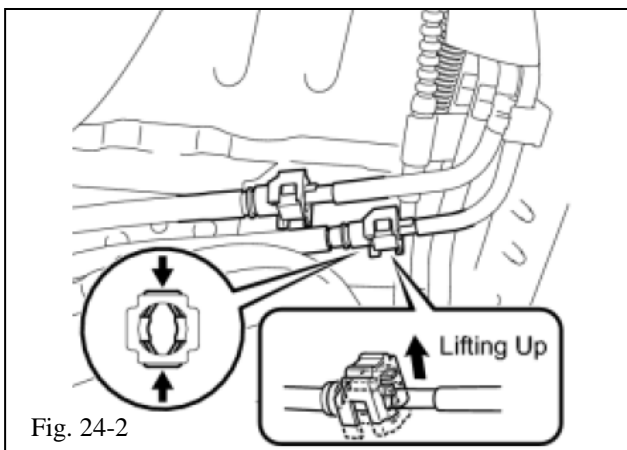
24. Remove the OE In-Tank Fuel Pump Assembly.



- (a) Discharge the fuel system pressure.
- (b) Remove fuel tank cap.
- (c) If required, remove the fuel tank protector by removing the 2 bolts & 2 nuts (Fig. 24-1).



- (d) Disconnect the fuel tank feed and return tube sub-assemblies.
 - (1) Lift up the cover as shown to detach the lock claw (Fig. 24-2).



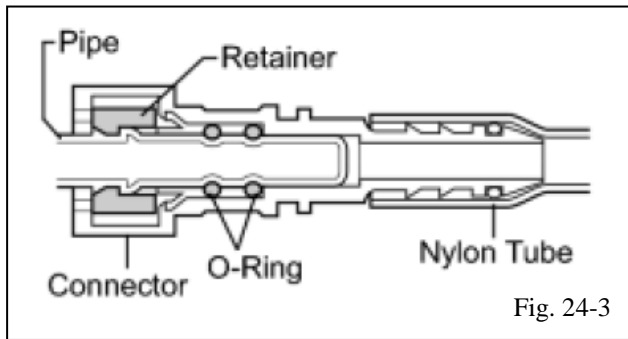


Fig. 24-3

(2) Pinch and pull the main tube connector to disconnect it from the pipe (Fig. 24-3).



NOTE: Do not force, bend or use tools when separating the tubes. Make sure all mating surfaces are clean. Do not kink the nylon fuel lines. If any kinks or other damage occurs during removal or installation of the fuel lines, replacement of the damaged fuel line is REQUIRED.

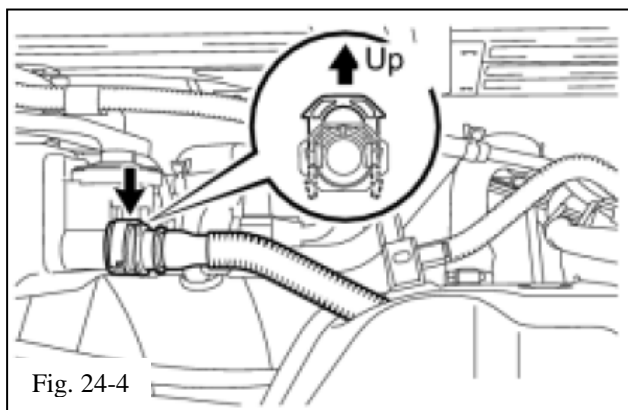


Fig. 24-4

(e) Pull up on the retainer clip to disconnect the vent line hose (Fig. 24-4).

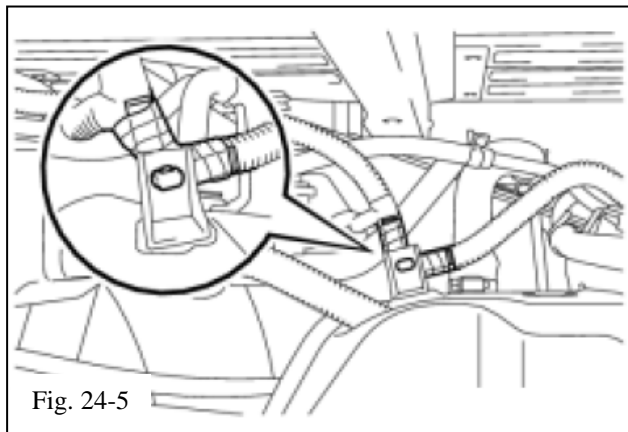
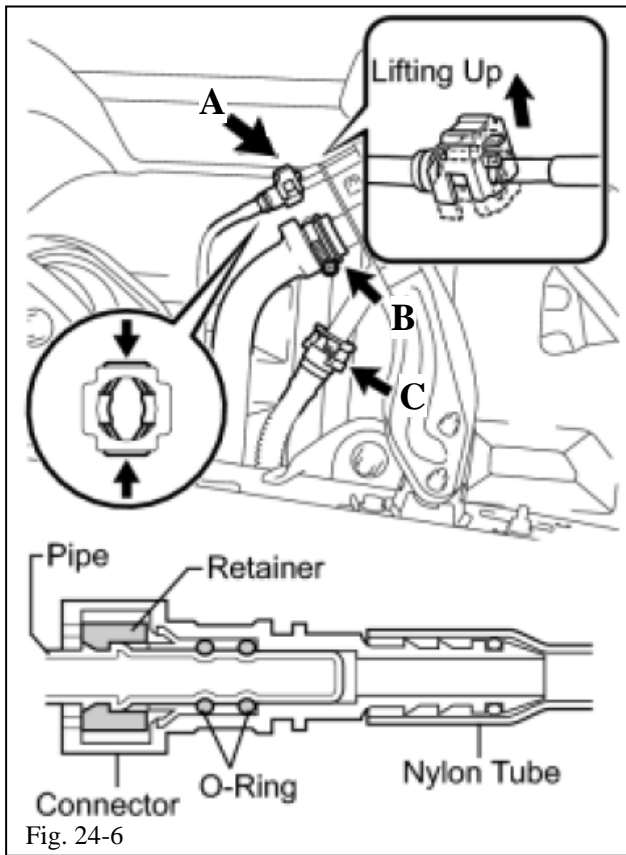
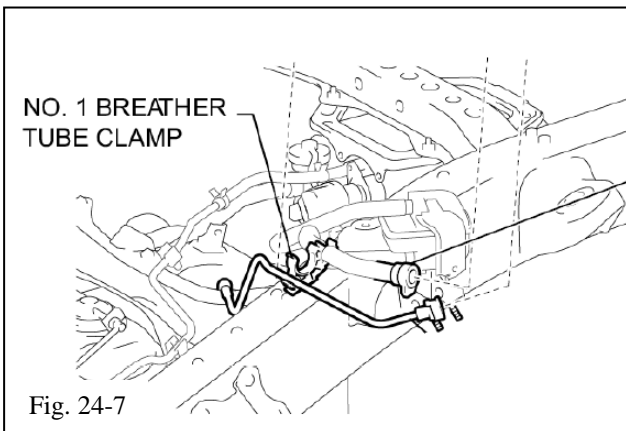


Fig. 24-5

(f) Disconnect the wire harness from the fuel tank (Fig. 24-5).



- (g) Disconnect the fuel tank breather tube “A” from the inlet pipe (Fig. 24-6).
- (h) Disconnect the fuel tank to filler pipe hose “B” from the inlet pipe (Fig. 24-6).
- (i) Disconnect the outlet canister hose “C” from the inlet pipe (Fig. 24-6).



- (j) Detach the breather tube, filler pipe hose and outlet canister hose from the No. 1 breather tube clamp (Fig. 24-7).

- +** (k) Set a mission jack underneath the fuel tank.

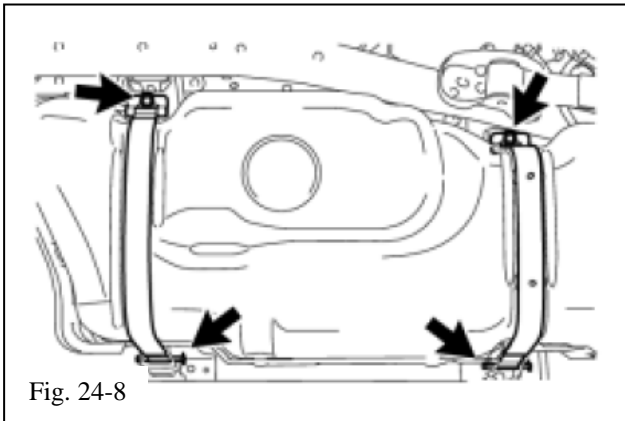


Fig. 24-8

- (l) Remove the 2 bolts, 2 clips, 2 pins and 2 fuel tank bands (Fig. 24-8).

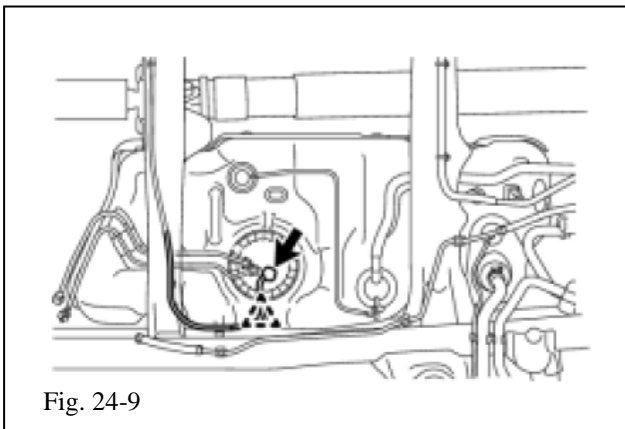


Fig. 24-9

- ⚠ (m) Slowly lower the fuel tank and disconnect the fuel pump connector (Fig. 24-9).
- ⚠ (n) Slowly continue to lower the fuel tank to access the fuel pump assembly.

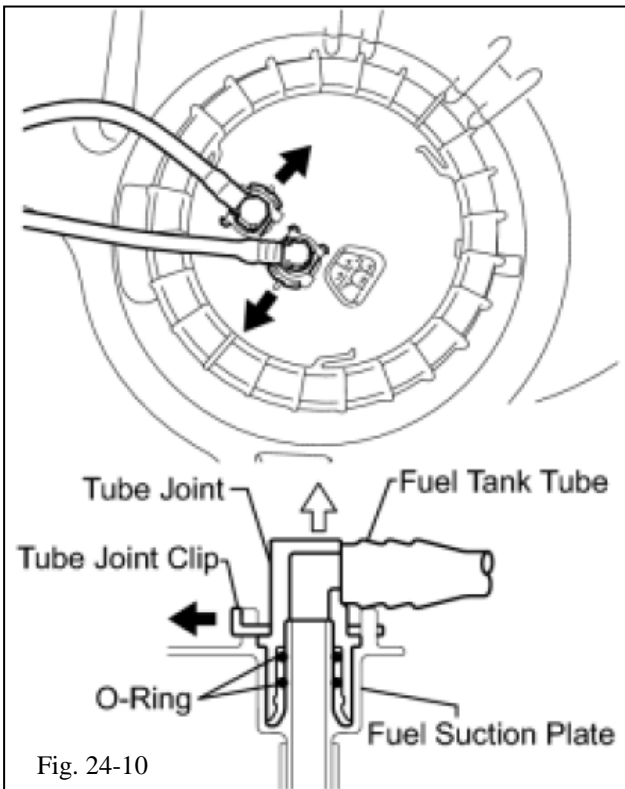
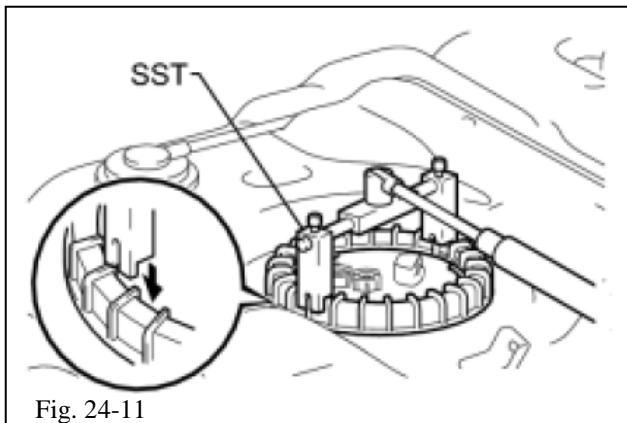


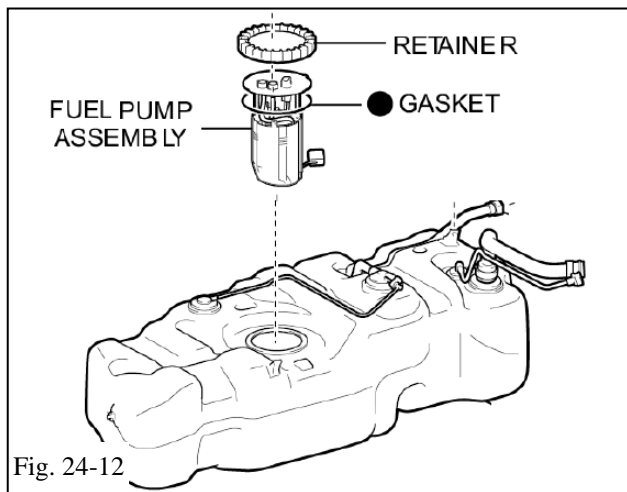
Fig. 24-10

- (o) Remove the 2 joint clips on the fuel tank tubes and then remove the tubes (Fig. 24-10).



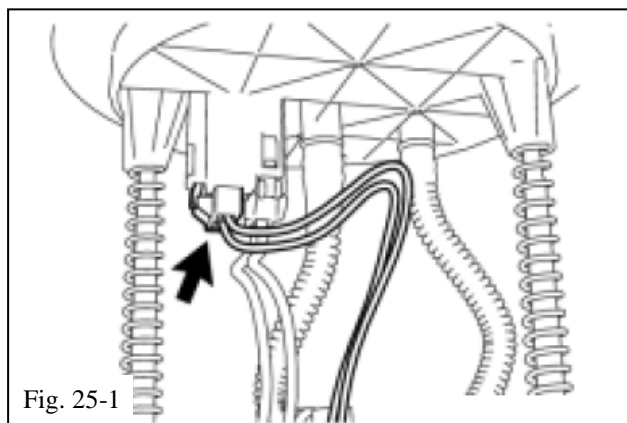
(p) Use a SST to loosen and remove the fuel pump retainer ring (Fig. 24-11).

SST: 09808-14020



(q) Remove the fuel pump assembly from the fuel tank (Fig. 24-12).

25. Remove the OE Fuel Pump from the Fuel Pump Assembly.



(a) Disconnect the fuel sender gauge connector (Fig. 25-1).

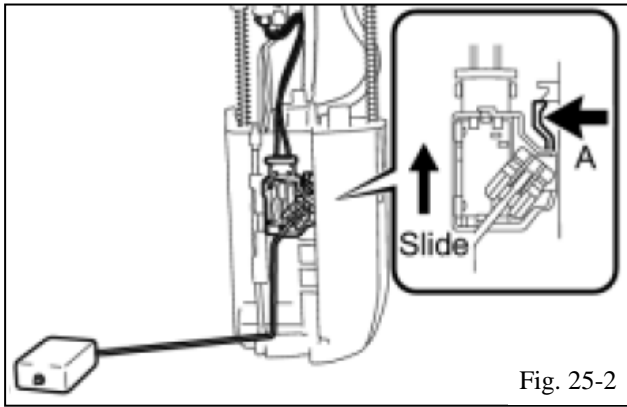


Fig. 25-2

- (b) Press down on the sender gauge claw labeled "A" and slide the sender gauge upward to remove it (Fig. 25-2).

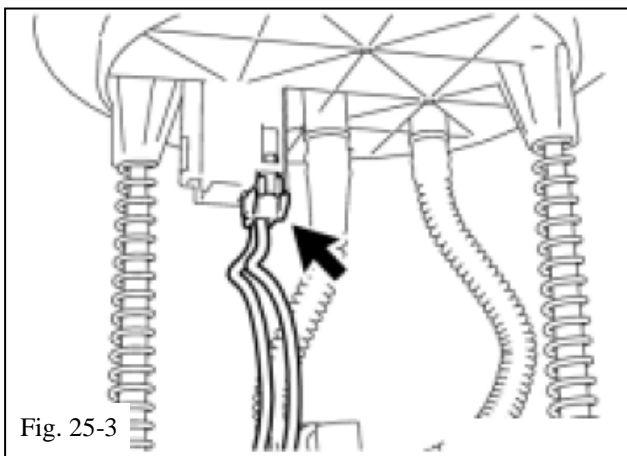


Fig. 25-3

- (c) Disconnect the fuel pump connector (Fig. 25-3).

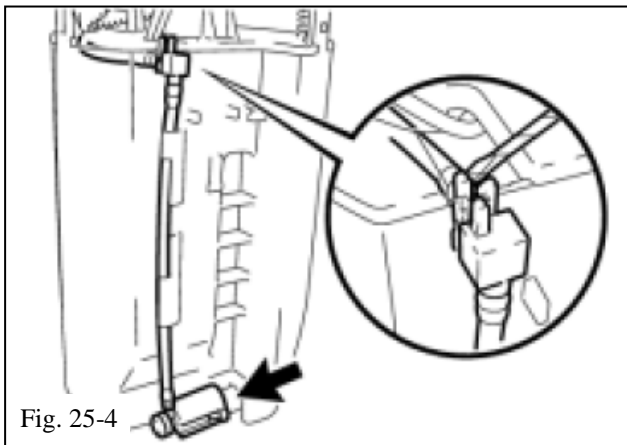


Fig. 25-4

- (d) Use a small screwdriver to detach the claw on the end of the tube from the claw hole. Disconnect the tube from the 2 clamps (Fig. 25-4).

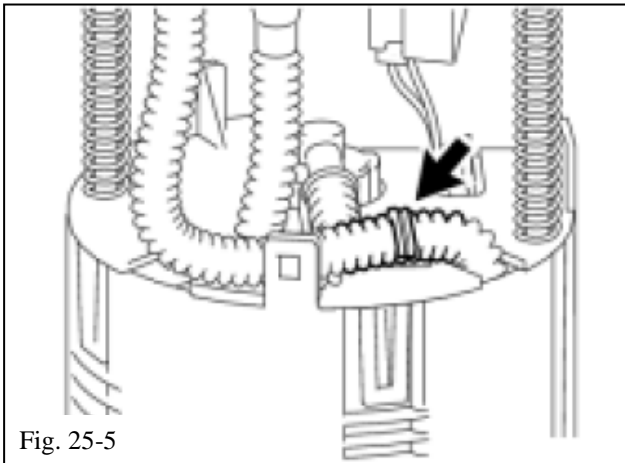


Fig. 25-5

(e) Disconnect the fuel tube (Fig. 25-5).

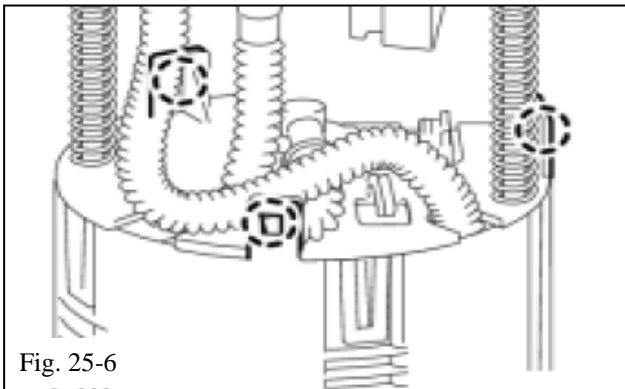


Fig. 25-6

(f) Use a small screwdriver to detach the 3 claws from the claw holes (Fig. 25-6).

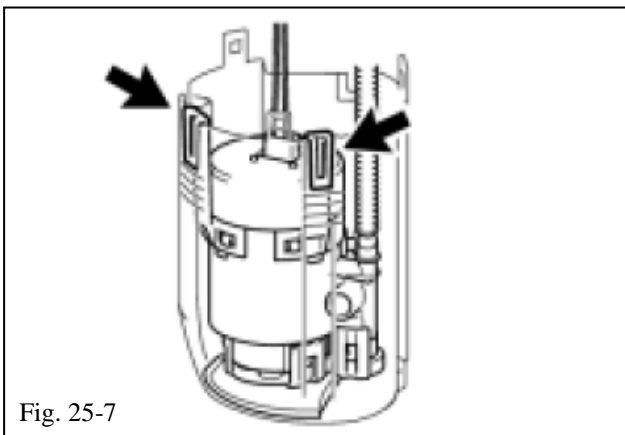
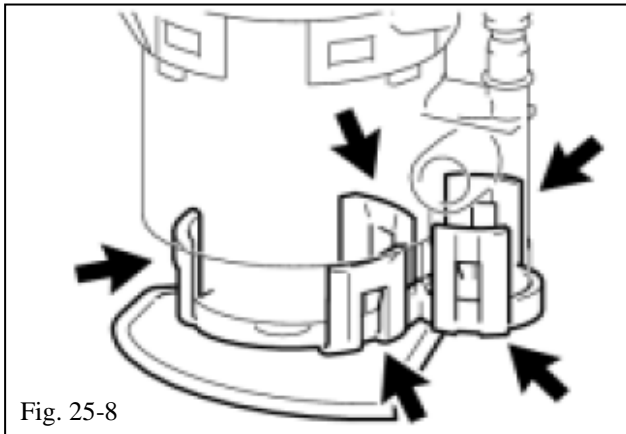
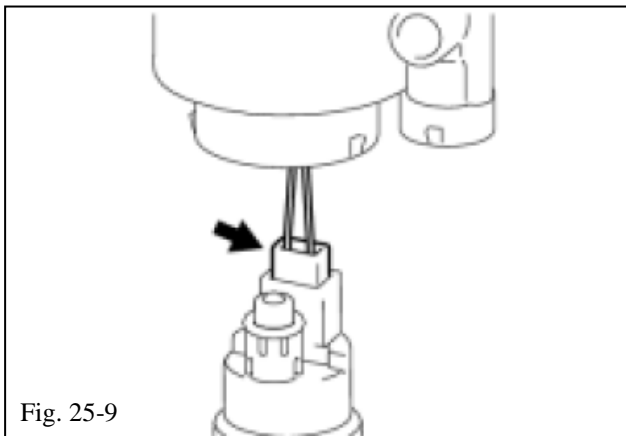


Fig. 25-7

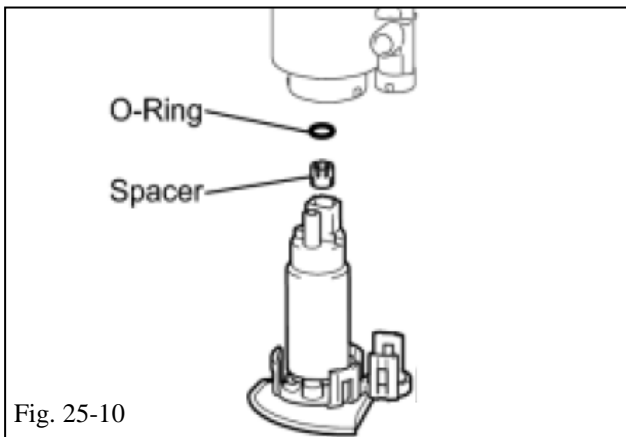
(g) Use a small screwdriver to detach the 2 claws from the claw holes and remove the sub tank (Fig. 25-7).



- (h) Use a small screwdriver to detach the 5 claws from the claw holes and disconnect the fuel pump from the suction plate with filter (Fig. 25-8).

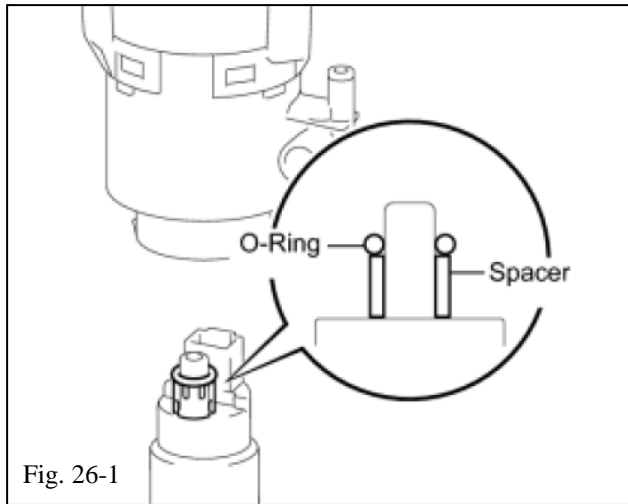


- (i) Disconnect the fuel pump harness from the fuel pump (Fig. 25-9).



- (j) Remove the fuel pump discharge O-ring and spacer from the fuel pump (Fig. 25-10).

NOTE: The old O-Ring can be discarded. A new fuel pump discharge O-Ring is included in the installation kit (Item J3). The spacer will be reused with the new fuel pump.



26. Install the New Fuel Pump into the Fuel Pump Assembly.

- (a) Apply a light coat of gasoline to the new O-ring (Item J3). Install the spacer and O-ring onto the supplied fuel pump (Item F3) (Fig. 26-1).

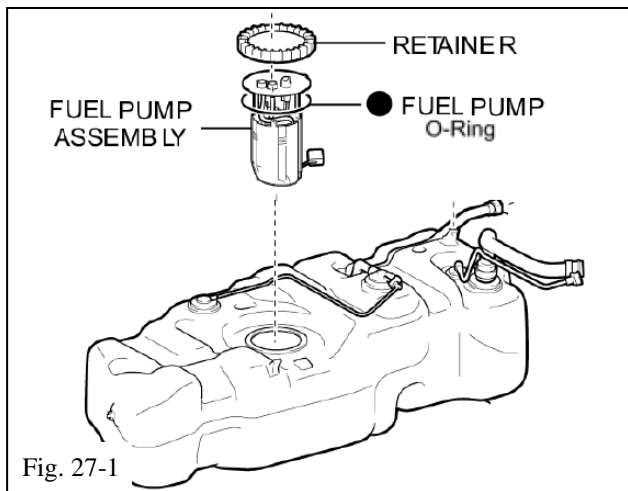
⚠ NOTE: Make sure the new O-ring and spacer are installed as shown. Reversal of the O-ring and spacer will result in low fuel system pressure, causing possible engine damage.

- (b) Install the new fuel pump into the fuel pump assembly in the exact opposite order used to remove the OE pump in Step 25.

27. Reinstall the Fuel Pump Assembly and Fuel Tank.

- (a) Reinstall the fuel pump assembly and fuel tank in the exact opposite order that was used to remove it in Step 24.

⚠ (b) Make sure to use the new fuel pump module O-Ring (Item J1) supplied in the kit when installing the fuel pump assembly into the fuel tank (Fig. 27-1).



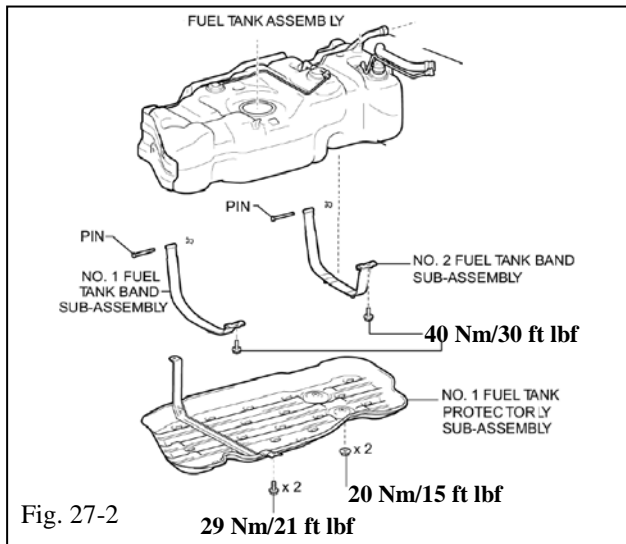


Fig. 27-2

- S** (c) When reinstalling the fuel tank assembly, use the torque specifications indicated in Fig. 27-2.

28. Prepare for Vehicle Start-up.

- (a) Pour the coolant saved in Step 3 into the radiator until it is full.
- (1) Use of improper coolant may damage the engine cooling system.
 - (2) Use Toyota Super Long Life Coolant or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrate, and non-borate coolant with long-life hybrid organic acid technology.
 - (3) New Toyota vehicles are filled with Toyota Super Long Life Coolant (color is pink, premixed ethylene glycol concentration is approximately 50% and freezing temperature is -35°C (-31°F)). When replacing and/or adding coolant, Toyota Super Long Life Coolant is recommended.

! **NOTICE: Do not substitute plain water for engine coolant.**

- (b) Check the coolant level inside the radiator by squeezing the inlet and outlet radiator hoses several times by hand. If the coolant level goes down, add coolant.
- (c) Install the radiator cap.
- (d) Slowly pour coolant into the radiator reservoir until it reaches the FULL line.
- (e) **FILL THE INTERCOOLER RESERVOIR:** Fill the intercooler reservoir with the same coolant as the vehicle radiator.

(f) Reinstall and connect the battery.

S **Torque: 5.4 Nm (48 in-lbf)**

(g) Once the intercooler reservoir is full and will not take any more coolant, turn the ignition key to ON, **but do not start the engine.**

- (1) The intercooler pump will run and purge air from the intercooler system.
- (2) Continue to add coolant to the intercooler reservoir until it is full.

(h) Place the new vacuum and belt routing label (Item H8) and CARB EO Emissions label on an open area on the underside of the hood (Fig. 28-1).

- (1) Clean the area of any dirt and contaminants.
- (2) **DO NOT cover any OE labels.**

(i) Install the **Premium Fuel Only** decals (Item H3).

- (1) Place one decal on the dash near the fuel gauge.
- (2) Place one decal near the fuel filler cap.

(j) **Prime the fuel system.**

- (1) Prime the fuel lines and fuel rails before attempting to start the engine for the first time.
- (2) Failure to do so will cause hard-starting for the first few tries and may trigger false MIL lights.
- (3) Use the TIS Techstream to connect to the vehicle and select the “ENG and ECT” ECU from the list of ECUs.
- (4) Select “Active Test” from the menu selection on the left of the screen.

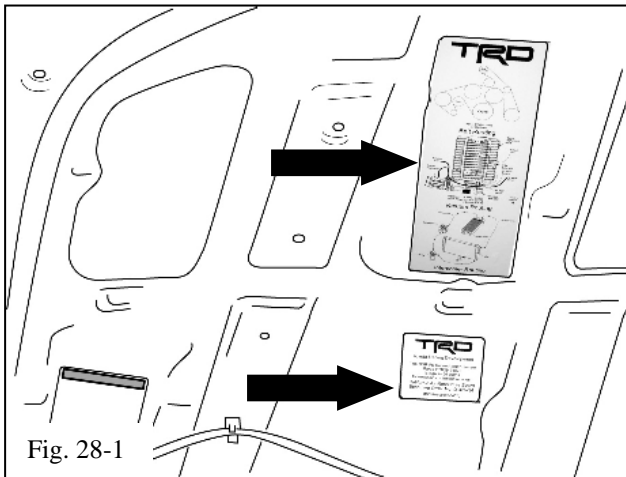
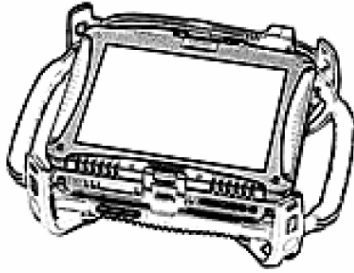


Fig. 28-1

- (5) Select the test “Control the Fuel Pump/Speed” from the list of tests and click “OK”.
- (6) The screen will show a data list and a small window that tells the status of the fuel pump. Initially, the fuel pump will be “OFF”. Turn the fuel pump on and let it run for about 3 minutes. You can use this time to check for any fuel system leaks.
- (7) When priming is complete, exit the test and prepare for ECU re-flashing.

NOTE: The fuel system priming function was written for use with TIS Techstream v10.30.029. If you do not have TIS Techstream, consult with the manufacturer of the scan tool you are using to perform the fuel priming function.

29. Re-flash the ECU.



- (a) The proper procedure to re-flash the ECU (Engine Control Unit) is explained in Technical Service Bulletin [T-SB-0012-13](#), titled “Techstream ECU Flash Reprogramming Procedure” located on TIS (Toyota Information System).
- (b) Use the TIS Calibration Update Wizard to download the correct vehicle ECU Calibration Update (see table below) from TIS into the Toyota Techstream.
- (c) Follow the re-flashing procedure outlined in [T-SB-0012-13](#).

NOTE: Use Techstream v10.30.029 or later.

NOTE: The GR8 Battery Charger **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5 volts while flash reprogramming the vehicle.

For details on how to use the GR8 Battery Charger please refer to the GR8 Instructions Manual located on TIS, Diagnostics-Battery.

STOP NOTE: The vehicle WILL NOT operate properly without this ECU update.

| Model | Engine | Year | Drive | Tow Package | Target Calibration | SC Calibration |
|----------|--------------------|------|----------|-------------|--------------------|----------------|
| Tundra | 3UR-FE 5.7L V-8 | 2007 | 2WD | NO | 30C57000 | 3YWF8200 |
| | | | | | 30C57100 | |
| | | | | | 30C57200 | |
| | | | | | 30C57300 | |
| | | | | | 30C57400 | |
| | | | | | 3YWF0700 | |
| | | | | | 3YWF1500 | |
| | | | | | 3YWF3100 | |
| | | | | | 3YWF7600 | |
| | | | | YES | 30C58000 | 3YWF8300 |
| | | | | | 30C58100 | |
| | | | | | 30C58200 | |
| | | | | | 30C58300 | |
| | | | | | 30C58400 | |
| | | | 3YWF0800 | | | |
| | | | 3YWF1600 | | | |
| | | | 3YWF3200 | | | |
| | | | 3YWF7700 | | | |
| | | | 4WD | NO | 30C59000 | 3YWF8000 |
| | | | | | 30C59100 | |
| | | | | | 30C59200 | |
| | | | | | 30C59300 | |
| | | | | | 30C59400 | |
| | | | | | 3YWF0500 | |
| | | | | | 3YWF1300 | |
| | | | | | 3YWF2900 | |
| | | | | YES | 30C60000 | 3YWF8100 |
| | | | | | 30C60100 | |
| 30C60200 | | | | | | |
| 30C60300 | | | | | | |
| 30C60400 | | | | | | |
| 3YWF0600 | | | | | | |
| 3YWF1400 | | | | | | |
| 3YWF3000 | | | | | | |
| 3YWF7500 | | | | | | |

| Model | Engine | Year | Drive | Tow Package | Target Calibration | SC Calibration |
|----------|-----------------|-----------|-------|-------------|--------------------|----------------|
| Tundra | 3UR-FE 5.7L V-8 | 2008/2009 | 2WD | NO | 30C82000 | 3YWF8600 |
| | | | | | 30C82100 | |
| | | | | | 30C82200 | |
| | | | | | 30CA3000 | |
| | | | | | 30CA3100 | |
| | | | | | 30CA3200 | |
| | | | | | 30CA3300 | |
| | | | | | 3YWF0700 | |
| | | | | | 3YWF1900 | |
| | | | | | 3YWF2300 | |
| | | | | | 3YWF3500 | |
| | | | | | 3YWF4500 | |
| | | | | | 3YWF5300 | |
| | | | | 3YWF7200 | | |
| | | | | YES | 30C83000 | 3YWF8700 |
| | | | | | 30C83100 | |
| | | | | | 30C83200 | |
| | | | | | 30CA4000 | |
| | | | | | 30CA4100 | |
| | | | | | 30CA4200 | |
| | | | | | 30CA4300 | |
| | | | | | 3YWF0800 | |
| | | | | | 3YWF2000 | |
| 3YWF2400 | | | | | | |
| 3YWF3600 | | | | | | |
| 3YWF4600 | | | | | | |
| 3YWF5400 | | | | | | |
| 3YWF7300 | | | | | | |

| Model | Engine | Year | Drive | Tow Package | Target Calibration | SC Calibration |
|----------|--------------------|-----------|-------|-------------|--------------------|----------------|
| Tundra | 3UR-FE 5.7L V-8 | 2008/2009 | 4WD | NO | 30C84000 | 3YWF8400 |
| | | | | | 30C84100 | |
| | | | | | 30C84200 | |
| | | | | | 30CA5000 | |
| | | | | | 30CA5100 | |
| | | | | | 30CA5200 | |
| | | | | | 30CA5300 | |
| | | | | | 3YWF0500 | |
| | | | | | 3YWF1700 | |
| | | | | | 3YWF2100 | |
| | | | | | 3YWF3300 | |
| | | | | | 3YWF4300 | |
| | | | | | 3YWF5100 | |
| | | | | | 3YWF7000 | |
| | | | | YES | 30C85000 | 3YWF8500 |
| | | | | | 30C85100 | |
| | | | | | 30C85200 | |
| | | | | | 30CA6000 | |
| | | | | | 30CA6100 | |
| | | | | | 30CA6200 | |
| | | | | | 30CA6300 | |
| | | | | | 3YWF0600 | |
| | | | | | 3YWF1800 | |
| | | | | | 3YWF2200 | |
| 3YWF3400 | | | | | | |
| 3YWF4400 | | | | | | |
| 3YWF5200 | | | | | | |
| 3YWF7100 | | | | | | |

| Model | Engine | Year | Drive | Tow Package | Target Calibration | SC Calibration |
|----------|--------------------|----------|----------|-------------|--------------------|----------------|
| Tundra | 3UR-FE 5.7L V-8 | 2010 | 2WD | NO | 30CD0000 | 3YWF9000 |
| | | | | | 30CD0100 | |
| | | | | | 30CD0200 | |
| | | | | | 3YWF2700 | |
| | | | | | 3YWF4100 | |
| | | | | | 3YWF4900 | |
| | | | 3YWF6700 | | | |
| | | | YES | 30CD1000 | 3YWF9100 | |
| | | | | 30CD1100 | | |
| | | | | 30CD1200 | | |
| | | | | 30CD1300 | | |
| | | | | 3YWF2800 | | |
| | | 3YWF4200 | | | | |
| | | 3YWF5000 | | | | |
| | | 3YWF6500 | | | | |
| | | 4WD | NO | 30CD2000 | 3YWF8800 | |
| | | | | 30CD2100 | | |
| | | | | 30CD2200 | | |
| | | | | 3YWF2500 | | |
| | | | | 3YWF3900 | | |
| | | | | 3YWF4700 | | |
| | | | 3YWF6600 | | | |
| | | | YES | 30CD3000 | 3YWF8900 | |
| | | | | 30CD3100 | | |
| 30CD3200 | | | | | | |
| 30CD3300 | | | | | | |
| 3YWF2600 | | | | | | |
| 3YWF4000 | | | | | | |
| 3YWF4800 | | | | | | |
| 3YWF6400 | | | | | | |
| 2011 | 2WD | NO | 30CG0000 | 3YWF6100 | | |
| | | | 3YWF3700 | | | |
| | | YES | 30CG1000 | 3YWF6300 | | |
| | | | 30CG1100 | | | |
| | | | 3YWF3800 | | | |
| | | | 3YWF6200 | | | |
| | 4WD | NO | 30CG0001 | 3YWF6101 | | |
| | | | 3YWF3701 | | | |
| | | YES | 30CG1001 | 3YWF6301 | | |
| | | | 30CG1101 | | | |
| | | | 3YWF3801 | | | |
| | | | 3YWF6201 | | | |

| Model | Engine | Year | Drive | Tow Package | Target Calibration | SC Calibration |
|----------|--------------------|-----------|----------|-------------|--------------------|----------------|
| Tundra | 3UR-FE 5.7L V-8 | 2012/2013 | 2WD | NO | 30CJ5000 | 3YWF9400 |
| | | | | | 30CJ5100 | |
| | | | | | 30CJ5200 | |
| | | | | | 30CJ5300 | |
| | | | | | 3YWF5500 | |
| | | | | | 3YWF5700 | |
| | | | | | 3YWF5900 | |
| | | | | | 3YWF6800 | |
| | | | | | 30CJ5400 | |
| | | | | YES | 30CJ6000 | 3YWF9500 |
| | | | | | 30CJ6100 | |
| | | | | | 30CJ6200 | |
| | | | 30CJ6300 | | | |
| | | | 3YWF5600 | | | |
| | | | 3YWF5800 | | | |
| | | | 3YWF6000 | | | |
| | | | 3YWF6900 | | | |
| | | | 30CJ6400 | | | |
| | | | 4WD | NO | 30CJ5001 | 3YWF9401 |
| | | | | | 30CJ5101 | |
| | | | | | 30CJ5201 | |
| | | | | | 30CJ5301 | |
| | | | | | 3YWF5501 | |
| | | | | | 3YWF5701 | |
| 3YWF5901 | | | | | | |
| 3YWF6801 | | | | | | |
| 30CJ5401 | | | | | | |
| YES | 30CJ6001 | 3YWF9501 | | | | |
| | 30CJ6101 | | | | | |
| | 30CJ6201 | | | | | |
| | 30CJ6301 | | | | | |
| | 3YWF5601 | | | | | |
| | 3YWF5801 | | | | | |
| | 3YWF6001 | | | | | |
| | 3YWF6901 | | | | | |
| | 30CJ6401 | | | | | |

30. Test and Evaluate.





- (a) **IMPORTANT:** Check the serpentine belt drive systems for correct alignment on ALL pulleys before starting the engine.
- (b) Start the engine and let it idle.
- (c) Check the fuel system for any leaks.
- (d) Check the coolant system for any leaks.
 - (1) Set the A/C system as follows:

| | |
|-------------|------------------------|
| Fan Speed | Any setting except OFF |
| Temperature | Toward Warm |
| A/C Switch | OFF |
 - (2) Maintain the engine speed at 2,000 to 2,500 rpm and warm up the engine until the cooling fan operates.
 - (3) Squeeze the inlet and outlet radiator hoses several times by hand while warming up the engine.
- (e) Check the air intake system to ensure no leaks are present and for tightness of the clamps.
- (f) Stop the engine and wait for the coolant to cool down.
- (g) Carefully remove the radiator cap and check the coolant level inside the radiator and add coolant if necessary. Reinstall the radiator cap.
- (h) Check the coolant level inside the radiator reservoir. If it is below the full level, add coolant.
- (i) Check the coolant in the intercooler reservoir and add coolant if necessary.

- (j) Test drive the vehicle. If everything is okay, park and proceed with the next step. If not, troubleshoot as necessary
- (k) Use the Techstream diagnostic to check for ECU error codes.
- (l) Place the supercharger noise mirror hanger card (Item H7) on the inside rearview mirror.
- (m) Complete and mail the warranty registration card (Item H6).

NOTE: The installation of the supercharger is not complete until this card has been returned to TRD.

- (n) Place all removed factory hardware, components, and this instruction sheet into the original TRD box and give it to the customer or place it in the vehicle cargo compartment
- (o) **IMPORTANT:** Review with the customer/end-user that the supercharger will make a slight noise at idle that increases as the throttle is opened and that this is normal.
- (p) **IMPORTANT:** Review with the customer/end-user that it is imperative that only **91octane or higher fuel** be used after the supercharger is installed.   Performance will suffer and engine damage is possible otherwise.
- (q) Place this copy (or a clean copy) of supercharger installation instructions into the glove box for future owner use or reference.

- (r) **If your state requires an Emissions Compliance Label, one may be ordered through your Toyota dealer or the Toyota Materials Distribution Center (MDC) 310-468-9800 or MDC@toyota.com.**
- (s) This TRD Supercharger Kit has received a 50-State Emissions Compliance via the California Air Resources Board (CARB). Not all states require the Emissions Compliance Label but TRD does recommend ordering one. To receive the proper Supercharger Emissions Compliance Label for this TRD Supercharger kit, please order MDC label part number **00602-34158** which will apply to 2005-2013 Toyota Tundra with 5.7L V-8 Gasoline Only engines. Proof of product purchase or ownership may be required.

TOYOTA TUNDRA 2014 - SUPERCHARGER FIT KIT
 Checklist - these points **MUST** be checked to ensure a quality installation.

| Check: | Look For: |
|--|---|
| <p><u>Accessory Function Checks</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Proper fuel used <input type="checkbox"/> All fluid levels & leaks <input type="checkbox"/> Serpentine belt alignment <input type="checkbox"/> Fuel line connections <input type="checkbox"/> Engine fan clutch clearance <input type="checkbox"/> Engine ECU re-flash | <p>Use 91 octane unleaded fuel (R+M /2)</p> <p>Inspect engine cooling system and supercharger cooling system for proper fluid type and level</p> <p>Inspect serpentine drive belts for proper alignment, tension, and clearance from engine compartment items.</p> <p>Inspect all fuel rails, injectors, injector seals, pressure regulator, and fuel line connectors for leaks</p> <p>Inspect engine fan clutch for free movement and clearance from radiator</p> <p>Ensure the proper calibration file was used for the vehicle</p> |
| <p><u>Vehicle Function Checks</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Fuel leaks <input type="checkbox"/> Coolant leaks <input type="checkbox"/> Drive test | <p>No Fuel leaks are present</p> <p>No coolant leaks are present</p> <p>Vehicle starts up easily, no DTC trouble codes are present, and drivability is smooth and predictable; place copy of installation instructions into glove box for customer use and reference</p> |
| <p><u>Vehicle Appearance Check</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> After accessory installation and removal of protective cover(s), perform a visual inspection. | <p>Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMS Accessory Quality Shipping Standard.)</p> |