

## Preparation

**Part Number: PTR03-89100****Kit Contents**

Item #	Quantity Req'd.	Description
1	1	Air Filter (P/N: PTR43-00083)
2	1	Upper Air Box
3	1	Lower Air Box
4	1	Hump Coupler
5	1	Throttle Body Coupler
6	1	Air Inlet Tube
7	1	Air Flow Accelerator

**Hardware Bag Contents**

Item #	Quantity Req'd.	Description
8	1	#52 Hose Clamp
9	1	#56 Hose Clamp
10	2	#72 Hose Clamp
11	1	Plastic Nipple, 1/8"
12	1	Plastic Nipple, 5/8"
13	1	Hose, 5/32" ID X 20"
14	1	Convolute Split Loom, 15"
15	2	Air Box Clip
16	1	Filter Minder Grommet
17	1	Filter Minder
18	3	Nylon Tie Strap, Tree Mount
19	3	Nylon Tie Strap, 6"
20	1	Bracket, Wire Harness
21	1	Plug, Plastic Tree Clip
22	2	Bolt, Socket M4 X 0.7 X 8mm

**Additional Items Required For Installation**

Item #	Quantity Req'd.	Description
1		
2		
3		

**Conflicts**

None
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**General Applicability**

2010 and 2011 4Runner & FJ Cruiser (must have 4.0L V6 with roller rocker-style valvetrain)
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**Recommended Sequence of Application**

Item #	Accessory
1	
2	
3	

\*Mandatory

**Recommended Tools**

Personal & Vehicle Protection	Notes
Blankets or Fender Covers	
Special Tools	Notes
Installation Tools	Notes
Nut driver	8mm or 5/16"
10mm socket	1/4" drive
12mm socket	1/4" drive
1/4" drive ratchet	
1/4" drive extension	6" long
Phillips head screwdriver	#2
Screwdriver, std.	#2
Allen wrench	3mm
Torque wrench	0 – 60 in-lbf
Special Chemicals	Notes
Glass Cleaner	
Silicone Spray Lubricant	
Thread Locking Fluid	Blue

**Vehicle Service Parts** (may be required for reassembly)

Item #	Quantity Req'd.	Description
1		
2		
3		

**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.**Please see Page 18 for important "Care and Maintenance" information!**

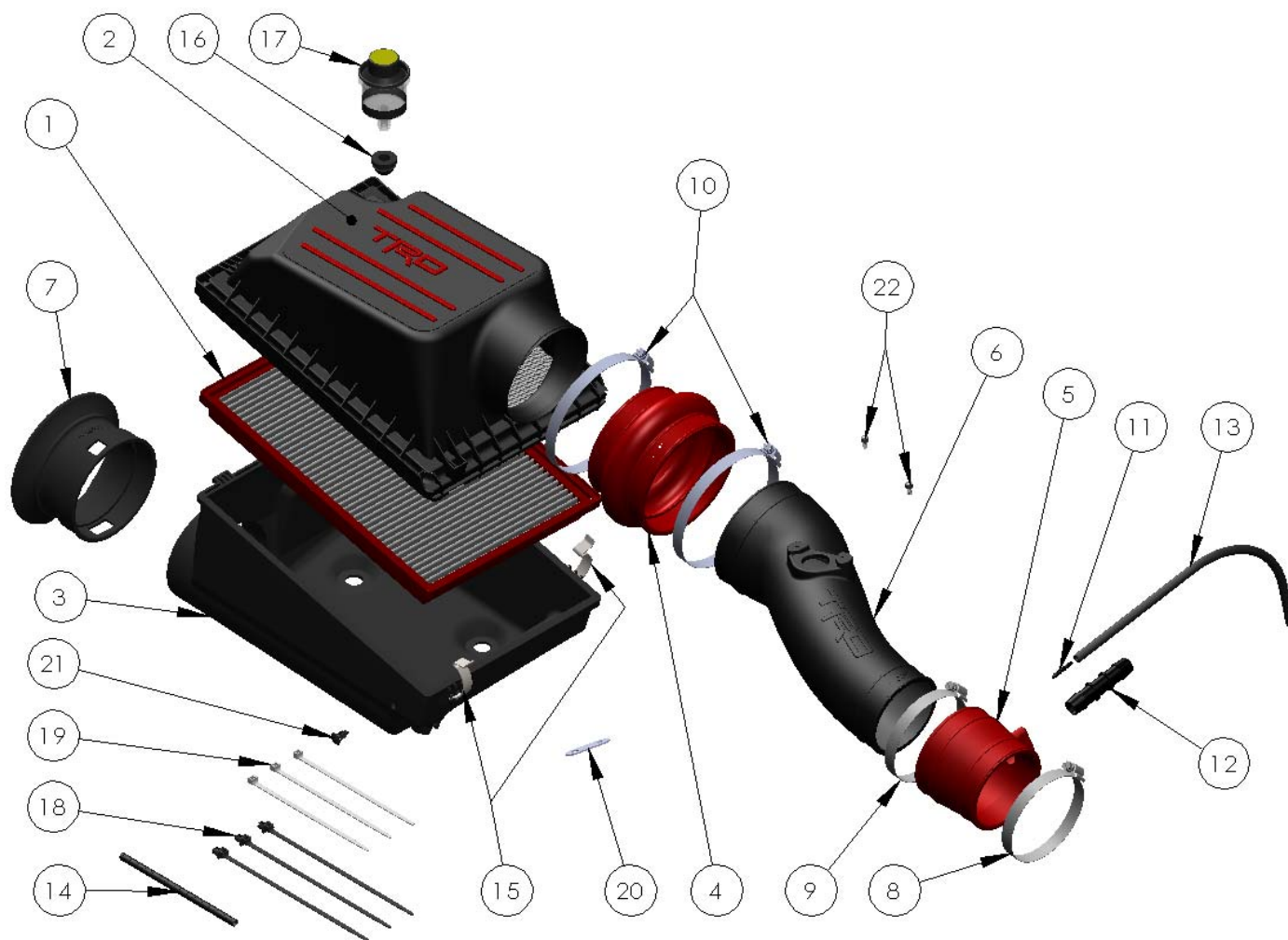
## Procedure

**Emissions Compliance Information:**

A new process has been implemented. The Emissions Label is no longer included in the Performance Air Intake Kit.

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

This TRD Performance Air Intake 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 Emissions Compliance Label for this TRD Performance Air Intake Kit, please order MDC part number **PT965-35110-0E**. Proof of ownership may be required.



## Procedure

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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.).

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

### 1. Prepare the Vehicle and Parts.

(a) Check the kit for contents and damage.



(b) Read the instructions completely and familiarize yourself with the installation before beginning.

(c) Open the hood.



(d) Apply vehicle protection to prevent damage to painted surfaces.



(e) Remove the negative battery cable from the terminal.



(f) Ensure all parts of the Cold Air Intake are clean and free of debris. Use compressed air to blow out the inside of the tube and the air box.

### 2. Remove the Factory Components.

(a) Lift the front of the engine cover off of the studs and pull forward to disengage the rear mounts to remove the engine cover (Fig. 2-1).

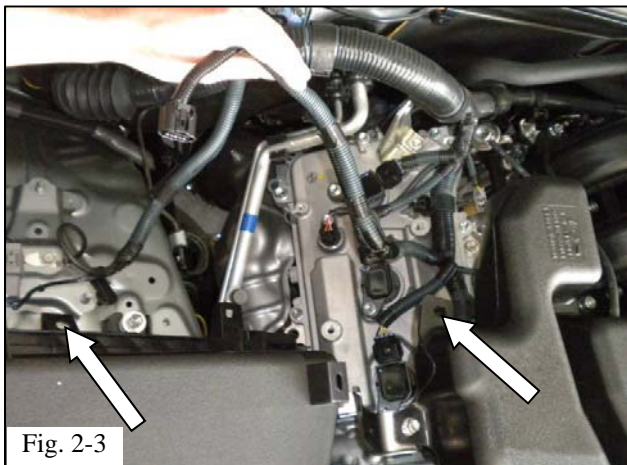


Fig. 2-1

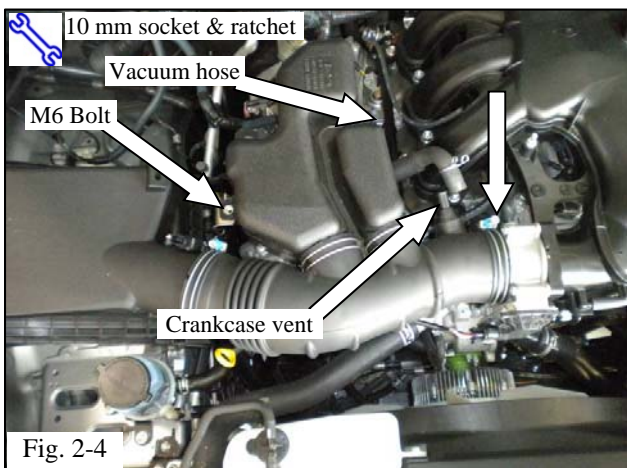
## Procedure



- (b) Disconnect the mass airflow plug and wire harness clip (Fig. 2-2).

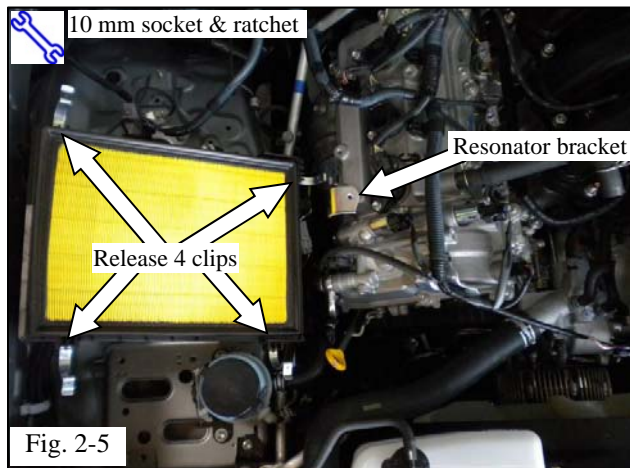


- (c) Unclip the remaining wire harness clips (Fig. 2-3).

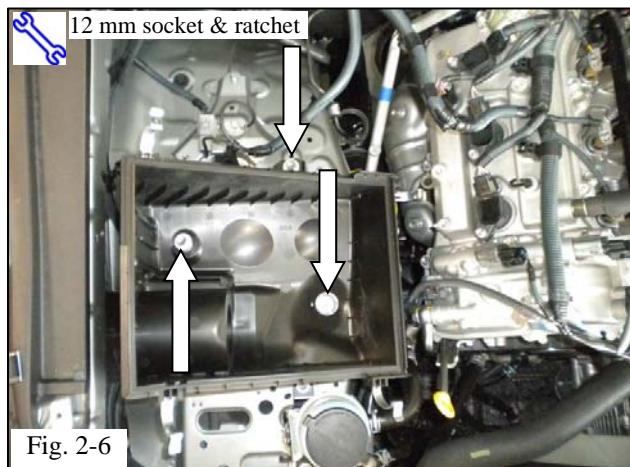


- (d) Loosen the hose clamp at the throttle body with a 10mm socket and ratchet assembly (Fig. 2-4).
- (e) Disconnect the crankcase vent and remove the M6 bolt and vacuum line from the resonator (Fig. 2-4).
- (f) Unclip and remove the air box top with the intake tube and resonators.

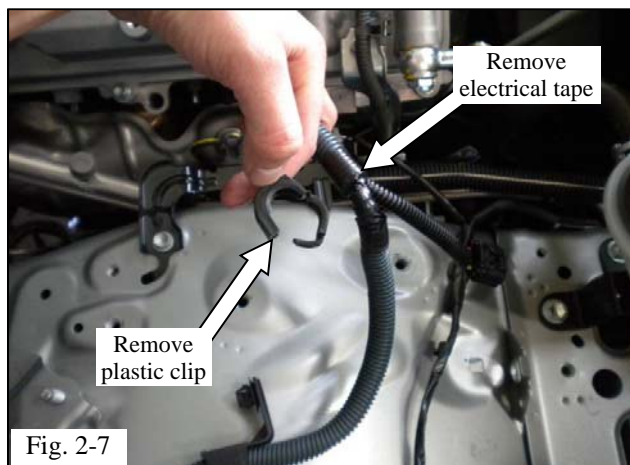
## Procedure



- (g) Remove the M6 bolt and remove the resonator mounting bracket (Fig. 2-5).



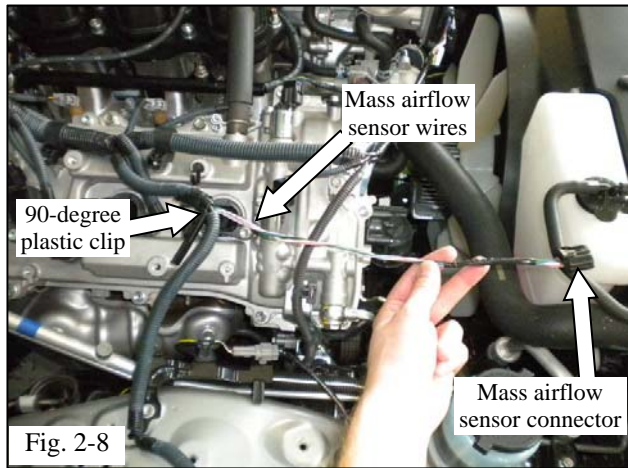
- (h) Remove the factory filter and the three M8 bolts securing the lower air box to the wheel well (Fig. 2-6).



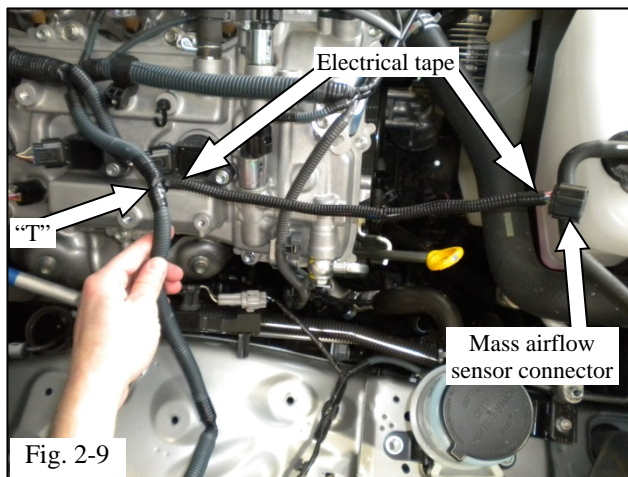
- (i) Unwrap the electrical tape from the mass airflow sensor wire harness and remove the plastic clip (Fig. 2-7).

**CAUTION:** Take care not to damage any of the wires inside the wire harness.

## Procedure



- (j) Remove the mass airflow sensor wires from the main wire harness split loom to the 90-degree plastic clip (Fig. 2-8).



- (k) Carefully cut around the main wire harness loom to allow the mass airflow sensor wires to be routed out and install the supplied split loom on the mass airflow wires (Fig. 2-9).

**⚠ CAUTION:** Take care not to cut any wires.

- (l) Remove the 90-degree plastic clip.
- (m) Tape the ends of the split loom with electrical tape to keep the loom in place (Fig. 2-9).
- (n) Tape the area where the mass airflow sensor wires form a “T” with the main wire harness (Fig. 2-9).

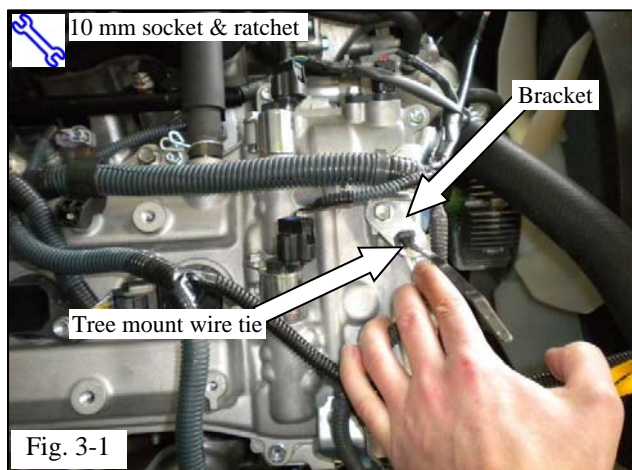
### 3. Install the TRD Air Intake.

- (a) Install the provided bracket and tree mount wire tie (Fig. 3-1).

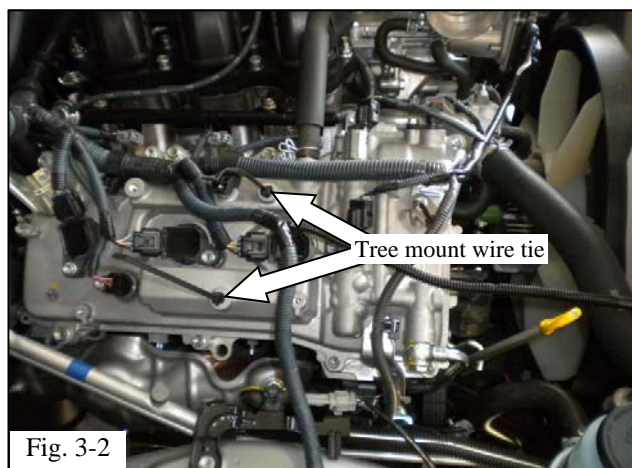
(1) Remove the M6 bolt and place the provided bracket on top of the original bracket.

(2) Use the M6 bolt to secure both brackets.

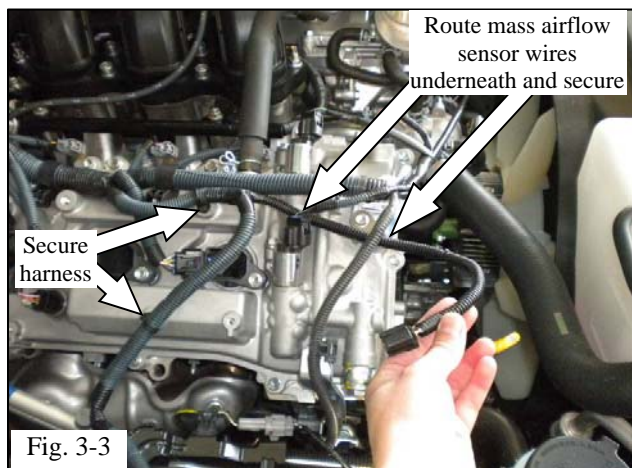
**Torque: 40 in-lbf (4.5 N-m)**



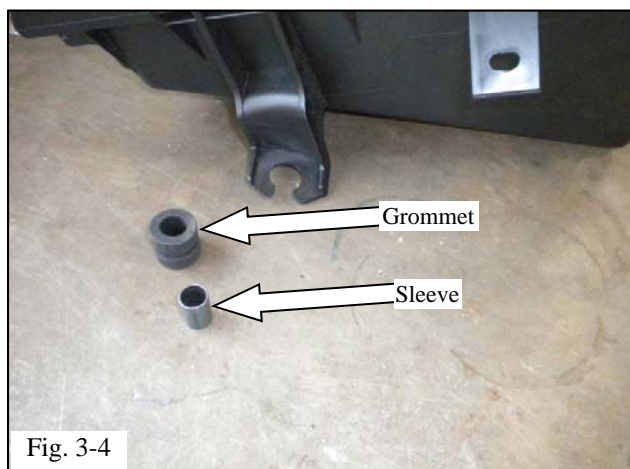
- (b) Install 2 tree mount wire ties in the M8 bolt holes on top of the passenger side valve cover (Fig. 3-2).



- (c) Use the wire ties installed in the previous steps to secure the wiring (Fig. 3-3).
- (d) Route the mass airflow sensor wires under the other wires and attach them with the tree mount wire tie installed in Step 3(a) (Fig. 3-3).

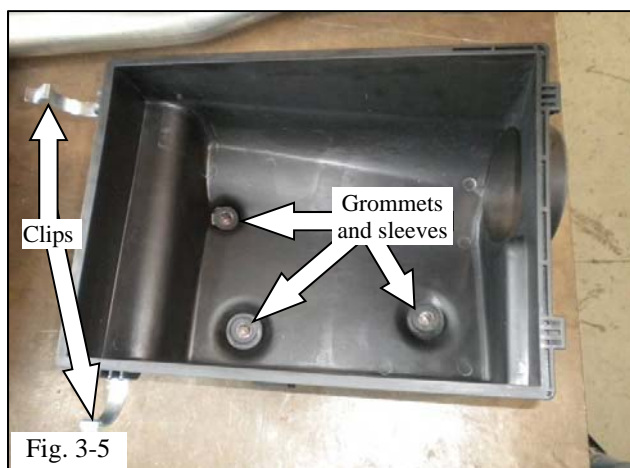


## Procedure



- (e) Remove the 3 rubber grommets and sleeves from the factory lower air box (Fig. 3-4).

**HINT:** Push the sleeve out first, then remove the rubber grommet.



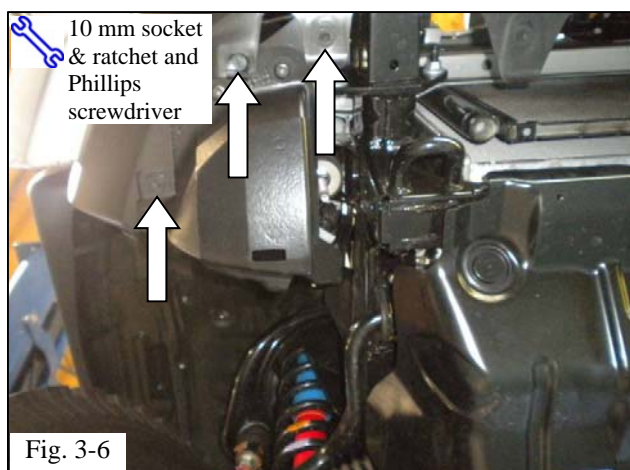
- (f) Install the three factory rubber grommets and sleeves as well as the two supplied air box clips in the TRD lower air box (Fig. 3-5).

(1) Install the rubber grommet first then push the steel sleeve into place (Fig. 3-5).

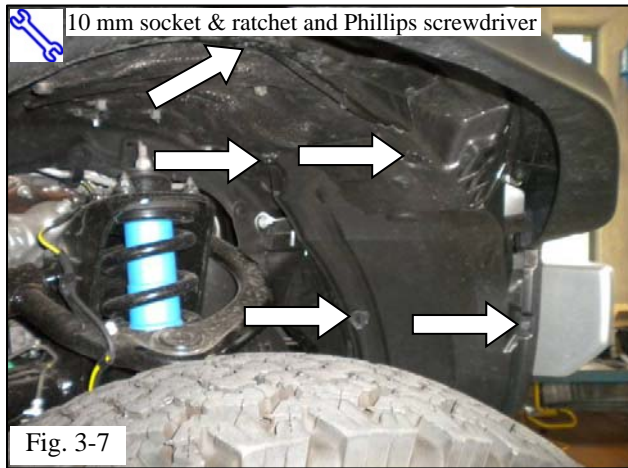
(2) Install the air box clips by pulling straight up on the clips to engage the air box (Fig. 3-5).

- (g) For 4Runner, skip to Step 3(n). For FJ Cruiser, continue to Step 3(h).

(h) From under the passenger side front bumper, remove the three screws holding the fender liner in place (Fig. 3-6).



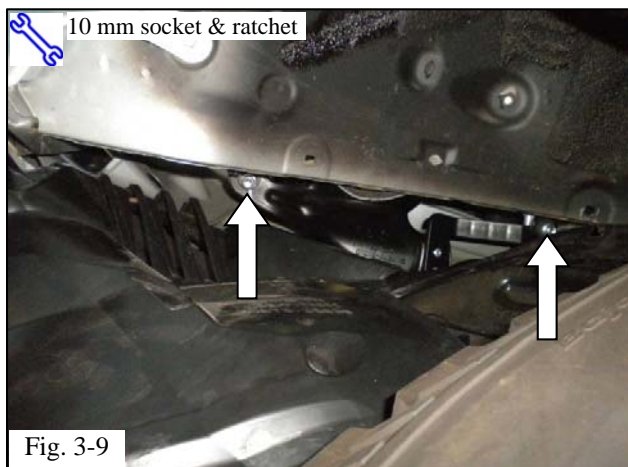
## Procedure



- (i) From inside the wheel well, remove the clips and screws in the locations indicated to allow access to the area above the fender liner (Fig. 3-7).



- (j) Pull the inner fender liner out to allow access to the area directly above the tire (Fig. 3-8).



- (k) Remove the two M6 bolts holding the air inlet duct in place (Fig. 3-9).

Procedure

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Fig. 3-10

- (l) Remove the air inlet duct (Fig. 3-10 and Fig. 3-11).

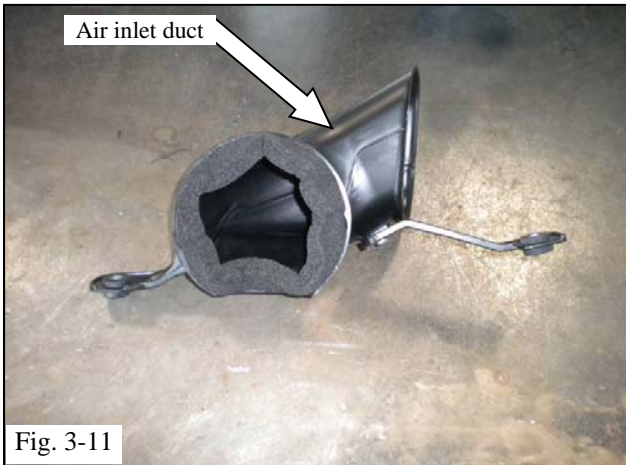


Fig. 3-11



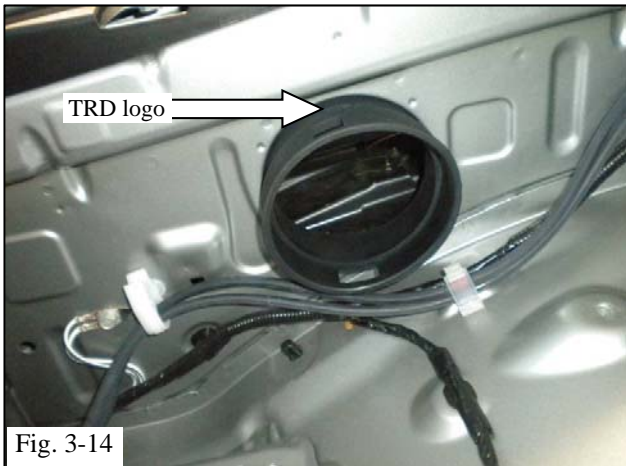
Fig. 3-12

- (m) Reinstall the fender liner (Fig. 3-12).

## Procedure



- (n) Insert the air flow accelerator into the air intake hole in the inner fender (Fig. 3-13).
- (1) Compress the air flow accelerator so that it fits through the hole (Fig. 3-13).

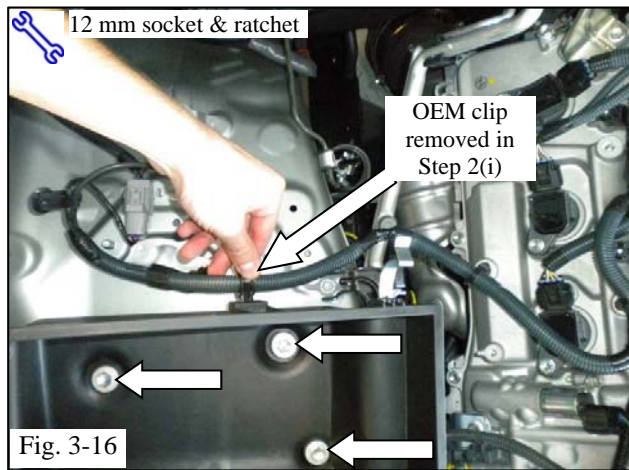


- (2) The TRD Logo should be facing up and into the engine compartment (Fig. 3-14).



- (o) Slide the neck of the lower air box into the air flow accelerator and be sure that the tabs on the air box line up with the notches in the rubber part (Fig. 3-15).

## Procedure



- (p) Secure the TRD lower air box with the three M8 bolts removed in Step 2(h) (Fig. 3-16).

**Torque: 60 in-lbf (6.7 N-m)**

- (q) Install the factory clip removed in Step 2(i) on the wire harness (Fig. 3-16).



- (r) Clip the wire harness to the side of the lower air box (Fig. 3-17).



- (s) Install the TRD air filter. Press it all the way down into the lower air box (Fig. 3-18).

## Procedure



Fig. 3-19

- (t) Insert the filter minder grommet into the air box lid (Fig. 3-19). A small amount of silicone spray or similar lubricant will aid installation.



Fig. 3-20

- (u) Insert the filter minder into the grommet installed in Step 3(t) (Fig. 3-20).
- (1) Press the filter minder all the way down until it bottoms out on the grommet.
  - (2) A small amount of silicone spray or similar lubricant will aid installation.



Fig. 3-21

- (v) Install the hump hose coupler onto the upper air box using the two #72 hose clamps (Fig. 3-21). Slide the coupler all the way onto the neck of the air box until it bottoms out on the lip inside the coupler.

## Procedure



(w) Install the upper air box by lowering the hinge side into place first (Fig. 3-22).

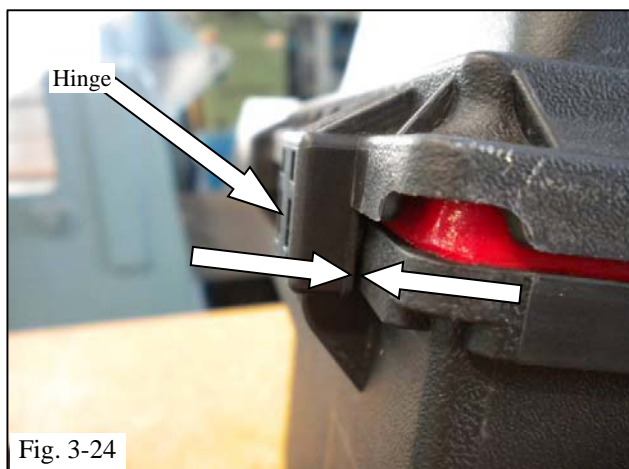
(1) Make sure that the hinge pieces on the upper air box fully engage with the corresponding pieces on the lower air box (Fig. 3-22).

(2) To achieve a proper fit, align the upper air box hinge pieces with the tabs on the lower air box, then slide it toward the driver's side of the vehicle before rotating the upper air box down into position (Fig 3-22).

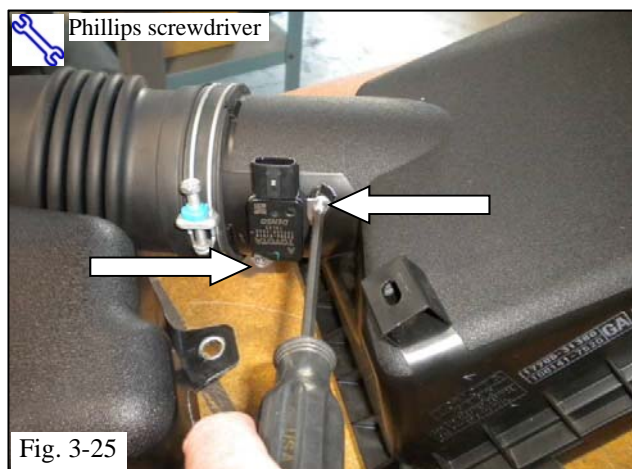
(3) Secure the upper air box with the two clips installed in Step 3(f) (Fig. 3-23).



**CAUTION:** Ensure that the hinge side is fully engaged before attempting to close the clips (Fig. 3-24).

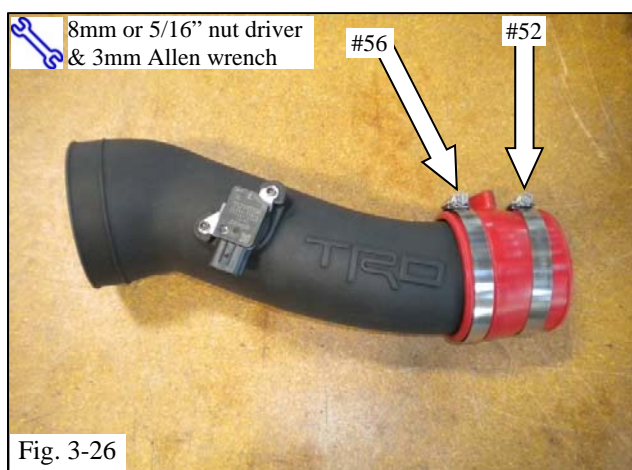


## Procedure



- (x) Remove the mass airflow sensor from the factory upper air box by removing the two Philips head screws (Fig. 3-25).

**CAUTION:** Take care to not damage the sensor.



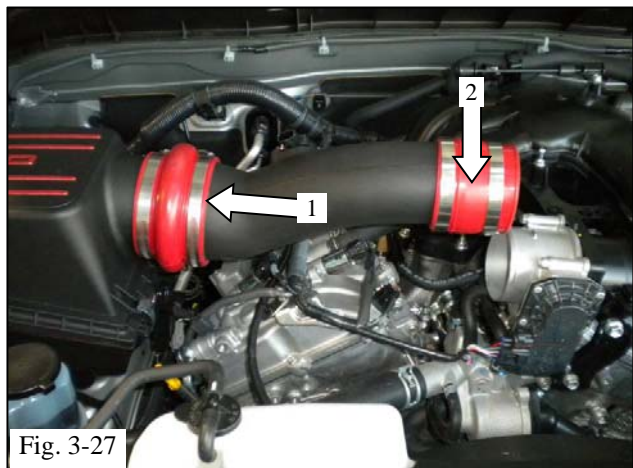
- (y) Install the mass airflow sensor and throttle body coupler onto the TRD intake tube (Fig. 3-26).

- (1) Apply a small amount of blue thread locking fluid on the screws to prevent them from loosening.
- (2) Install the sensor with the two supplied M4 screws using a 3mm Allen wrench. Take care to not damage the O-ring on the sensor.

**Torque: 10 in-lbf (1.1 N-m)**

- (3) Slide the throttle body coupler onto the end of the TRD inlet pipe with a #52 and a #56 hose clamp (Fig. 3-26).
- (4) With the hose clamps loose, slide the coupler all the way onto the pipe as far as it will go. Silicone spray or similar lubricant will ease the installation (Fig. 3-26).

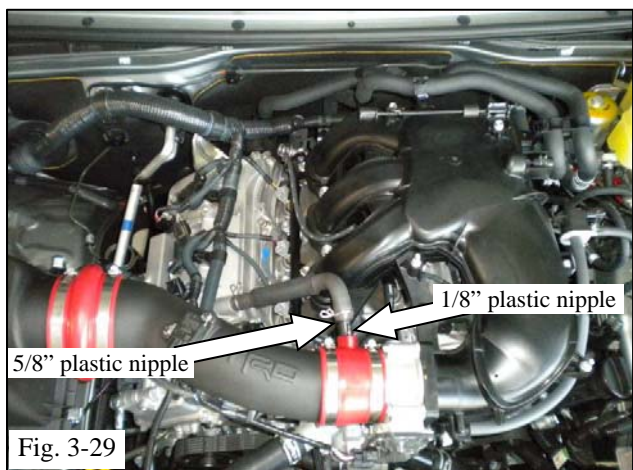
## Procedure



- (z) Install the intake pipe assembly into the coupler on the air box (Fig. 3-27).



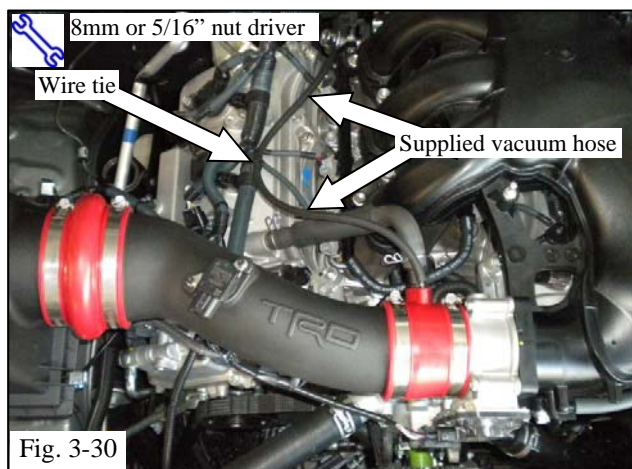
- (aa) Rotate the intake pipe assembly down into position and slide the throttle body coupler onto the throttle body (Fig. 3-28). Slide the throttle body coupler all the way out until it hits the stops.



- (bb) Install the two supplied plastic nipples into the throttle body coupler and connect the factory crankcase vent hose (Fig. 3-29).

**⚠ NOTE:** Clock the throttle body coupler to leave clearance between the crankcase vent hose and the intake manifold (Fig. 3-29).

## Procedure



(cc) Replace the factory vacuum hose with the longer one supplied in the kit (Fig. 3-30).

- (1) Connect the vacuum hose between the fuel pressure regulator and the small plastic nipple on the throttle body coupler.
- (2) Secure the hose to the wire harness using the supplied nylon tie strap (Fig. 3-30).
- (3) Adjust the positioning of the intake tube until proper fit is achieved, then tighten all four hose clamps (Fig. 3-30).

**Torque: 30 in-lbf (3.4 N-m)**

(dd) Plug in the mass airflow sensor and do a final check that all hose clamps and hardware are tight (Fig. 3-31).



(ee) Install the supplied plastic plug in the hole in the front of the lower air box (Fig. 3-32).

(ff) Perform a final check over and ensure that all hoses and wires are secure.



## Procedure



Fig. 3-33

(gg) Install the engine cover by engaging the rear mounts, rotating it down and snapping it onto the front mounts (Fig. 3-33).

(hh) Reinstall the negative battery cable to the negative terminal. Tighten the nut to 48 in-lbf (5.4 N-m).



**Torque: 48 in-lbf (5.4 N-m)**

(ii) **Installer** – The installation manual contains important “Care and Maintenance” information. Place the entire instruction manual in the glove box for the owner’s future reference.

#### 4. Care and Maintenance Instructions.

(a) Monitor and clean the filter.

(1) The TRD Cold Air Intake System has an air filter restriction gauge that indicates when the air filter needs service (Fig. 4-1).

(2) As the vehicle is driven, the gauge will change (Fig. 4-2).



Fig. 4-1

Fig. 4-2


## Procedure



- (3) When the air filter restriction gauge yellow indicator reaches the service filter lettering (Fig. 4-3), use the TRD filter cleaning system (Toyota P/N PTR43-00088) to service the filter and maintain optimum performance.



**CAUTION:** Do not over-oil the filter. It could contaminate the mass airflow sensor and cause the MIL (Malfunction Indicator Lamp) to illuminate and require non-warrantable repairs.

- (4) Reset the filter gauge after cleaning the filter (Fig. 4-4).
- (b) If necessary, clean the intake system.
- (1) The TRD intake system has a natural finish on the tube and air filter housing.
- (2) To clean the TRD intake system, simply spray it with window cleaner and wipe it off with a soft, clean terry-cloth towel.
-  (3) NEVER use harsh chemicals or metal polish on the TRD intake system. Harsh chemicals and metal polishes will permanently damage the finish.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:	Look For:
<p><u>Accessory Function Checks</u></p> <p><input type="checkbox"/> Start/drive the vehicle</p> <p><input type="checkbox"/> Over-oiled air filter</p>	<p>If the MIL (Malfunction Indicator Lamp) comes on:</p> <ul style="list-style-type: none"> <li>• Full engagement of mass air fuel sensor connector</li> <li>• Tightness of all clamps</li> <li>• Correctly installed valve cover breather hose</li> <li>• Over-oiled air filter</li> </ul> <p>Clean the air filter as indicated in the TRD Filter Cleaning Kit and apply the proper amount of oil</p> <p>Replacement (non-warrantable) of the mass airflow sensor may be required</p>
<p><u>Vehicle Function Checks</u></p> <p><input type="checkbox"/> MIL (Malfunction Indicator Lamp) stays on</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Contact your Toyota dealer immediately</p>
<p><u>Vehicle Appearance Check</u></p> <p><input type="checkbox"/> After accessory installation and removal of protective cover(s), perform a visual inspection.</p>	<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>