



HI-FLOW FUEL RAIL

Installation Instructions for 08-10 Scion tC & xB
25-170 AEM Fuel Rail
2-661 -6 AN Hose adaptor

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Part Number: 10-170
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Read and understand these instructions **BEFORE** attempting to install this product.

! WARNING

- Do not smoke while working on the fuel system.
- Keep open flames or sparks away from your work area.
- Be sure to relieve fuel pressure while engine is off.

Parts Included in kit# 25-170, Scion 2008-2010 xB & tC

- 1-Fuel Rail
- 5-Injector O rings
- 1-Crush Washer
- 1-End cap
- 1-1/8 NPT hex plug

Tools Required

- 10,12 & 14 mm Combination wrenches
- 10,12 & 14 mm Socket wrenches
- Medium Phillips and flat blade screw drivers
- Small amount of lubrication oil

Time for installation

- xB 1 hour, 45 minutes
- tC 1 Hour

1) Getting started

- a) Make sure vehicle is parked on a level surface.
- b) Set parking brake.
- c) **Disconnect the negative cable from the negative battery terminal.**
- d) If engine has run within the past two hours let it cool down.
- e) Clean area around the fuel rail and fuel injectors so that dirt cannot get into the engine.

Note it is recommended to:

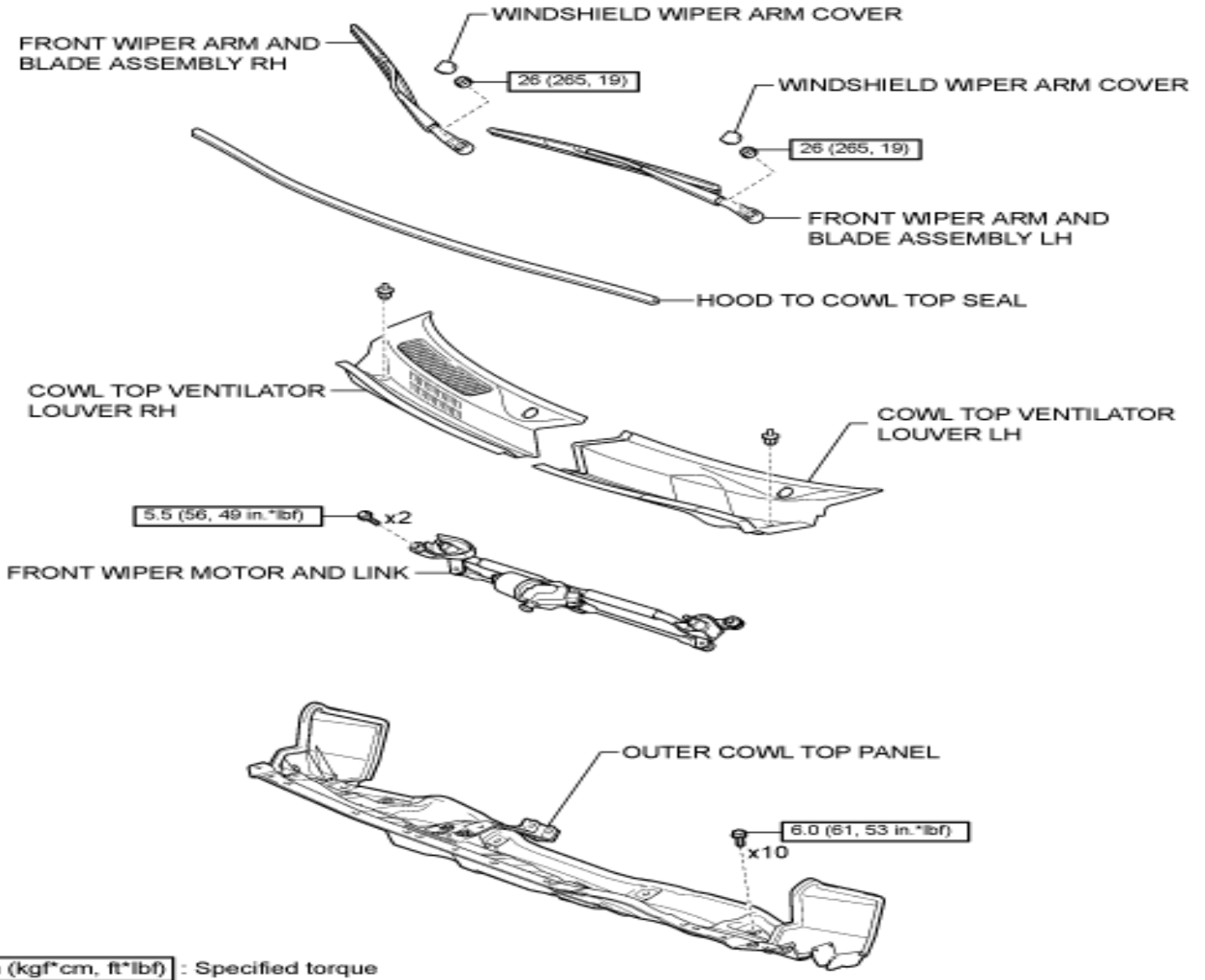
- Replace fuel injector O-rings.

2) Relieving fuel pressure

- a) Before removing any fuel system parts, take precautions to prevent gasoline spillage.
 - i) Remove fuel Filler Cap to relieve any fuel tank pressure.
- b) As some pressure remains in the fuel line even after taking precautions to prevent gasoline spillage, use a piece of cloth to prevent gasoline splashes when disconnecting the fuel line.

3) Scion xB removal of wiper tray assembly

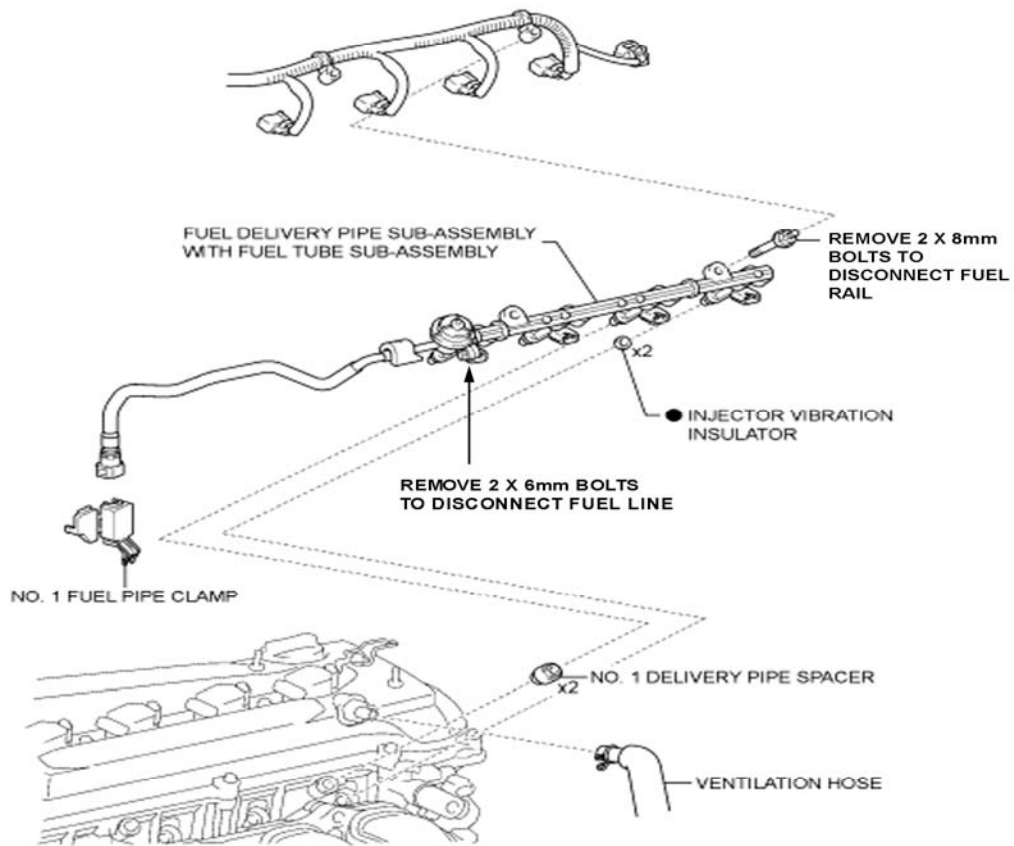
- a) Installation of the fuel rail **on the xB** will require the removal and replacement of the plastic tray and windshield wiper system in order to install the fuel rail.
- b) Remove the plastic tray and windshield wiper system using the figure below as a guide.



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4) xB & tC fuel rail, and injector removal

- a) Disconnect the fuel inlet fitting at the fuel rail by removing the 2 10mm bolts on the inlet flange of the fuel rail. Slide the fitting out of the rail.
- b) Unplug the fuel injector leads and the VSV plug. Remove the wire stays from the hold down studs that secures the fuel rail to the engine.
- c) Move the harness out of the way
- d) Remove the fuel rail hold down studs. Carefully remove the fuel rail and injectors. Make sure the injector vibration insulators remain in the cylinder head. Be sure NOT to lose the plastic spacers that separate the fuel rail from the engine.



N*m (kgf*cm, ft*lbf) : Specified torque ● Non-reusable part

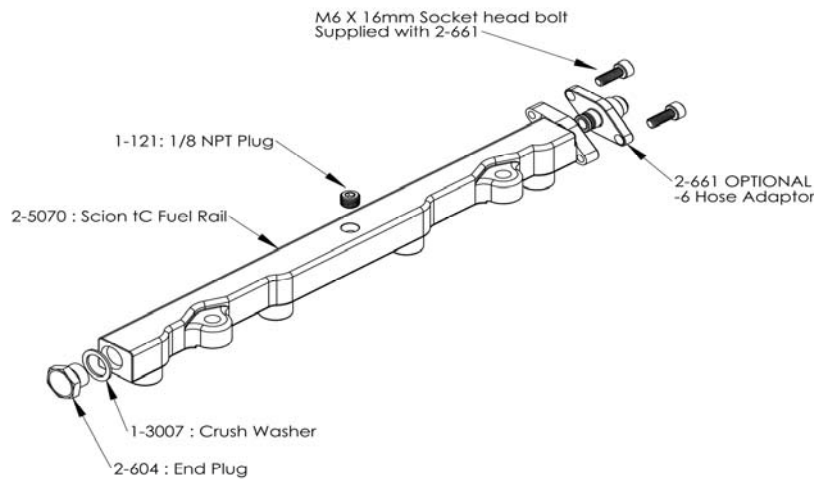
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5) Assembly of the AEM Fuel Rail

- a) Install the plug into the end of the fuel rail using the aluminum crush washer supplied in the kit.
- b) The AEM Fuel Rail comes with an additional fuel port. If you are running a wet nitrous oxide system, or a fuel pressure gauge, then this port may be used for the additional fuel supply. If you are not in the need of an additional fuel source install the supplied 1/8" NPT plug.

Note: When installing the tapered plug or any other tapered fitting into the AEM Fuel Rail, use only a lubricant or anti-seize on the threads. Do not under any circumstances use liquid Teflon or Teflon tape as a sealant for any tapered plug or tapered fitting in any fuel system.

- c) Remove the old o-rings that are on top of the injectors.
 - i) Coat the new o-rings supplied with the kit, with clean engine oil.
 - ii) Install the new o-rings onto the injectors.
- d) Insert the o-ring end of the injectors into the AEM Fuel Rail.
- e) Coat the sealing surface of the intake manifold side of the injectors with clean engine oil.
- f) Double check that the injector vibration insulators are in place.
- g) Install the fuel rail/injector assembly into the intake manifold. Ensure that the plastic delivery pipe spacers remain on the intake manifold.
- h) Install and tighten the fuel rail retainer bolts.
- i) Install the injector wire harness and reinstall the hold down caps back onto the fuel rail retainer bolts.
- j) Replace the old O-ring on the supply line with the one provided in the kit. Lubricate the O-ring and insert the tube into the AEM Fuel Rail.
- k) Using the original 6mm bolts, install the fuel supply line to the AEM Fuel Rail.
- l) Double check that the plug on the end of the fuel rail is tight.



6) Before Starting the Engine

- a) Connect the negative battery terminal.
- b) Turn the ignition switch to the on position for approximately two seconds. **Do not operate the starter.** Then turn the ignition switch to the off position.
- c) Repeat this procedure three times, and then check all components that were removed during installation for any signs of fuel leakage.
 - i) **Be sure to check the area around the fuel inlet fitting, the -6 plug and the 1/8" NPT plug. If these three items are not installed correctly then they may leak.**
- d) If there are signs of leakage you **MUST** correct the leak before proceeding.
- e) If there are no signs of leakage, then start engine and again check for leaks. If there is any sign of leaking you **MUST** repair the leak before driving the vehicle.
- f) Reassemble the removed parts in step 3 & 4(xB) or Step 4 tC.

7) 2-661 Optional -6 Fuel Hose fitting

- a) AEM optional -6 fuel hose fitting is supplied for racing applications where an alternative fuel pump may be used.
- b) When using a -6 line a flow through fuel return system can be used by remotely mounting an AEM 25-302BK fuel pressure regulator and using the 2-661 -6 Fuel Hose Fitting as the **discharge** to the regulator. Do not use the optional -6 hose end for fuel feed to the rail when using a flow through system.

For Technical assistance please contact AEM at: tech@aempower.com or call 310-484-2322 Extension 303.

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This warranty is limited to the repair or replacement of the AEM part. In no event shall this warranty exceed the original purchase price of the AEM part nor shall AEM be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product.

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A copy of the AEM Warranty Claim Form can be e-mailed or faxed by contacting (310) 484-2322 and ask for Warranty/Claims Department.