

# 42 Draft Designs

## TDI Boost Tubing Kit – Installation Instructions

### Tools Recommended:

13mm Open End Wrench  
Sharp Knife or Scissors  
#21 (.159") Drill Bit  
Portable Drill  
#10-32 Tap  
Thread Sealant

1. Route tubing through firewall and position ends in their respective locations. Tubing route & length are your choice. Avoid routing tubing overtop exhaust manifold or turbo. Do not kink tubing.
2. To tap into the boost system, locate engine's plastic intercooler plumbing. The lower or upper intercooler pipe may be tapped. Find an ideal location to install the barb. The location should be thick and discrete, but easy to locate. Remove the tube which you wish to tap. Be sure the chosen location does not interfere with any engine components.
3. Mark and remove the tube. Carefully drill a hole in the marked location using a #21 (.159") drill bit. Using a #10-32 tap, lightly tap the drilled hole. Tapping plastic requires very little force – the tap should thread the hole easily and back out easily. Be careful not to use excessive force and strip the hole.
4. Thread the included barb into the tapped hole. Use some thread sealant to assure no leaks. Simple Teflon® tape or pipe goop will offer a good seal.
5. With the pipe installed, push the tubing all the way down over the barb. No wire ties or hose clamps are needed.
6. Wrap 2-3 layers of Teflon tape around the male threaded barb on your boost gauge. Thread the included brass fitting onto the back of the gauge and tighten using a 13mm open end wrench. Do not over tighten.
7. To prepare tubing, cut the end of the tubing square. With gauge in hand, press the boost tubing onto the brass fitting.

### Tip:

- If you're having trouble sliding the tubing over the barbed fittings, apply a slight amount of heat from hot water or flame.
- When removing tubing from barbs, carefully slice tubing lengthwise then pull. Be careful not to cut the fitting underneath.

### Inline Restrictor Fitting

The inline fitting included with our boost tubing kit has a built in restrictor to prevent vibrations in the boosted air stream from reaching the gauge. Vibrations produced by the turbocharger will vibrate the internals of the gauge and produce a 'buzz' sound. This fitting may be installed anywhere in the boost tubing. We recommend installing it underneath the dashboard. Simply cut the tubing and install. No hose clamps are necessary.

### Boost / Vacuum Readings

If you feel like your gauge isn't reading correctly, first drive the car. You must put load on the engine for a boost gauge to show any real reading. Simply revving the engine will show only slight boost. Drive the car in 3<sup>rd</sup> or 4<sup>th</sup> gear and engage the throttle completely at a low rpm. This will put sufficient load on the motor to make full boost. Don't be alarmed when the gauge spikes and boost drops slightly. TDI turbos are infamous for spiking high when necessary.

TDI motors have no throttle body, therefore they pull very little vacuum. A 0-15 or 0-30 boost gauge should be used. If you are using a 30"-25psi boost gauge on your TDI, you will notice that the motor pulls less than 5" of vacuum. This is normal.

## **Buzzing**

The inline fitting included with our boost tubing kit has a built in restrictor to prevent vibrations in the boosted air stream from reaching the gauge. Vibrations produced by the turbocharger will vibrate the internals of the gauge and produce a 'buzz' sound. This fitting may be installed anywhere in the boost tubing. We recommend installing it underneath the dashboard. Simply cut the tubing and install. No hose clamps are necessary.

If your gauge is still making a buzzing noise, an additional inline restrictor can be added. You can also experiment with adding an additional buffer at the gauge. Remove the boost fitting and place a small amount of cotton inside the brass threaded barb on the back of the gauge. Use cotton from a cotton ball or Q-tip. Beware – cotton can be very restrictive. Start small and be sure that the additional restriction has not affected boost and vacuum readings.