



Instructions for QBM CBV Upgrade Kit

1. Locate the CBV valve on the turbocharger (triangular shaped metal valve held on by 3 bolts). Remove the vacuum line running to the CBV valve. **Note the orientation of the CBV valve as this will become important when you reinstall the CBV valve later.** Using a 10mm ratcheting wrench, remove the (3) CBV mounting bolts. *Note: It will be easiest to remove (2) of the bolts from the top of the engine bay and (1) of the bolts from underneath the vehicle.*

2. Once removed, wipe the CBV off using a clean rag. Pull the rubber CBV diaphragm from the metal case by gently tugging on it. Next hold the CBV diaphragm with one hand and the yellowish plastic seat with the other hand and gently pull straight apart. Once apart you will be left with the following:



3. With the CBV diaphragm now disassembled, place the spring and seat onto the new CBV diaphragm, and snap the seat down onto the CBV diaphragm as shown:



4. Select the appropriate number of shims from the list below. Remember, the CBV shims **do not increase the boost level of your vehicle**; they only allow the CBV to hold higher boost pressures without leaking! You can only increase the boost level of your vehicle through an ECU upgrade, boost controller, wastegate adjustment, etc. Count the shims according to the maximum amount of boost your vehicle normally runs at:

- 09-10 psi = 2 shims
- 11-13 psi = 3 shims
- 14-16 psi = 4 shims
- 17-20 psi = 5 shims

5. Insert the shims into the bottom of the metal CBV case. Reinstall the CBV diaphragm into the CBV case, making sure the yellowish diaphragm seat is seated straight and fully. Bottom the CBV diaphragm seat into the case by pushing down on the center of the CBV diaphragm, fully compressing the diaphragm spring as shown. You should feel the CBV seat into the CBV case. See photo:



6. Clean the CBV mating surface on the turbocharger using a clean rag. Reinstall the CBV valve back onto the turbocharger, making sure to orient the valve the same way it was removed before (hint: the CBV valve vacuum nipple points in the same direction as the compressor outlet). Reinstall the (3) 10mm bolts and tighten. Reattach the CBV diaphragm vacuum line and clamp as removed before.

7. Take vehicle for test drive and verify proper operation, paying particular attention to boost levels. Note any change in maximum boost level, boost holding capacity, CBV flutter, etc.