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Intake Kit Installation Instructions: '03-'04 Toyota Matrix & Pontiac Vibe

Kit Part #	54-10702	Tools Required	Part List:	3	M6 x 10 button head allen	
Make:	Toyota	5/16" nut driver	1	Air filter (replacement # 24-90029	14	M6 wave washers
Model:	Matrix/Vibe	10mm socket with ratchet	1	Housing	5	M6 nuts
Engine:	Toyota L4-1.8L 1ZZ & 2ZZ	Phillips screwdriver	1	Cover	2	Clamps #048
Year:	2003-2004	Flathead screwdriver	1	Intake Tube	1	Black vinyl cap
		4mm allen	1	PCV and VSV mounting bracket assembly (2 brackets, 2 isolation mounts)	5	Hex head screws M6 x 1 x 12
			1	Vent hose 5/16" x 8"	1	Coupler, elbow, 1ZZ Motor
			1	Rubber trim 7/16" x 14"	1	Coupler, elbow, 2ZZ Motor
			2	M4 x 8 screw		

Step 1



Complete kit with parts.

Step 2



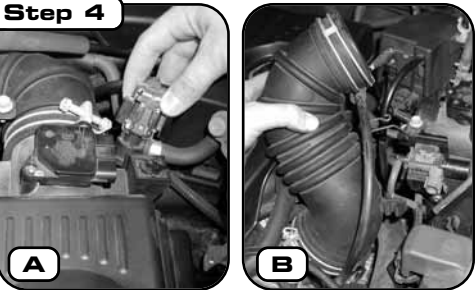
Disconnect wiring harnesses leading to Mass Airflow Sensor, VSV valves located to either side of MAS on factory airbox (indicated by arrows). On the brown harness toward the front end of the car, place provided rubber cap over harness lead.

Step 3



From the throttle body, there is a 1/2" vacuum line that extends into check valve and then a 1/4" connection. Disconnect the smaller (battery side) vacuum tube from the check valve. Now disconnect longer vacuum tube from 1/4" and reconnect to now open check valve. The remaining 1/4" and hoses will be removed with the airbox.

Step 4



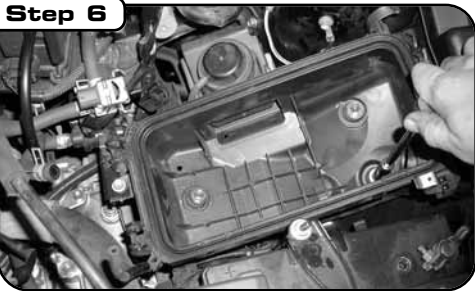
A) Slide upper VSV off of upper airbox tab.
B) Loosen factory intake tube connections and remove intake tube.

Step 5



With intake tube now removed, there is a 3/8" vacuum line connected to lower portion of airbox and leading the lower VSV. Disconnect this line from the lower airbox.

Step 6



With sensors disconnected, now remove upper airbox portion. With upper airbox removed, loosen and remove bolts holding lower airbox. Loosen and remove bolt holding lower VSV mount to lower airbox (indicated by arrow). Now remove lower airbox.

Step 7



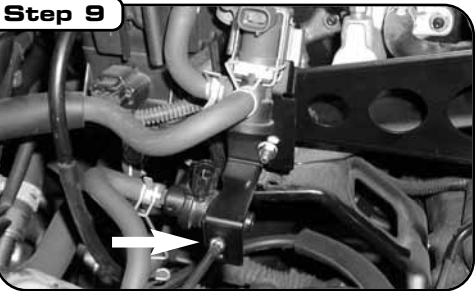
Using provided hardware, install VSV mounting tab to bracket. The rubber isolators will use (1) wavy washer per threaded side. NOTE: Be sure to mount tab with proper orientation as shown in picture.

Step 8



Bracket is to be installed in shock tower using the existing indicated bolts. NOTE: On cars equipped with cruise control, lower bracket should be sandwiched between cruise control bracket and shock tower. Upper bracket will use grounding bolt hole, but ground strap will be left off and re-attached later.

Step 9



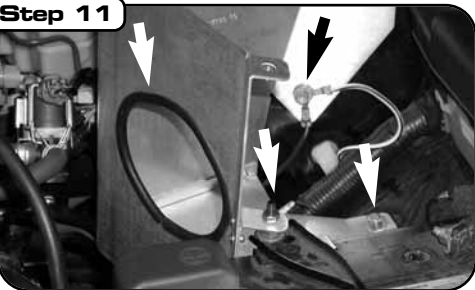
Slide upper VSV onto upper tab of sensor bracket. For the lower VSV, remove mounting tab, re-attach lower VSV onto lower sensor bracket in the orientation shown, and replace existing line with new 5/16" x 8" long hose.

Step 10



Place wave washer on TOP of battery hold-down nut.

Step 11



Remove ground strap and bolt from shock tower. Install heat shield. On shock tower mounting location, attach black ground strap in addition to ground strap previously disconnected to bolt and securely fasten. On battery hold-down location, place wavy washer and then tighten remaining bolts and install trim seal in heat shield opening.

Step 12



Install provided coupling to the throttle body, with the shorter of the two ends connected to the throttle body. Place, but do not tighten clamps on both ends of the coupling and install provided aluminum intake tube into the coupling and through the heat shield opening. (Note: 1zz motor uses part # 05-00135 with ID of 2.75", 2zz motor uses part # 05-00136 with ID of 3" to 2.75")

Step 13



Connect remaining VSV vacuum line to the nipple in the intake tube.

Step 14



Remove the MAS from the factory airbox and re-install on aFe intake tube using provided hardware. Reconnect factory wiring harness to the MAS.

Step 15



Install heat shield lid. Securely tighten all connections and re-check as necessary.

Note: Filter Cleaning and Re-oiling: When cleaning your aFe filter, be sure to use only aFe's "Restore Kit" (aFe P/N: 90-50001 blue oil aerosol, or aFe P/N: 90-50501 blue squeeze bottle oil or aFe P/N: 90-50000 gold oil aerosol, or aFe P/N: 90-50500 gold squeeze oil).
Filter Replacement: Magnum FLOW PN: 24-90029.