

Dodge 2003, gauge install

Start by removing the factory pillar. This is done by pulling down the rubber door gasket and removing the two screws in the handle area of the pillar, tip the top towards the steering wheel to get it out. You have to use a little force to get it free of the dash.

Though the gauge pod is intended to be used as a replacement for the factory pillar, we suggest cutting the handle off of the factory pillar and using the gauge pod as a cover. This is so that the backs of the gauges will not be visible through the windshield after installation.



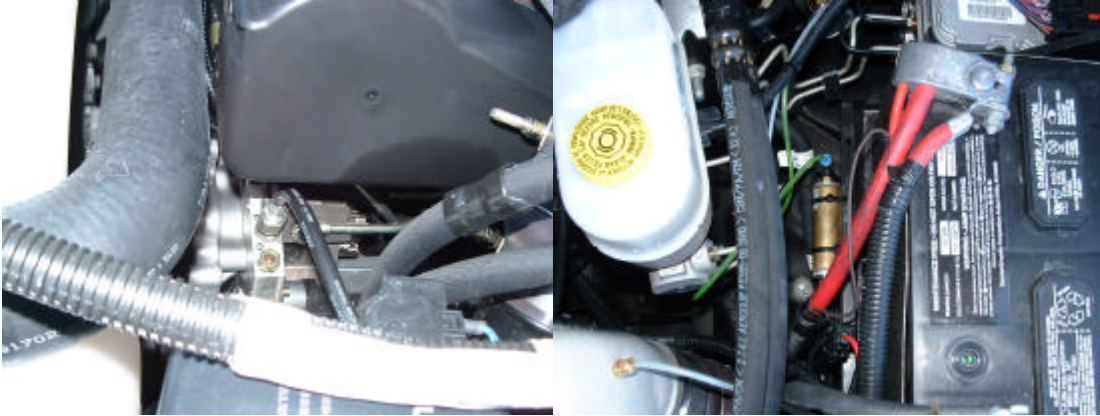
We cut the handle off of the factory pillar and drilled holes behind each gauge for the wires and tubing to pass through. This allows the gauge pod to be used as a cover for the existing pillar and allow the factory pillar gasket to seal to the windshield.



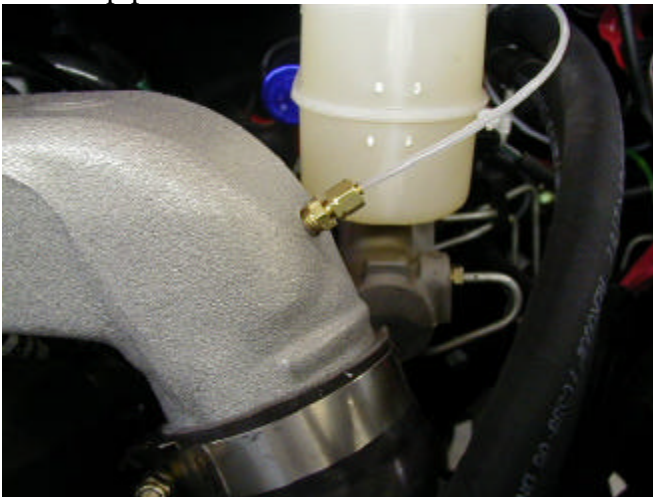
On the bench route all wires and boost tubing through the gauge pod and stock pillar holes making all connections for lighting, power and ground. Bundle all wires and tubing and tape together every foot or so. If you are installing a fuel pressure gauge install the lighting at this time, but you will need to install the tubing later. The gauge pod is not attached to the factory pillar and gauges are left part way out.

If installing a fuel pressure gauge with an isolator. Under the hood on the front drivers side of the engine, locate the high pressure fuel pump. The high pressure fuel pump has three connections, the high pressure line from the back of the pump going to the fuel rail and injectors and two toward the front on the side of the pump. The top fuel line is one of the locations the fuel pressure isolator can be located. You can verify this line by following it back to the bottom center of the fuel filter housing. Using a special banjo bolt and new sealing washers replace the factory banjo bolt and install the fuel pressure isolator as shown in the photo.

The Banjo bolt installation torque should be 18ft-lbs the same as the factory banjo bolt. The photos below show the isolator as a brass cylinder or a square diaphragm type can also be used.



To install the connection for the boost pressure gauge, the air intake manifold to the engine will be drilled and tapped for a 1/8" NPT. Undo the clamp securing the rubber boot to the manifold and place a rag in the rubber boot or cover it to keep chips out while drilling and tapping. Drill an 11/32" hole in the manifold and tap with 1/8" NPT tap as show in the photo below. After tapping install the tube fitting for the boost tube gauge in the manifold and reinstall the rubber boot and clamp being careful not to drop any chips into the pipe.



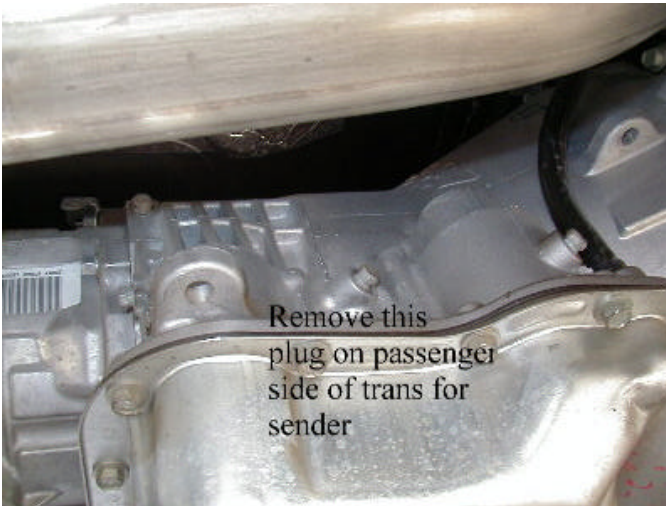
Boost tube fitting installation into intake manifold.

Thermocouple installation is done in the exhaust manifold before the turbo charger. It is very important to be sure that while drilling and tapping the exhaust manifold to accept the thermocouple that NO chips fall into the manifold. This can be accomplished in two ways, one is to remove the turbo charger and drill and tap and use a vacuum and magnet to be sure all chips are removed. The second method is to use duct tape to block the exhaust pipe outlet as much as possible, then start the truck and drill and tap the hole for the thermocouple. The exhaust pressure built up in the manifold from the tape on the tail pipe will blow the chip out of the hole. The second method works well, but caution should be exercised to be sure all chips are expelled from the manifold while drilling and tapping.

Drill through the exhaust manifold passage using a 7/16" drill keeping it perpendicular to the manifold surface. Tap the drilled hole with a 1/4"NPT pipe tap. Check the thread depth as you tap periodically removing the tap and screwing the probe into the tapped hole. The probe should thread in about 3-1/2 turns by hand when tapped to the proper depth. When the proper depth is reached install the probe fitting into the manifold until it is snug. A little never seize can be used on the probe fitting threads. See the photo below for probe location in the exhaust manifold.



The lead wire for the thermocouple can be run along the lip of the fire wall and tie wrapped.



When installing gauges with transmission temperature you will want to locate the angled plug farthest back on the transmission on the passenger side as shown in the photo to the left. NOTE: The sender must be installed using a 1/8npt x 1/4npt bell reduced screwed directly into the transmission and a 1/4npt x 1/8npt bushing screwed into the bell reducer with the sender screwed into the bushing.

Remove the cover below the steering column and locate the large rubber boot located on the firewall where the main wiring harness enters the truck. This is a good place to route your wires and tubes for the gauges. Cut a slit near the top of the boot on the inside of the truck and another slit from the outside. This is a double boot and it may be necessary to use a wire or something to fish through the boot to pull the wires through.

Place a rag or towel on the dash of the truck and lay the pillar with gauges on the towel to protect the paint. Route the wires and tubing bundled from the gauges through the opening in the dash and down onto the floor. Now install the pillar and gauge mount

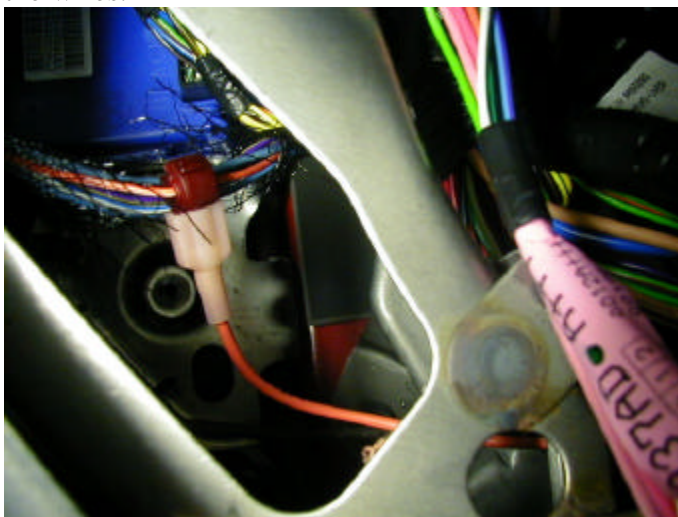
together and secure it with the screw supplied. The pillar and gauge pod fit very snugly and it will take some patience and effort to install the two together.

Separate the instrument lighting wire and ground from the bundle and pull the remaining wires and tubing through the slit in the boot into the engine compartment. Connect the thermocouple wires and heat shrink the connections. Connect the boost tube and fuel pressure tube to the isolator.

The illumination wiring for the gauges will be done under the dash. First locate the ground bolt located on the right side of the opening and install the ground wire under this bolt. See the photo.



On the left side of the opening find the wire bundle from the back of the head light switch. It will be covered with a light black plastic mesh. Cut through the mesh to gain access to the wires.



Find the orange wire with white tracer and connect the positive instrument lighting wire to it. This will allow your gauge lights to dim with the instrument lights. Reinstall all covers and check your gauges for proper operation.



Keyed on hot 12VDC can be obtained using a fuse tap on a fuse in the panel under the hood. Keyed on hot is used for transmission temp gauges only.



Your finished gauge installation should look like this from the outside. The backs of the gauges and wires should be hidden.