

THE ADAP06™ FIX FOR SPRINTER™ TURBO HOSES CRACKING ON year 2002 through 2007, 2.7 LITER in-line 5 Cyl. ENGINES

DIRECTIONS FOR INSTALLING THE SPRINTER™ TURBO HOSE ADAPTER (rev:012010)

TOOLS YOU WILL NEED: • A 5/16 socket, and ratchet, • A clean lint-free rag,
• A razor blade or box cutter, • A flat blade screwdriver

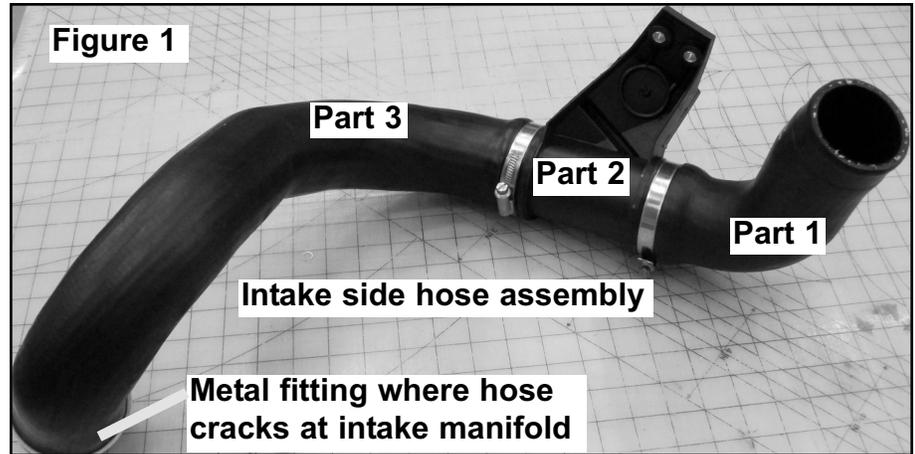
Identifying the Problem Area's

First, please note that there are two turbo hoses on the 2.7 liter V6 engine. Looking at the engine from under the van, the hose on the **passenger** side goes **from** the **turbo resonator** (or our **SRE06 Billet aluminum turbo resonator eliminator if already installed**) to the intercooler. This hose does not have a problematic metal fitting on the end of the hose, both ends of this hose use Sprinter hose clamps for attachment.

The problematic **3-part hose ASSEMBLY** on the 2.7 liter engine is on the **driver's side** on this engine. **(Figure 1)**The **lowest** end of this assembly has a **short hose (part 1)** fastened with a standard Sprinter hose clamp at the intercooler and goes **from**

the **intercooler output** to a **plastic sensor box (part 2)** mounted near the top driver's side of the radiator, where it is attached with a Sprinter type hose clamp. Then, there is another **top hose (part 3)** that goes from the plastic sensor box where it is attached with a Sprinter hose clamp, to the engine's intake manifold. **Here, the intake manifold input side has the metal fitting** where the most common hose cracking occurs. "Pinch" the hose at the point where it enters the metal hose end and if the hose is bad, you will immediately be able to see a crack (or blowout) in the hose right where the hose end meets the metal fitting. **(See Figure 2).**

NOTE: if your hose cracks here, dodge typically sells only the entire 3 piece assembly shown in figure 1! The parts are not sold separately.

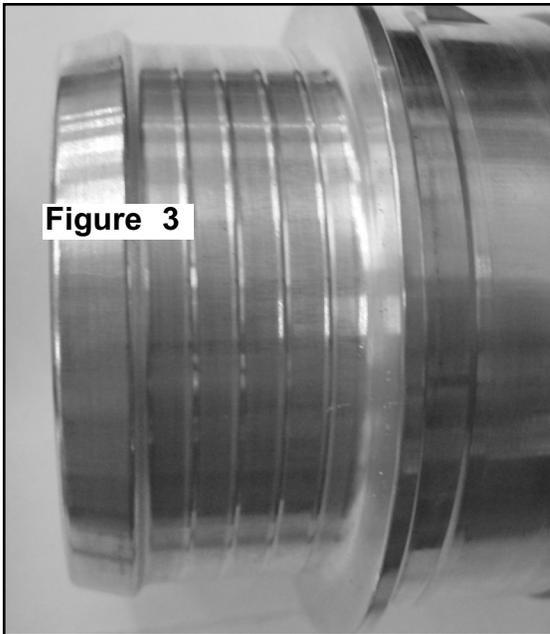


The Problem

The **(part 3)** hose has the metal end "formed" onto the hose in a manner that allows (actually in our opinion, "begs for") this hose to fail by "cracking" at the end of the hose where it meets the metal fitting. See **(Figure 2)**. When this hose cracks, power loss can be intermittent when the crack begins and is small. When the crack "blows out", as in **(Figure 2)**, and becomes larger, the van will go into "limp home mode".

The Solution

A Dodge dealer asked us to provide a simple fix for this problem. Replacing the entire hose assembly can cost well over \$100, but then you are facing the same problem all over again. We designed the ADAP06 to be a simple and permanent solution to the failure of the metal hose end, without having to buy a new hose assembly. And a technician or owner can quickly and easily install the new part in minutes at nearly half the cost of replacing the stock hose. Plus the ADAP06 has fully rounded edges on the very end which help prevent future hose failure and cracking. Please see **(Figure 3)**.

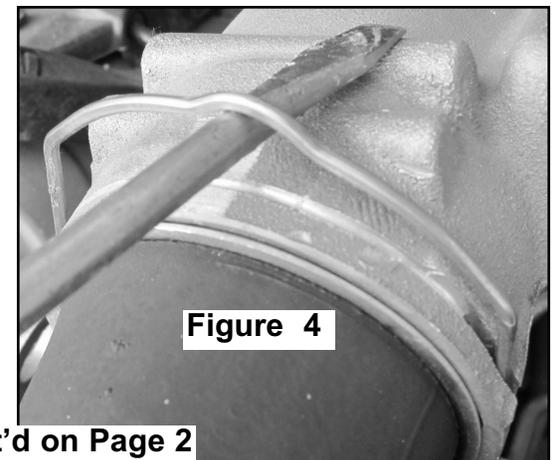
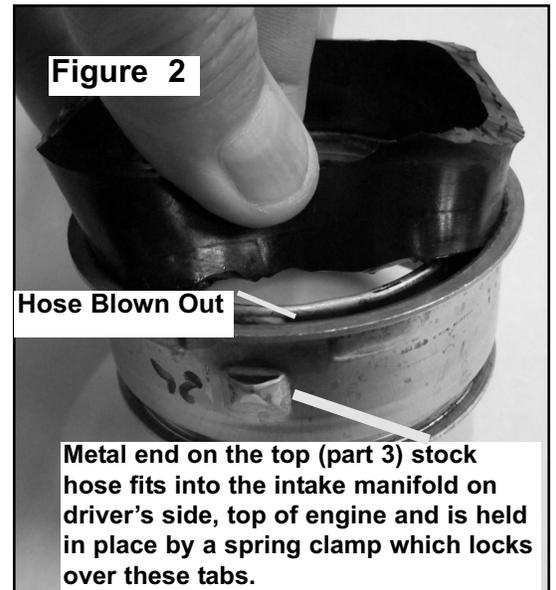


THE INSTALLATION (About 18 minutes)

1.) Take a look at the hose where it meets the metal fitting at the intake manifold on the **top driver's side of the engine**. See **(Figure 4)**

2.) You will see a "U" shaped spring clamp that holds the metal hose fitting in place. See **(Figure 4)** Use a screwdriver to snap out the spring clamp. You can then pull and gently "wiggle" the metal hose-end out from the engine.

3.) We highly recommend removing the standard type hose clamp at the other end of the hose on the top of the plastic sensor box (Part 2 in

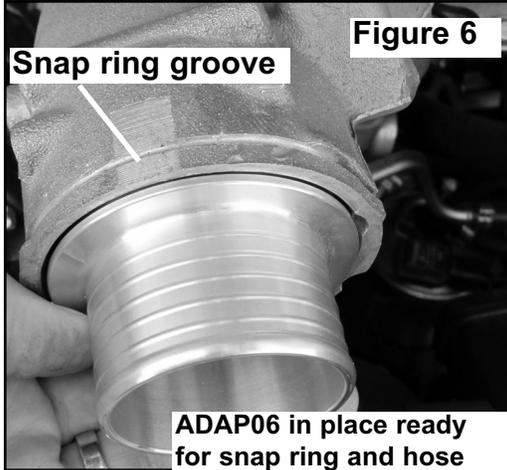


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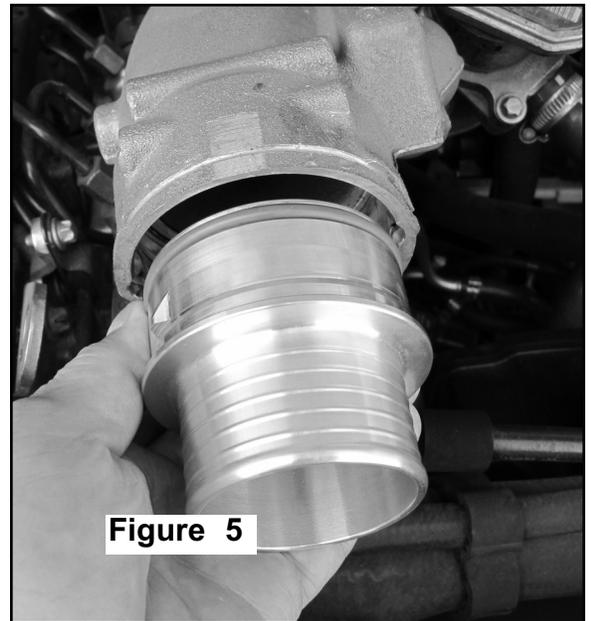
Cont'd from page 1 Figure 1 above) and removing the hose from the vehicle to work on it to **BE SURE NO RUBBER PARTICULATES** from the cutting of the hose fall down into the hose, since they **WILL BE** ingested into the engine.

4.) Take the "O" ring gently from the end of the stock metal hose fitting with your fingers, place it on the ADAP06 (as shown in Figure 3), and place a few drops of oil from the dipstick on the O Ring.

5.) You can now slide the ADAP06 into place (as shown in Figure 5 and Figure 6) and install the snap ring back in to hold it in place. An alternate

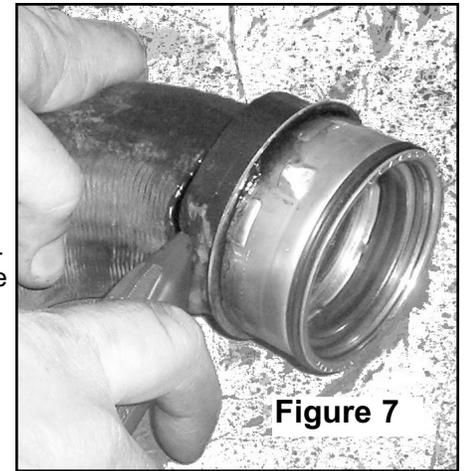


method is to replace the snap ring back in position first, and then press the ADAP06 into the engine intake fitting. It fits into the engine in exactly the same manner as the original hose end did and it will snap into place with a distinct "audible click." The ADAP06 is then held in place and ready to accept the hose.

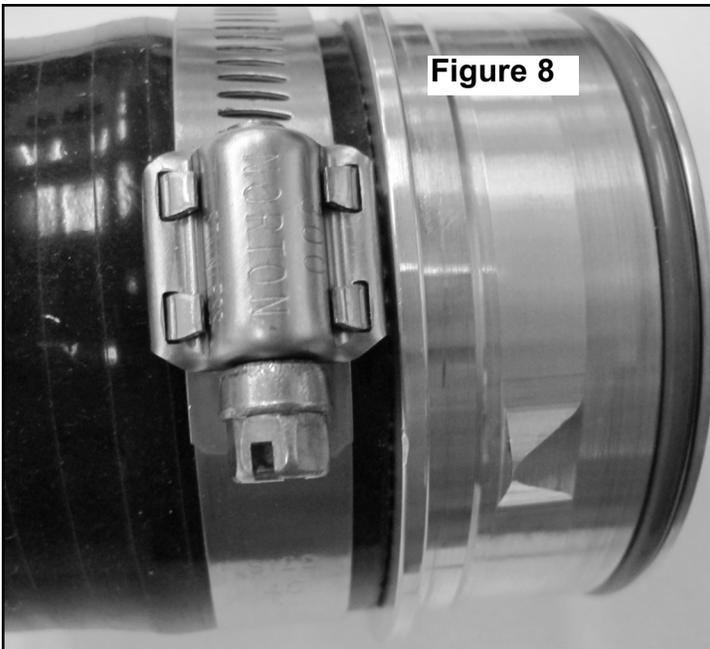


6.) Next, take a single-edged razor blade or box cutter with a sharp blade and cut the original fitting off the hose, using the original metal fitting as a "cutting template" see (Figure 7).

Once the hose has been cut cleanly away from the original fitting, discard the fitting and clean the inside of the hose with a clean, lint-free dry shop rag and a degreaser (some techs use Windex) to remove oily deposits. Blow out any particulates out with air.



7.) Place the **NEW CLAMP** supplied in your kit over the end of the hose, but do NOT tighten it yet. Slide the end of the hose over the **already installed ADAP06**, and push the hose on **all the way** to the "stop-flange" on the ADAP06 as seen in (Figure 8).



8.) Install the Hose until it lines up as it originally was, slide the bottom of the hose back onto the top of the sensor box and **FIRMLY** tighten the "captive" hose clamp onto the sensor box once you are sure the hose is aligned as it was originally installed.

9.) Do a final check of the alignment of the hose itself and then tighten the supplied Norton clamp on the engine intake side onto the already installed ADAP06 as seen in (Figure 8). Move the clamp down about midway along the "ribbed" area of the ADAP06 as shown in (Figure 8) hold it in place and tighten the clamp per Figure 8 note 2.

CONGRATULATIONS, THAT'S IT, YOU ARE DONE!

Note: We are aware of instances where, while installing the ADAP06, the owner or mechanic finds an additional crack in the MIDDLE of the hose. In this case, usually on high mileage vehicles, we recommend replacing the hose with a new one, however, follow these instructions and install the ADAP06 **before replacing the new hose** to prevent the most common failure at the metal fitting end.

Note: If your check engine light has come on, it should go off automatically after about 5 to 7 full warm ups and cool downs of the engine – this could take a few days.

Note 1): hose shown installed on ADAP06 BEFORE installing in manifold for clarity.

Note 2.) New (supplied) Norton Stainless steel 9/16 in. wide "Liner" clamp prevents hose "gouging" from screw. **Tighten to no less than 60 inch pounds to compensate for turbo boost pressure and be sure inside of hose is dry and oil-free.**

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ADAP06™ Hose Adapter is Patent Pending