



SYNERGY MFG. 870 INDUSTRIAL WAY, SAN LUIS OBISPO, CA (805) 242-0397

## INSTALLATION INSTRUCTIONS 8554 DODGE TRACK BAR CONVERSION BRACKET

Version 2.0

### **GENERAL NOTES:**

- These instructions are also available on our website at [www.synergymfg.com](http://www.synergymfg.com). Check the website for any updated instructions and additional photos for reference.
- Bracket is designed to be bolted on with minimal grinding and drilling required.
- Designed to be used in conjunction with PPM-8550-02 Adjustable Track Bar.
- Installation requires the use of basic hand tools, a 4.5" angle grinder, and a drill with quality metal drill bits.

### **PARTS LIST:**

- 1 - PPM-8507 DODGE TB CONV BRKT
- 1 - 3/16" thick shim tab
- 2 - 1/2-13 UNC x 5" hex head bolt
- 2 - 1/2" flat washers
- 1 - 1/2-13 UNC stover nuts
- 1 - 5/16-18 UNC x 2.5" hex head bolt
- 1 - 5/16-18 UNC x 2.0" hex head bolt
- 2 - 5/16-18 UNC stover nuts
- 4 - 5/16" flat washers
- 1 - 9/16-12 UNC x 3" hex head bolt
- 1 - 9/16-12 UNC stover
- 2 - 9/16" flat washer
- 1 - 5/8-18 UNF x 2.5" hex head bolt
- 1 - 5/8-18 UNF nylock nut
- 1 - 5/8" flat washer

APPROXIMATE INSTALL TIME: 4-6 HOURS (Including track bar)

### **INSTRUCTIONS:**

- 1) Begin by removing the axle side TB bolt. This is easiest to do when the truck is on the ground and the weight of the vehicle is on the suspension.



- 2) Next, lift the vehicle up so the suspension can hang free, support it securely using Jack stands.
- 3) Once the vehicle is in the air and safely supported, remove the frame side bolt on the factory TB.



- 4) Next, inspect the underside of the frame side factory TB mount. Some models have a weld that will inhibit the new TB bracket from sitting flat on the surface. If your truck's bracket looks like picture 4.1a & b below, follow instructions in step 5. If your truck's bracket looks like picture 4.2 below, continue on to step 6.





Picture 4.1a (Underside view of TB bracket that will require grinding)



Picture 4.1b (Front view shows uneven surface that needs to be cleaned up)



Picture 4.2 (TB bracket that will require no grinding modifications)

- 5) Some grinding will be needed to fit on the PPM-8554 TB Conversion Bracket if tab resembles those pictured in 4.1a & b.
  - Use a 4-1/2" angle grinder with a flap wheel, grinding disk, or sanding disc and clean up weld / weld area until the underside of the factory TB tab looks as pictured in 5.1 a & 5.1b



Picture 5.1a (Cleaned up factory TB Tab)





Picture 5.1b (Front view of factory TB tab, note smooth surface for conversion bracket to rest on.)

- 6) Next, remove the bolt securing the brake line tab to the cross member.



- 7) Lastly, remove the rear most steering box bolt as the new bracket will use this as a mounting bolt.



- 8) Now fitment of the new PPM-8554 TB Conversion Bracket can begin,
- Start by installing the tapered sleeve into the factory TB tab. Note the sleeve is installed from the bottom with the smaller taper going towards the top.
  - Next, bolt up the 8507 brkt as pictured below, align the 5/8" bolt in the brkt and start a nut on the top of the factory TB tab. Use a washer under the nut as pictured.
  - Do not tighten bolt, align brkt with steering box bolt and start the bolt removed in Step 6.
  - Now, snug down both bolts to align bracket for marking and drilling cross member holes.





- 9) Mark and center punch the two cross member holes. The slotted hole should line up or be very close to lining up with the factory brake line tab hole. Mark and center punch both holes for drilling. Holes can be drilled with bracket on the vehicle but it's suggested to remove the bracket as to not damage the powder coat.
- Drill holes all the way through the crossmember using an 11/32" drill bit.





- 10) At this time, check to make sure the 1/2-13 UNC x 5" long bolt will fit through the bracket and cross member. Also take note on if the 1/4" shim spacer provided in the kit will be needed for your application or not.
- Some models have a slot in this position, while others have a hole that is often not aligned with the hole on the cross member. See reference pictures below.
  - If your truck has a hole and not a slot, try to fit the 1/2" bolt through the frame, if it does not fit, then drill out hole using a 9/16" drill bit or using a dremel / die grinder, clearance the hole so the bolt will go all the way through the cross-member.





- 11) Once holes are drilled, now is a good time to paint any exposed bare metal surfaces left over from grinding / drilling.
- 12) Next reinstall bracket in the same manner as step 8, except do not tighten any bolts until all bolts have been started.
  - Be sure to install shim spacer if needed.
  - It's also suggested to apply a small amount of blue locktight to the steering box bolt at this time.



- Be sure to utilize a washer under both the nut and head of each fastener with the exception of the 5/8" going through the factory TB tab. This only gets a washer under the nut on the top of the TB tab.
- See pictures below for reference.





- 13) Install the 5" long ½-13 UNC bolt from the top as to prevent the bolt from rubbing the steering shaft. To do this, remove the two bottom steering box bolts and loosen the top bolt as to be able to pivot the steering box and gain access to the top of the cross-member. Bolt should be installed as pictured below:



- 14) Once all bolts have been started, snug them all down and torque in the following order.
- 5/8-18 UNF - 200 ft-lbs.
  - Steering box bolt – 140 ft-lbs
  - ½"-13 UNC – 90 ft-lbs
  - 5/16-18 UNC – 24 ft-lbs
- 15) This kit is designed to use Synergy 8550-02 Dodge TB. Refer to the instructions included with the 8550-02 track bar for installation.
- Install the TB at the frame side using the 9/16-12 x 3" long bolt provided in the kit. Use a washer under both the bolt head and under the stover nut. (Do not tighten)
  - Wait to install the axle side bolt once the vehicle is sitting on the ground under its own weight. Re-use the stock track bar mounting bolts and torque to 125 ft-lbs. It helps to have someone turn the steering wheel to help align the bushing to the bracket hole when inserting the bolt.
  - Torque the frame side TB bolt to 145 ft-lbs.
  - Recheck torques after 100 miles of driving.