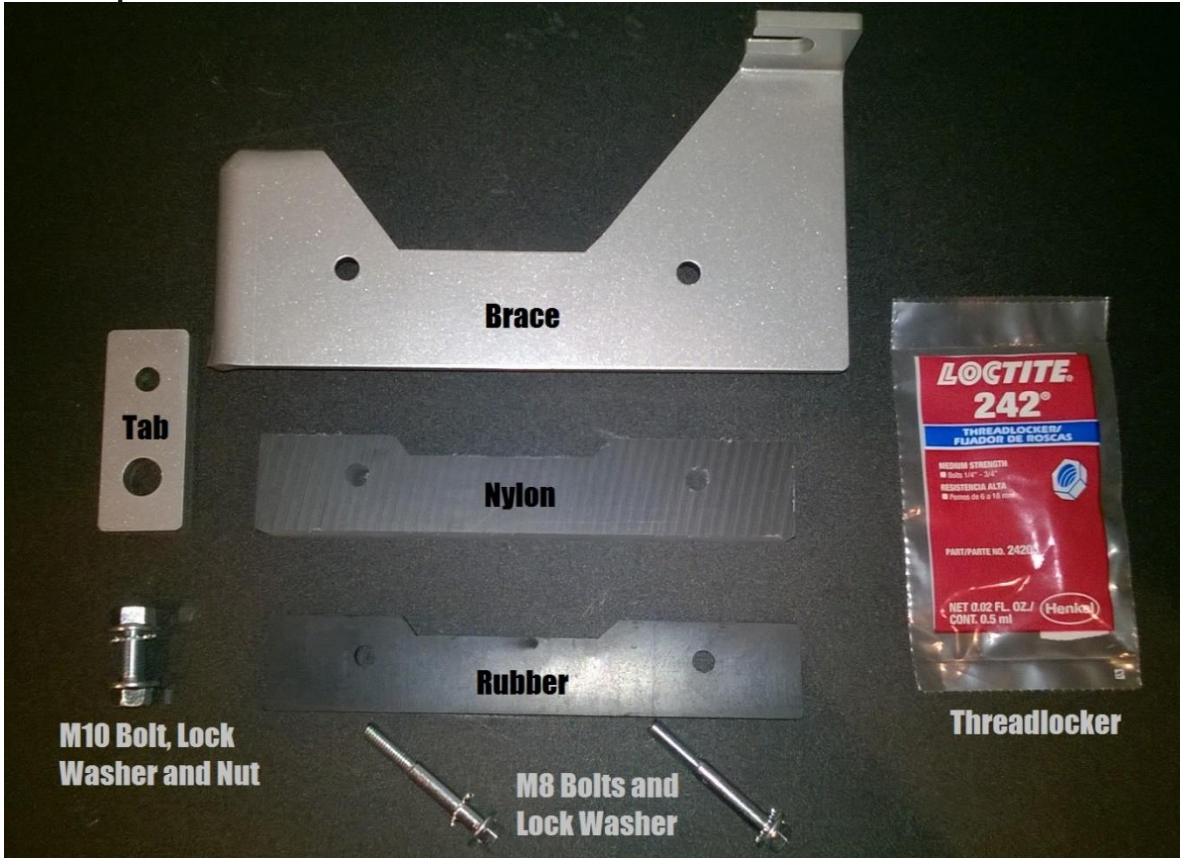


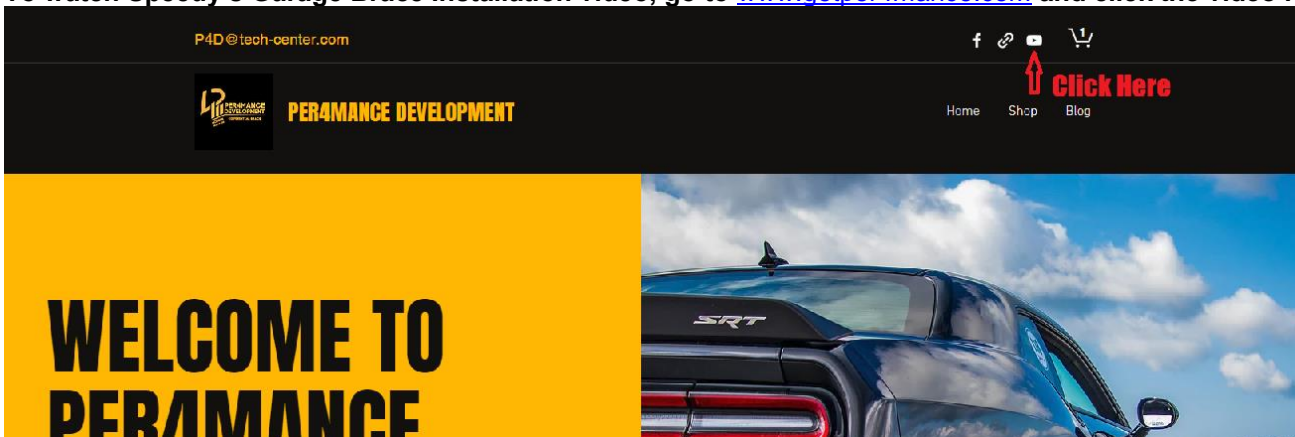


## Per4Mance Development Modern Mopar IRS Differential Brace Installation Instructions for 2015 and newer R/T, Scat Pack, SRT 392 and Hellcat Vehicles

### Kit Components –



To watch Speedy's Garage Brace Installation video, go to [www.getper4mance.com](http://www.getper4mance.com) and click the video icon.



**Instructions – Please follow these steps in order:**

- 1) **SAFELY** jack up car and place on jack-stands or place on a certified lift to access rear differential. Please use appropriate PPE.
- 2) **Important:** before beginning installation, locate the holes on the bottom of the rear crossmember that the brace will bolt to. Take the (2) M8 bolts and carefully test fit them to ensure the existing thread is clean and free of debris. If you encounter an issue, use a M8x1.25 tap to clean up the thread.

**Important:** if there are no threaded sections in the holes of your vehicle's crossmember, there are (2) M8 self-locking flange nuts included in the kit but not pictured above. They will need to be positioned in the crossmember in step 8. This is an issue that seems to have started with late MY2016 vehicles.



**Note:** When starting step 8, if there are no threaded sections in the crossmember, you will need to place the provided M8 flange nuts in the crossmember. Place the nuts in the slots that are above and to the left of the crossmember hole. Then using a finger, move into position and hold down the nut when threading the M8 bolts.

- 3) Using a 16mm (or 5/8") wrench or socket, remove the lower left main case differential bolt and then loosen the lower right main case differential bolt about 1/2".
- 4) Place the large hole of locator tab at left side of differential case and reinstall left main case differential bolt, align so the smaller hole is below the bolt and the tab is parallel with the differential cooling fins, tighten and torque **to 90 ft./#s**. (**Important:** in rare instances, due to exhaust pipe variances, the locator tab may need to be slightly repositioned from parallel to the cooling fins to ensure that the brace does not contact the driver's side exhaust pipe; see step 6)
- 5) Next, by coming in from 2 o'clock to the lower right main case differential bolt, position the right slot of the brace onto the loosened lower right main case differential bolt. Then move the left side of the brace into position with the locator tab. Once in position, place the M10 bolt (with threadlocker applied) into the front left side hole of the brace and then through the hole on the locator tab, then slide on the lock-washer and nut from the back of the locator tab and finger-tighten to where it is untightened about 3/16" (the play will allow for all parts to align; this bolt will be torqued later).
- 6) Inspect the left side of the brace and make sure that it is not contacting the driver's side exhaust pipe; if so, remove the brace and adjust the locator tab to a position where it will provide adequate exhaust clearance then return the step 4.
- 7) Align and stack the isolation rubber under the nylon buttress with the offset patterns aligned (the shorter side orientates to the driver side of vehicle and the Kit Components picture above) then slide between the top of the brace and below the rear crossmember.

- 8) Carefully feed the (2) M8 bolts through the brace, rubber, nylon and into the holes in the rear crossmember until you can begin to thread the bolts to align all components.
- 9) Removing one M8 bolt at a time, slide the lock-washers onto the removed bolt and apply threadlocker to the threaded portion of the bolt and carefully guide the bolt from the bottom of brace back through all components and into threaded holes in the bottom of the crossmember. Tighten the M8 bolts to where all components are snug, then tighten each side until the rubber begins to displace (look for a bulge of about 1mm but no more).

**For cars that do not have threaded sections in the rear crossmember:** At this point of the installation, tightening the bolt will require more than finger pressure to tighten when it reaches the self-locking portion of the nut. Since access is limited in the crossmember, cut-down a 13mm wrench (duct-tape added to aid in manipulation) to use inside the crossmember for tightening. Apply finger pressure to hold the tool in place.



- 10) Once you have the nut secured, tighten the M8 bolt/nut to where all components are snug, then tighten each side until the rubber begins to displace (look for a bulge of about 1mm but no more).

**Note:** if you encounter binding while tightening the M10 bolts into the crossmember, this is most likely caused by position variances of the bolts that were welded into the crossmember. Simply drill slightly larger holes in the 1" nylon to alleviate any binding.

- 11) Tighten the M10 bolt **to 45 ft./#s** on the locator tab.
- 12) The final step: using an extension and 16MM (or 5/8") socket, come in from the right of the brace and locate the lower right main case differential bolt and tighten **to 90 ft./#s**. For best results, use a normal size socket (not a deep socket) connected to a 3/8" drive extension and connect to your torque wrench with 3/8" to 1/2" drive adaptor for 1/2" drive torque wrenches.



- 13) Visually inspect the brace and insure that it matches the picture showing completed installation.

- 14) **Recommendation:** It is recommended to take a Sharpie and draw a straight line on the bolt and brace (or use tamper proof torque mark [Torque Mark](#)) so that you can easily do a visual check to make that the crossmember bolts have not loosened. When visually checking, make sure the parked vehicle is turned off and the emergency brake is fully on.

#### Completed Installation -



If you have any questions on installation, please email [P4D@tech-center.com](mailto:P4D@tech-center.com). Thank you and please enjoy the benefits of the Per4Mance Development IRS Differential Brace\*.

*\*patent pending*