



SK756 KIT

GENERAL INSTALLATION INFORMATION

The PSC SK756 Kit is designed to convert the factory power steering to improve overall drivability of your F450/550 with our patent pending (DDS) dynamic damming stabilizer.

This kit can be installed in a home garage, but if you have doubts, let a professional installer do the job. If you are installing our Steering Gear Box, we highly recommend a second person to help with the steering gear installation. It weighs over 50 lbs. and is difficult to locate and thread in the mount bolts by yourself.

You will need a 46mm socket and a torque wrench (gear replacement only) that will allow you to torque the pitman arm nut to 220–240-foot pounds. Other than that, regular hand tools are all that's needed. We recommend using thread sealant throughout the instruction, but it is not necessary for the installation of this kit.

FOR THE KIT TO BE ELIGIBLE FOR WARRANTY, IT MUST BE INSTALLED AS A COMPLETE KIT WITH THE PROVIDED COOLER, PUMP, GEAR, AND HOSES PROVIDED.

****TO NOTE**** This is just a guide for the installation. Each vehicle is slightly different from the next, so no two installations will be the same.

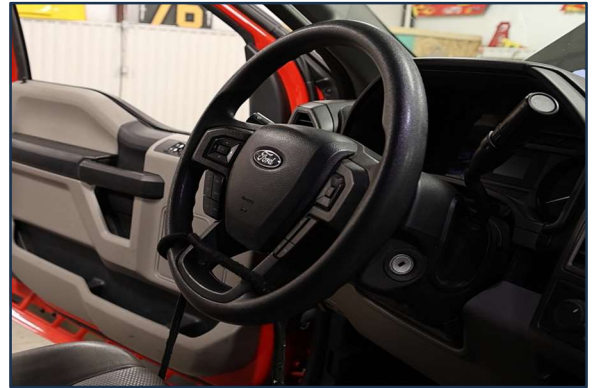
If you have any installation questions, feel free to contact us at support@pscmotorsports.com. PSC's hours of operation are Monday-Friday, 9 am - 5 pm CST.



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1. Secure the steering wheel using a bungee cord, ratchet strap or steering wheel holder. Secure by going through the steering wheel to a fixed mount (seat frame).



2. Raise the hood.



3. Lift the front of the vehicle off the ground and remove the driver's side front tire.





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4. Remove any aftermarket stabilizer installed to the tie rod. Skip to step 5 if this does not apply.



5. Using an 18mm wrench disconnect both lines on the top of the steering gear box. Lay the lines to the side.



6. Drain the power steering system. Lay the lines to the side.



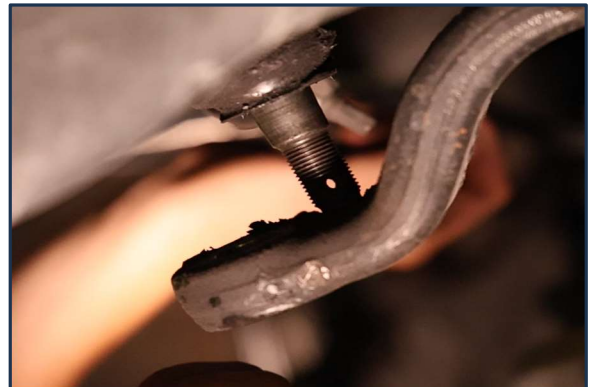


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7. Using a 10mm socket, Disconnect the steering intermediate shaft from the steering gear box.



8. Remove and retain cotter pin and castle key then disconnect the drag link from the pitman arm, using a 24mm wrench.



9. Using a 30mm socket, remove two of the three mounting bolts from the frame. Have a friend ready to help remove the steering gear before you loosen the last bolt. Retain these bolts.





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10. Remove the OEM steering gear box.



11. On the bench using a 46mm socket and pitman arm puller, remove and retain the OEM pitman arm and pitman arm nut from the OEM steering gear box.



12. On the bench install the OEM pitman arm and nut to the SG756R steering gear box. Torque the bolt to 240 ft.lbs.

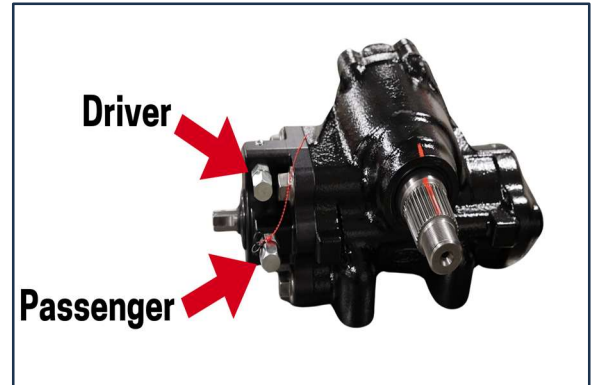


NOTE: When installing the pitman arm make sure the pitman arm is installed in the same direction as removed from the OEM steering gear box. Line up the red lines on the input shaft and sector shaft.

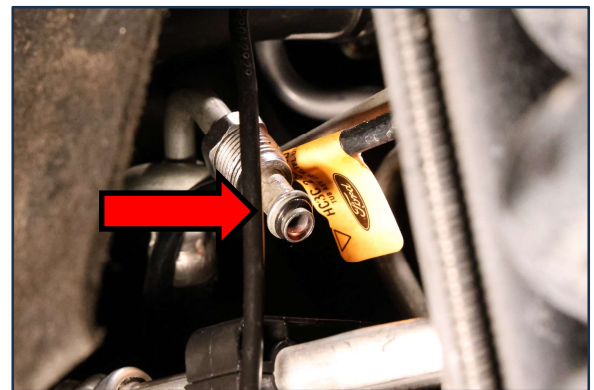
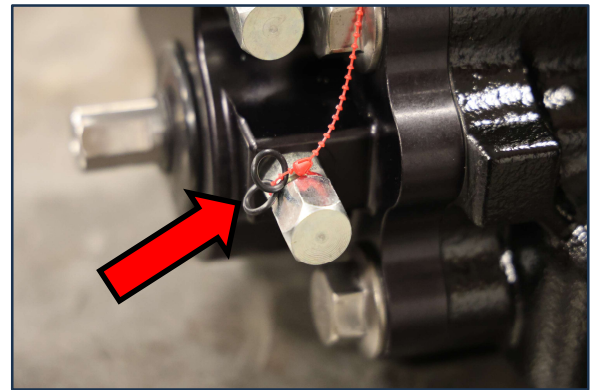


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13. Loosen the caps on the SG756R before installation. Note driver and passenger lines.



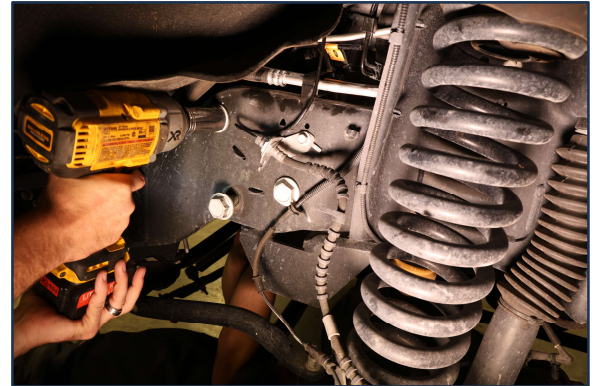
14. Remove and replace the O-rings found on the end of the steering gear lines with the O-rings that come with the SG756R steering gear box.



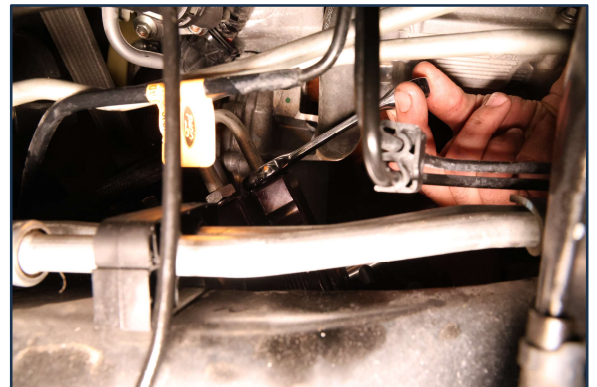


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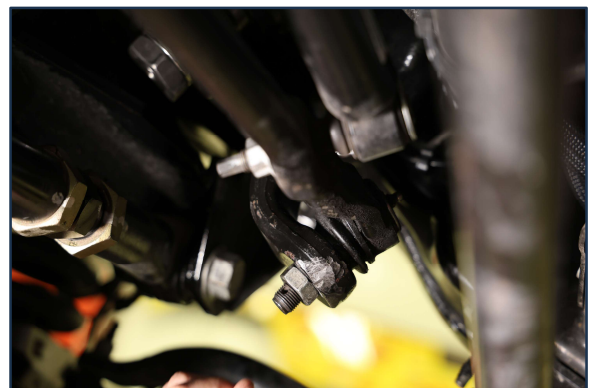
15. Using a 30mm socket, Install the SG756R to the vehicle using the three (3) OEM bolts. Torque the bolts to 150 ft.lbs.



16. Using an 18mm wrench. Install the OEM lines to the SG756R steering gear box. Use the provided hydraulic thread lock.



17. Install the drag link to the pitman arm. Tighten the nut on the pitman arm. (Install cotter pin in step 41 not to hang on clothing while tightening the lines.)





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18. On the bench install the fittings on the MBK100. Use the provided hydraulic thread lock.

NOTE: Be sure to install the O-ring side of the fitting to the MBK 100.



19. Loosely install the MBK100 to the hole in the cross support beneath the engine on the passenger side of the vehicle using (1) 3/8NC x 2" bolt, flat washers and a lock nut. Using the hole on the passenger side of cross support.



20. Loosely install the HA-H3000MG-D to the steering gear box port closet to engine with the 90 fitting and to the top port of the MBK100 with the 45 fitting. Use the provided hydraulic thread lock.



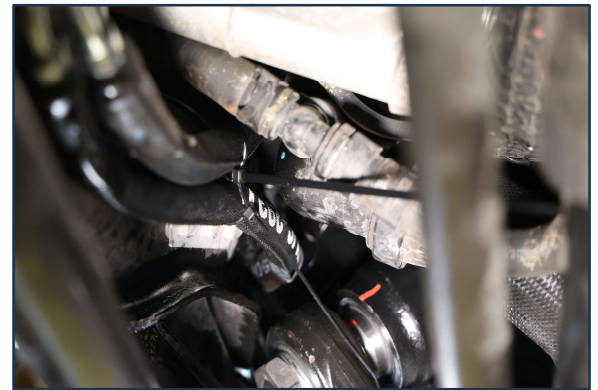


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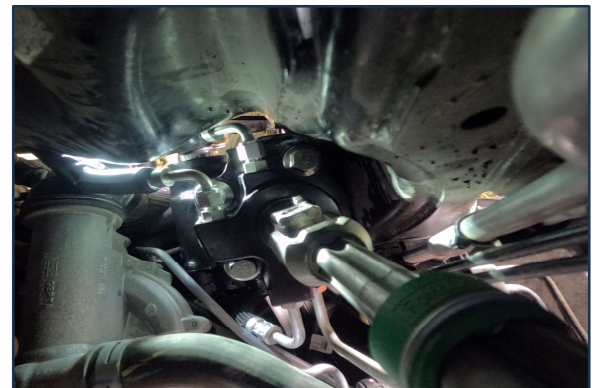
21. Loosely install the HA-H3000MG-P to the steering gear box port closest to the frame with the 90 fitting and to the bottom of the MBK 100 with the 45 fitting. Use the provided hydraulic thread lock.



22. Rotate any hose clamps to a position where they are not in contact with lines to the MBK100. Secure the lines together with zip ties.



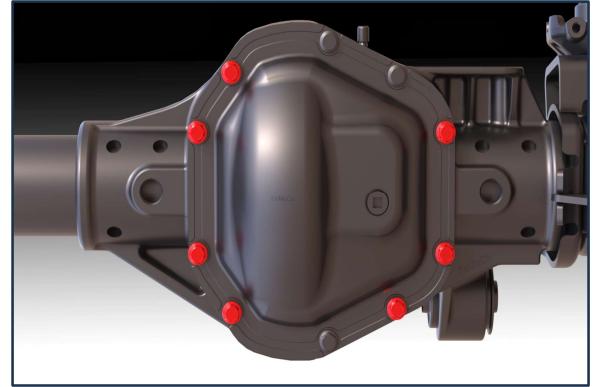
23. Install the steering intermediate shaft to the SG756R steering gear box. Use the lines provided on the steering gear box and shaft to make sure the gear box is on center.





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24. Remove and discard the seven (7) of the front differential cover bolts as shown. NOTE: When removing the bolts you may break the seal for the differential cover and will need to remove the cover to reseal the RTV silicone gasket maker.



25. Install the MB45-K using the four (4) 3/8NC x 1" flange bolts to the differential cover and the one (1) 1/2 NC x 5-1/2" U-bolt with two (2) flat washers and two (2) 1/2NC lock nuts. Use a 9/16" socket for the 3/8 bolts and a 3/4" socket for the U-bolt nuts.



26. Install the 11.44 bracket to the driver side of the differential cover using the three (3) 3/8NC x 1 flange bolts. Use a 9/16" sockets.





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27. On a bench install the heim, alignment spacer and washer to the SC3200 dynamic damming stabilizer.



28. Install the wobble stop bushings and spacers on both side of the dynamic damming stabilizer.



29. Using a 15/16" socket and wrench. Install the SC3200 DDS to the MB45 mounting bracket using the supplied one (1) 5/8NF x 2-1/2" bolt two (2) flat washers and one (1) 5/8NF lock nut.



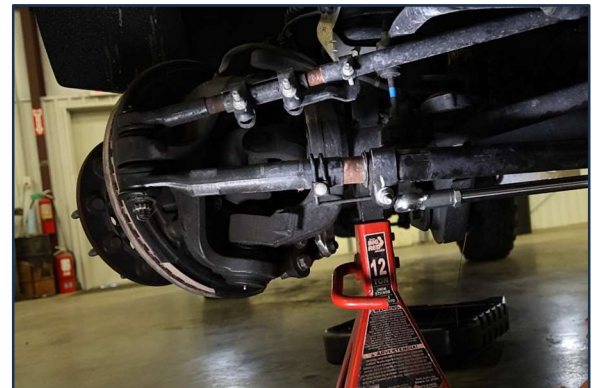


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30. Remove and discard the OEM plastic dust guard found on the passenger side of the tie rod next to the locking clamp.



31. Turn the wheel all the way to lock towards the passenger side of the vehicle.



32. Install the TRCL 1.9-OS to the tire rod with the supplied hardware. Use a 1/4" Allen key.

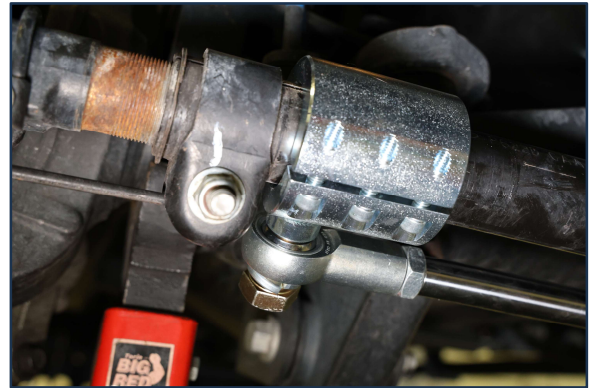
NOTE: When installing the tie rod clamp be sure to mount the SC3200 DDS to the clamp to ensure the cylinder will be as parallel to the tie rod as possible.





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33. Using a 15/16" socket. Install the SC3200 DDS to the TRCL 1.9-OS using the provided one (1) 5/8NF x 2" Bolt.



34. Loosely install the HA-H3000MC-D to the top of the MBK 100 with the 45 fitting and to the port furthest to the axle on the SC3200 DDS with the straight fitting.



35. Loosely install the HA-H3000MC-P to the bottom of the MBK100 with the 45 fitting and to the port closet away from the axle on the SC3200 DDS with the straight fitting.





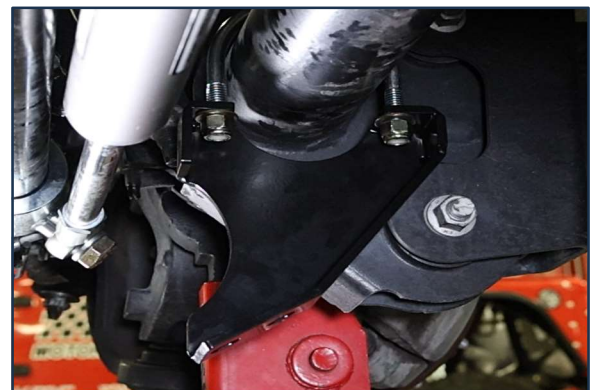
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36. Tighten the mounting bolt for the MBK100. Use a 9/16" socket and wrench.



37. Using a 11/16" wrench, tighten all fittings going to the steering gear box, MBK100 and to the SC3200.

38. Using a 3/4" socket and wrench, loosely install the 11.47 skid plate mount on the axle using the 1/2NC x 4" U-bolt with two (2) flat washers and two (2) 1/2NC lock nuts.



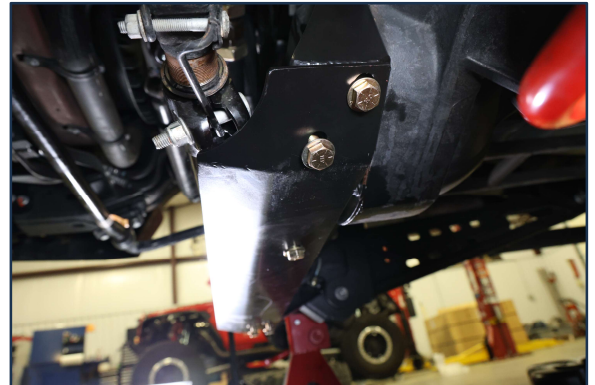


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39. Using a 3/4" socket and wrench, loosely install the 11.46 skid plate to the MB45 mounting bracket, the 11.44 bracket and to the 11.47 bracket using the five (5) 1/2NC x 1-12" bolts with ten (10) flat washers and five (5) lock nuts.



40. Tighten all nuts, bolts and U-bolts for the skid plate and mounting brackets.



41. Install the castle nut and cotter pin on the pitman arm.





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42. Reinstall driver's front tire.
43. Begin bleeding procedure.

BLEEDING PROCEDURES With the kit installed, the last step is adding PSC 715 or PSC TRU BLUE™ power steering fluid and bleeding the system of all air. This part takes patience and diligence to do it properly—but it is critical to purge all the air out of the system to prevent damage to the pump.

With the engine off jack up the front of the vehicle and put jack stands under the front axle. This will make the bleeding process easier. Next, add the PSC fluid to the reservoir and fill to about 1" to 1-1/2" of fluid from the top of the reservoir be sure to keep the filter **submerged in fluid at all times**. Continue this until the fluid level remains steady. Next turn the steering wheel from lock to lock (all the way right and all the way left) to pull more fluid through the system. Add fluid as necessary and repeat until At least two quarts have been applied to the system. Replace the cap on the reservoir and start the engine for about 30 seconds—do not turn the steering wheel yet.

The fluid level in the reservoir will drop and will become aerated. Letting a few minutes pass between startups will allow air bubbles to work their way out of the system. Refill the reservoir and repeat this process a couple of times.

Now, start the engine and turn the steering wheel completely to the right and then left 10-15 times, shut the engine off and let the vehicle sit for 10 minutes. Check and add fluid as necessary. Repeat this process 3-4 times as needed. At this point the fluid level should move about one inch up or down when cycling the steering and no bubbles should be visible in the reservoir. Lower the vehicle to the ground and repeat the process above 1 more time.



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Take the vehicle for a test drive and listen for any pump noise. Noise indicates fluid aeration, and the vehicle should be shut off to let the bubbles dissipate. If noise is persistent double check the low-pressure lines and confirm the fittings are tight. Top off the fluid and drive the vehicle again. Let the system cool down once you believe it is properly bled.

Next, remove the reservoir cap and have someone start the vehicle while you watch the fluid level. If the level drops on startup, you still have air in the system. If it does not, you should be good. Again, note that getting all the air out of the system can take some time. If the pump is whining, you are aerating the fluid which is not good for the pump. If you are running your vehicle for an extended time and your pump has not stopped whining, it needs to be addressed as soon as possible. Sometimes this can be as simple as letting the vehicle sit to get the last of the air out. Always make sure the fluid level is good and there are no leaks. If you have questions, contact us Monday-Friday from 9-5 CST at support@pscmotorsports.com.

FILL DIFFERENTIAL WITH FLUID IF NEEDED.