



**TECHNICAL
BULLETIN- 0005**
DATE: 24-AUG-2017

JEEP- JK PENTASTAR (2012 - 2017) SUPERCHARGER SYSTEM IDLER AND SUPERCHARGER PULLEY ALIGNMENT INSTRUCTION

Procedure for adjusting and verifying the alignment of the idler pulleys and supercharger pulley for technicians who may not be familiar with checking drive belt alignment.

SUMMARY:

Sprintex has received reports from some customers that idler pulleys and drive belt wear prematurely on the Sprintex Jeep- JK Pentastar Supercharger system. This is due to not following the correct alignment procedures mentioned in the installation manual supplied. It is therefore recommended to check and correctly align the supercharger drive pulley and idler pulleys. This bulletin will assist the customers who have already installed the supercharger system on to the vehicle.

Please read these instructions fully, prior to adjusting the alignment of the pulleys.
If the vehicle is already fitted with the supercharger system, then follow the instructions given below.

GENERAL NOTES:

This bulletin should be read in conjunction with the latest version of the installation manual 263D1001. Refer websites for the latest installation manual:

<http://sprintexusa.com/jeep-jk-wrangler-3-6/>
<http://www.sprintex.com.au/jeep-jk-wrangler-3-6/>

a. Idler pulleys

Check idler pulley condition and bearing rotation for smooth operation prior to adjusting the alignment and if necessary, replace the idler pulleys.

b. Supercharger drive belt

Inspect for cuts, cracks, missing chunks and other signs of wear and if required replace the belt. The belt may also need to be replaced if it makes chirping or squeaking noises or if it's stretched.

If you require additional information, please contact Sprintex customer support team.

Sprintex USA – info@sprintexusa.com / +1 855 591 2778

Sprintex Limited – info@sprintex.com.au / +61 8 9262 7277

Tools required:

- Metric & inch spanners (wrenches) and sockets
- Metric Allen key set
- ½" Breaker bar
- Torque wrench
- 12" Steel rule (Metric)
- Vernier Caliper / Digital caliper / Steel rule (Metric)

1. Disconnect battery

- Disconnect both battery cables.
- Always disconnect the negative battery terminal first. This prevents possible shorting and potential battery damage.

2. Remove the clean air duct

- Disconnect IAT sensor wiring harness plug.
- Remove the clean air duct and place the items in a safe location.



3. Remove drive belt from supercharger pulley

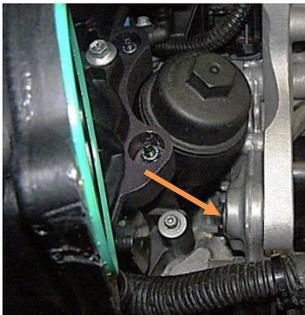
- Release torque of the four M6 SHCS for the supercharger pulley while the belt is still on. Ensure that the four M6 SHCS are hand tightened.
- Relieve the tension from the drive belt by releasing the dynamic belt tensioner and remove the drive belt from the supercharger pulley and idler pulleys.



4. Loosen idler bracket

- Loosen two M6 Hex head screws for the strap.
- Loosen two M6 Hex head screws at the front face of the idler bracket.
- Loosen one M6 Hex head screw at the rear of the idler bracket.

Note: Do not remove the idler bracket.



5. Remove alternator

- Disconnect electrical connector.
- Remove the positive battery cable and position aside the cable.



- Remove the alternator via the 2 Hex head screws either side of the alternator and the 2 Hex head screws in the lower section of the alternator mount bracket.



6. Remove idler pulley

- Remove bottom idler pulley from the idler bracket.

Note: Check idler pulley condition and bearing rotation for smooth operation.



7. Remove supercharger pulley

- Loosen four M6 SHCS and remove supercharger pulley.

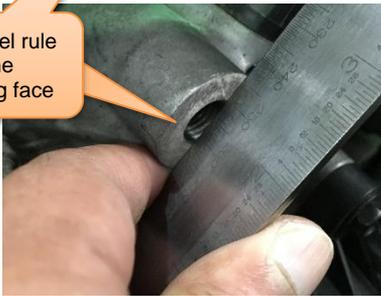


8. Check distance for supercharger pulley shim size

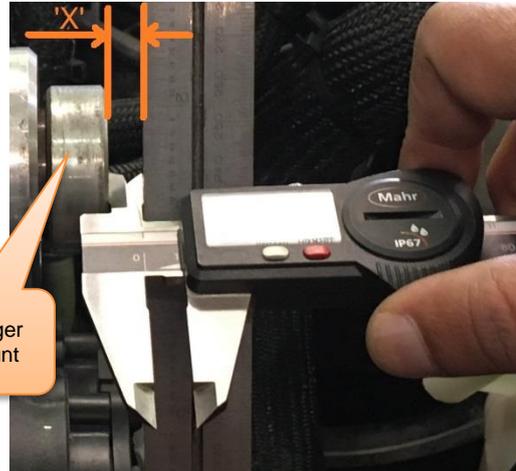
- Firmly hold and align a 12" steel rule against the alternator mounting boss. See picture.



Align steel rule to the mounting face



- Using a Vernier caliper / digital caliper or steel rule, check distance between the face of the alternator mounting boss and the supercharger pulley mount. See picture.



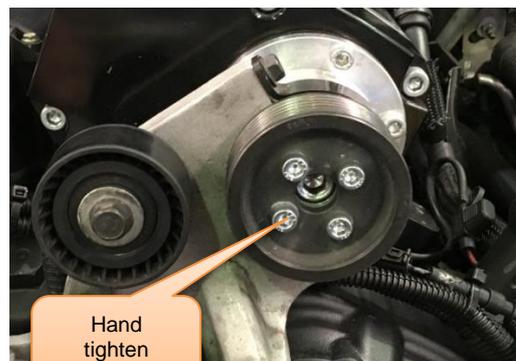
Supercharger pulley mount

9. Add shim to the supercharger pulley

- Refer table below and use appropriate shim for the supercharger pulley based on the distance measured in the previous step.

Distance 'X'	Shim thickness
>8mm	3mm
7mm	2mm
6mm	1mm

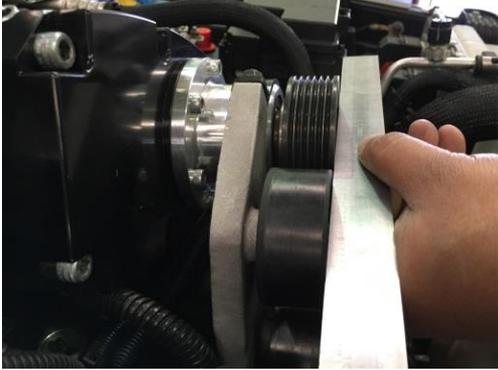
- Fit the supercharger pulley with appropriate shim and hand tighten four M6 SHCS.



Hand tighten screws (x4)

10. Align idler pulley to supercharger pulley

- Firmly hold the steel rule against the supercharger pulley and manually align the front face of top idler pulley to the front face of the supercharger pulley. See picture.

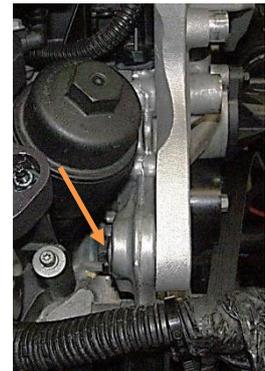


- Hand tighten all the fasteners of the idler bracket.
- Tighten the two M6 Hex head screws to 12Nm (9 lbf.ft) for the strap.



11. Tighten idler bracket

- Tighten all remaining fasteners of the idler bracket to 12Nm (9 lbf.ft).



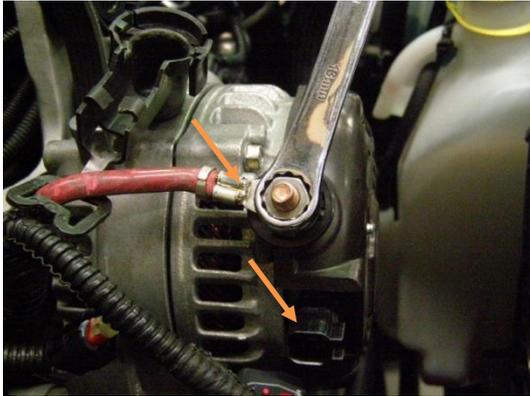
12. Re-fit idler pulley

Re-fit the previously removed bottom idler pulley. Tighten the M8 Hex head screw with washer to 23Nm (17 lbf.ft).



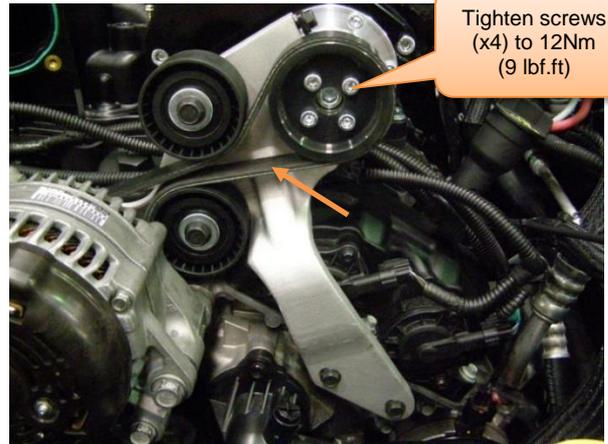
13. Attach alternator

- Tighten the 2 top screws to 54Nm (40 lbf.ft) and tighten the bottom 2 screws to 30Nm (22 lbf.ft).
- Attach the positive battery cable to the alternator and tighten nut to 13Nm (10 lbf.ft).
- Attach the electrical connector.



14. Fit drive belt

- Release the tension on the dynamic belt tensioner using a ½” breaker bar and install the drive belt over the remaining pulleys.
- Tighten four M6 SHCS for the supercharger pulley to 12Nm (9 lbf.ft).



15. Install clean air duct

- Attach the duct to the air box and throttle body and tighten the hose clamps.
- Connect the IAT sensor wiring harness plug.

